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Engineering and Design
AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT
DESIGN AND EVALUATION

1. Purpose. This letter provides distribution of Appendixes A through F of the proposed technical manual entitled “Geometric Design for Airfields and Heliports.” This information and guidance is for airfield design and evaluation.

2. Applicability. This letter applies to all HQUSACE, major subordinate commands, district offices, and field operating activities (FOA) having Army and Air Force military construction design responsibility.

3. Background. Currently, a new technical manual is being developed entitled “Geometric Design for Airfields and Heliports.” Although the manual will not be published until FY93, certain portions of the manual not yet printed will be issued as an Engineer Technical Letter. Enclosures 1 through 6 contain information on the characteristics, geometry, turning diagrams, and jet/prop blast relationships for Army, Air Force and various commercial aircraft. Information is also provided on parking aprons and aircraft clearances in covered shelters.

4. Action to be Taken. Pending publication of permanent media guidance, the enclosed aircraft information is to be used to assist the HQUSACE, major subordinate commands, district offices, and FOA in the design of airfield and heliport pavements.

5. Implementation. This letter will have routine application as defined in paragraph 6c, ER 1110-345—100.

FOR THE COMMANDER:

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6 Encls
Encl 1 - Aircraft Characteristics
Encl 2 - Aircraft Parking Aprons
Encl 3 - Aircraft Geometry
Encl 4 — Aircraft Turning Diagrams
Encl 5 - Aircraft Engine Blast Relationship
Encl 6 —Aircraft Clearances in Covered Shelters

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT CHARACTERISTICS

A-l. This appendix presents US Army, US Air Force, and selected civil and commercial aircraft characteristics required by planners and civil engineers in the layout, design, or evaluation of airfield and heliport pavement systems. The aircraft characteristics include engine data, various weights, performance data, and aircraft classification numbers (ACN). For specific planning, design, or evaluation, the values in this appendix should be confirmed with the appropriate aircraft technical order.

A-2. The data are arranged in figure format for various military, civil, and commercial fixed-wing aircraft (figs A-l to A-463). Military and commercial rotary-wing aircraft data are presented in figures A-464 to A-573.

A-3. Fixed-wing aircraft are grouped by military (figs A-l to A-159) and civil and commercial (figs A-160 to A-463). Military aircraft are further subgrouped as follows:

a. Bomber Aircraft.

Figure	Aircraft
A-l and A-2	B-lB
A-3 and A-4	B-52G
A-5 and A-6	B-52H
A-7 and A-8	FB-111A

b. Cargo/Transport Aircraft.

Figure	Aircraft
A-9 and A-10	C-5A/B
A-11 and A-12	C-7A
A-13 and A-14	C-9A
A-15 and A-16	C-12A
A-17 and A-18	C-12C/D
A-19 and A-20	C-12F
A-21 and A-22	C-12J
A-23 and A-24	C-17A
A-25 and A-26	C-20A/B
A-27 and A-28	C-21A
A-29 and A-30	C-22B
A-31 and A-32	C-23A
A-33 and A-34	C-130B
A-35 and A-36	C-130E/H
A-37 and A-38	C-135B
A-39 and A-40	KC-135R
A-41 and A-42	C-137B
A-43 and A-44	C-137C
A-45 and A-46	C-140A/B
A-47 and A-48	C-141B
A-49 and A-50	KC-10A
A-51 and A-52	VC-25A

c. Special-Duty Aircraft.

Figure	Aircraft
A-53 and A-54	E-3A STD
A-55 and A-56	E-3B
A-57 and A-58	E-3C
A-59 and A-60	E-4B
A-61 and A-62	EC-18B
A-63 and A-64	EC-130E/H
A-65 and A-66	MC-130E/H
A-67 and A-68	WC-130E/H
A-69 and A-70	EC-135A/G/L
A-71 and A-72	EC-135C/J
A-73 and A-74	EC-135E/H/K/P/Y
A-75 and A-76	RC-135S/W
A-77 and A-78	RC-135U/V
A-79 and A-80	WC-135B
A-81 and A-82	EF-lllA
A-83	O-2A
A-84	O-2B
A-85 and A-86	OA-37B
A-87 and A-88	OV-1B
A-89 and A-90	OV-1C
A-9b and A-92	0V-1D
A-93 and A-94	OV-10A
A-95 and A-96	RC-12D/G/H/K
A-97 and A-98	U-21J
A-99 and A-100	RF-4C
A-lO1 and A-102	RU-21A and U-21A/D/G
A-103 and A-104	RU-21H
A-105 and A-106	SR-71A
A-107	TR-1A
A-108	U-2B/C
A-109	U-8F
A-l10	U-10A
A-l11	U-21F
A-112 and A-113	UV-18

d. Tactical Aircraft.

Figure	Aircraft
A-114 and A-115	A-7D/K
A-116 and A-117	A-10A
A-118 and A-119	A-37B
A-120 and A-121	AC-130A
A-122 and A-123	AC-130H/U
A-124 and A-125	F-4C
A-126 and A-127	F-4D
A-128 and A-129	F-4E
A-130 and A-131	F-5E/F
A-132 and A-133	F-l5A/B/C/D
A-134 and A-135	F-l5E
A-136 and A-137	F-16A
A-138 and A-139	F-16B
A-140 and A-141	F-16C
A-142 and A-143	F-16D
A-144 and A-145	F-100
A-146 and A-147	F-101B
A-148 and A-149	F-104G
A-l5O and A-151	F-105G
A-152 and A-153	F-106A/B
A-154 and A-l55	F-111A/E
A-156 and A-157	F-111D
A-158 and A-159	F-111F

A-4. Civil and commercial aircraft are subgrouped as follows:

a. Eight Thousand Pounds or Less, Piston and Turboprop.

(1) Single engine, high wing, tailwheel.

Figure	Aircraft
A-l60	Bellanca 7
A-161	Cessna 120/140
A-162	Cessna 170
A-163	Cessna 180
A-164	Cessna 185
A-165	Cessna 190
A-166	Cessna 195
A-167	Helio H-250
A-168	Helio H-295
A-169	Helio HST-550
A-170	Piper PA-12
A-171	Piper PA-14
A-172	Piper PA-15
A-173	Piper PA-18
A-174	Piper PA-20
A-175	Silvaire 8
A-176	Taylorcraft F-21
A-177	Univair 108

(2) Single engine, high wing, tricycle gear.

Figure	Aircraft
A-178	Bede BD-4
A-179	Cessna 150
A-180	Cessna 172
A-181	Cessna 177
A-182	Cessna 182
A-183	Cessna 206
A-184	Cessna 207
A-185	Cessna 210
A-186	Piper PA-22

(3) Single engine, low wing, tricycle gear.

Figure	Aircraft
A-187	Aerostar 415
A-188	Aerostar M-20
A-189	Aerostar M-22
A-190	Beechcraft 23
A-191	Beechcraft V-35B
A-192	Beechcraft F-33
A-193	Beechcraft F-33A
A-194	Bellanca 260
A-195	Bellanca 300
A-196	Grumman AA-l
A-197	Navion G-1
A-198	Piper PA-24
A-199	Piper PA-28-180
A-200	Piper PA-28-200
A-201	Piper PA-32
A-202	Rockwell 112

(4) Twin engine, low or mid wing, tricycle gear.

Figure	Aircraft
A-203	Aerostar 600/601
A-204	Beechcraft B-55
A-205	Beechcraft E-55
A-206	Beechcraft A-60
A-207	Cessna 310
A-208	Cessna 401/402
A-209	Cessna 421
A-210	Piper PA-23-160
A-211	Piper PA-23-250
A-212	Piper PA-30
A-213	Piper PA-31

(5) Twin engine, high wing, tricycle gear.

Figure	Aircraft
A-214	Cessna 336/337
A-215	Rockwell 500
A-216	Rockwell 560
A-217	Rockwell 680
A-218	Rockwell SHRIKE

b. More Than 8,000 to 12,500 Pounds, Piston and Turboprop.

Figure	Aircraft
A-219	Beechcraft 18
A-220	Beechcraft Turbo 18
A-221	Beechcraft Volpar Turboliner
A-222	Beechcraft A-65
A-223	Beechcraft B-80
A-224	Beechcraft A-90
A-225	Beechcraft A-l00
A-226	Beechcraft 99A
A-227	Swearingen Merlin IIB
A-228 and A-229	Swearingen Merlin III
A-230	Swearingen Merlin IV
A-231	Swearingen Metro
A-232 and A-233	De Havilland DHC-6
A-234	Hawker Siddeley Dove
A-235	Mitsubishi MU-2
A-236 and A-237	Short Brothers SC.7

c. More Than 12,500 Pounds, Piston and Turboprop.

Figure	Aircraft
A-238 and A-239	Short Brothers SC.7-3M
A-240 and A-241	Short Brothers 330
A-242 and A-243	Short Brothers 360
A-244 and A-245	Convair 240
A-246 and A-247	Convair 340
A-248 and A-249	Convair 440
A-250 and A-251	Convair 580
A-252 and A-253	Convair 600
A-254 and A-255	Convair 640
A-256 and A-257	Douglas DC-3
A-258	Fairchild F-27
A-259	Fairchild FH-227
A-260	Grumman Gulfstream I
A-261	Martin 404
A-262	Aerospatiale Nord 262
A-263	Hawker Siddeley Heron
A-264 and A-265	Hawker Siddeley HS-748
A-266	Nihon/N.A.M.C. YS-IlA
A-267 and A-268	Douglas DC-4
A-269 and A-270	Douglas DC-6
A-271 and A-272	Douglas DC-7

Figure	Aircraft
A-273 and A-274	Lockheed L-188
A-275 and A-276	Lockheed L-382 (L-l00-20)
A-277 and A-278	Lockheed L-382 (L-l00-30)
A-279	Lockheed 749A
A-280	Lockheed 1049
A-281	Lockheed 1649A
A-282	B.A.C./Vickers Viscount 745
A-283	B.A.C./Vickers Viscount 810

d. Sixty Thousand Pounds or Less, Turbojet and Turbofan.

Figure	Aircraft
A-284	Cessna Citation I
A-285	Gates Learjet 24
A-286	Gates Learjet 25
A-287	Gates Learjet 35
A-288	Gates Learjet 36
A-289	Grumman Gulfstream II
A-290 and A-291	Lockheed 1329
A-292 and A-293	Rockwell NA-265-40
A-294 and A-295	Rockwell NA-265-60
A-296 and A-297	Rockwell NA-265-75A
A-298	Avions Marcel Dassault Mystere 20
A-299 and A-300	Fokker F-28
A-301 and A-302	Hamburger-Flugzeugbau HFB-320
A-303 and A-304	Hawker Siddeley HS-125
A-305 and A-306	Israel Aircraft 1121
A-307 and A-308	Israel Aircraft 1123

e. More Than 60,000 Pounds, Turbojet and Turbofan.

Figure	Aircraft
A-309 and A-310	Boeing 707-120B
A-311 and A-312	Boeing 707-320
A-313 and A-314	Boeing 707-320B
A-315 and A-316	Boeing 707-320C
A-317 and A-318	Boeing 707-420
A-319 and A-320	Boeing 720
A-321 and A-322	Boeing 720B
A-323 and A-324	Boeing 727-100
A-325 and A-326	Boeing 727-lOOC
A-327 and A-328	Boeing 727-200
A-329 and A-330	Boeing 737-100

Figure	Aircraft
A-331 and A-332	Boeing 737-200
A-333 and A-334	Boeing 737-300
A-335 and A-336	Boeing 737-400
A-337 and A-338	Boeing 747-lOOB
A-339 and A-340	Boeing 747-200B-PASS
A-341 and A-342	Boeing 747-200C-CARGO
A-343 and A-344	Boeing 747-200C-PASS
A-345 and A-346	Boeing 747-200F-CARGO
A-347 and A-348	Boeing 747-300-PASS
A-349 and A-350	Boeing 747-400
A-351 and A-352	Boeing 747SP
A-353 and A-354	Boeing 757-200
A-355 and A-356	Boeing 767-200
A-357 and A-358	Boeing 767-200ER
A-359 and A-360	Boeing 767-300
A-361 and A-362	Boeing 767-300ER
A-363 and A-364	General Dynamics/Convair 880
A-365 and A-366	General Dynamics/Convair 990
A-367 and A-368	Lockheed L-l0ll-l
A-369 and A-370	Lockheed L-l0ll-l00
A-371 and A-372	Lockheed L-l0ll-200
A-373 and A-374	Lockheed L-1011-500
A-375 and A-376	Lockheed L-l0ll-S00 (Extended Wing)
A-377 and A-378	McDonnell Douglas DC-8-43
A-379 and A-380	McDonnell Douglas DC-8-SS
A-381 and A-382	McDonnell Douglas DC-8-SSF
A-383 and A-384	McDonnell Douglas DC-8-61
A-385 and A-386	McDonnell Douglas DC-8-61F
A-387 and A-388	McDonnell Douglas DC-8-62
A-389 and A-390	McDonnell Douglas DC-8-62F
A-391 and A-392	McDonnell Douglas DC-8-63
A-393 and A-394	McDonnell Douglas DC-8-63F
A-395 and A-396	McDonnell Douglas DC-8-71
A-397 and A-398	McDonnell Douglas DC-8-71F
A-399 and A-400	McDonnell Douglas DC-8-72
A-401 and A-402	McDonnell Douglas DC-8-72F
A-403 and A-404	McDonnell Douglas DC-8-73
A-405 and A-406	McDonnell Douglas DC-8-73F
A-407 and A-408	McDonnell Douglas DC-9-15
A-409 and A-410	McDonnell Douglas DC-9-15F
A-411 and A-412	McDonnell Douglas DC-9-21
A-413 and A-414	McDonnell Douglas DC-9-32
A-415 and A-416	McDonnell Douglas DC-9-33F
A-417 and A-418	McDonnell Douglas DC-9-41
A-419 and A-420	McDonnell Douglas DC-9-51

Figure	Aircraft
A-421 and A-422	McDonnell Douglas MD-81
A-423 and A-424	McDonnell Douglas MD-82
A-425 and A-426	McDonnell Douglas MD-83
A-427 and A-428	McDonnell Douglas MD-87
A-429 and A-430	McDonnell Douglas MD-88
A-431 and A-432	McDonnell Douglas DC-10-10
A-433 and A-434	McDonnell Douglas DC-l0-30
A-435 and A-436	McDonnell Douglas DC-l0-40
A-437	Aerospatiale/Sud-Aviation SE-210
A-438 and A-439	B.A.C. One-Eleven Model 200
A-440 and A-441	B.A.C. One-Eleven Model 400
A-442 and A-443	B.A.C. One-Eleven Model 500
A-444 and A-445	B.A.C./Vickers VC-l0, Model 1100
A-446 and A-447	B.A.C./Vickers VC-l0, Model 1150
A-448 and A-449	Ilyushin IL-62
A-450 and A-451	Airbus A300B2
A-452 and A-453	Airbus A300B4
A-454 and A-455	Airbus A300-600
A-456 and A-457	Airbus A310-300
A-458	Airbus A320
A-459 and A-460	B.A.C./SNIAS Concorde
A-461	British Aerospace 146-Model 100
A-462	British Aerospace 146-Model 200
A-463	British Aerospace 146-Model 300

A-5. The following fixed-wing aircraft characteristic information is employed in figures A-b to A-463. An entry of “†” indicates data are not available. A list of aircraft characteristics and explanation of terms are as follows:

a. Aircraft Manufacturer.

b. Aircraft engine manufacturer followed by engine identification in parenthesis.

c. Number of Engines.

d. Engine rating--rating of each engine, either horsepower or thrust.

e. Minimum take-off weight--operating weight (empty weight plus crew weight plus 30 percent fuel capacity).

f. *Minimum take-off distance at minimum take-off weight--minimum take-off distance without any safety, abort or airfield corrections at minimum take-off weight.

g. *Minimum take-off distance at minimum take-off weight with abort distance- -minimum take-off distance without any safety or airfield corrections at minimum take-off weight, but with abort distance added (Critical Field Length).

h. Maximum take-off weight peace-time- -basic mission take-off weight for military aircraft. For civil aircraft, values are the normal operating weights.

i. Maximum take-off weight war-time--maximum take-off gross weight; overload take-off gross weight for military aircraft, if appropriate. The values for civil aircraft are the maximum take-off weights as recommended by the manufacturer.

j. *Minimum take-off distance at maximum take-off weight wartime- -minimum take-off distance without any safety, abort or airfield corrections at maximum take-off weight war-time.

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*These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

k. *Minimum take-off distance at maximum take-off weight war time with abort distance- -minimum take-off distance without any safety or airfield corrections at maximum take-off weight wartime, but with abort distance added (Critical Field Length).

l. Minimum banding weight--basic mission banding gross weight for military aircraft. For civil aircraft, values are the zero fuel weight plus 10 percent fuel capacity.

m. Maximum landing weight--for military aircraft, the maximum gross weight established for landing by Technical Orders or design requirements. For civil aircraft, the maximum landing gross weight is that weight recommended by the aircraft manufacturer.

n. *Minimum landing distance at minimum landing weight--minimum banding distance without any safety, abort or airfield corrections at minimum landing weight.

o. *Minimum landing distance at maximum landing weight--minimum landing distance without any safety, abort or airfield corrections at maximum landing weight.

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*These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

p. ACN-Aircraft Classification Number. The ACN is a method to express the effect of individual aircraft on different pavements by a single unique number which varies according to pavement type and subgrade strength, without specifying a particular pavement thickness. The system is structured so that a pavement with a particular pavement classification number (PCN) value can support. without weight restrictions, an aircraft which has an ACN value equal to or less than the pavement*s PON value. ACN values are shown in tabular form for minimum landing weight, maximum landing weight, maximum take-off weight peace-time, and maximum take-off weight war-time. ACN/PCN versus allowable aircraft load relationships are presented graphically for applicable aircraft.

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*These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

A-6. Rotary-wing aircraft are grouped and presented in alphabetical order by aircraft manufacturer (figs A-464 to A-573). Military aircraft designation; if applicable, is identified within parenthesis of the figure title. Military and commercial helicopters are presented as follows:

Figure	Aircraft
A-464	Aerospatiale 315B
A-465	Aerospatiale 330J
A-466 and A-467	Aerospatiale 332C
A-468 and A-469	Aerospatiabe 332L
A-470	Aerospatiale 341
A-471	Aerospatiabe 350B
A-472	Aerospatiale 350D
A-473	Aerospatiale 355E
A-474	Aerospatiale 35SF
A-475	Aerospatiale 355F1
A-476	Aerospatiale 360C
A-477	Aerospatiabe 365C
A-478	Aerospatiale 365N
A-479	Agusta 109A
A-480	Agusta 109A Mk II
A-481	Bell 47G-3B (OH-13)
A-482	Bell 47G-3B (TH-13T)
A-483	Bell 47C-SA
A-484	Bell 204 (UH-1B)
A-485	Bell 204 (UH-lC)
A-486	Bell 204 (UH-1M)
A-487	Bell 205 (UH-lD)
A-488	Bell 205 (UH-lH)
A-489	Bell 205A-l
A-490	Bell 206A (OH-58A)
A-491	Bell 206A (OH-58C)
A-492	Bell 206B
A-493	Bell 206L-3
A-494	Bell 209 (AH-lG)
A-495	Bell 209 [AH-lS (Production)]
A-496	Bell 209 [AH-lS (ECAS)]
A-497	Bell 209 [AH-lS (Modernized)]
A-498	Bel 212 (UH-lN)
A-499	Bell 212
A-500	Bell 214B
A-501	Bell 214ST

Figure	Aircraft
A-502	Bell 222
A-503	Bell 222B
A-504	Bell 222UT
A-5O5	Bell 406 AHIP (OH-58D)
A-506	Bell 412
A-507	Bell/Boeing 301 (V-22)
A-508 and A-509	Boeing 107-II
A-510 and A-5ll	Boeing 114 (CH-47B)
A-512 and A-513	Boeing 114 (CH-47C)
A-514 and A-515	Boeing 114 (CH-47D)
A-516 and A-517	Boeing 234 LR
A-518 and A-519	Boeing 234 ER
A-520 and A-521	Boeing 234 MLR
A-522 and A-523	Boeing 234 UT
A-524	Boeing 360
A-525	E. H. Industries EH 101
A-526	Enstrom F28C-2
A-527	Enstrom F28F
A-528	Enstrom 280C
A-529	Enstrom 280F
A-530	Enstrom 280FX
A-531	Hynes H-2/with skid landing gear
A-532	Hynes H-2/with wheel landing gear
A-533	Hynes H-S/with skid landing gear
A-534	Hynes H-S/with wheel banding gear
A-535	MBB BO 105 CB
A-536	MBB BO 105 CBS
A-537	MBB BO 105 LS
A-538	MBB/Kawasaki BK 117
A-539 and A-540	McDonnell Douglas 77 (AH-64A)
A-541	McDonnell Douglas 500 (OH-6A)
A-542	McDonnell Douglas 500D
A-543	McDonnell Douglas 530F
A-544	Robinson R22
A-545	Rogerson Hiller RH-1100
A-546	Rogerson Hiller UH-12E
A-547	Rogerson Hiller UH-12E4
A-548	Rogerson Hiller UH-l2ET
A-549	Rogerson Hiller UH-12E4T
A-550	Schweizer 269A (TH-55A)
A-551	Schweizer 300C
A-552 and A-553	Sikorsky S-58T
A-554 and A-555	Sikorsky S-61N
A-556	Sikorsky S-62
A-557 and A-558	Sikorsky S-64 (CH-54A)
A-559 and A-560	Sikorsky S-65A (CH-53C and HH-53C)

Figure	Aircraft
A-561 and A-562	Sikorsky S-70 (HH-60A)
A-563 and A-564	Sikorsky S-70 (UH-60A)
A-565 and A-566	Sikorsky S-70C
A-567	Sikorsky S-76A
A-568	Sikorsky S-76B
A-569 and A-570	Westland 30-100-60
A-571 and A-572	Westland 30-200
A-573	Westland 30-300

A-7. The following rotary-wing aircraft characteristic information is employed in figures A-464 to A-573. An entry of "†" indicates data are not available. A list of aircraft characteristics and explanation of terms are as follows:

a. Aircraft Manufacturer.

b. Aircraft engineer manufacturer followed by engine identification in parenthesis.

c. Number of Engines.

d. Engine rating--rating of each engine, either horsepower or thrust.

e. Minimum take-off weight--operating weight (empty weight plus crew weight plus 30 percent fuel capacity).

f. Maximum take-off weight peace-time--for civil aircraft, values are the normal operating weights.

g. Maximum take-off weight war-time- -overload take-off gross weight for military aircraft if appropriate. The values for civil aircraft are the maximum take-off weights as recommended by the manufacturer.

h. Maximum Landing Weight.

i. Hover ceiling (in ground effect)--helicopter performance with theoretical flat horizontal surface just below the aircraft.

j. Hover ceiling (out of ground effect)--helicopter hovering far above nearest surface.

k. ACN-Aircraft Classification Number. The ACN is a method to express the effect of individual aircraft on different pavements by a single unique number which varies according to pavement type and subgrade strength, without specifying a particular pavement thickness. The system is structured so that a pavement with a particular pavement classification number (PCN) value can support, without weight restrictions, an aircraft which has an ACN value equal to or less than the pavement*s PCN value. ACN values are shown in tabular form for minimum take-off weight, maximum take-off weight peace-time, maximum take-off weight war-time, and maximum landing weight. ACN/PCN versus allowable aircraft load relationships are presented graphically for applicable aircraft.

Aircraft Manufacturer Rockwell International

Aircraft Engine Manufacturer General Electric (F101-GE-102)

No. of Engines 4 Engine Rating 30,750 lb

Min. T/O Wt. 189.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,800 ft

Max. T/O Wt. Peace-Time 440.0 k-lb Max. T/O Wt. War-Time 477.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 12,150 ft

Min. Ldg. Wt. 270.0 k-lb Max. Ldg. Wt. 346.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,950 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
270	30	35	41	46	28	32	39	53
347	42	50	58	65	41	46	57	75
440	58	69	80	89	59	66	82	102
477	65	78	90	99	66	75	93	112

Figure A-1. B-1B

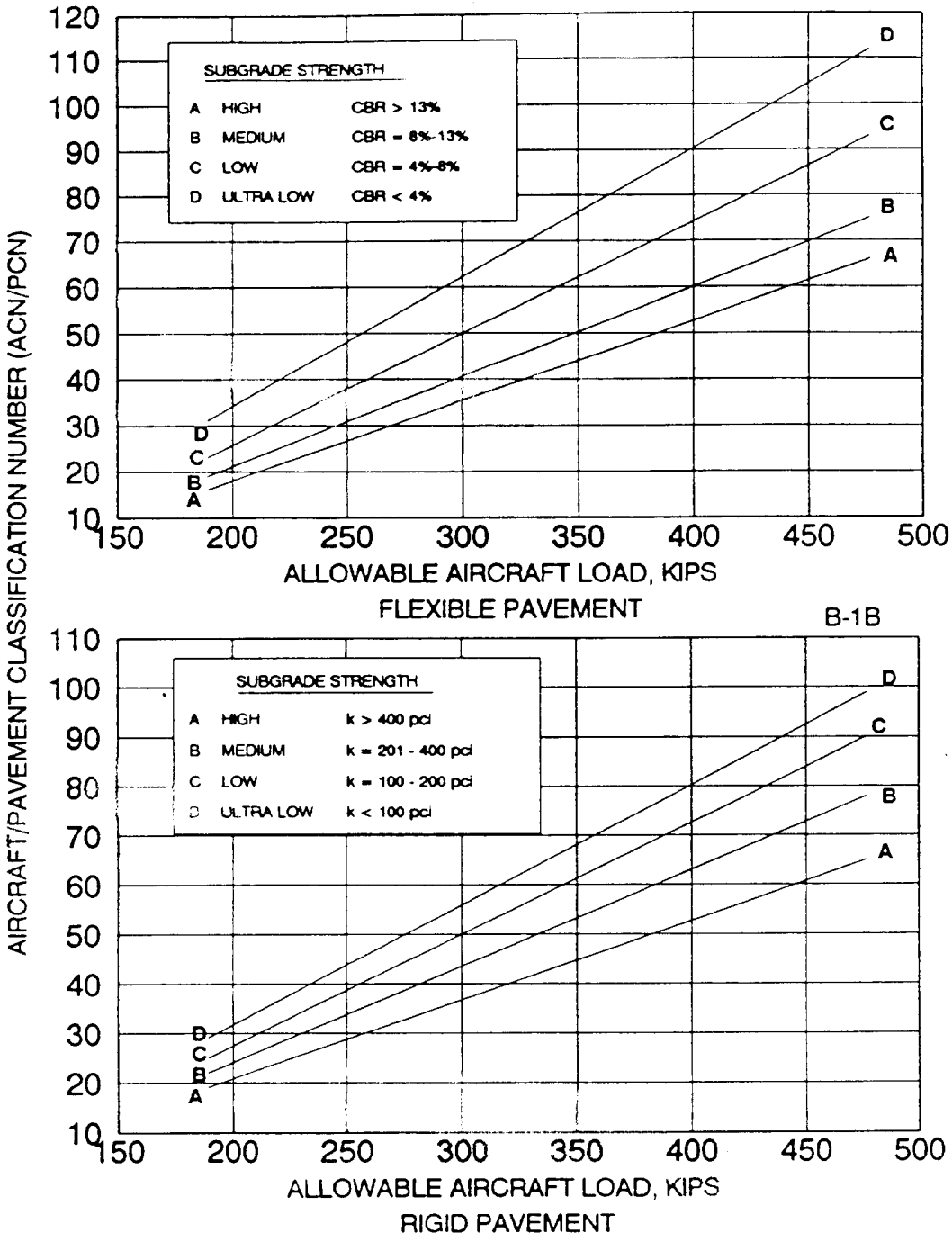


Figure A-2. B-1B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (J57-43WB)

No. of Engines 8 Engine Rating 13,750 lb

Min. T/O Wt. 230.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 5,600 ft

Max. T/O Wt. Peace-Time 488.0 k-lb Max. T/O Wt. War-Time 488.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,010 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 9,590 ft

Min. Ldg. Wt. 192.0 k-lb Max. Ldg. Wt. 450.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 8,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
192	29	32	36	39	19	22	26	33
450	89	100	111	118	70	75	85	101
488	100	112	123	131	78	84	94	113

Figure A-3. B-52G, Stratofortress

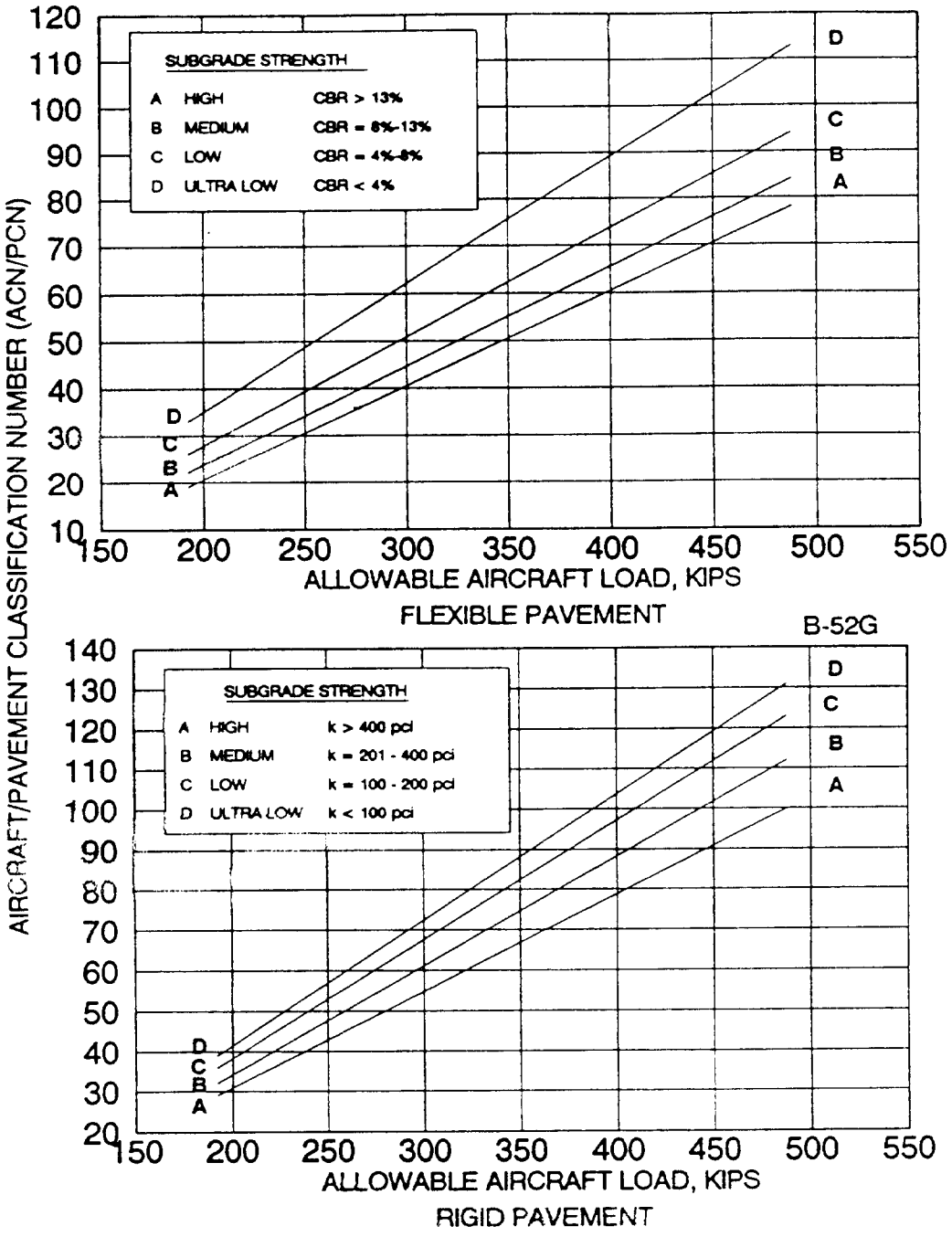


Figure A-4. B-52G, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-3)

No. of Engines 8 Engine Rating 17,000 lb

Min. T/O Wt. 230.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,400 ft (reduced thrust)

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 6,500 ft

Max. T/O Wt. Peace-Time 488.0 k-lb Max. T/O Wt. War-Time 488.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,450 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 8,490 ft

Min. Ldg. Wt. 196.4 k-lb Max. Ldg. Wt. 450.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,550 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 8,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
196	30	33	37	40	20	23	27	34
450	89	100	111	118	70	75	85	101
488	100	112	123	131	78	84	94	113

Figure A-5. B-52H, Stratofortress

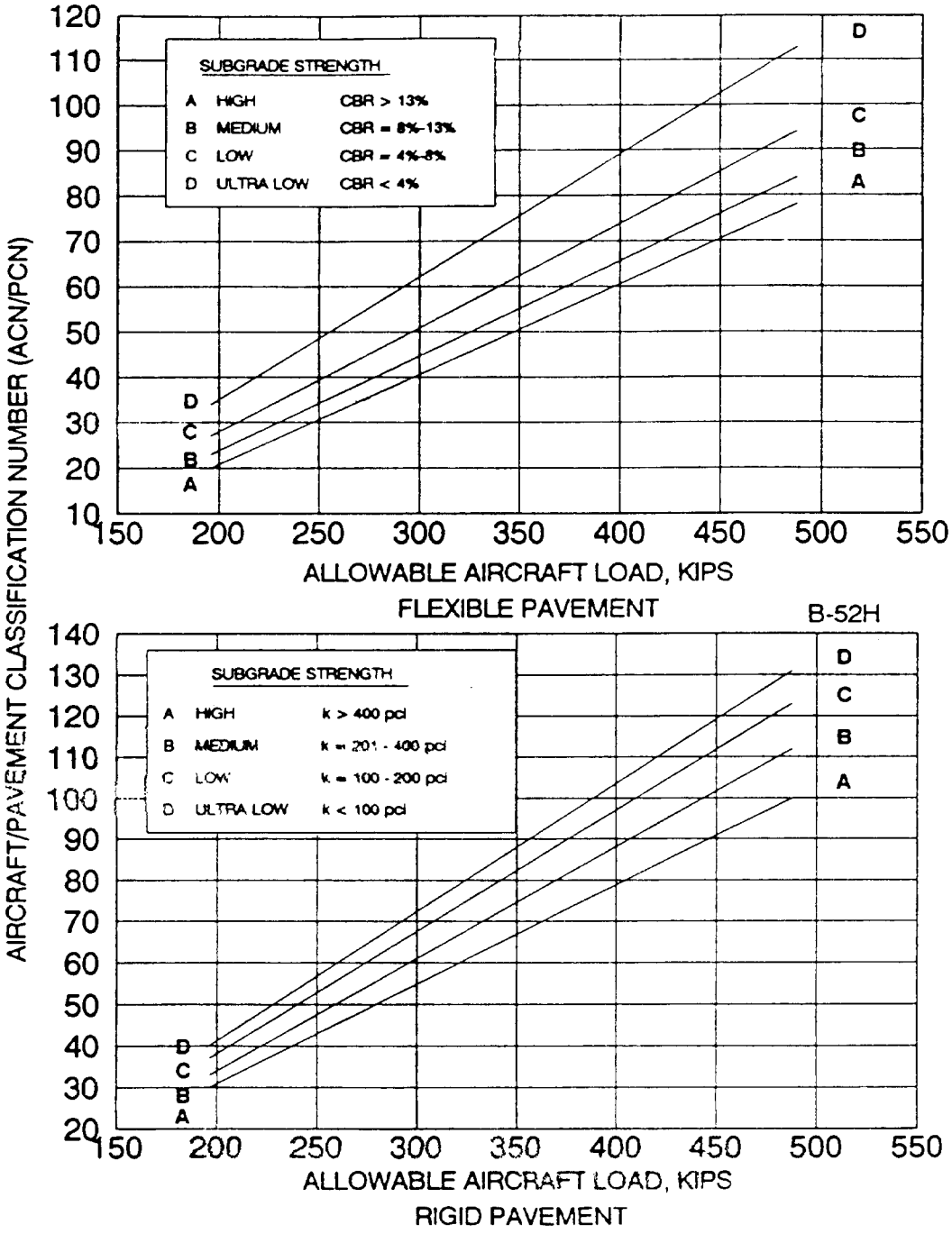


Figure A-6. B-52H, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (TF30-P-7)

No. of Engines 2 Engine Rating 20,350 lb

Min. T/O Wt. 57.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,200 ft

Max. T/O Wt. Peace-Time 114.3 k-lb Max. T/O Wt. War-Time 114.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 12,900 ft

Min. Ldg. Wt. 52.0 k-lb Max. Ldg. Wt. 114.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
52	16	17	17	18	19	21	22	23
114	53	53	52	51	56	55	54	54

Figure A-7. FB-111A

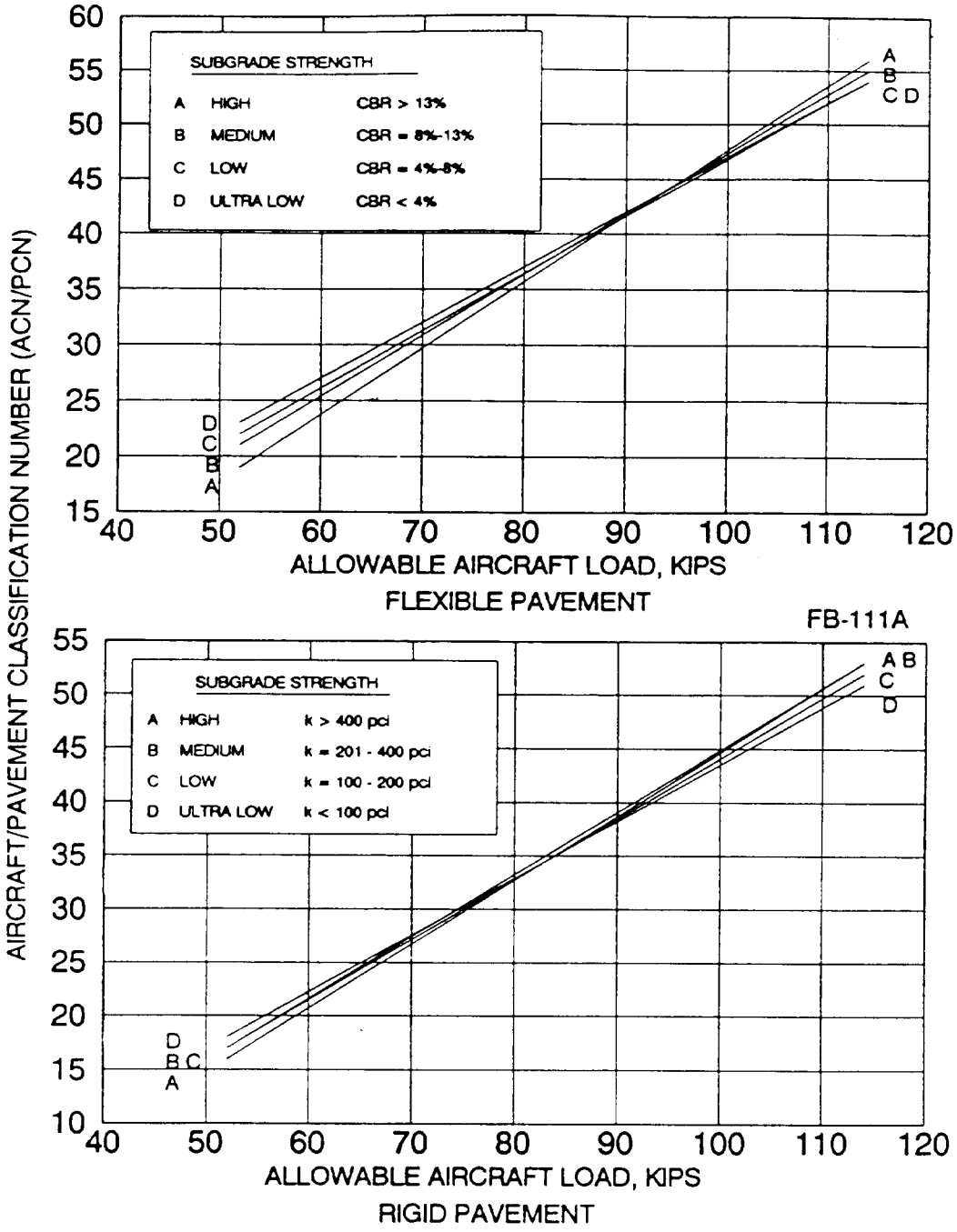


Figure A-8. FB-111A, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer General Electric (TF39-GE-1A on C-5A)
(TF39-GE-1C on C-5B)

No. of Engines 4 Engine Rating 41,000 lb (TF39-GE-1A)
43,000 lb (TF39-GE-1C)

Min. T/O Wt. 375.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,580 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,300 ft

Max. T/O Wt. Peace-Time 769.0 k-lb Max. T/O Wt. War-Time 837.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,500 ft

Min. Ldg. Wt. 635.9 k-lb Max. Ldg. Wt. 769.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,250 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
636	20	23	27	33	25	30	38	56
769	26	29	35	43	33	38	49	72
837	29	32	39	48	37	42	55	80

Figure A-9. C-5A/B, Galaxy

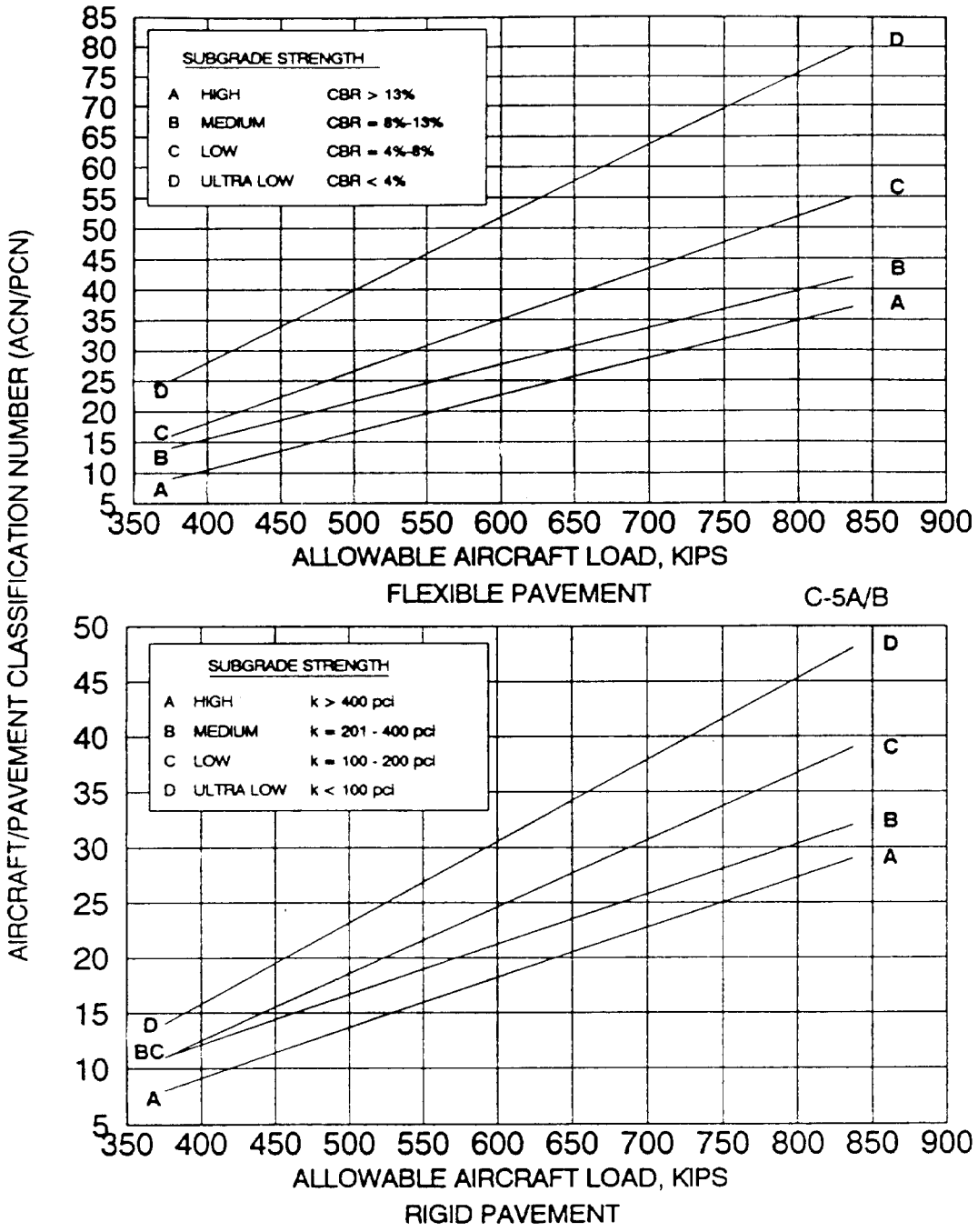


Figure A-10. C-5A/B, ACN/PCN Curves

Aircraft Manufacturer De Havilland Canada

Aircraft Engine Manufacturer Pratt and Whitney (R2000-7M2)

No. of Engines 2 Engine Rating 1,450 BHP

Min. T/O Wt. 19.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 560 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 28.5 k-lb Max. T/O Wt. War-Time 28.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,190 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 19.6 k-lb Max. Ldg. Wt. 28.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 870 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,240 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
20	4	4	4	4	3	3	3	4
29	5	5	6	6	5	5	5	7

Figure A-11. C-7A, Caribou

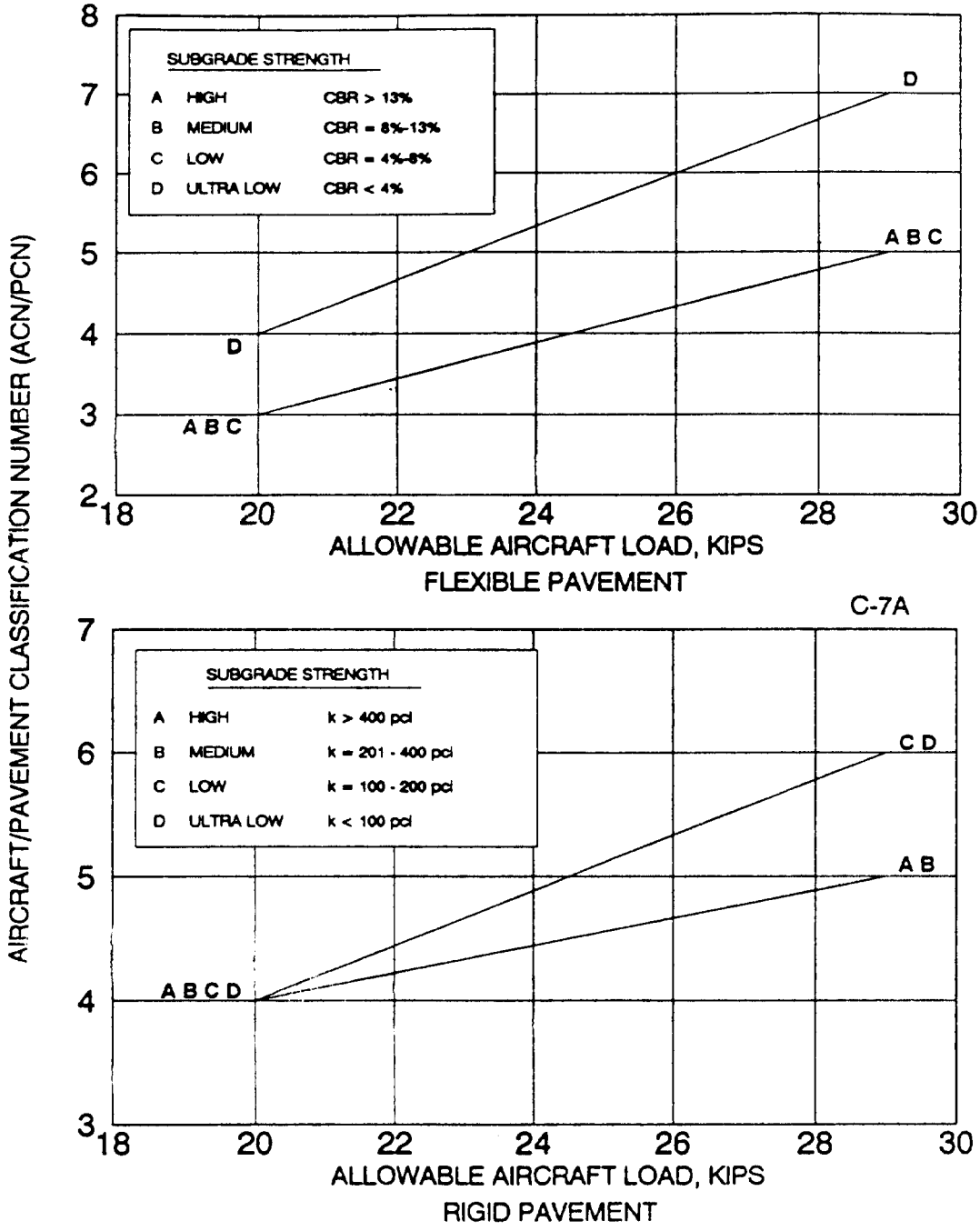


Figure A-12. C-7A, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-9A)

No. of Engines 2 Engine Rating 14,500 lb

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,600 ft

Max. T/O Wt. Peace-Time 108.0 k-lb Max. T/O Wt. War-Time 108.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,800 ft

Min. Ldg. Wt. 80.0 k-lb Max. Ldg. Wt. 99.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
80	19	21	22	23	18	20	23	26
99	26	28	29	30	24	27	30	34
108	29	31	33	33	27	30	34	38

Figure A-13. C-9A, Nightingale

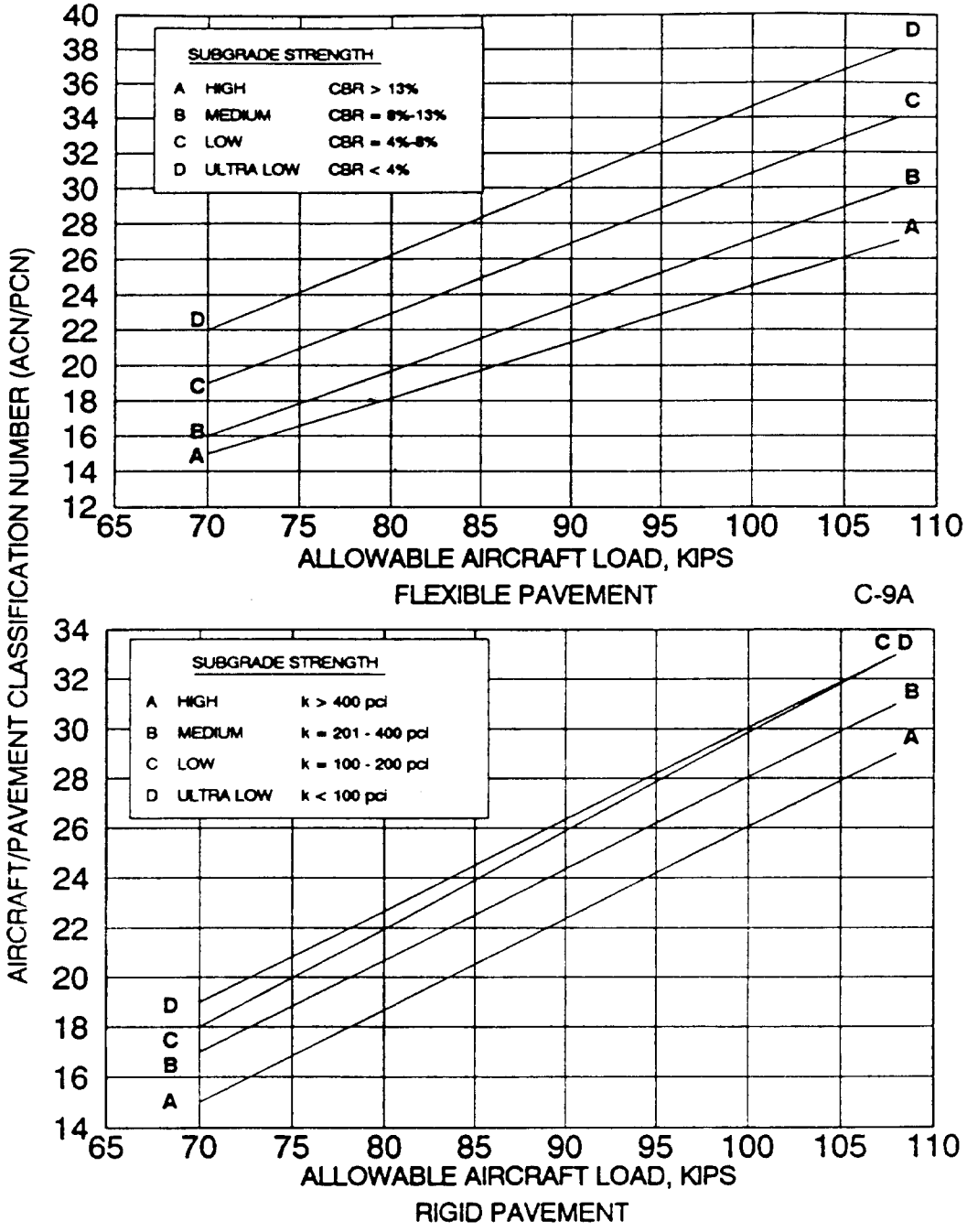


Figure A-14. C-9A, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-38)

No. of Engines 2 Engine Rating 750 SHP

Min. T/O Wt. 9.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,000 ft

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,600 ft

Min. Ldg. Wt. 9.5 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	2	2	2	2	1	2	2	2
13	3	3	3	3	2	3	3	3

Figure A-15. C-12A, Huron

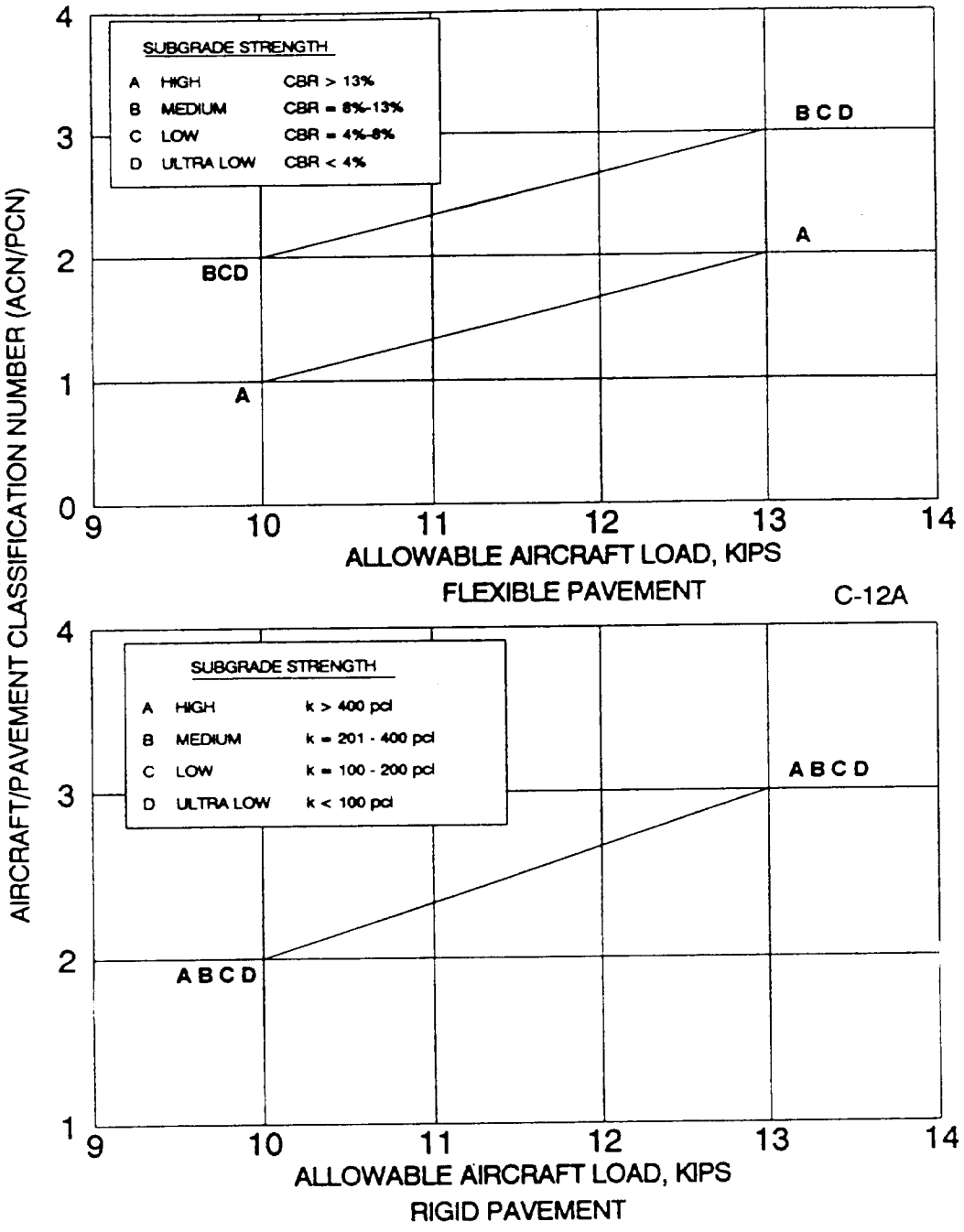


Figure A-16. C-12A, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-41)

No. of Engines 2 Engine Rating 850 SHP

Min. T/O Wt. 9.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,000 ft

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,600 ft

Min. Ldg. Wt. 9.5 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	2	2	2	2	1	2	2	2
13	3	3	3	3	2	3	3	3

Figure A-17. C-12C/D, Huron

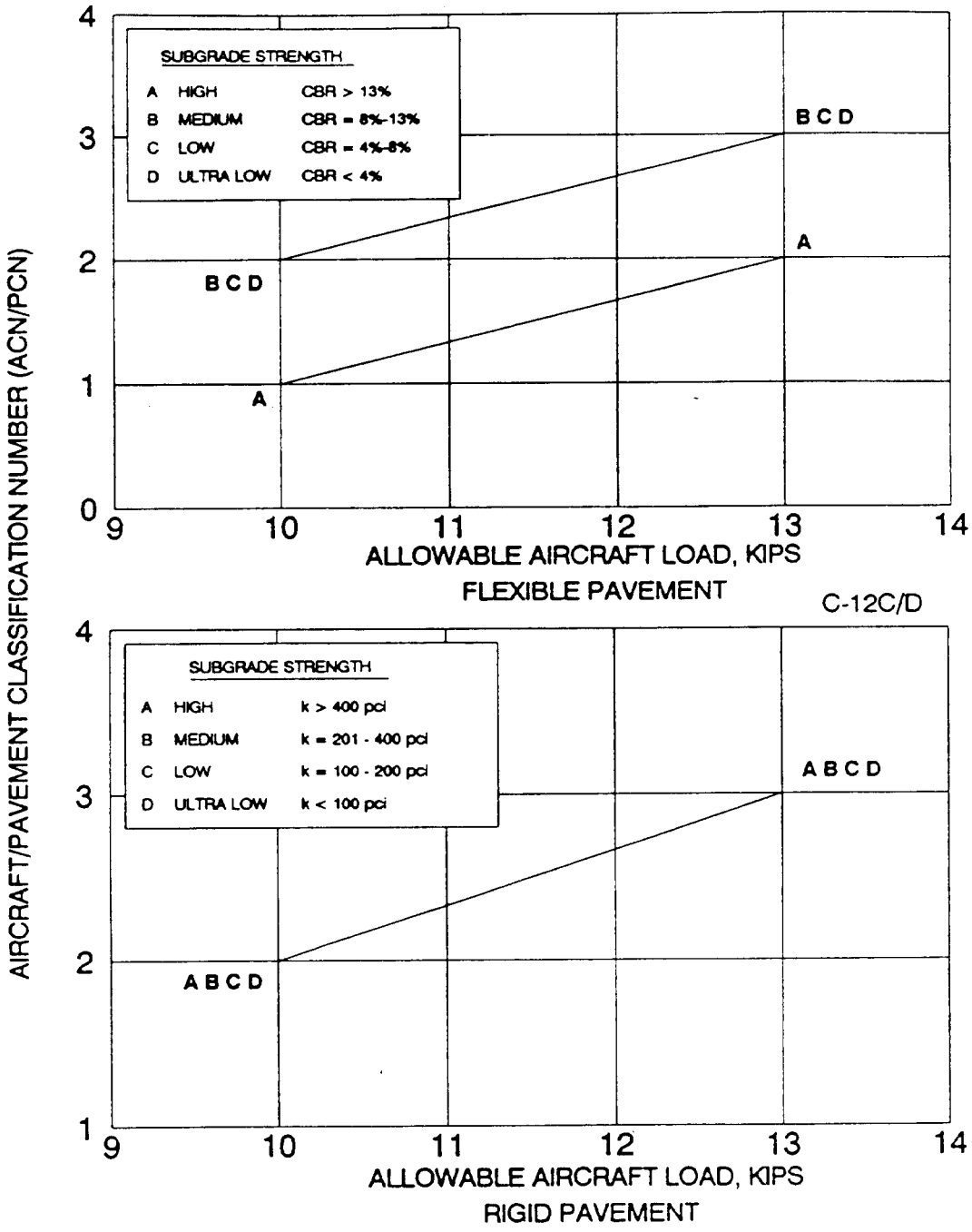


Figure A-18. C-12C/D, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-42)

No. of Engines 2 Engine Rating 850 SHP

Min. T/O Wt. 10.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,400 ft

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 14.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 6,100 ft

Min. Ldg. Wt. 9.5 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	2	2	2	2	1	2	2	2
13	3	3	3	3	2	3	3	3
14	3	3	3	3	2	3	3	3

Figure A-19. C-12F, Huron

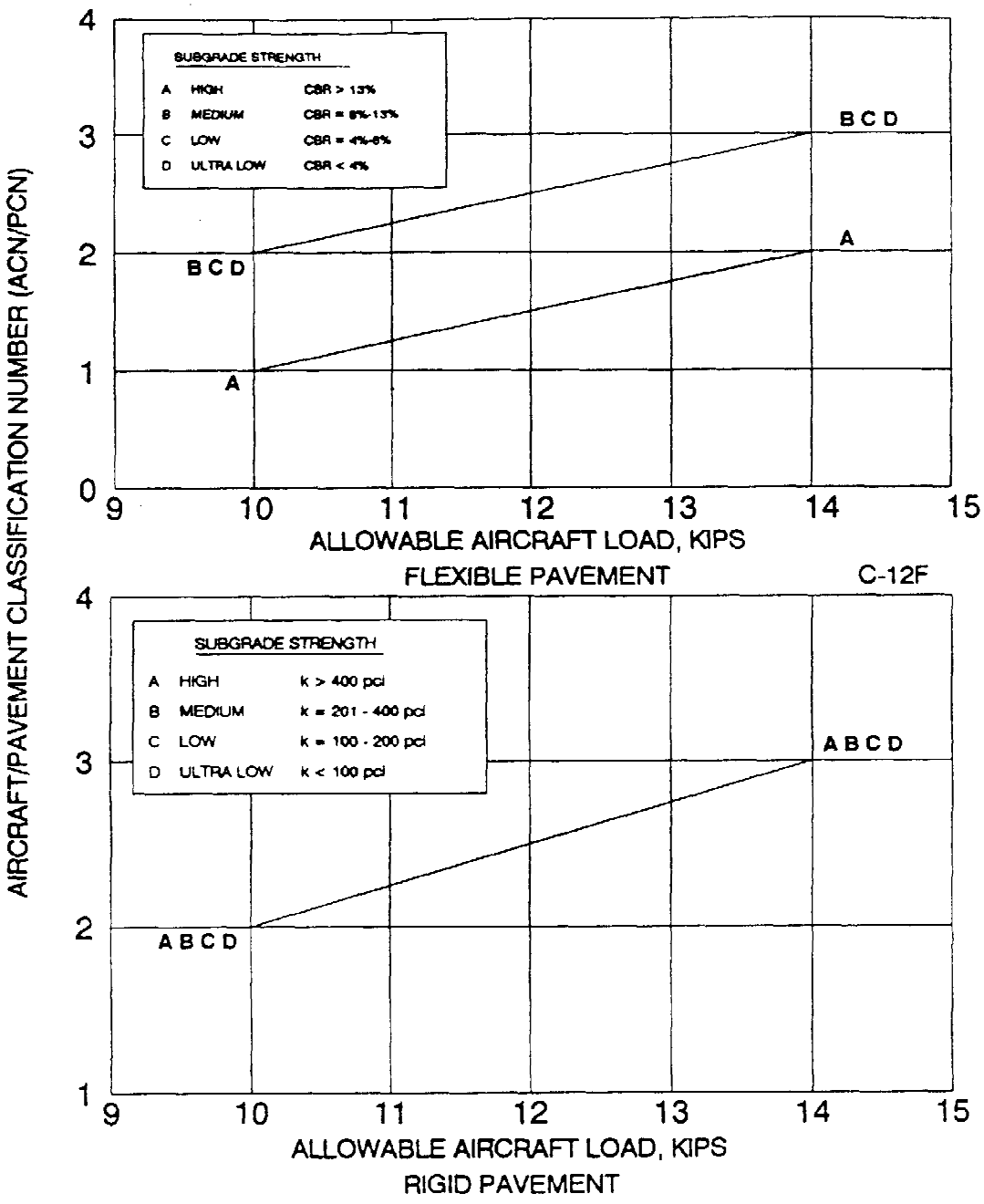


Figure A-20. C-12F, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-65B)

No. of Engines 2 Engine Rating 1100 SHP

Min. T/O Wt. 9.57 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,400 ft

Max. T/O Wt. Peace-Time 16.6 k-lb Max. T/O Wt. War-Time 16.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,300 ft

Min. Ldg. Wt. 10.65 k-lb Max. Ldg. Wt. 16.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11	2	2	2	2	1	2	2	2
16	4	4	4	5	3	4	4	5
17	4	4	4	5	3	4	4	5

Figure A-21. C-12J, Huron

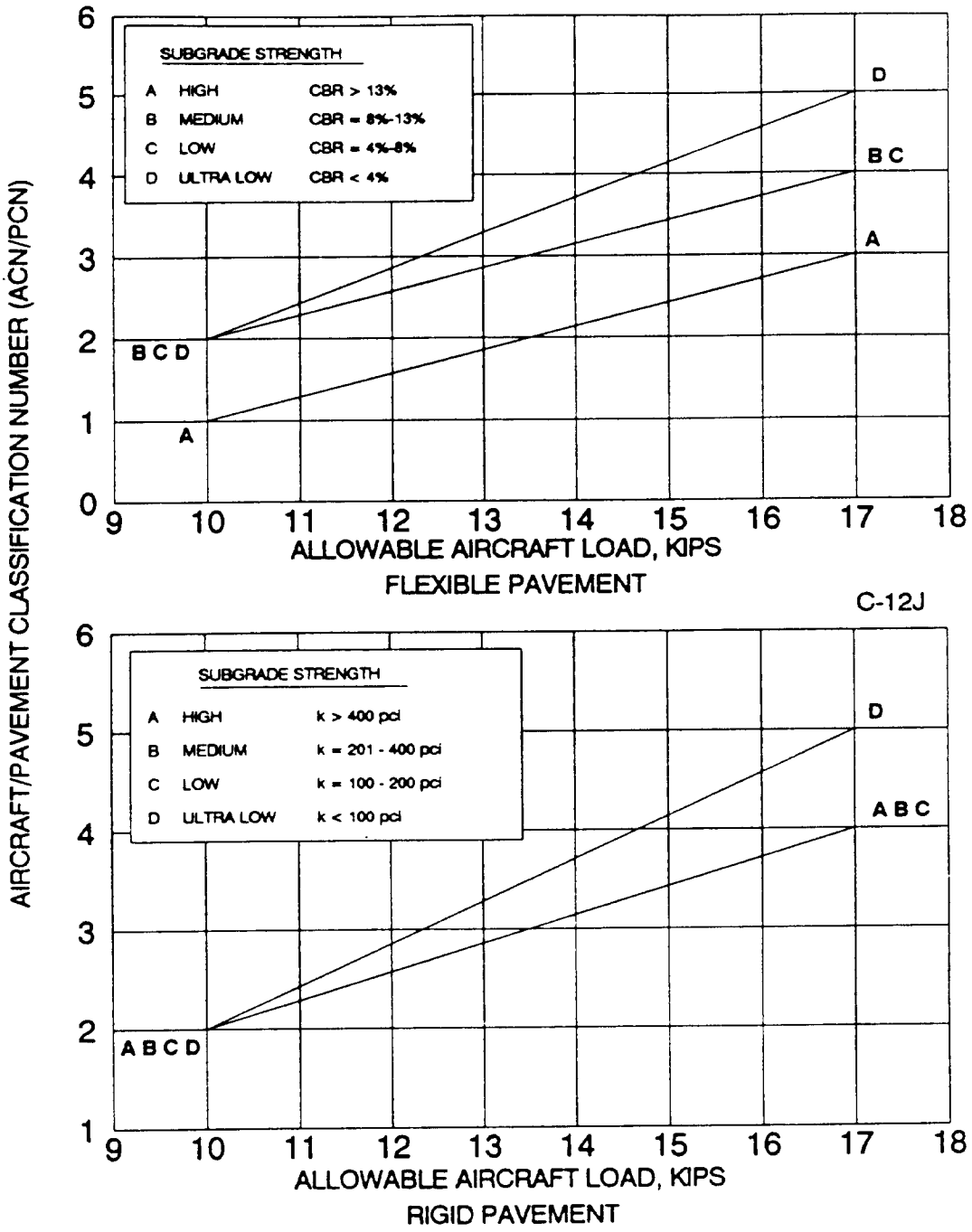


Figure A-22. C-12J, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (F117-PW-100)

No. of Engines 4 Engine Rating 37,000 lb

Min. T/O Wt. 331.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 580.0 k-lb Max. T/O Wt. War-Time 580.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,600 ft (Estimated)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 444.1 k-lb Max. Ldg. Wt. 580.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,700 ft (Estimated)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
444	47	40	43	51	32	37	45	60
580	57	54	58	71	49	56	67	88

Figure A-23. C-17A

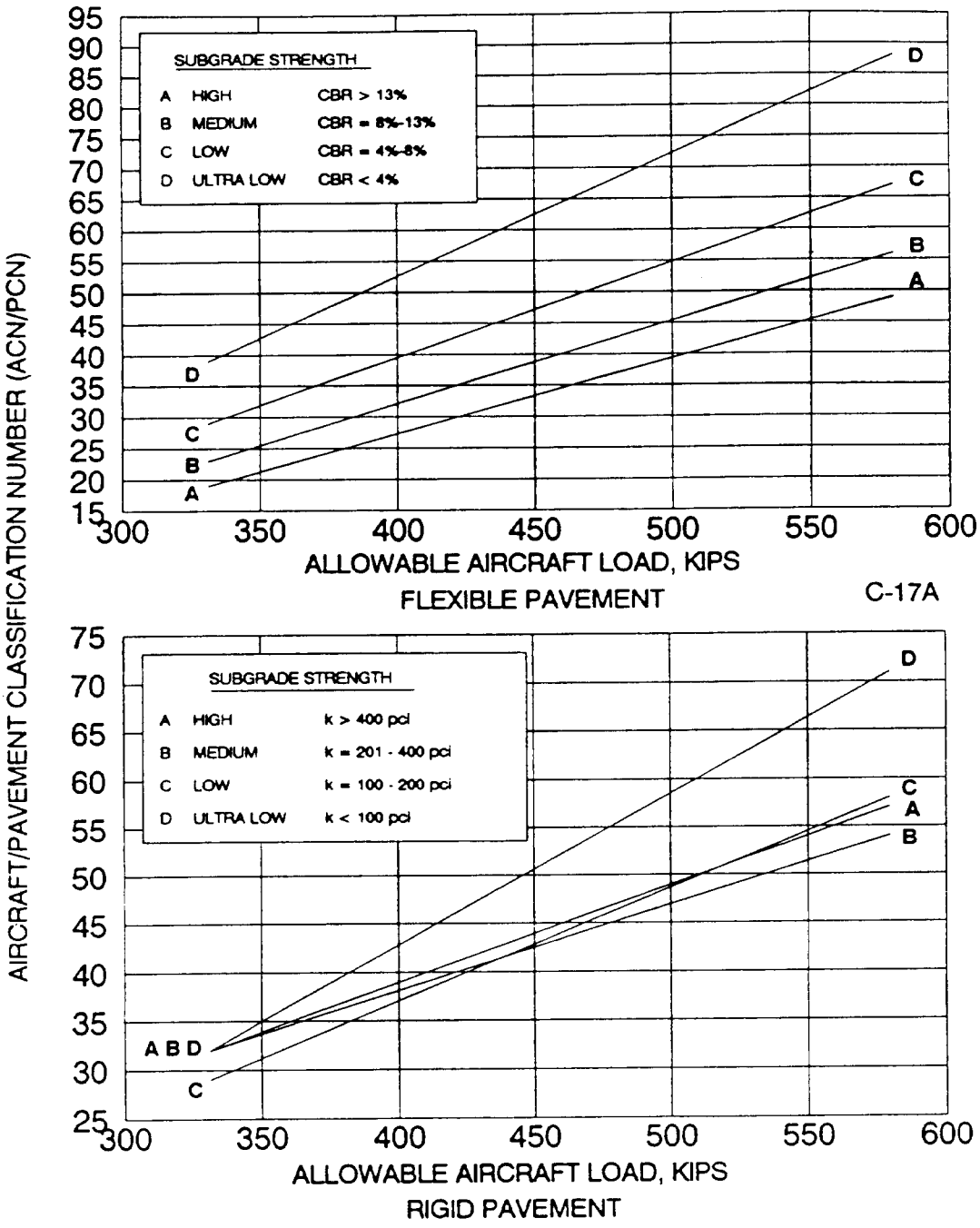


Figure A-24. C-17A, ACN/PCN Curves

Aircraft Manufacturer Gulfstream Aerospace

Aircraft Engine Manufacturer Rolls-Royce (Spey Mk 511-8)

No. of Engines 2 Engine Rating 11,400 lb

Min. T/O Wt. 36.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 69.7 k-lb Max. T/O Wt. War-Time 69.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,140 ft

Min. Ldg. Wt. 36.0 k-lb Max. Ldg. Wt. 58.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
36	10	11	11	11	8	9	10	11
59	18	19	19	19	15	16	18	19
70	22	23	23	24	19	20	22	23

Figure A-25. C-20A/B

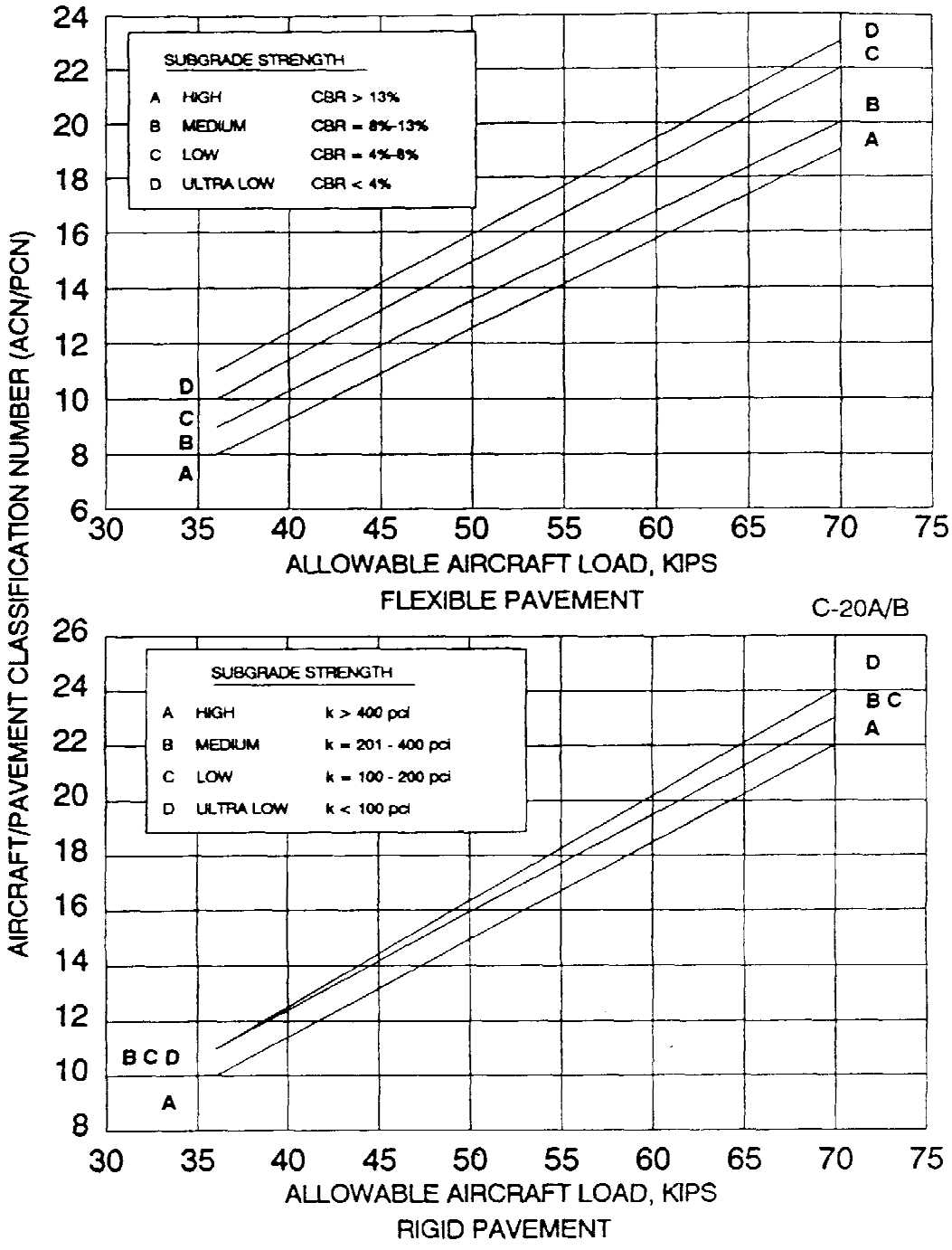


Figure A-26. C-20A/B, ACN/PCN Curves

Aircraft Manufacturer Gates Learjet

Aircraft Engine Manufacturer Garrett/AiResearch (TFE731-2-2B)

No. of Engines 2 Engine Rating 3,500 lb

Min. T/O Wt. 10.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,100 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,400 ft

Max. T/O Wt. Peace-Time 18.3 k-lb Max. T/O Wt. War-Time 18.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,700 ft

Min. Ldg. Wt. 10.0 k-lb Max. Ldg. Wt. 15.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	2	2	2	2	2	2	2	3
15	3	3	3	3	3	3	4	4
18	4	4	4	4	4	4	5	5

Figure A-27. C-21A

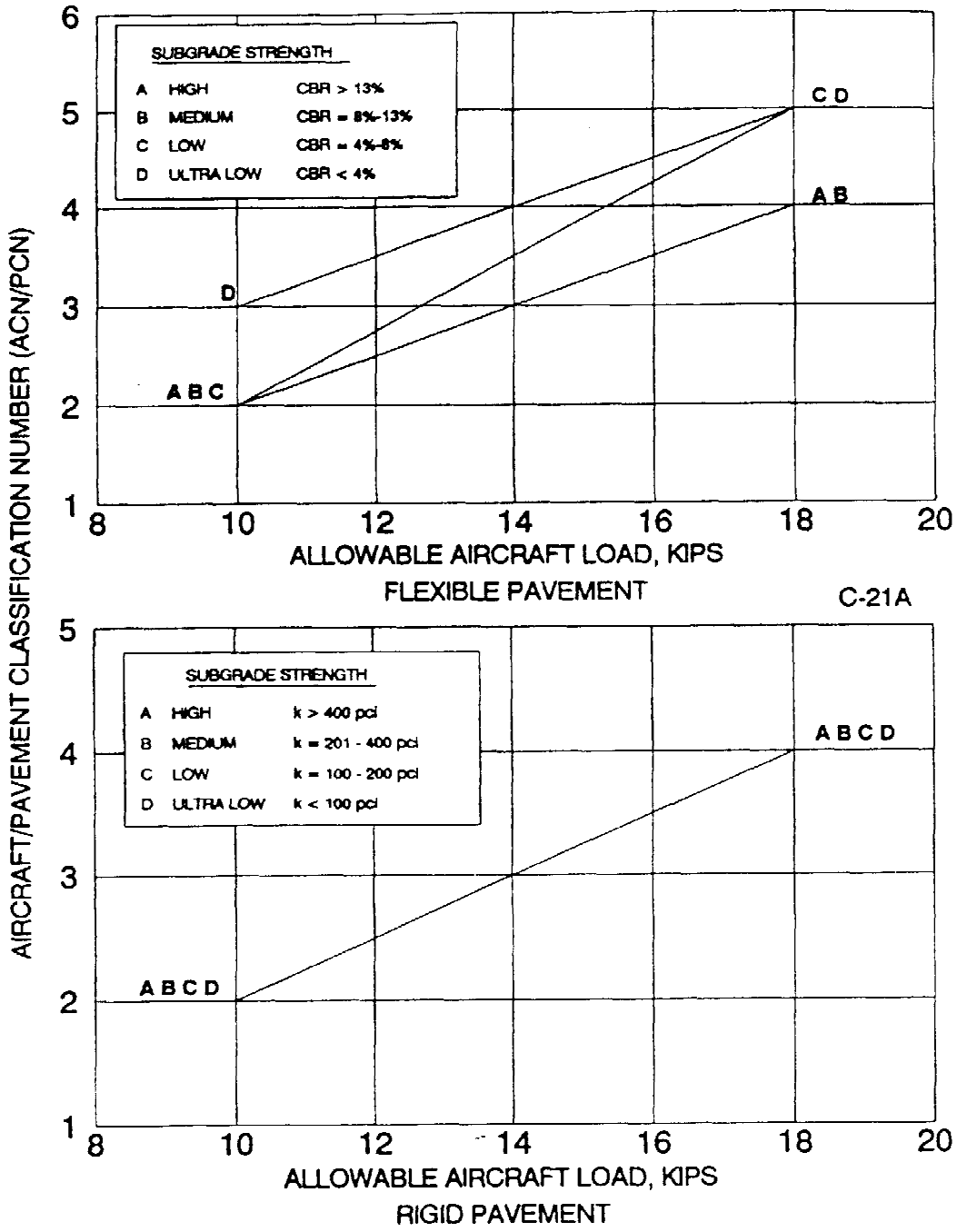


Figure A-28. C-21A, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-7)

No. of Engines 3 Engine Rating 14,000 lb

Min. T/O Wt. 96.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,200 ft

Max. T/O Wt. Peace-Time 170.0 k-lb Max. T/O Wt. War-Time 170.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 8,350 ft

Min. Ldg. Wt. 123.0 k-lb Max. Ldg. Wt. 142.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
123	32	33	35	37	28	30	33	37
143	38	39	42	44	34	35	40	44
170	46	48	51	53	41	43	49	54

Figure A-29. C-22B

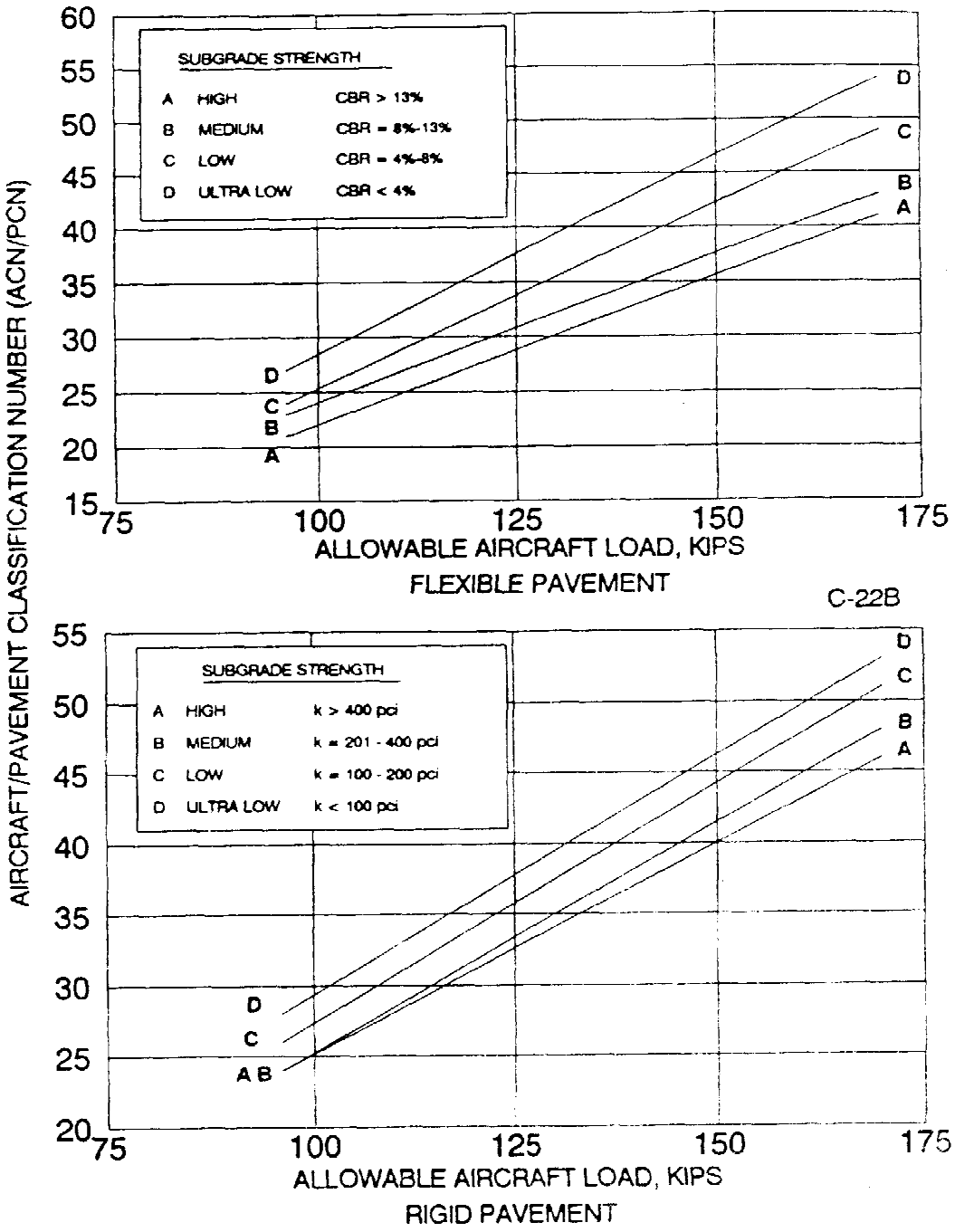


Figure A-30. C-22B, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Pratt and Whitney of Canada (T101-PW-100)

No. of Engines 2 Engine Rating 1198 SHP

Min. T/O Wt. 17.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,800 ft

Max. T/O Wt. Peace-Time 22.9 k-lb Max. T/O Wt. War-Time 24.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,200 ft

Min. Ldg. Wt. 16.7 k-lb Max. Ldg. Wt. 22.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,050 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
17	4	5	5	5	3	5	5	5
23	6	7	7	7	5	7	8	8
25	7	8	8	8	6	8	9	9

Figure A-31. C23A, Sherpa

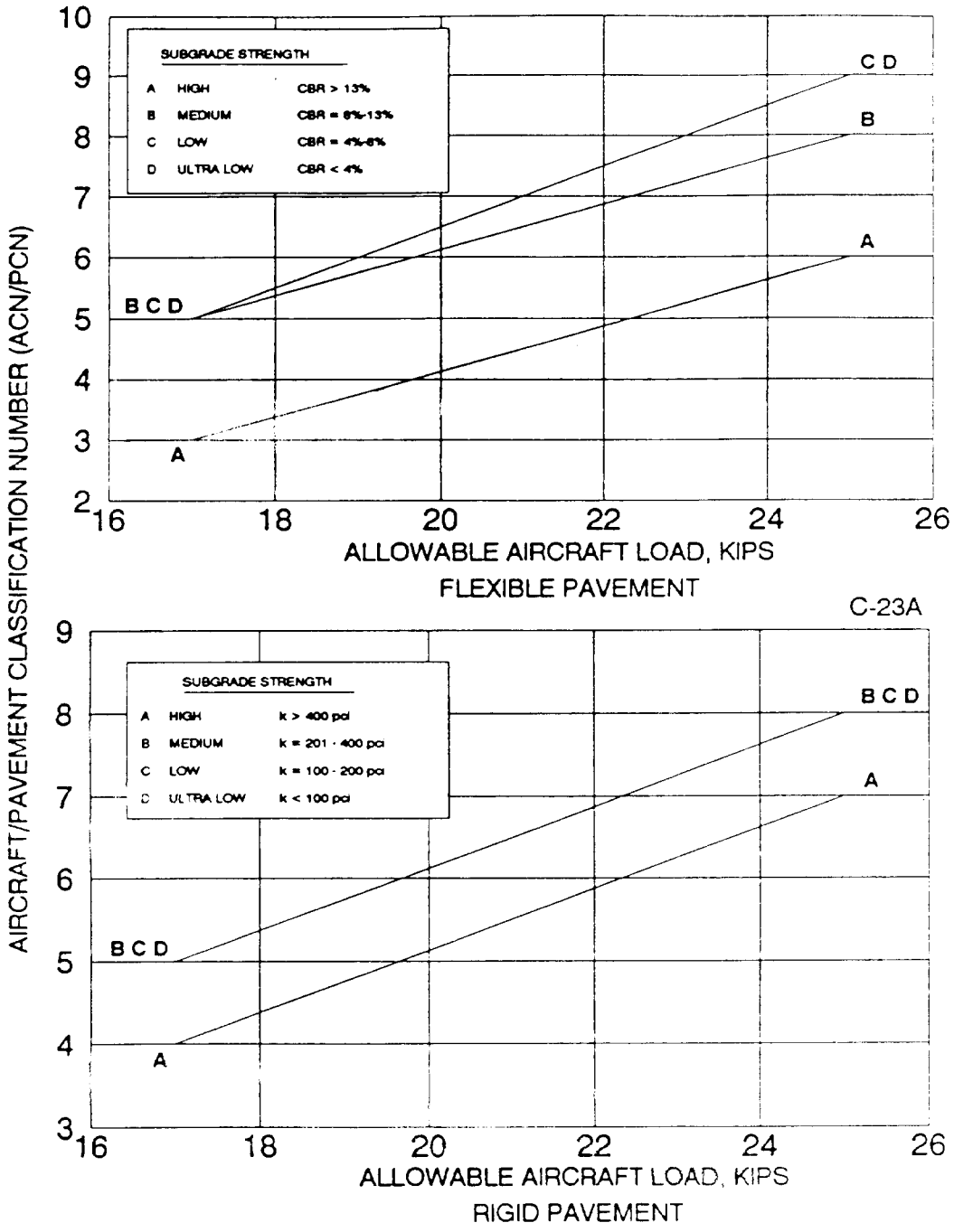


Figure A-32. C-23A, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-7B)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 580 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,620 ft

Max. T/O Wt. Peace-Time 135.0 k-lb Max. T/O Wt. War-Time 135.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,600 ft

Min. Ldg. Wt. 80.0 k-lb Max. Ldg. Wt. 135.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,850 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
80	10	12	13	14	8	10	13	16
135	24	27	29	31	21	23	27	32

Figure A-33. C-130B, Hercules

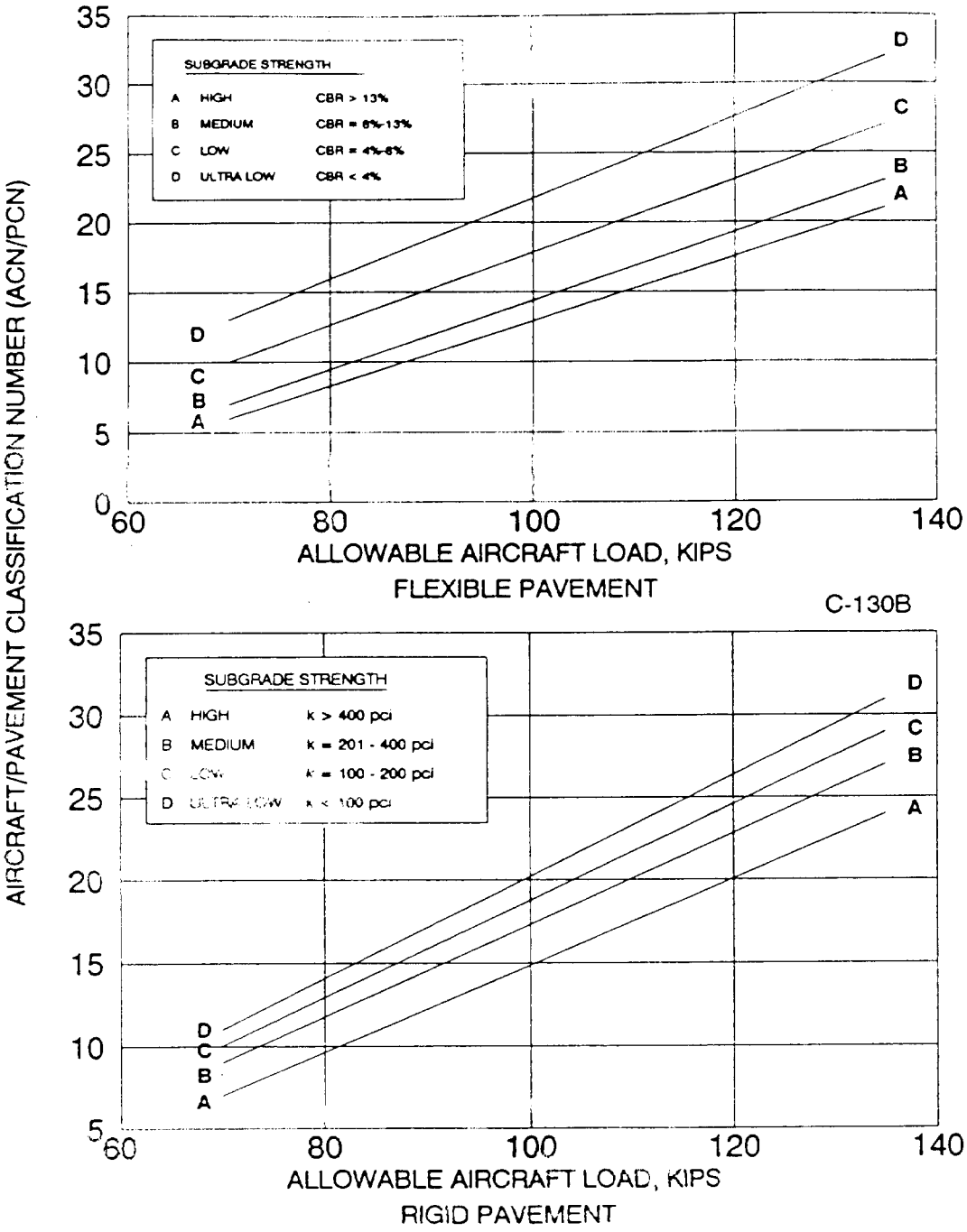


Figure A-34. C-130B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-15)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 750 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 175.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,500 ft

Min. Ldg. Wt. 90.0 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
90	11	13	16	19	12	14	16	18
155	29	31	35	37	26	29	32	37
175	34	37	41	43	30	34	37	43

Figure A-35. C-130E/H, Hercules

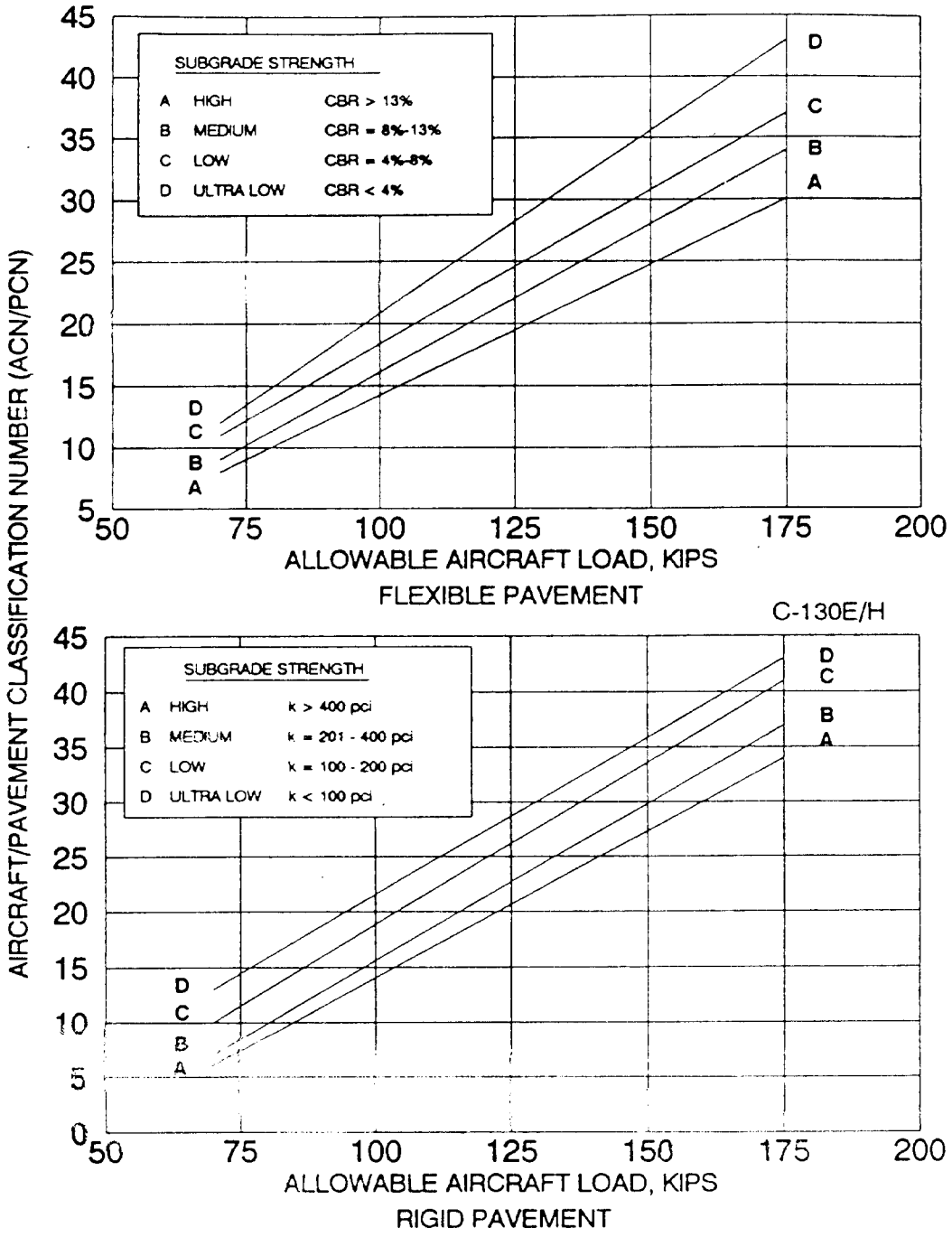


Figure A-36. C-130E/H, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-5)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 140.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,250 ft

Min. Ldg. Wt. 124.0 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,250 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
124	8	9	11	13	8	9	12	17
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-37. C-135B, Stratolifter

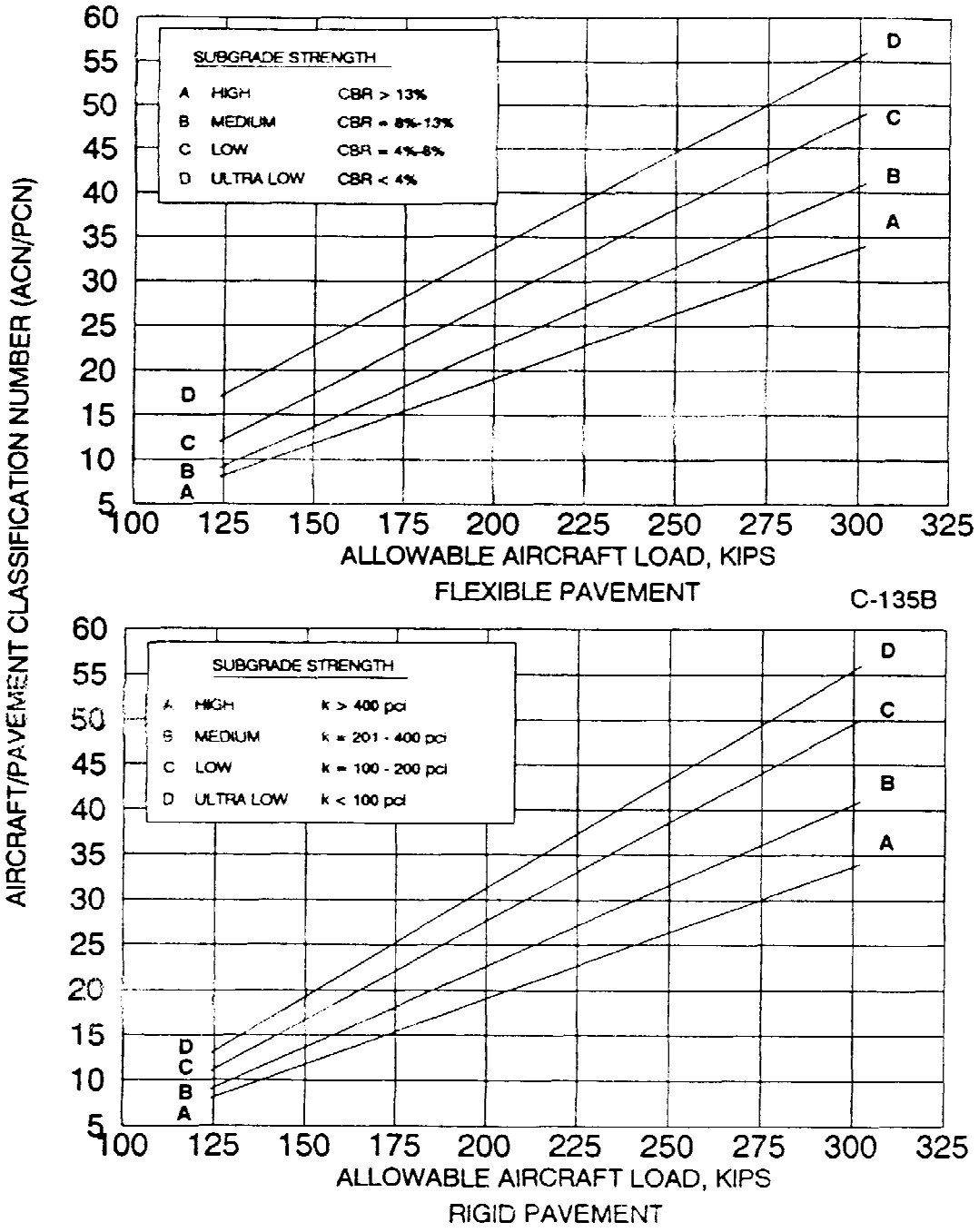


Figure A-38. C-135B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer CFM International (F108-CF-100)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 140.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,000 ft

Max. T/O Wt. Peace-Time 322.5 k-lb Max. T/O Wt. War-Time 322.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,300 ft

Min. Ldg. Wt. 123.2 k-lb Max. Ldg. Wt. 322.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,150 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 10,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
123	8	9	10	12	8	9	12	16
323	37	45	54	61	37	45	54	61

Figure A-39. KC-135R, Stratotanker

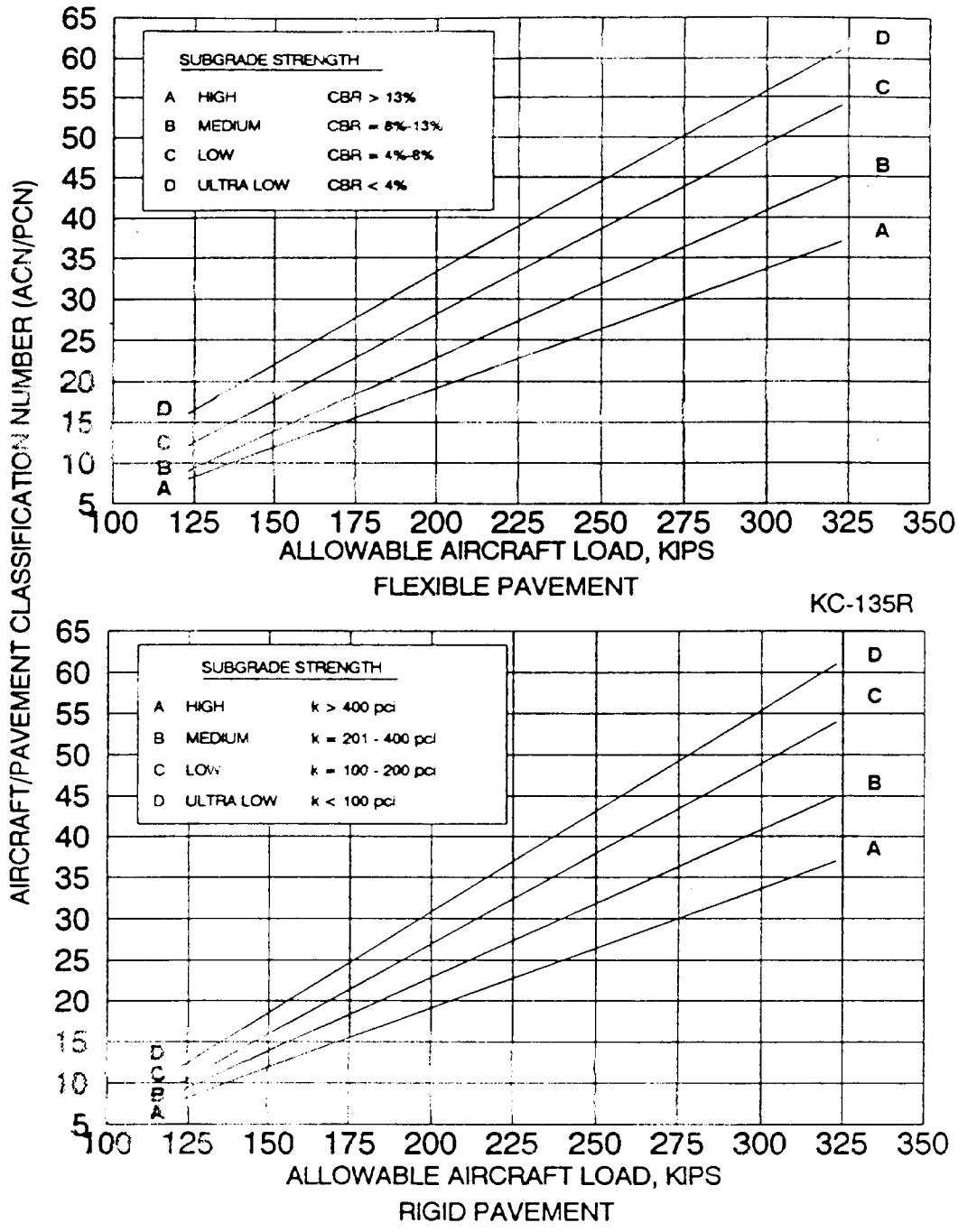


Figure A-40. KC-135R, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 135.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 258.0 k-lb Max. T/O Wt. War-Time 260.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 180.0 k-lb Max. Ldg. Wt. 190.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
180	16	17	21	26	18	20	25	33
190	17	19	23	29	20	22	27	35
258	26	31	35	45	31	34	42	53
260	26	31	35	45	31	34	42	54

Figure A-41. C-137B

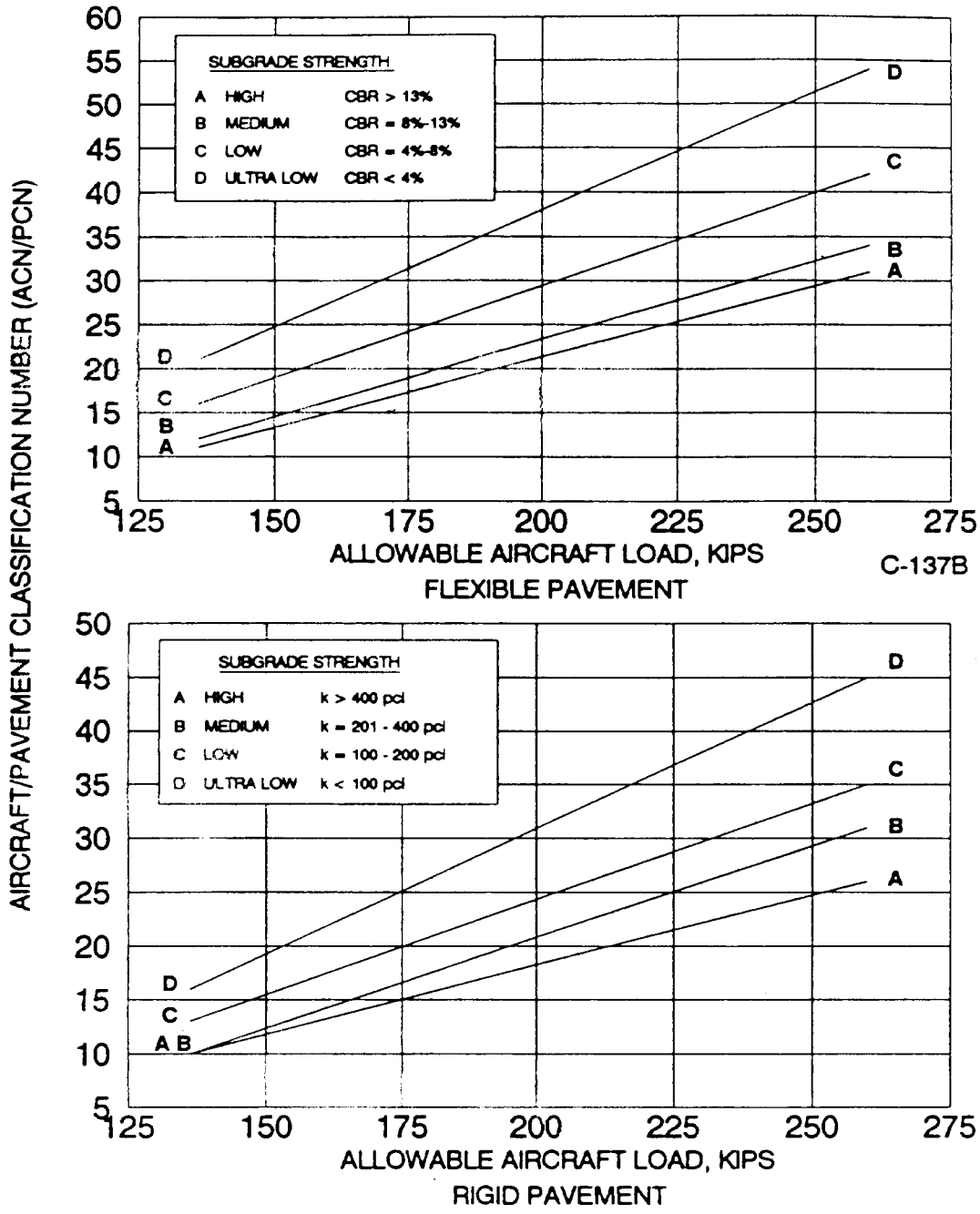


Figure A-42. C-137B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 151.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 326.0 k-lb Max. T/O Wt. War-Time 336.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,550 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 205.5 k-lb Max. Ldg. Wt. 247.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
206	21	23	29	33	22	26	31	40
247	27	32	38	43	30	34	41	52
326	40	48	57	63	43	48	59	74
336	42	50	59	66	45	50	61	77

Figure A-43. C-137C

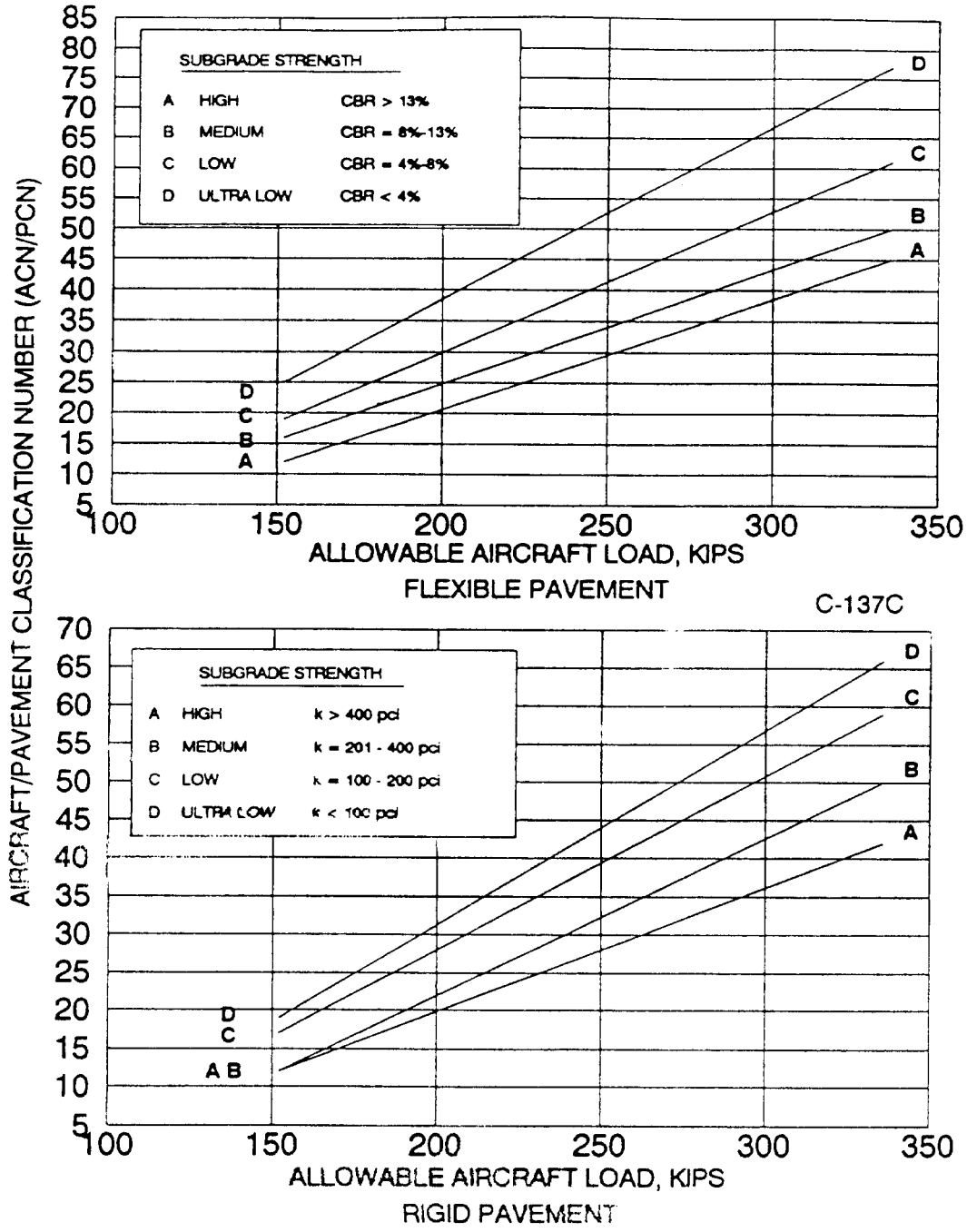


Figure A-44. C-137C, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (J60-P-5)

No. of Engines 4 Engine Rating 3,000 lb

Min. T/O Wt. 21.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,200 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,600 ft

Max. T/O Wt. Peace-Time 40.9 k-lb Max. T/O Wt. War-Time 40.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,800 ft

Min. Ldg. Wt. 21.0 k-lb Max. Ldg. Wt. 35.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,650 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
21	4	5	5	5	4	4	5	5
35	9	10	10	10	7	8	8	10
41	11	12	12	12	9	10	10	12

Figure A-45. C-140A/B, Jetstar

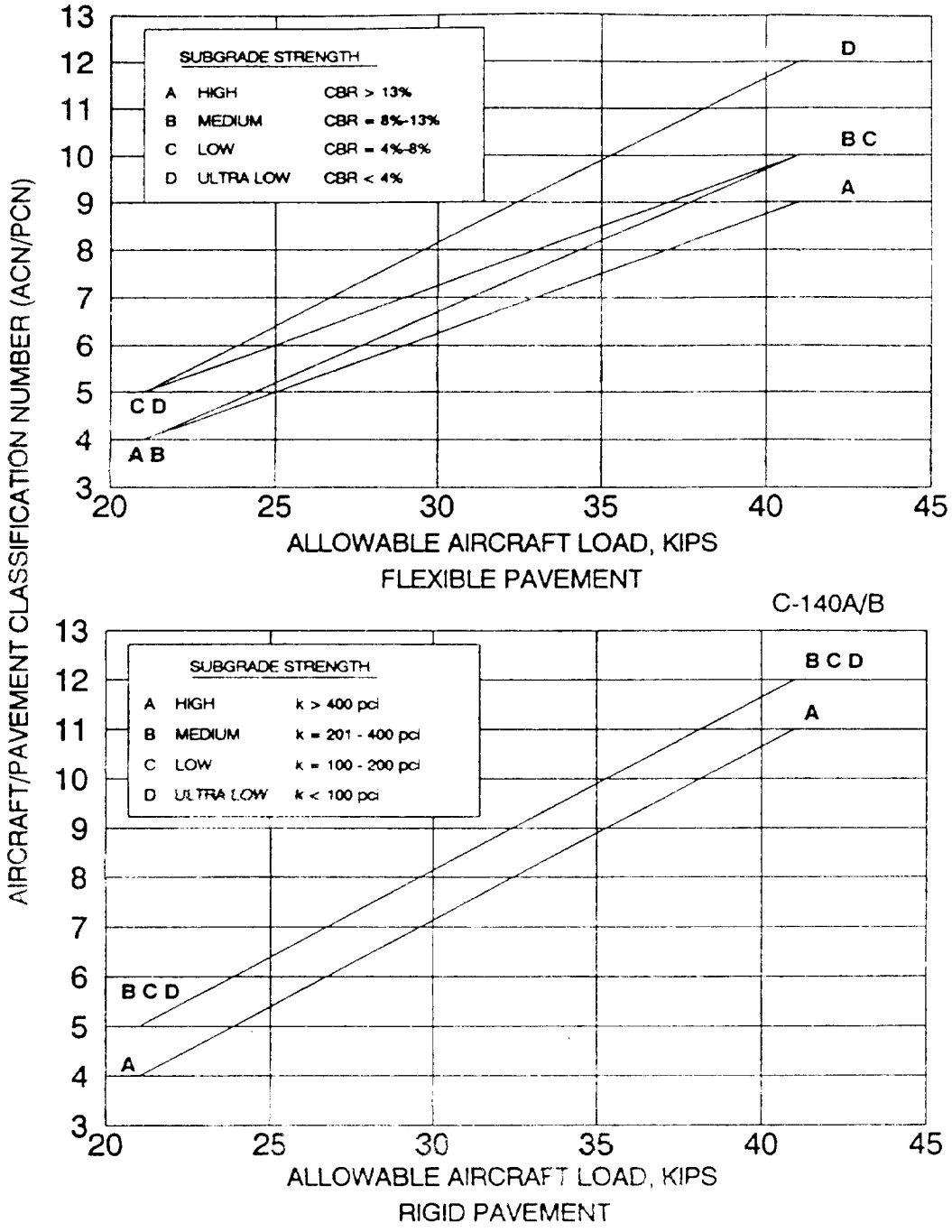


Figure A-46. C-140A/B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-7)

No. of Engines 4 Engine Rating 20,250 lb

Min. T/O Wt. 144.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,800 ft

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 344.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,100 ft

Min. Ldg. Wt. 145.0 k-lb Max. Ldg. Wt. 323.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,250 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,550 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
145	11	14	16	19	13	17	19	26
323	44	53	62	69	47	53	64	79
325	44	54	63	69	47	54	65	79
345	48	58	68	75	51	58	70	85

Figure A-47. C-141B, Starlifter

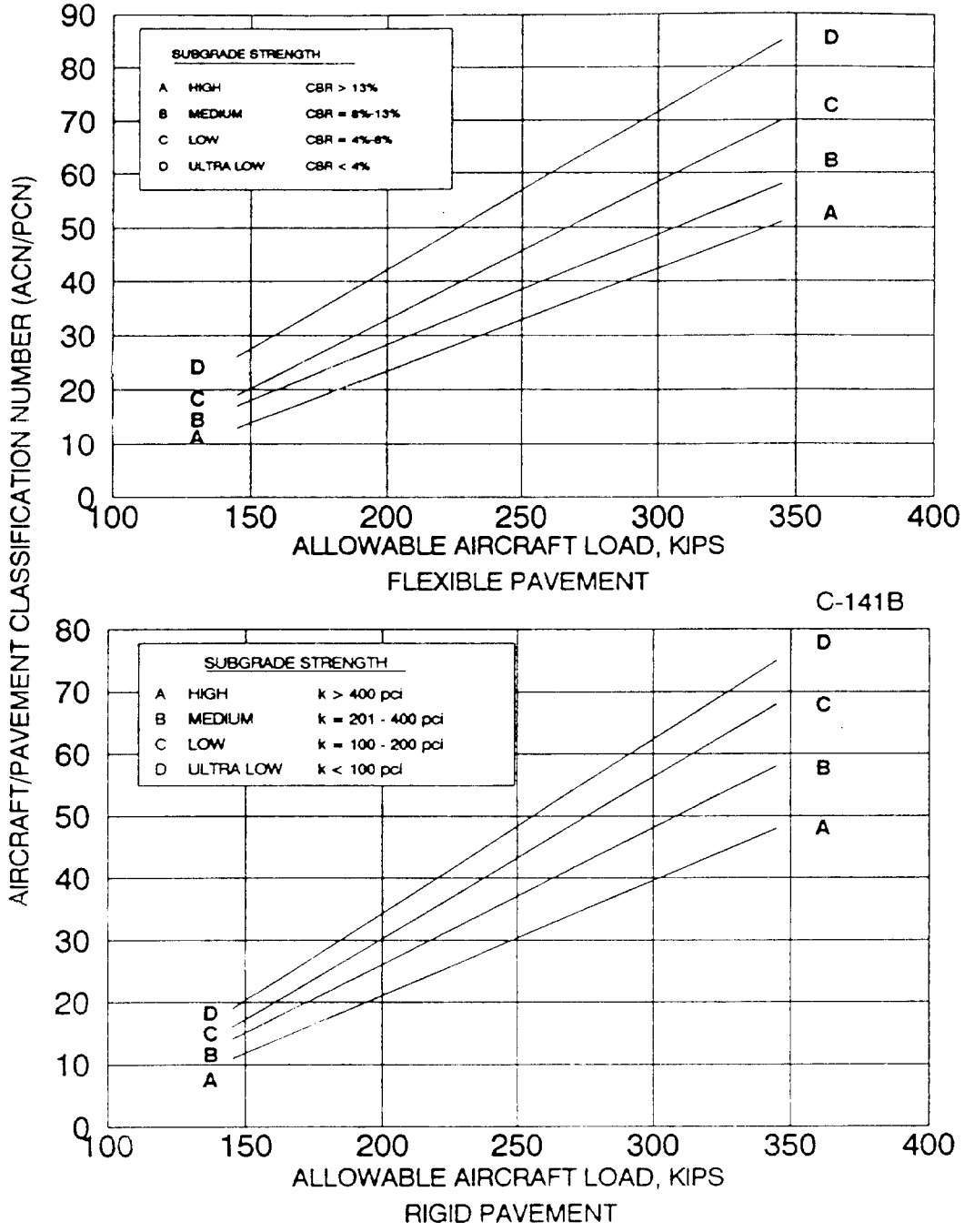


Figure A-48. C-141B, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (CF6-50C2)

No. of Engines 3 Engine Rating 52,500 lb

Min. T/O Wt. 270.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,500 ft

Max. T/O Wt. Peace-Time 590.0 k-lb Max. T/O Wt. War-Time 590.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,300 ft

Min. Ldg. Wt. 320.0 k-lb Max. Ldg. Wt. 436.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,620 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
320	20	23	27	32	24	28	33	44
436	32	38	45	52	39	43	51	69
590	48	57	68	79	58	64	75	102

Figure A-49. KC-10A, Extender

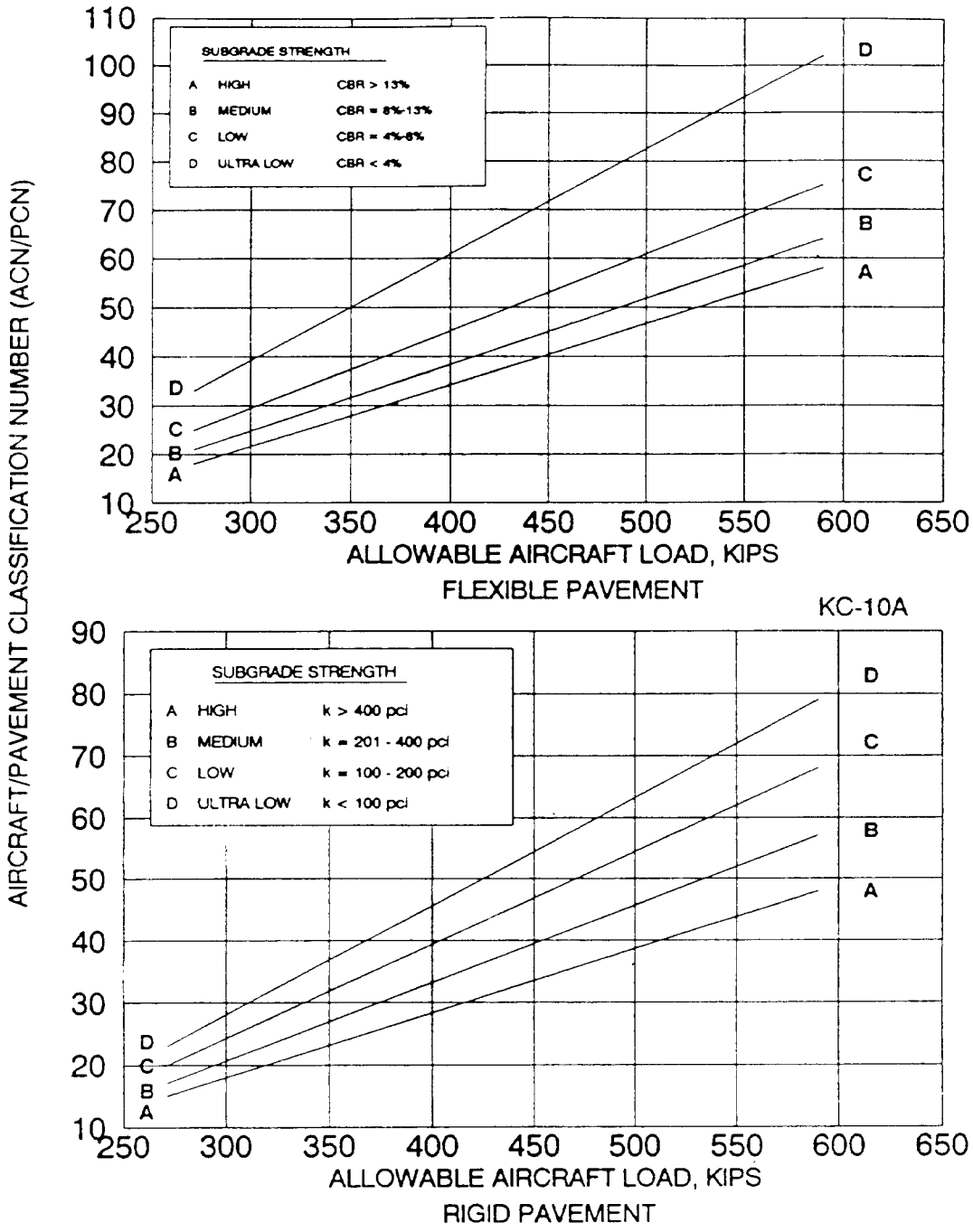


Figure A-50. KC-10A, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (F103-GE-102)

No. of Engines 4 Engine Rating 62,500 lb

Min. T/O Wt. 440.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 836.0 k-lb Max. T/O Wt. War-Time 836.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. † Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
630	33	39	47	54	38	42	50	65
836	46	55	66	76	52	58	71	92

Figure A-51. VC-25A, Air Force One

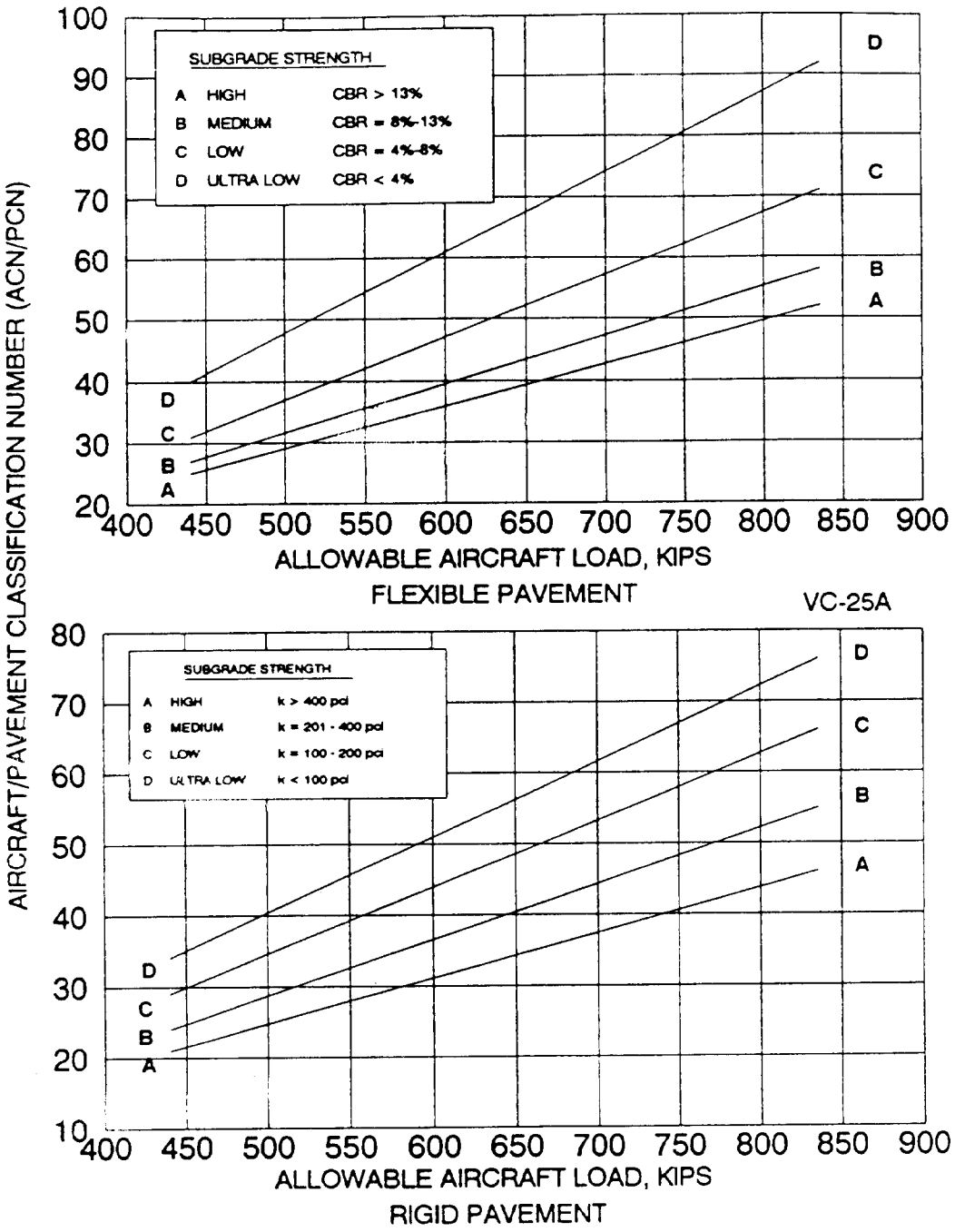


Figure A-52. VC-25A, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-PW-100A)

No. of Engines 4 Engine Rating 20,500 lb

Min. T/O Wt. 180.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,680 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,680 ft

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,540 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,670 ft

Min. Ldg. Wt. 180.7 k-lb Max. Ldg. Wt. 250.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,810 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
181	16	20	23	26	16	20	24	29
250	27	32	38	43	27	32	38	44
325	38	46	55	62	38	45	54	61

Figure A-53. E-3A STD., Sentry AWACS

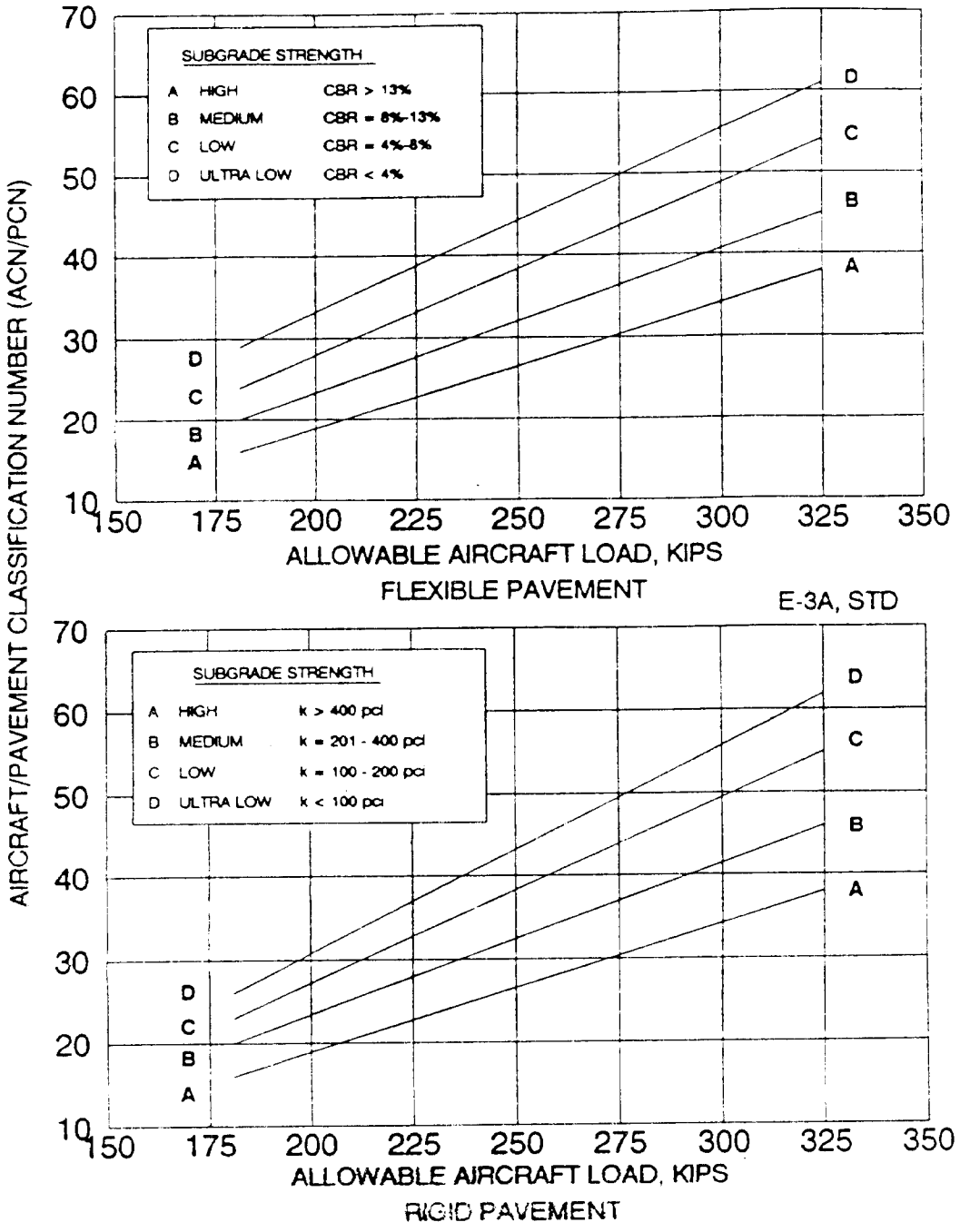


Figure A-54. E-3A(STD), ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-PW-100A)

No. of Engines 4 Engine Rating 20,500 lb

Min. T/O Wt. 186.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,000 ft

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,540 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,670 ft

Min. Ldg. Wt. 186.1 k-lb Max. Ldg. Wt. 250.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,810 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
186	18	20	24	28	17	21	25	30
250	27	32	39	44	26	32	39	45
325	38	46	55	62	38	45	54	61

Figure A-55. E-3B, Sentry AWACS

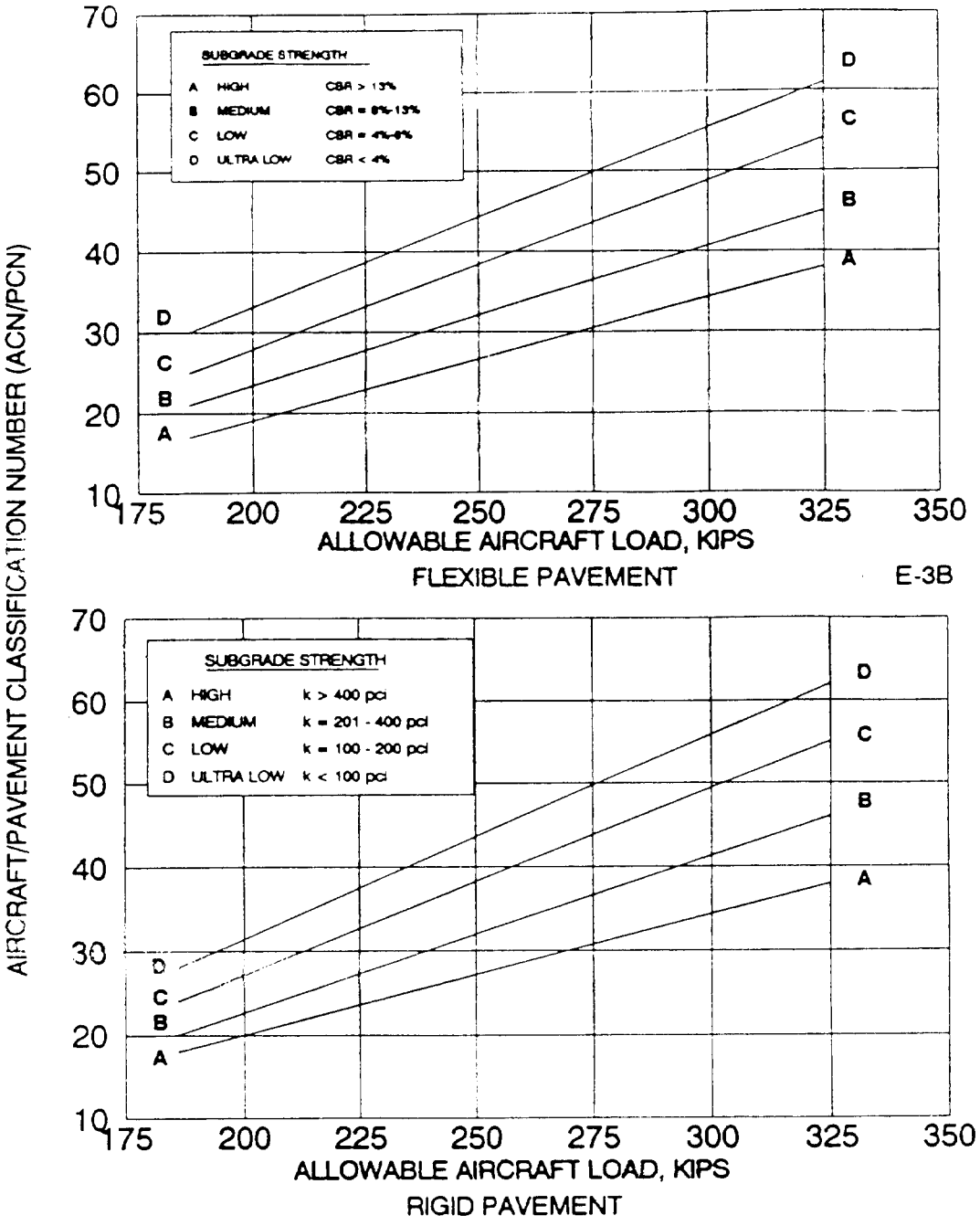


Figure A-56. E-3B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-PW-100A)

No. of Engines 4 Engine Rating 20,500 lb

Min. T/O Wt. 186.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,950 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,050 ft

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,540 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,670 ft

Min. Ldg. Wt. 186.9 k-lb Max. Ldg. Wt. 250.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,810 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
187	18	21	24	29	17	21	25	30
250	27	32	38	44	26	32	38	44
325	38	46	55	62	38	45	54	61

Figure A-57. E-3C, Sentry AWACS

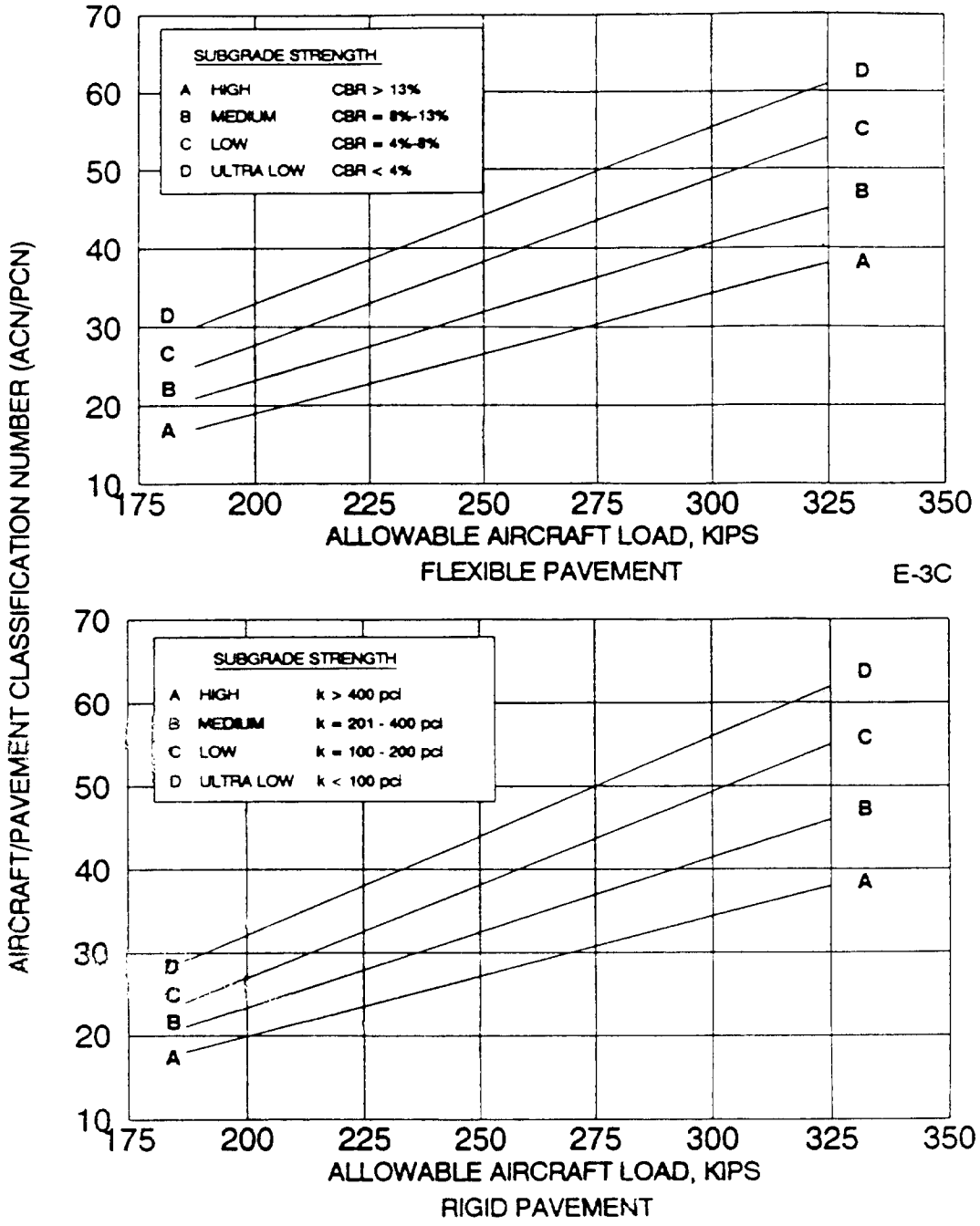


Figure A-58. E-3C, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-50E2)

No. of Engines 4 Engine Rating 52,500 lb

Min. T/O Wt. 488.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 4,200 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,800 ft

Max. T/O Wt. Peace-Time 798.0 k-lb Max. T/O Wt. War-Time 798.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 9,000 ft

Min. Ldg. Wt. 485.0 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,700 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
485	22	25	30	35	28	32	41	60
630	33	39	45	53	42	43	62	90
798	45	55	63	73	57	58	85	125

Figure A-59. E-4B, NEACP

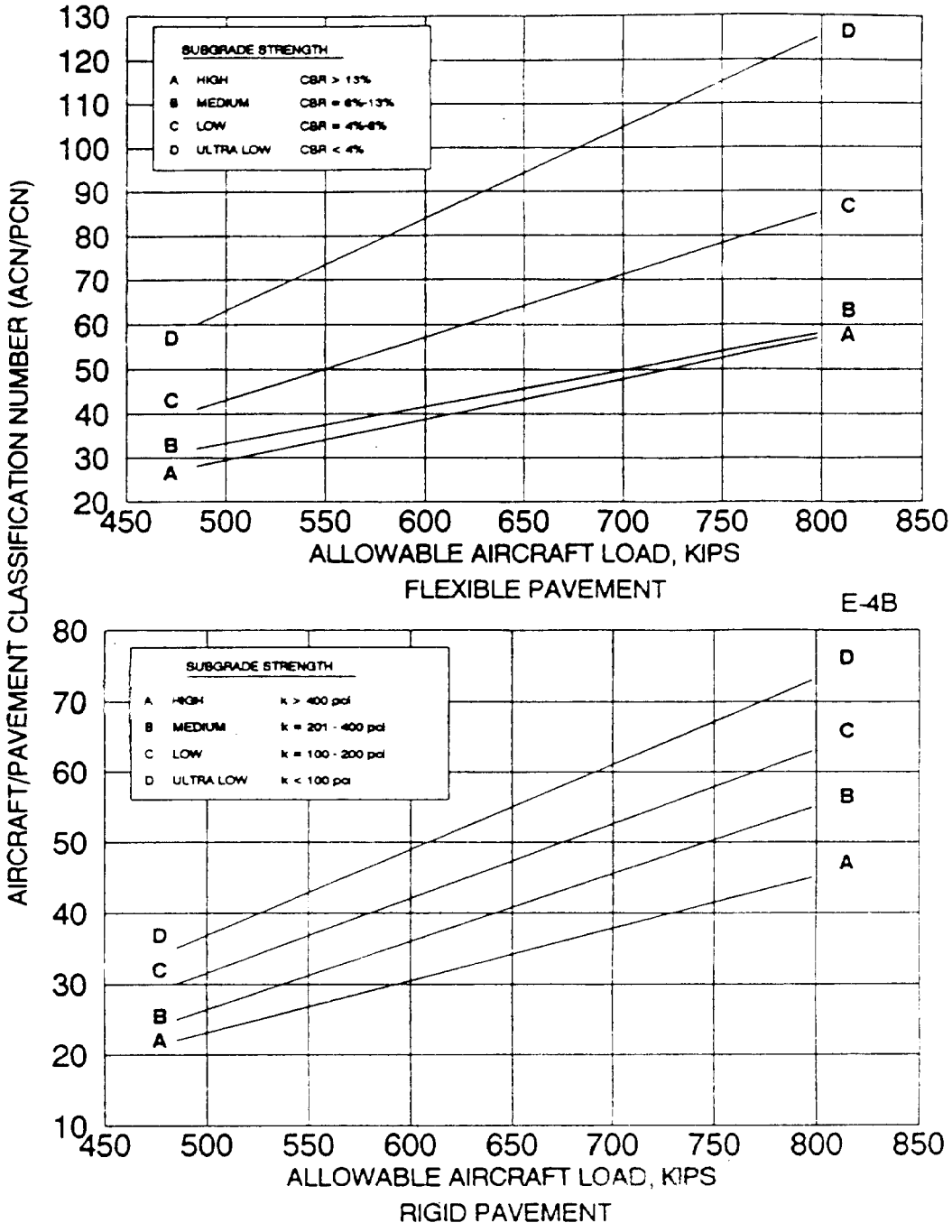


Figure A-60. E-4B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3BET)

No. of Engines 4 Engine Rating 17,400 lb

Min. T/O Wt. 180.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,800 ft

Max. T/O Wt. Peace-Time 336.0 k-lb Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 180.0 k-lb Max. Ldg. Wt. 247.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,350 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
180	19	22	26	29	21	22	26	33
247	29	33	40	45	31	34	41	52
336	41	49	58	66	44	49	60	77

Figure A-61. EC-18B, ARIA

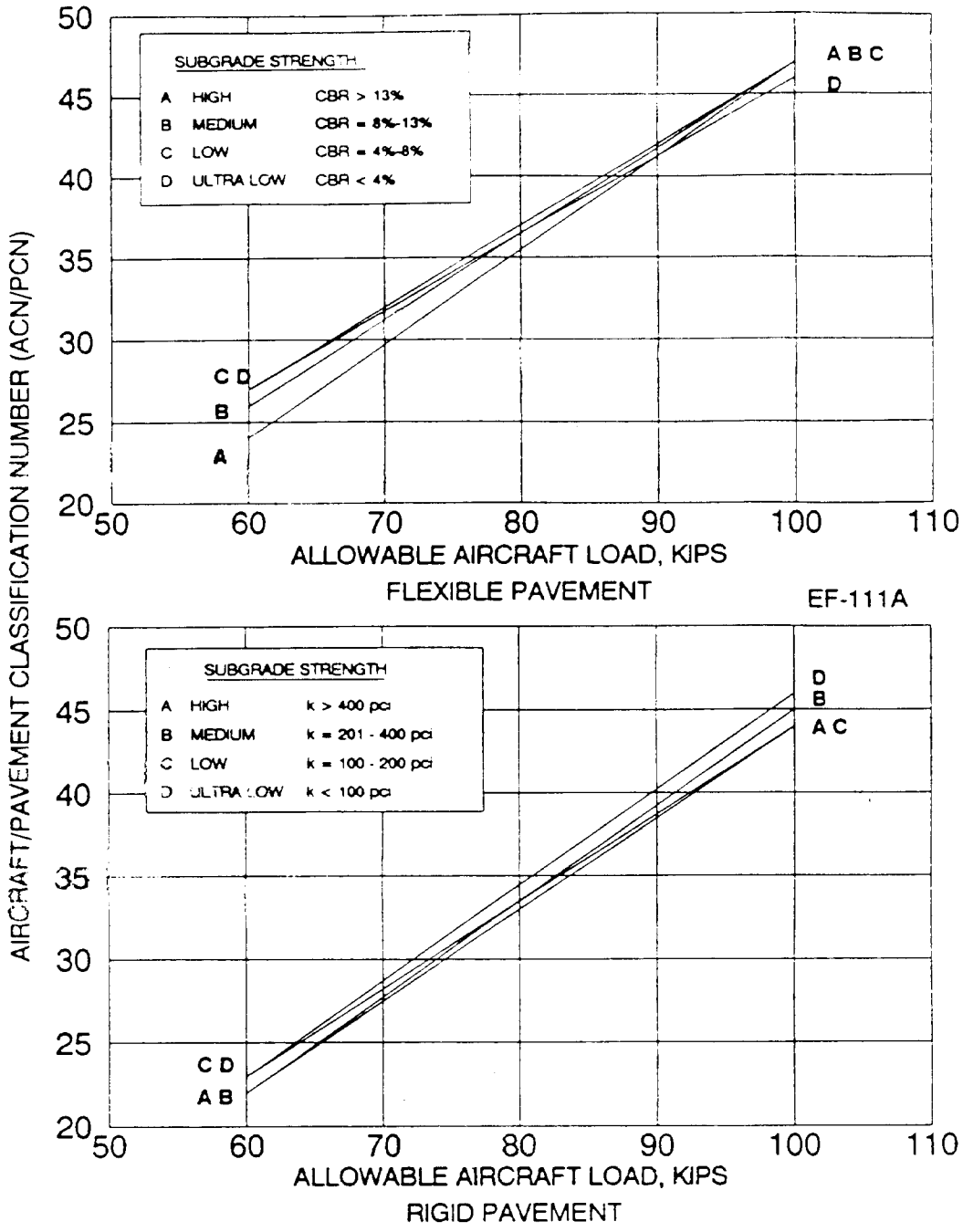


Figure A-82. EF-111A, ACN/PCN Curves

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer Continental (IO-360-D)

No. of Engines 2 Engine Rating 210 BHP

Min. T/O Wt. 3.80 k-lb * Min. T/O Dist. @ Min. T/O Wt. 550 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 4.85 k-lb Max. T/O Wt. War-Time 4.90 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,060 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.70 k-lb Max. Ldg. Wt. 4.85 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 480 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
4,900 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-83. O-2A

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer Continental (IO-360-C or IO-360-D)

No. of Engines 2 Engine Rating 210 BHP

Min. T/O Wt. 3.90 k-lb * Min. T/O Dist. @ Min. T/O Wt. 630 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 4.50 k-lb Max. T/O Wt. War-Time 4.60 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 910 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.80 k-lb Max. Ldg. Wt. 4.40 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 490 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
4,600 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-84. 0-2B

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer General Electric (J85-17A)

No. of Engines 2 Engine Rating 2,850 lb

Min. T/O Wt. 6.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 300 ft

Max. T/O Wt. Peace-Time 14.0 k-lb Max. T/O Wt. War-Time 14.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 7,000 ft

Min. Ldg. Wt. 7.0 k-lb Max. Ldg. Wt. 14.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,700 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	1	1	2	2
14	5	5	5	5	4	5	5	5

Figure A-85. OA-37B, Dragonfly

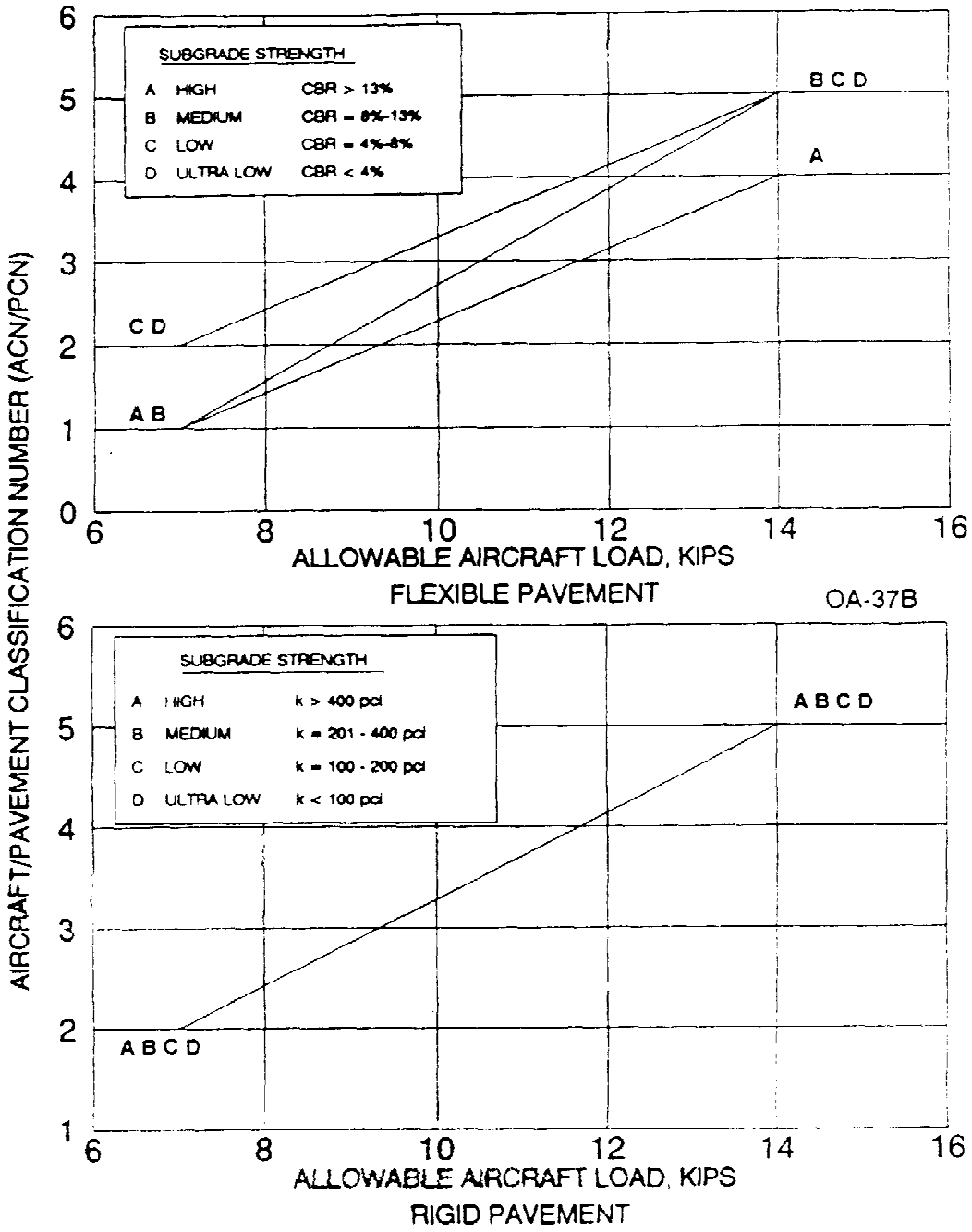


Figure A-86. OA-37B, ACN/PCN Curves

Aircraft Manufacturer Grumman

Aircraft Engine Manufacturer Lycoming (T53-L-7A)

No. of Engines 2 Engine Rating 1100 SHP

Min. T/O Wt. 13.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,200 ft

Max. T/O Wt. Peace-Time 16.6 k-lb Max. T/O Wt. War-Time 16.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,050 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,950 ft

Min. Ldg. Wt. 12.9 k-lb Max. Ldg. Wt. 16.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
13	5	5	5	5	5	5	5	5
17	6	6	6	6	6	6	6	7

Figure A-87. OV-lB, Mohawk

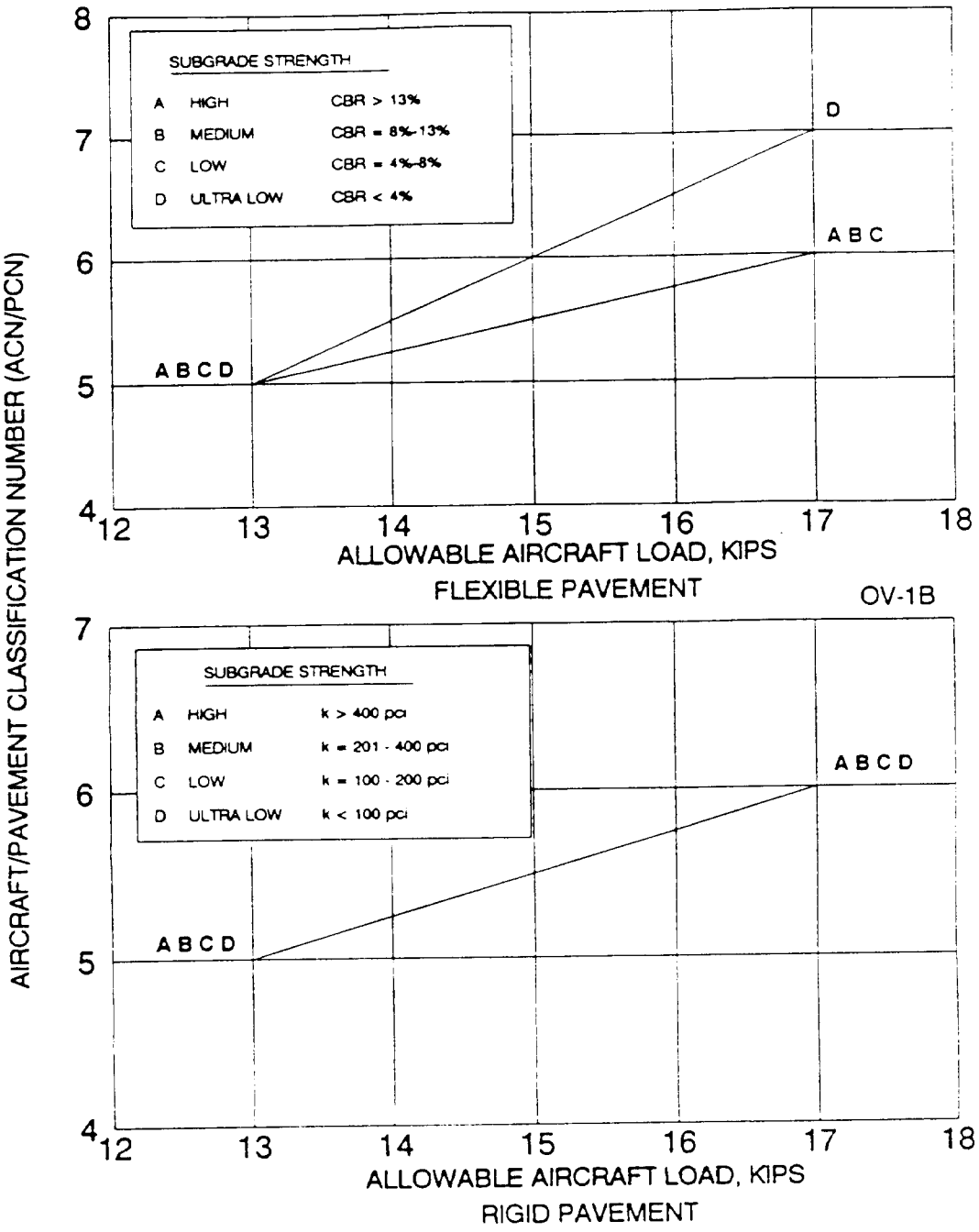


Figure A-88. OV-lB, ACN/PCN Curves

Aircraft Manufacturer Grumman

Aircraft Engine Manufacturer Lycoming (T53-L-7A)

No. of Engines 2 Engine Rating 1100 SHP

Min. T/O Wt. 12.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,200 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,000 ft

Max. T/O Wt. Peace-Time 15.3 k-lb Max. T/O Wt. War-Time 15.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,700 ft

Min. Ldg. Wt. 12.3 k-lb Max. Ldg. Wt. 15.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
12	5	5	5	5	4	4	4	5
15	6	6	6	6	5	5	5	6

Figure A-89. OV-1C, Mohawk

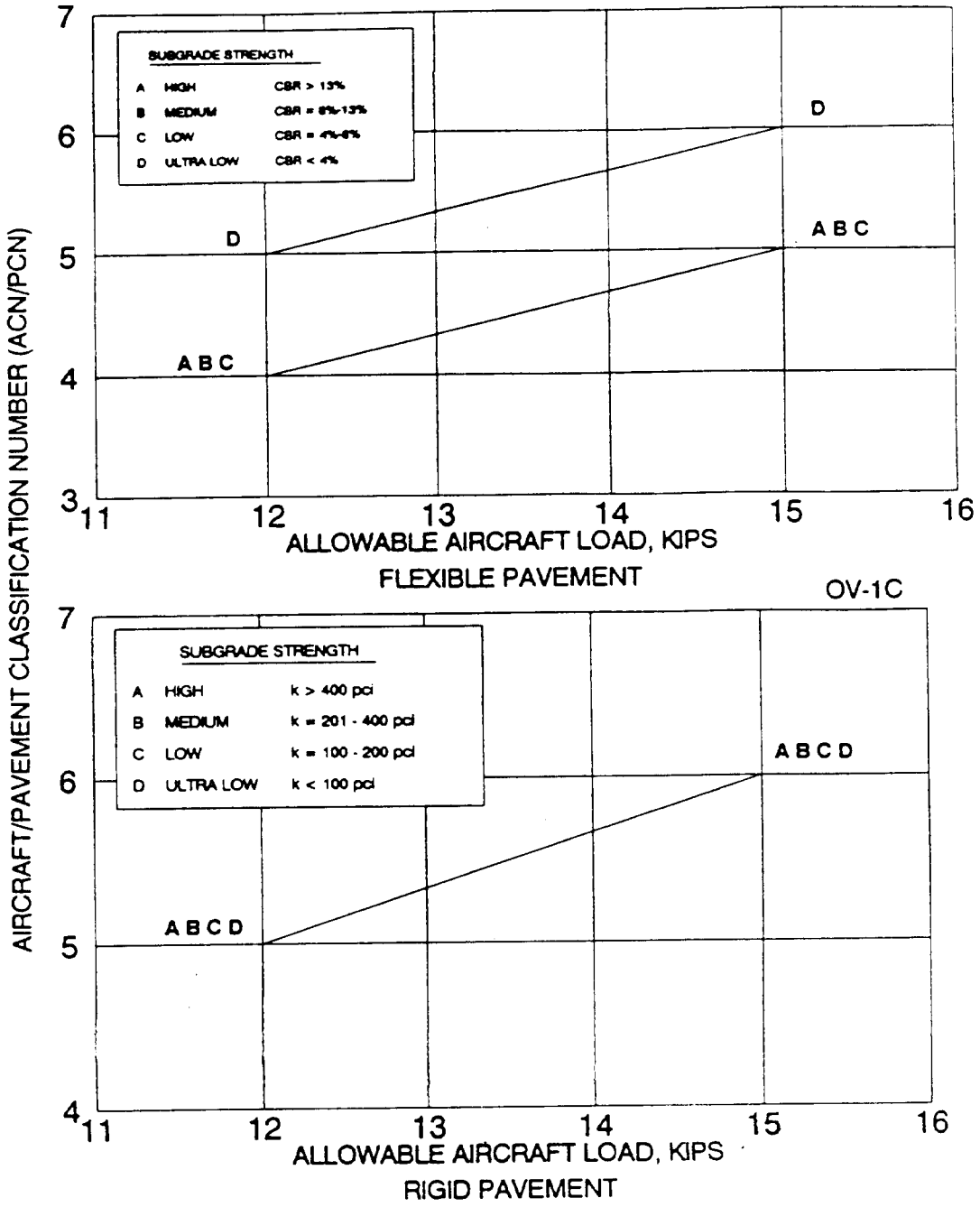


Figure A-90. OV-1C, ACN/PCN Curves

Aircraft Manufacturer Grumman

Aircraft Engine Manufacturer Lycoming (T53-L-701A)

No. of Engines 2 Engine Rating 1400 SHP

Min. T/O Wt. 13.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,300 ft

Max. T/O Wt. Peace-Time 18.3 k-lb Max. T/O Wt. War-Time 18.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,700 ft

Min. Ldg. Wt. 13.2 k-lb Max. Ldg. Wt. 18.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
13	5	5	5	5	5	5	5	5
18	6	6	6	6	6	6	7	7

Figure A-91. OV-lD, Mohawk

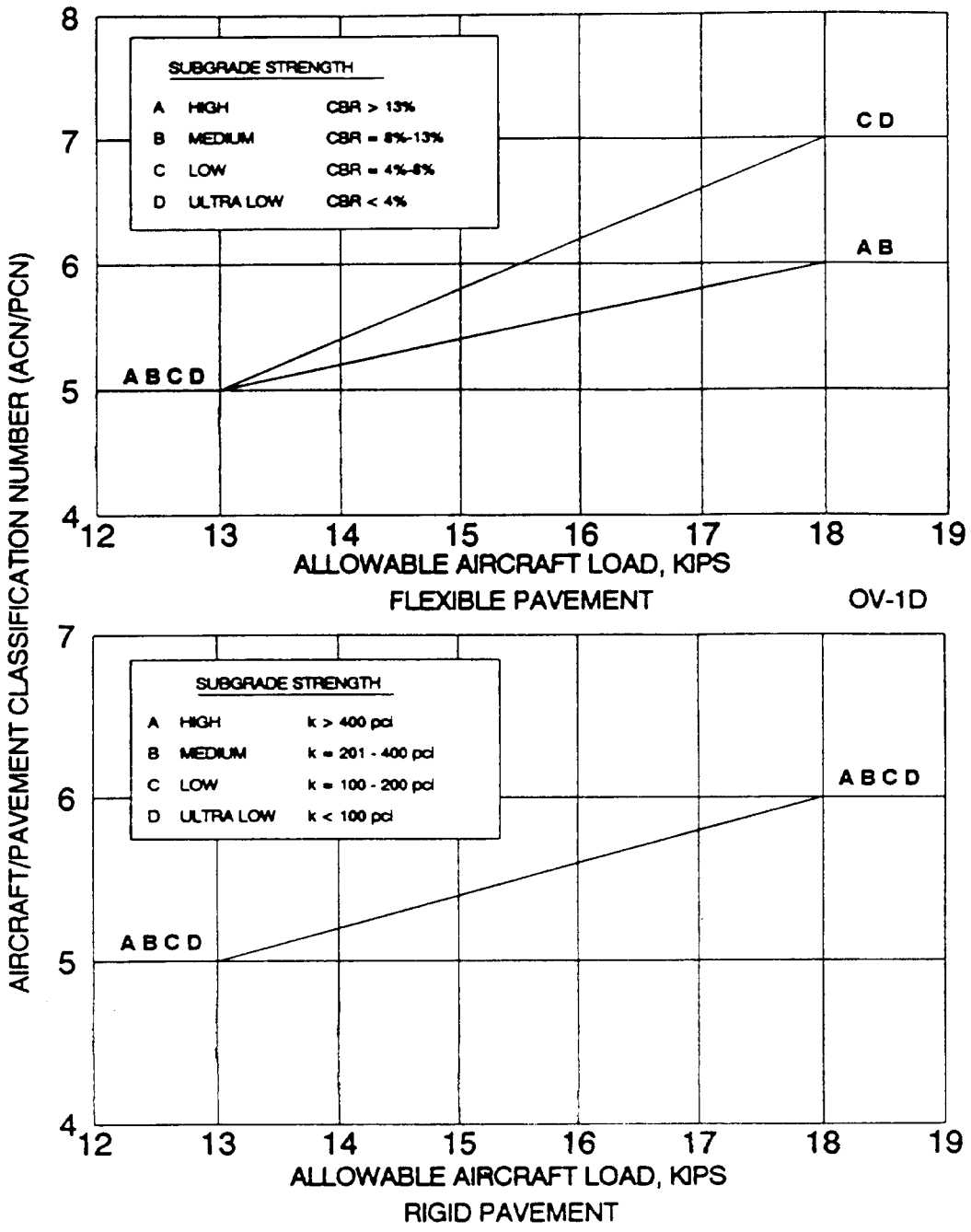


Figure A-92. OV-lD, ACN/PCN Curves

Aircraft Manufacturer Rockwell International

Aircraft Engine Manufacturer Garrett-AiResearch (T76-G-10/G-12)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 8.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. 500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,100 ft

Max. T/O Wt. Peace-Time 14.0 k-lb Max. T/O Wt. War-Time 14.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,650 ft

Min. Ldg. Wt. 8.3 k-lb Max. Ldg. Wt. 13.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8	2	2	2	2	2	2	3	3
13	5	5	5	5	5	5	6	6
14	5	5	5	5	5	5	6	6

Figure A-93. OV-l0A, Bronco

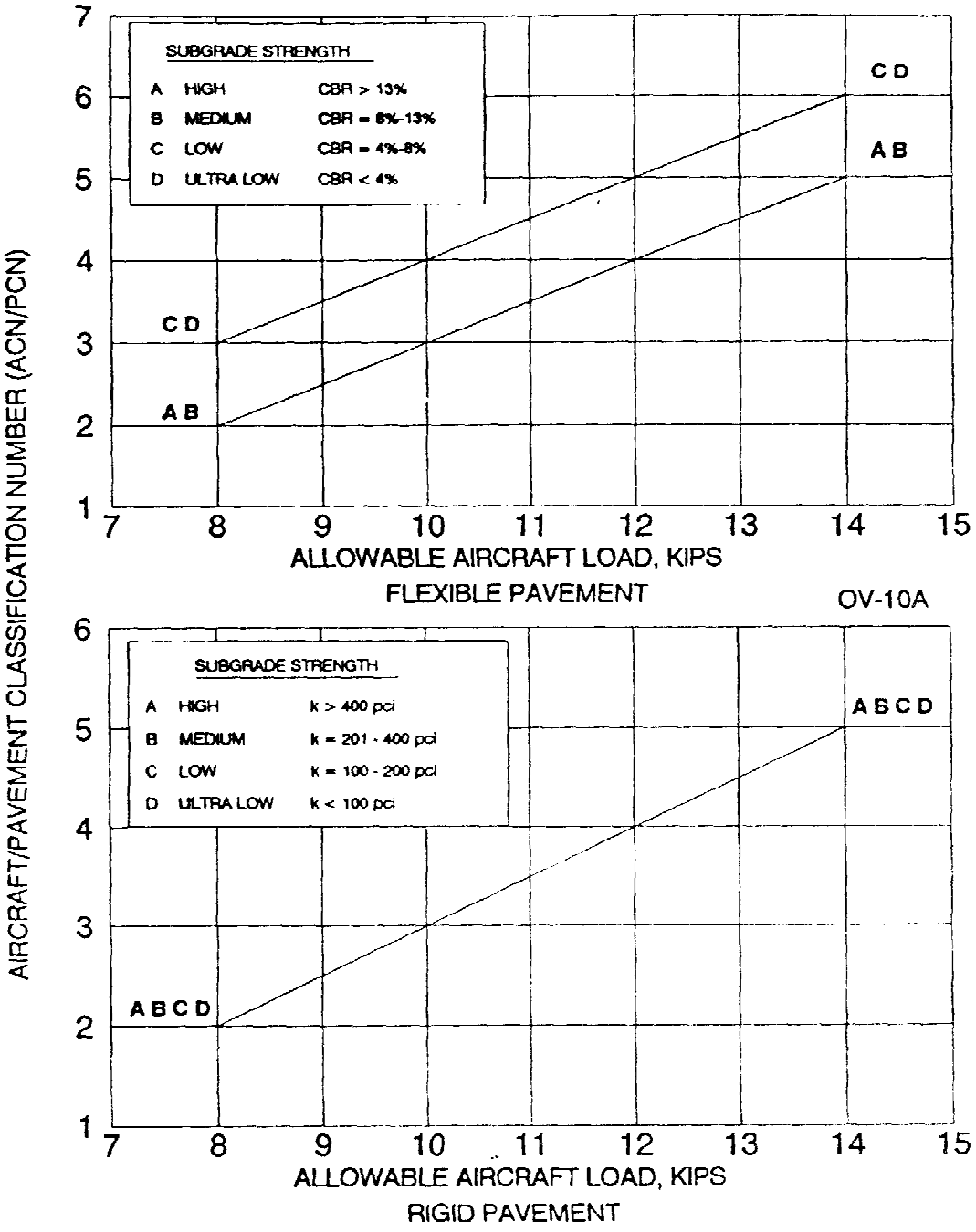


Figure A-94. OV-l0A, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (PT6A-42)

No. of Engines 2 Engine Rating 850 SHP

Min. T/O Wt. 9.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,860 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.0 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,120 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	1	1	1	1	1	1	1	1
13	3	3	3	3	2	3	3	3

Figure A-95. RC-12D/G/H/K

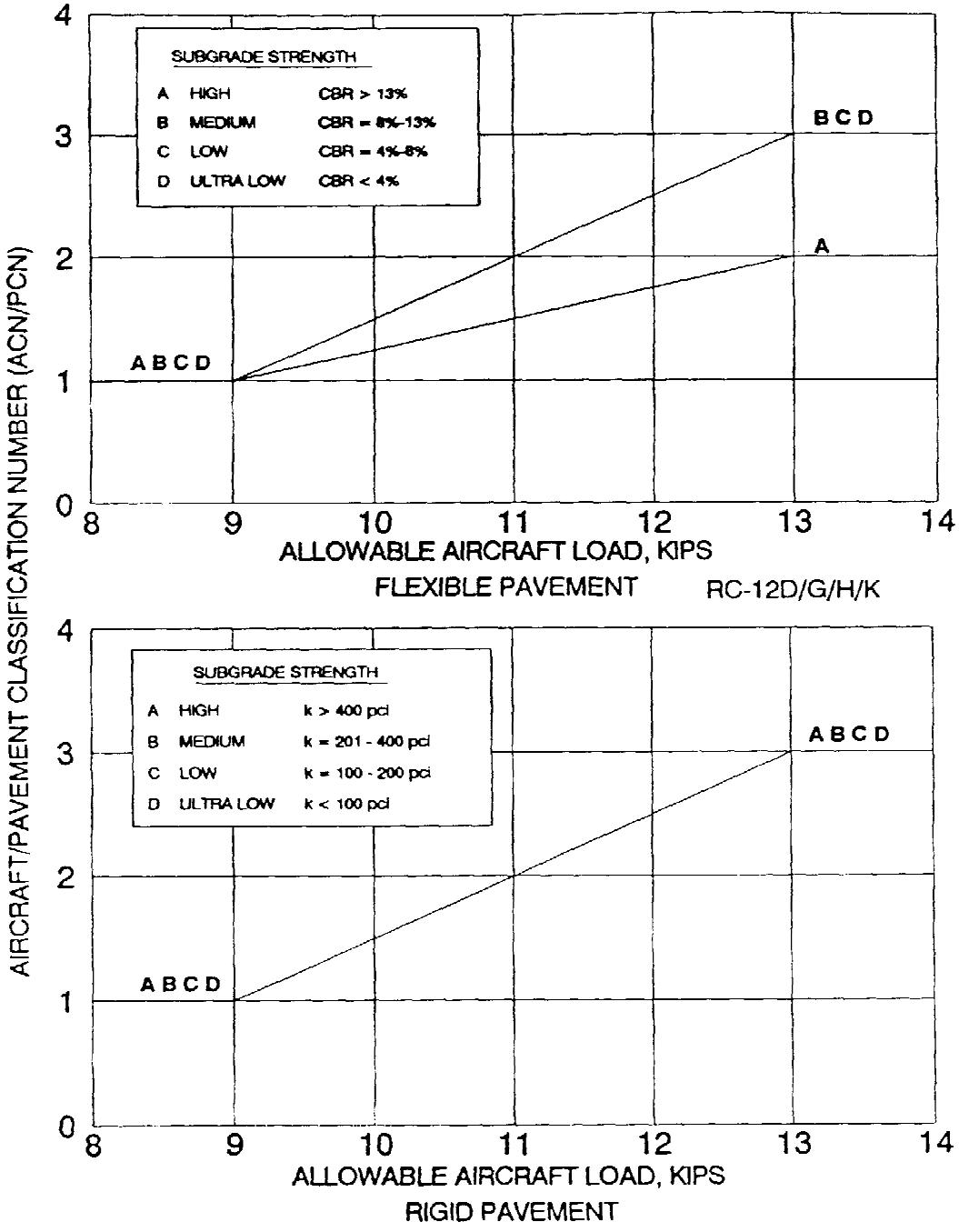


Figure A-96. RC-12D/G/H/K, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (PT6A-41)

No. of Engines 2 Engine Rating 850 SHP

Min. T/O Wt. 8.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,860 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.8 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,120 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	1	1	1	1	1	1	1	1
13	3	3	3	3	2	3	3	3

Figure A-97. U-21J

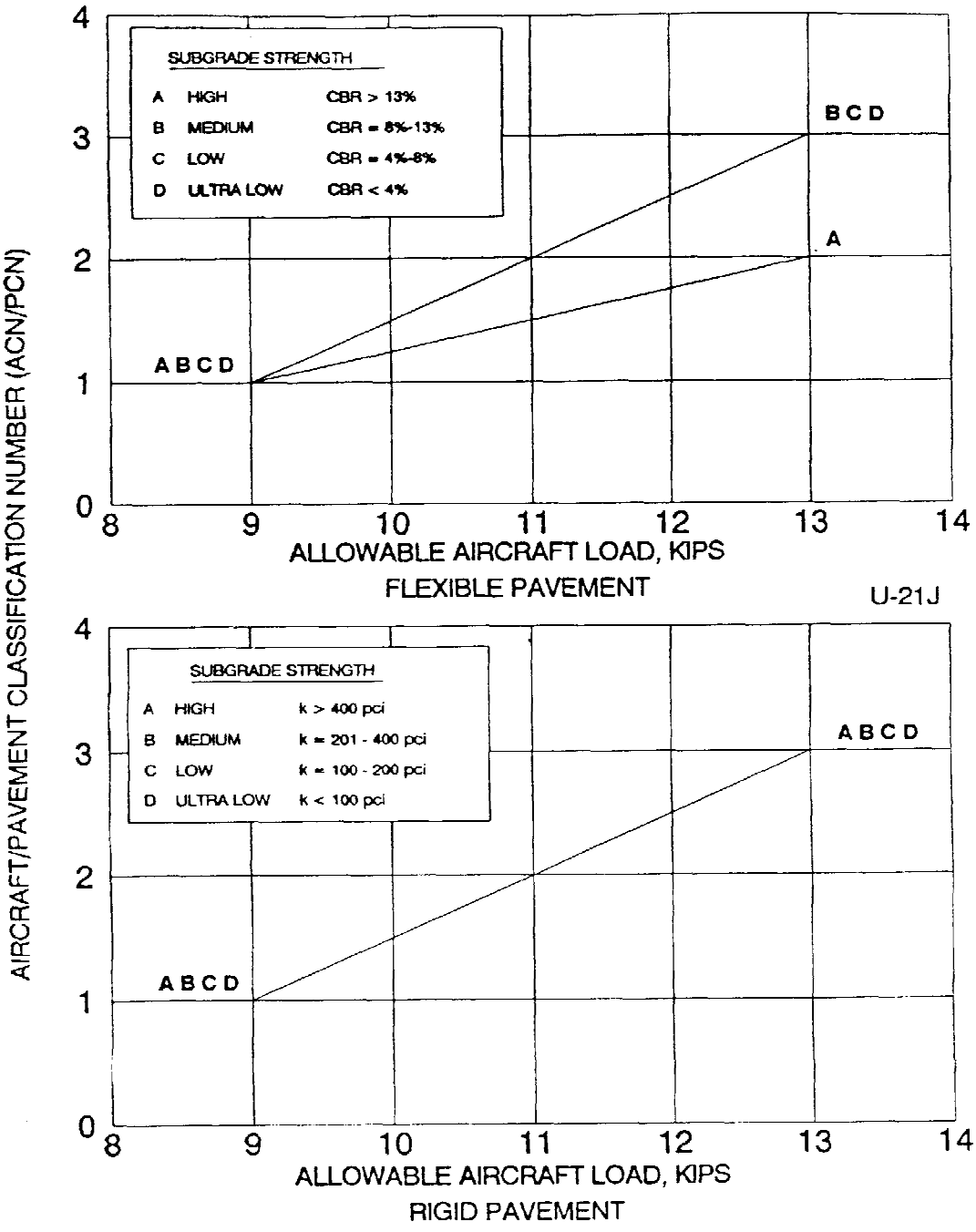


Figure A-98. U-21J, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (J79-GE-15)

No. of Engines 2 Engine Rating 17,000 lb

Min. T/O Wt. 35.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 52.8 k-lb Max. T/O Wt. War-Time 58.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 33.6 k-lb Max. Ldg. Wt. 46.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,430 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
34	12	12	13	13	13	14	14	14
46	19	19	19	19	20	20	20	19
53	23	23	23	23	24	24	24	23
58	26	26	25	25	27	26	26	25

Figure A-99. RF-4C, Phantom II

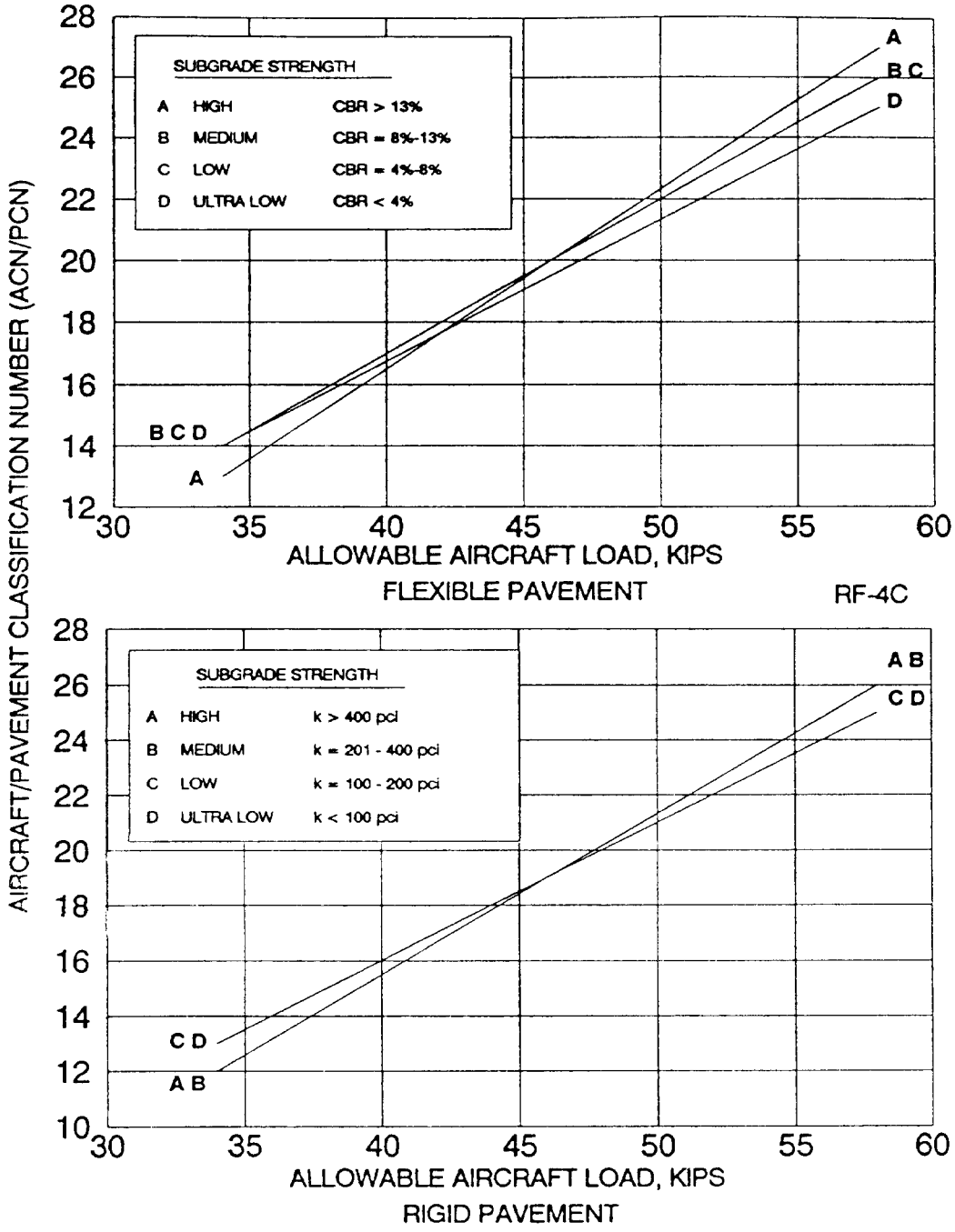


Figure A-100. RF-4C, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (PT6A-20)

No. of Engines 2 Engine Rating 550 SHP

Min. T/O Wt. 6.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 9.65 k-lb Max. T/O Wt. War-Time 9.65 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 6.8 k-lb Max. Ldg. Wt. 9.17 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	2	2	2	2
9	3	3	3	3	3	3	3	3
10	3	3	3	3	3	3	3	4

Figure A-10l. RU-21A and U-21A/D/G

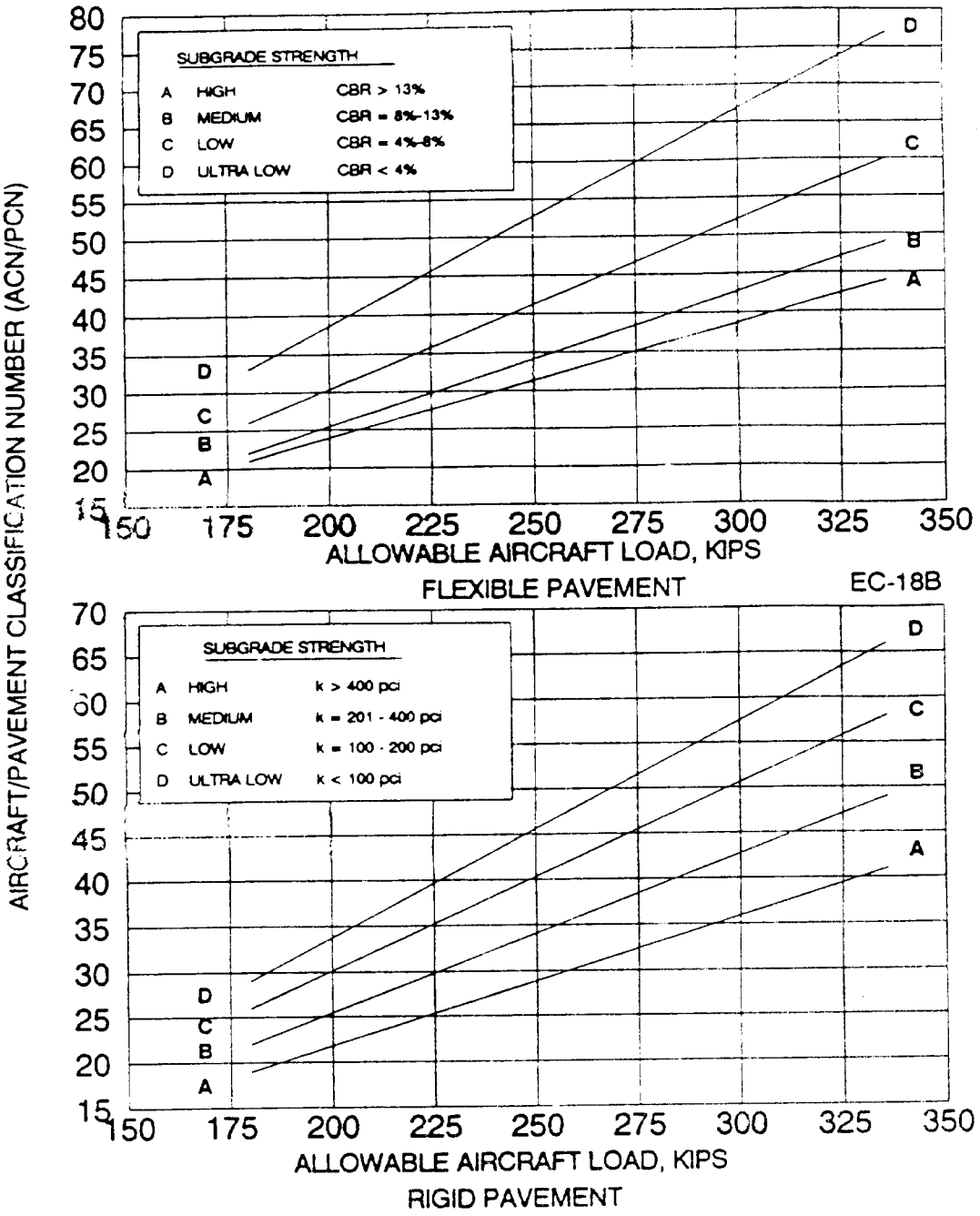


Figure A-62. EC-18B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-15)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 80.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 750 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 175.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,500 ft

Min. Ldg. Wt. 100.0 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
100	15	17	19	21	12	15	18	21
155	29	32	35	37	25	29	32	37
175	34	37	41	43	30	34	37	43

Figure A-63. EC-130E/H, Hercules

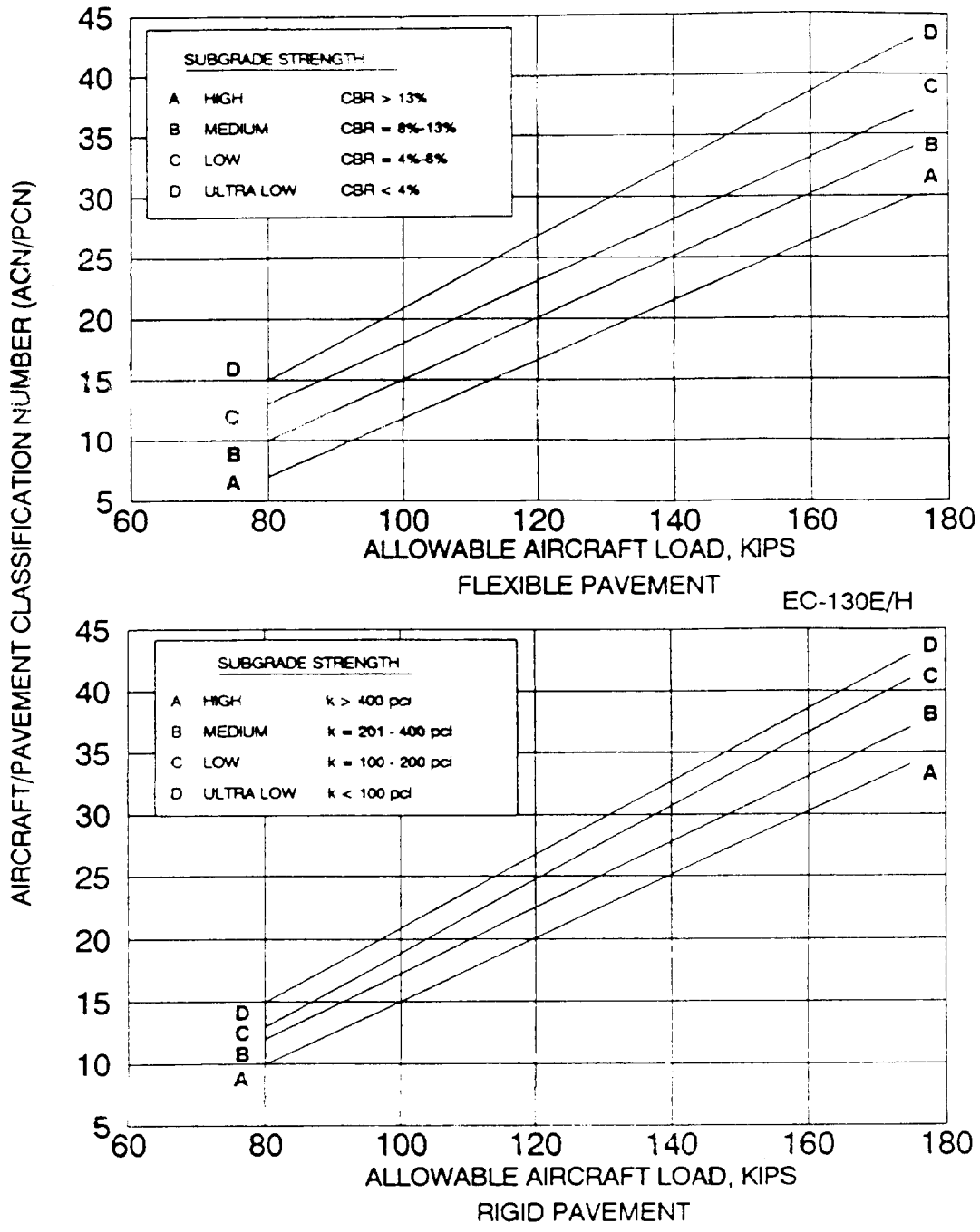


Figure A-64. EC-130E/H, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-15)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 750 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 175.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,500 ft

Min. Ldg. Wt. 90.0 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
90	13	14	16	17	10	12	16	19
155	29	32	35	37	26	29	32	37
175	34	38	41	43	31	34	37	43

Figure A-65. MC-130E/H, Hercules

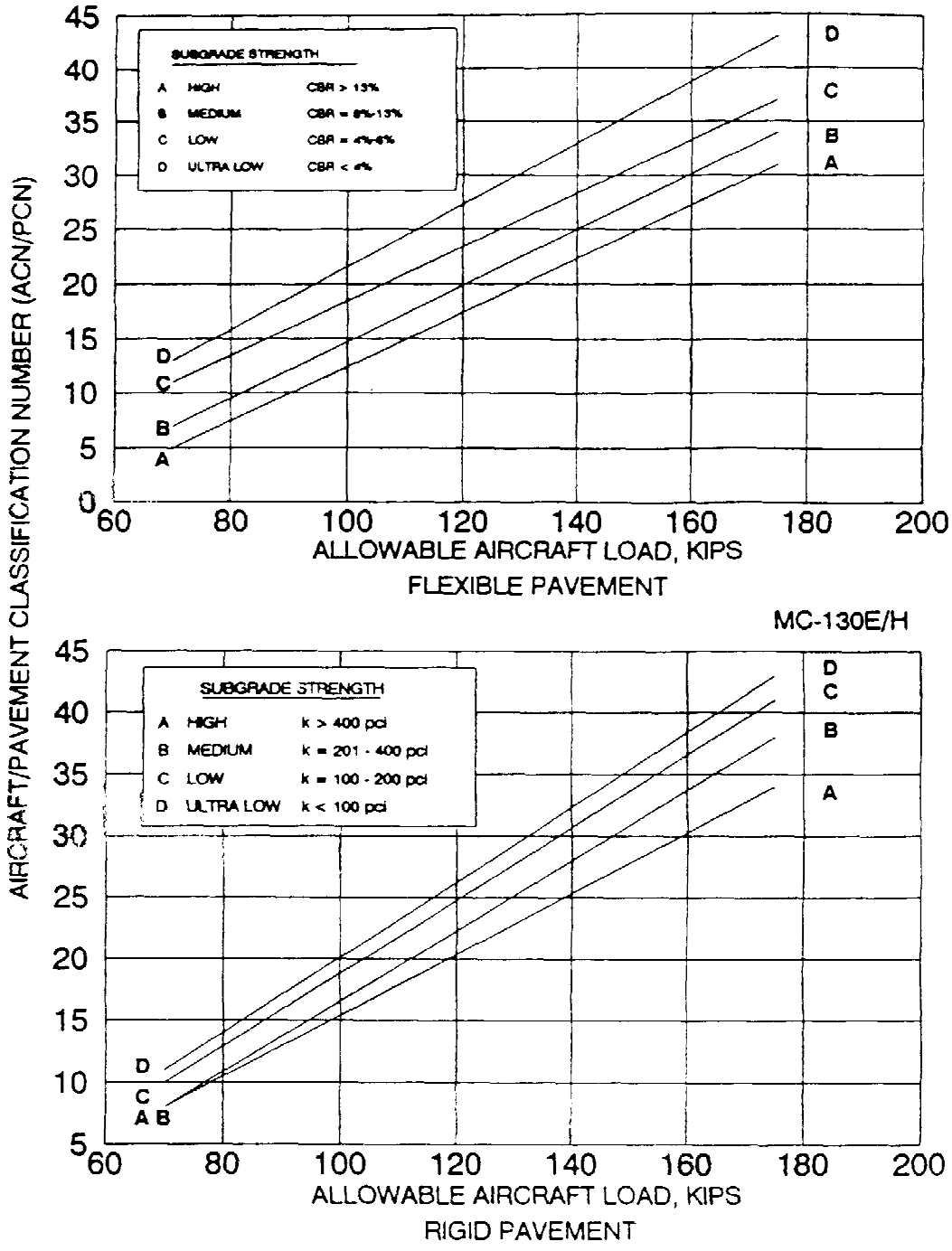


Figure A-66. MC-130E/H, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-15)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 750 ft

* Min. T/O Dist @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 175.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,500 ft

Min. Ldg. Wt. 90.0 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
90	13	14	16	17	10	12	16	19
155	29	32	35	37	26	29	32	37
175	34	38	41	43	31	34	37	43

Figure A-67. WC-130E/H, Hercules

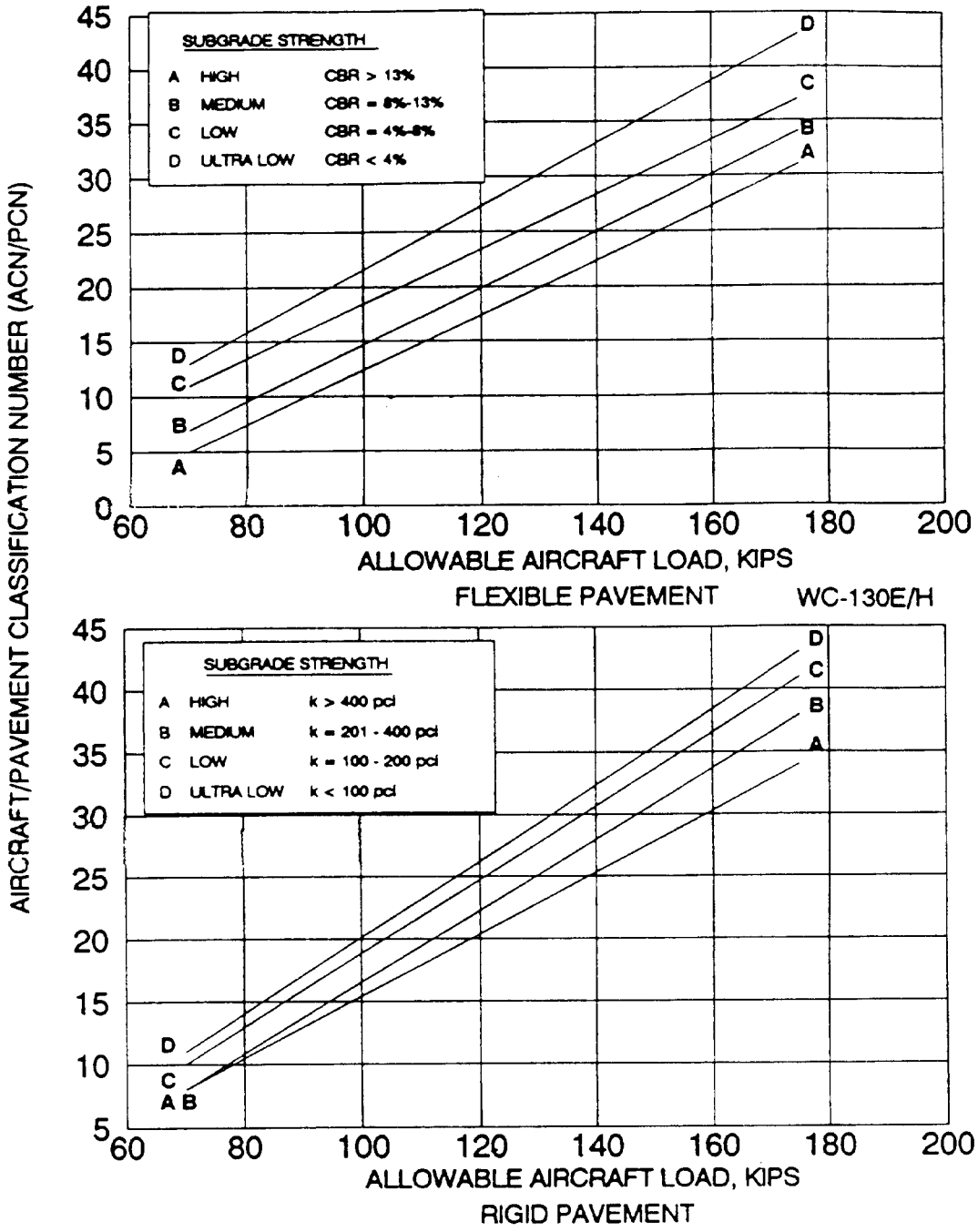


Figure A-68. WC-130E/N, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (J57-P-59W)

No. of Engines 4 Engine Rating 13,750 lb

Min. T/O Wt. 140.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,000 ft

Max. T/O Wt. Peace-Time 300.8 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 12,800 ft

Min. Ldg. Wt. 107.1 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,970 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
107	5	6	7	9	5	7	9	12
297	33	40	49	55	33	40	48	55
301	34	41	50	56	34	41	49	56
302	34	41	50	56	34	41	49	56

Figure A-69. EC-135A/G/L

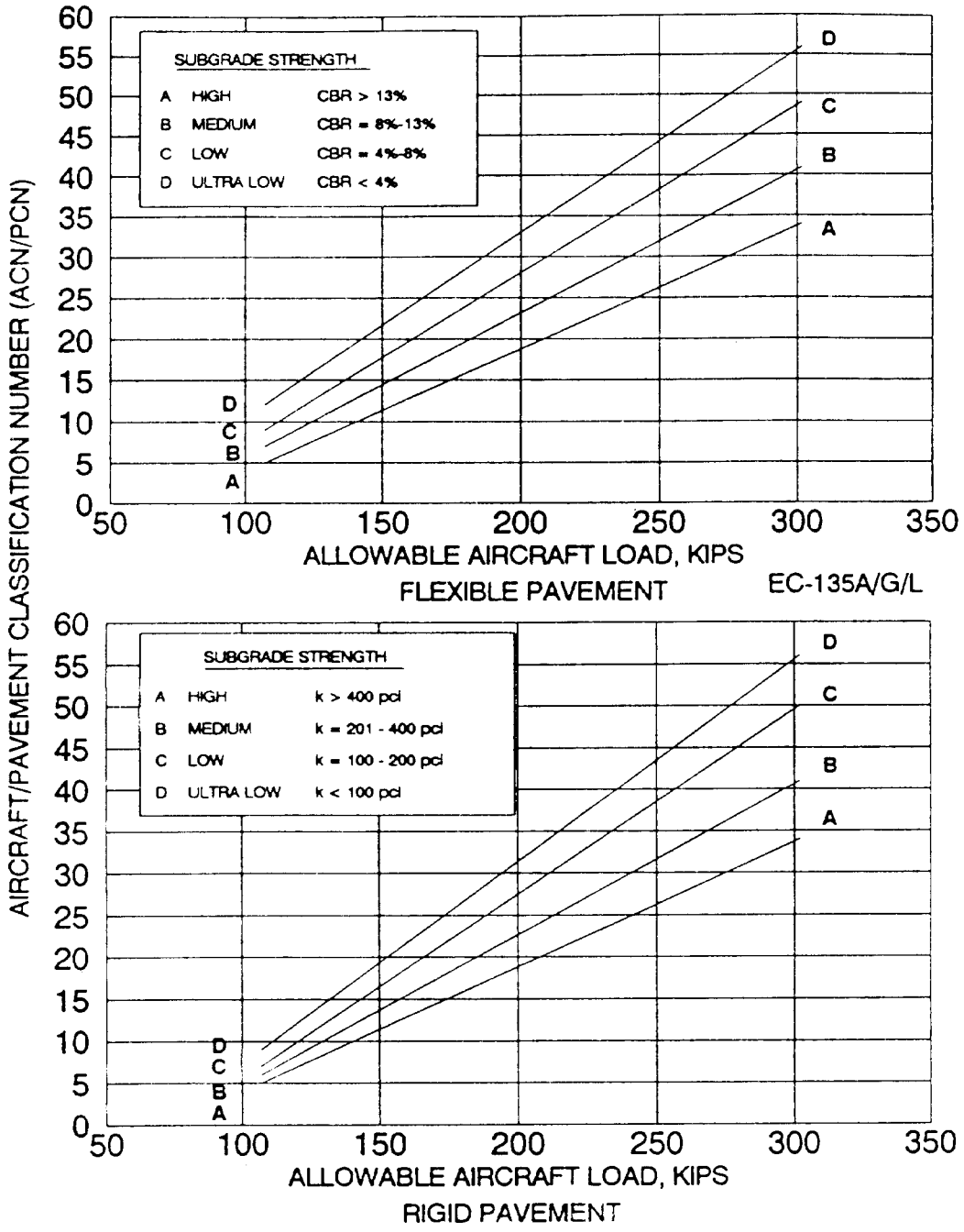


Figure A-70. EC-135A/G/L, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-9)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 160.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,100 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,500 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,530 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,800 ft

Min. Ldg. Wt. 146.4 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,760 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
146	11	13	15	18	11	14	17	21
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-71. EC-135C/J

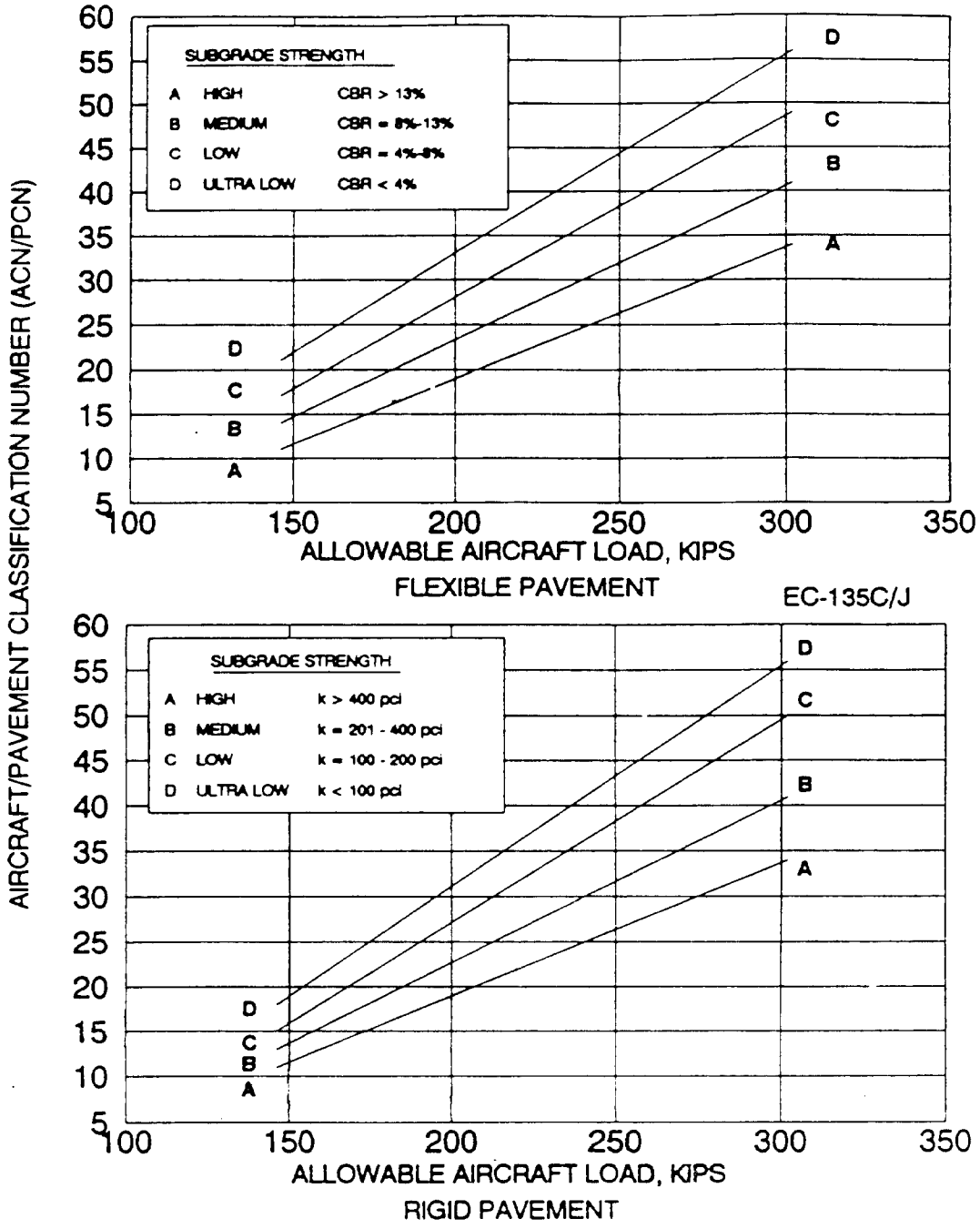


Figure A-72. EC-135C/J, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-PW-102)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 160.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,100 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,500 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,530 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,800 ft

Min. Ldg. Wt. 146.4 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,760 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
146	11	13	16	18	11	13	17	21
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-73. EC-135E/H/K/P/Y

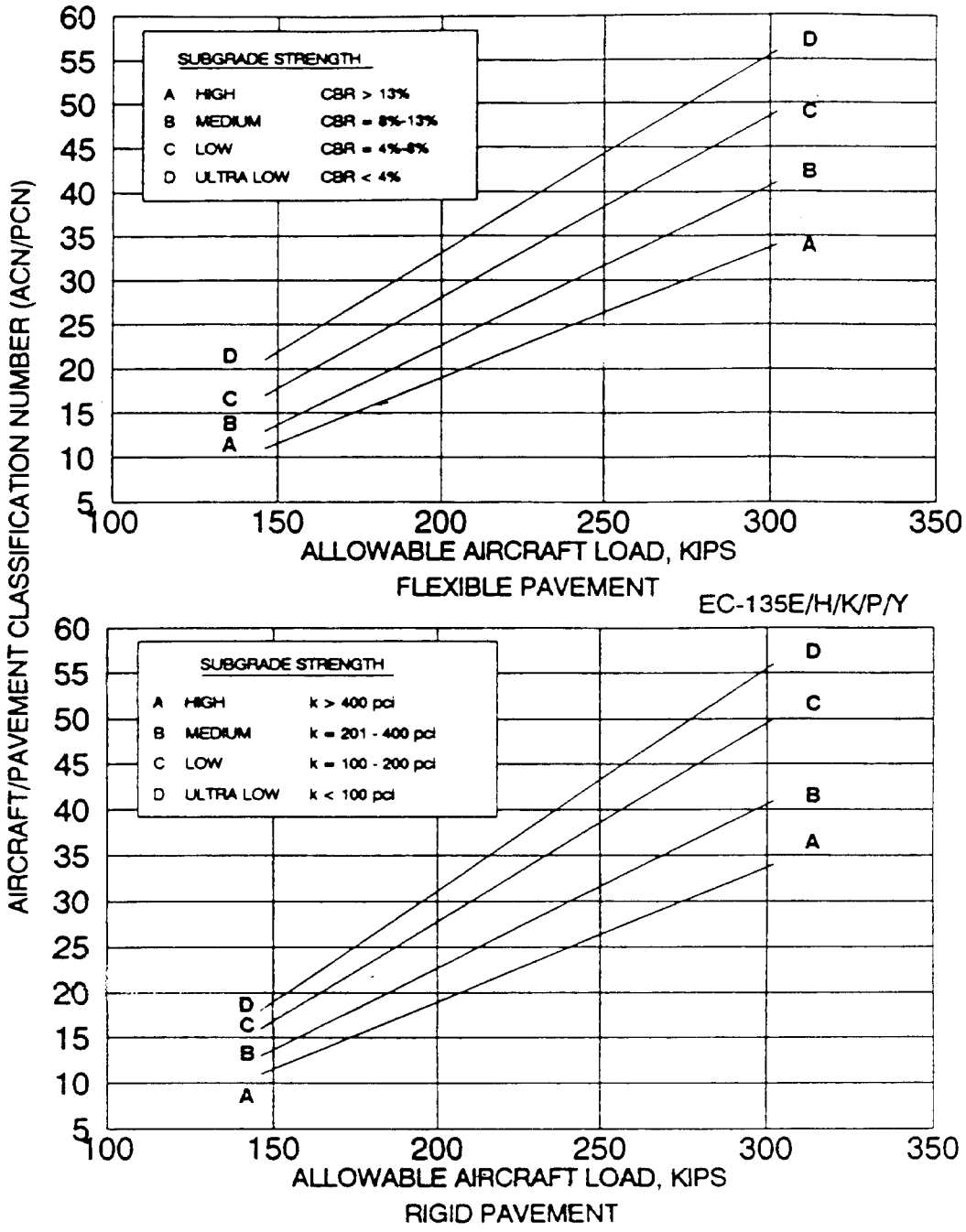


Figure A-74. EC-l35E/H/K/P/Y, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-5)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 180.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,400 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,250 ft

Min. Ldg. Wt. 167.1 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,820 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
167	15	17	20	23	14	17	21	26
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-75. RC-135S/W

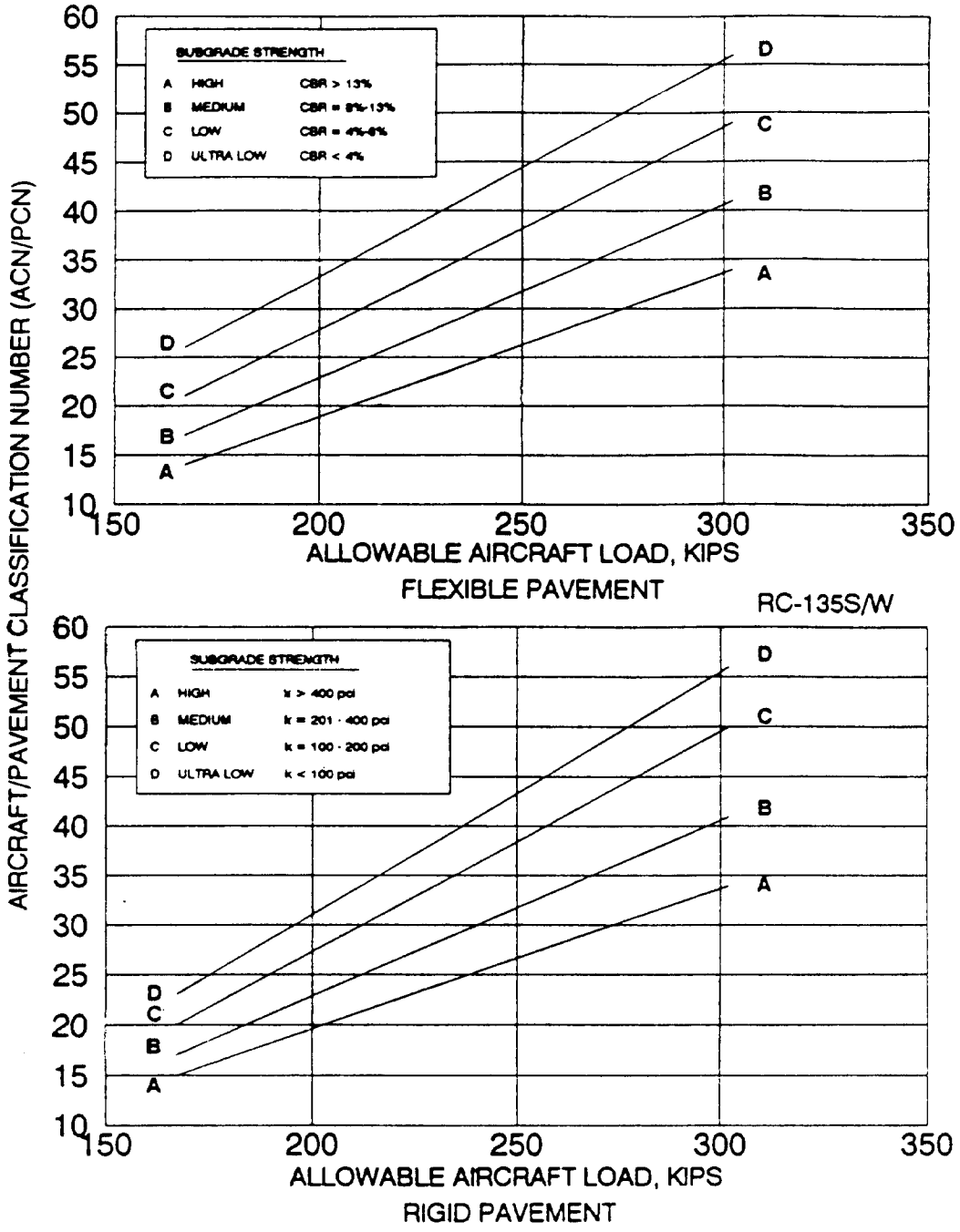


Figure A-76. RG-135S/W, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-9)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 160.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,100 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,500 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,530 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,800 ft

Min. Ldg. Wt. 146.4 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,760 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
146	11	13	15	18	11	13	17	21
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-77. RC-135U/V

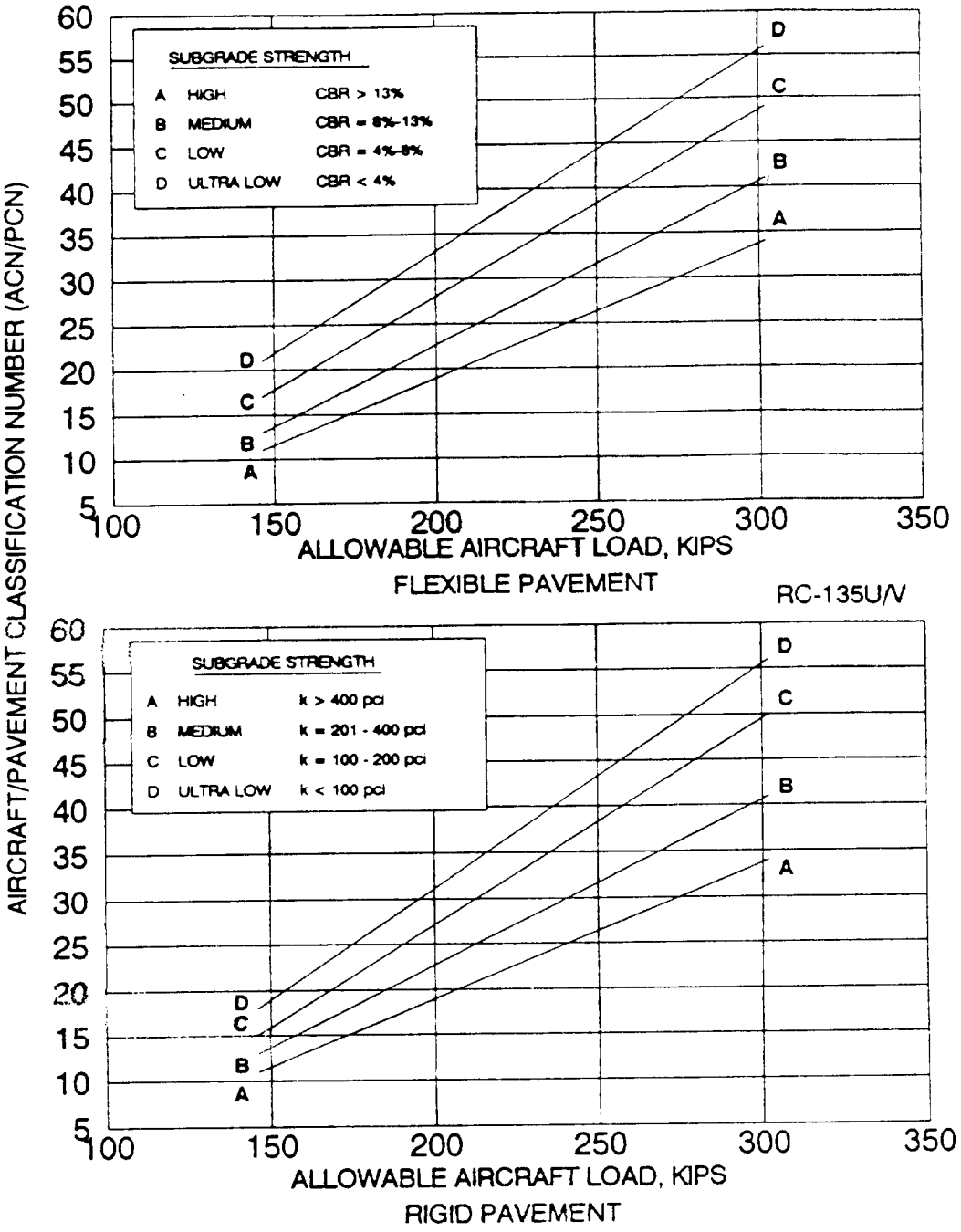


Figure A-78. RG-135U/V, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (TF33-P-5)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 140.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 301.6 k-lb Max. T/O Wt. War-Time 301.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,250 ft

Min. Ldg. Wt. 124.0 k-lb Max. Ldg. Wt. 297.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,250 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
124	8	9	11	13	8	9	12	17
297	33	40	49	55	33	40	48	55
302	34	41	50	56	34	41	49	56

Figure A-79. WC-135B

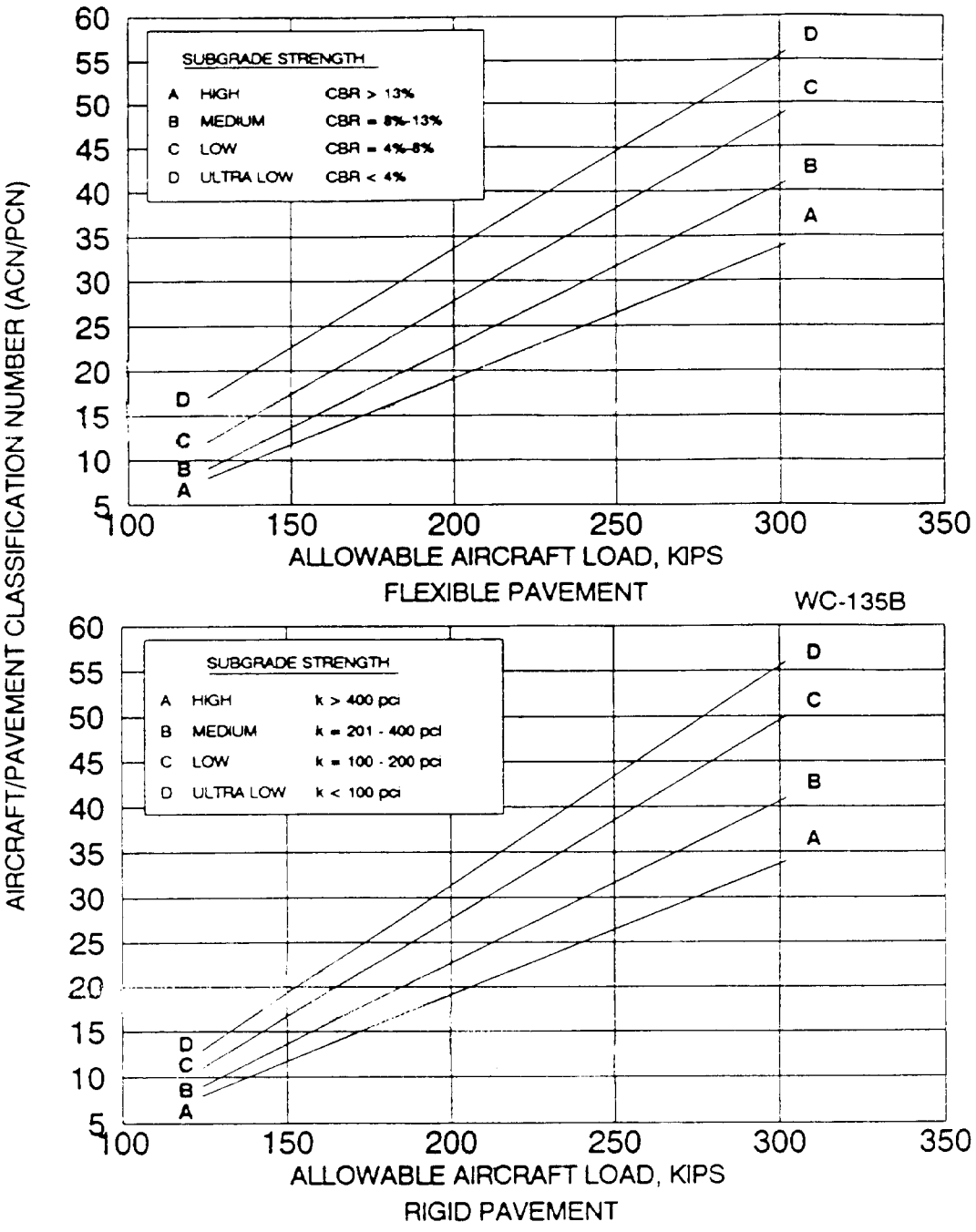


Figure A-80. WC-135B, ACN/PCN Curves

Aircraft Manufacturer: General Dynamics/Grumman

Aircraft Engine Manufacturer: Pratt and Whitney (TF30-P-3)

No. of Engines: 2 Engine Rating: 18,500 lb

Min. T/O Wt.: 61.7 k-lb * Min. T/O Dist. @ Min. T/O Wt.: 1,700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist.: 4,000 ft

Max. T/O Wt. Peace-Time: 89.2 k-lb Max. T/O Wt. War-Time: 100.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time: 5,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist.: 13,000 ft

Min. Ldg. Wt.: 60.1 k-lb Max. Ldg. Wt.: 82.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt.: 1,770 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt.: 6,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
60	22	22	23	23	24	26	27	27
83	35	35	35	36	37	38	38	38
89	38	39	38	40	41	41	41	41
100	44	45	44	46	47	47	47	46

Figure A-81. EF-111A, Raven

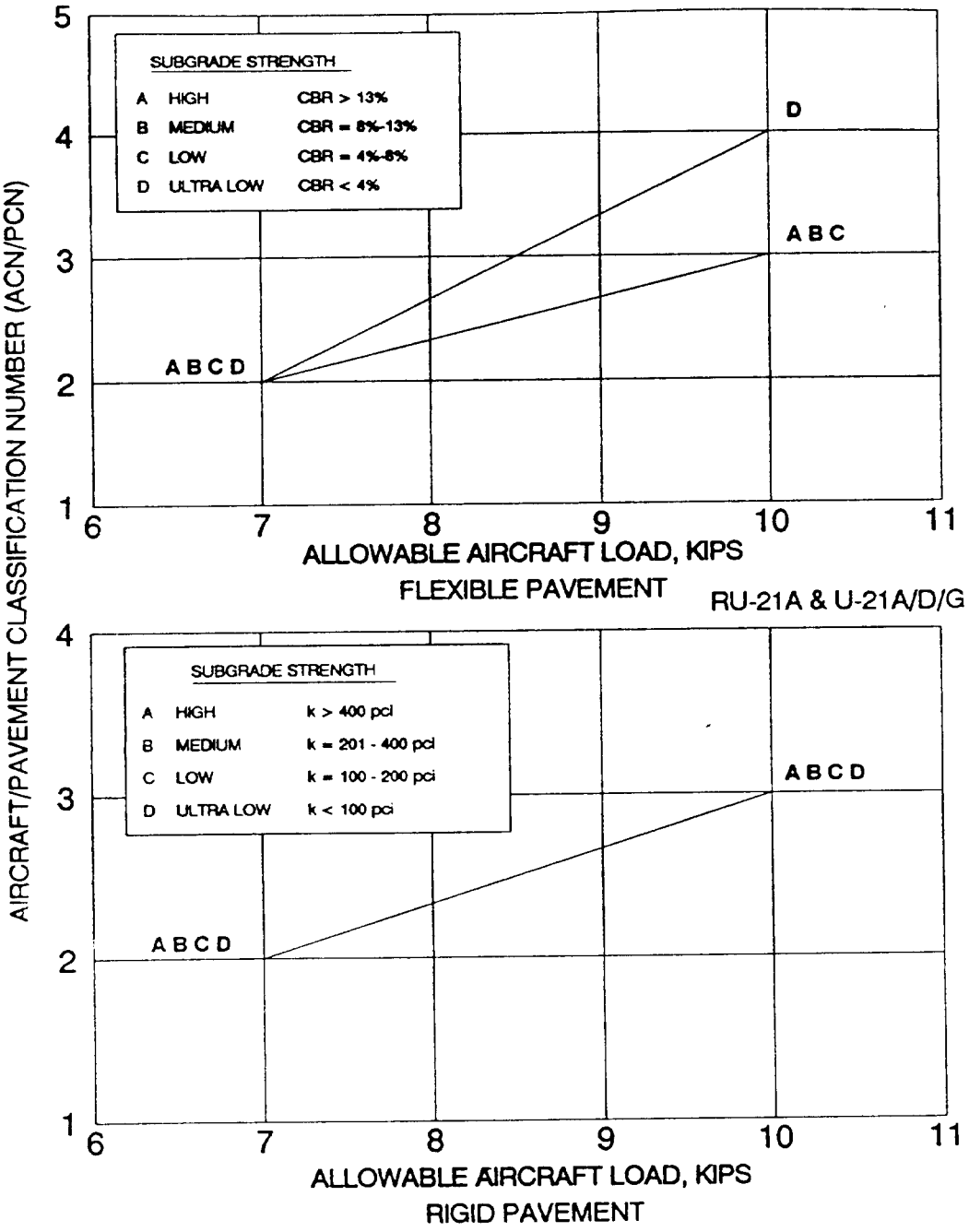


Figure A-102. RU-21A and U-21A/D/G, ACN/PCN Curves

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (T74-CP-700)

No. of Engines 2 Engine Rating 550 SHP

Min. T/O Wt. 7.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.2 k-lb Max. T/O Wt. War-Time 10.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 9.7 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8	3	3	3	3	3	3	3	3
10	3	3	3	3	3	3	3	4

Figure A-103. RU-21H

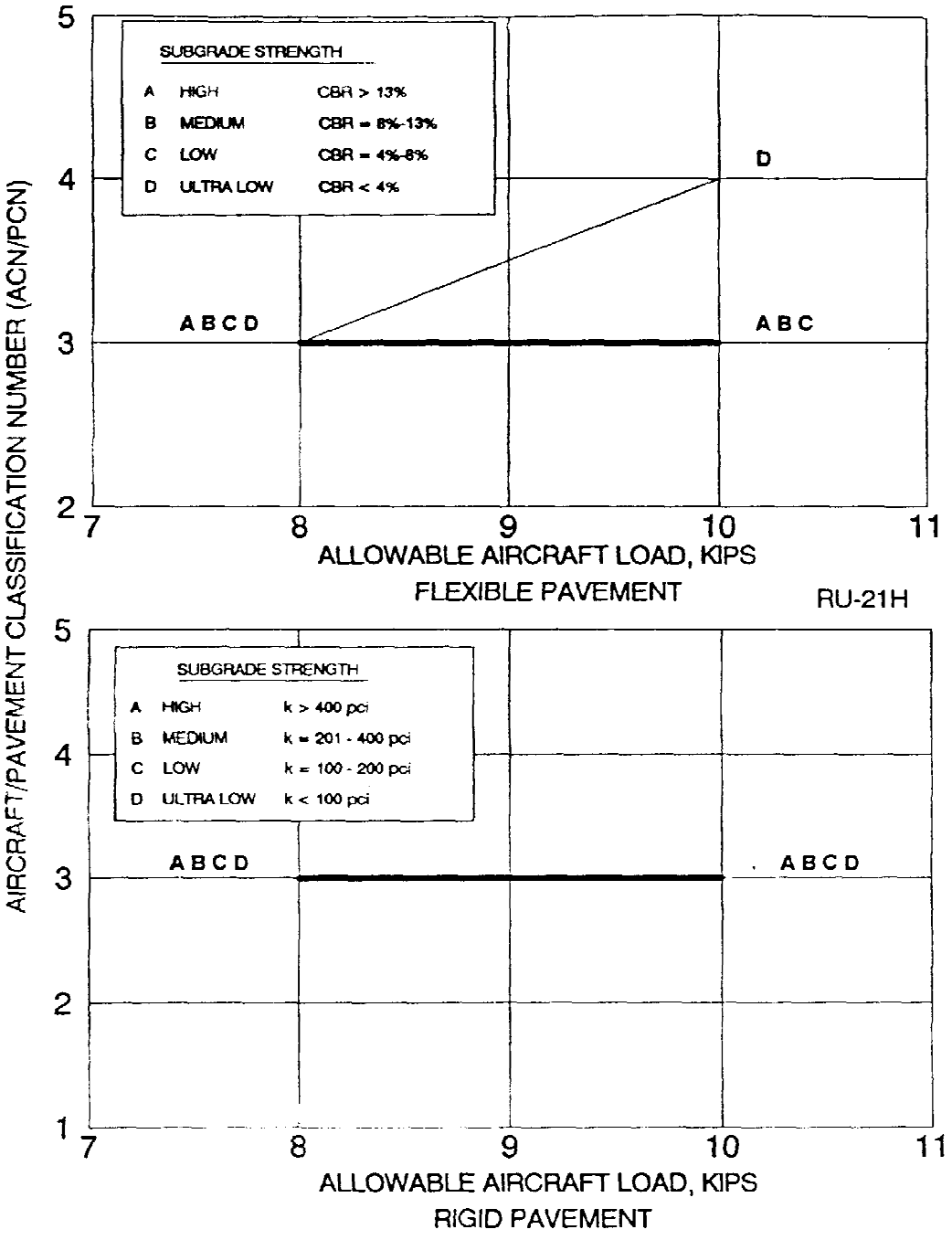


Figure A-104. RU-21H, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (JT11D-20B(J58))

No. of Engines 2 Engine Rating 32,500 lb

Min. T/O Wt. 84.4 k-lb (Estimated) * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 170.0 k-lb Max. T/O Wt. War-Time 170.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,400 ft (Estimated)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 84.4 k-lb (Estimated) Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,600 ft (Estimated)

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
84	23	26	27	27	17	18	19	21
170	59	68	68	67	42	44	45	46

Figure A-105. SR-71A, Blackbird

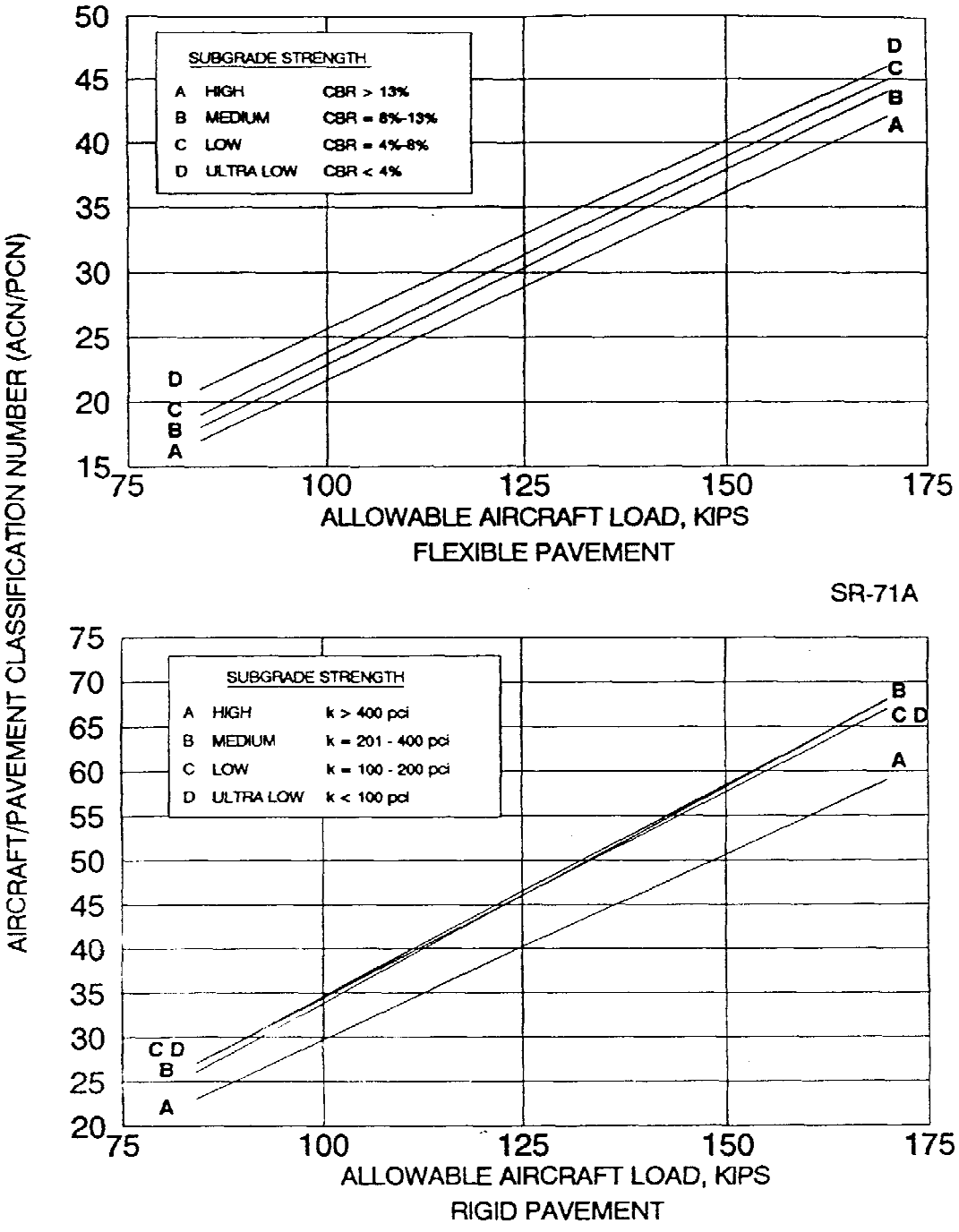


Figure A-106. SR-71A, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (J75-P-13B)

No. of Engines 1 Engine Rating 17,000 lb

Min. T/O Wt. † * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 40.0 k-lb Max. T/O Wt. War-Time 40.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. † Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-107. TR-lA

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (J75-P-13)

No. of Engines 1 Engine Rating 17,000 lb

Min. T/O Wt. † * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 19.9 k-lb Max. T/O Wt. War-Time 19.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 790 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. † Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-108. U-2B/C

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Lycoming (O-480-3A)

No. of Engines 2 Engine Rating 340 BHP

Min. T/O Wt. 6.10 k-lb * Min. T/O Dist. @ Min. T/O Wt. 720 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 7.70 k-lb Max. T/O Wt. War-Time 7.70 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,180 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 5.60 k-lb Max. Ldg. Wt. 7.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,060 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,700 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-109. U-8F, Seminole

Aircraft Manufacturer Helio

Aircraft Engine Manufacturer Lycoming (GO-480-G1D6)

No. of Engines 1 Engine Rating 295 BHP

Min. T/O Wt. 2.70 k-lb * Min. T/O Dist. @ Min. T/O Wt. 290 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.00 k-lb Max. T/O Wt. War-Time 3.92 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 290 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.70 k-lb Max. Ldg. Wt. 3.92 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 180 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,920 lb/28 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-l10. U-10A, Helio-Courier

Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (PT6A-28)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 8.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.5 k-lb Max. T/O Wt. War-Time 11.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,900 ft

Min. Ldg. Wt. 8.0 k-lb Max. Ldg. Wt. 11.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 870 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,500 lb/103 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-111. U-21F

Aircraft Manufacturer De Havilland Canada

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-27)

No. of Engines 2 Engine Rating 620 SHP

Min. T/O Wt. 7.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.0 k-lb Max. Ldg. Wt. 12.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 850 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,050 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
12	3	3	3	3	3	3	3	4
13	4	4	4	4	3	3	3	5

Figure A-112. UV-18, Twin Otter

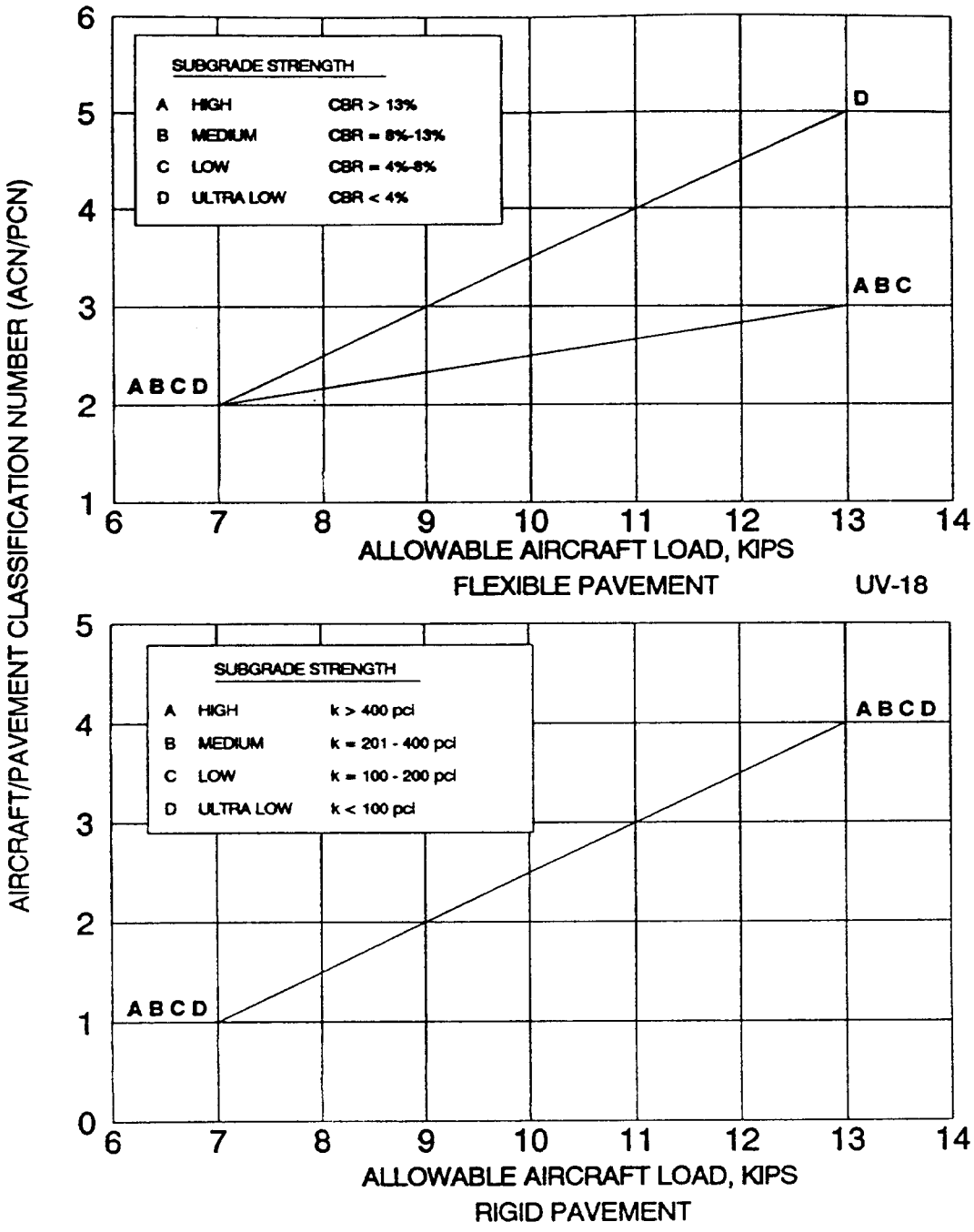


Figure A-113. UV-18, ACN/PCN Curves

Aircraft Manufacturer LTV

Aircraft Engine Manufacturer Allison (TF41-A-1)

No. of Engines 1 Engine Rating 13,390 lb

Min. T/O Wt. 22.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.0 k-lb Max. T/O Wt. War-Time 42.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,380 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 24.0 k-lb Max. Ldg. Wt. 37.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 8,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
24	9	9	9	9	9	9	9	9
37	16	16	16	15	15	14	14	14
42	18	18	18	17	17	16	16	16

Figure A-114. A-7D/K, Corsair II

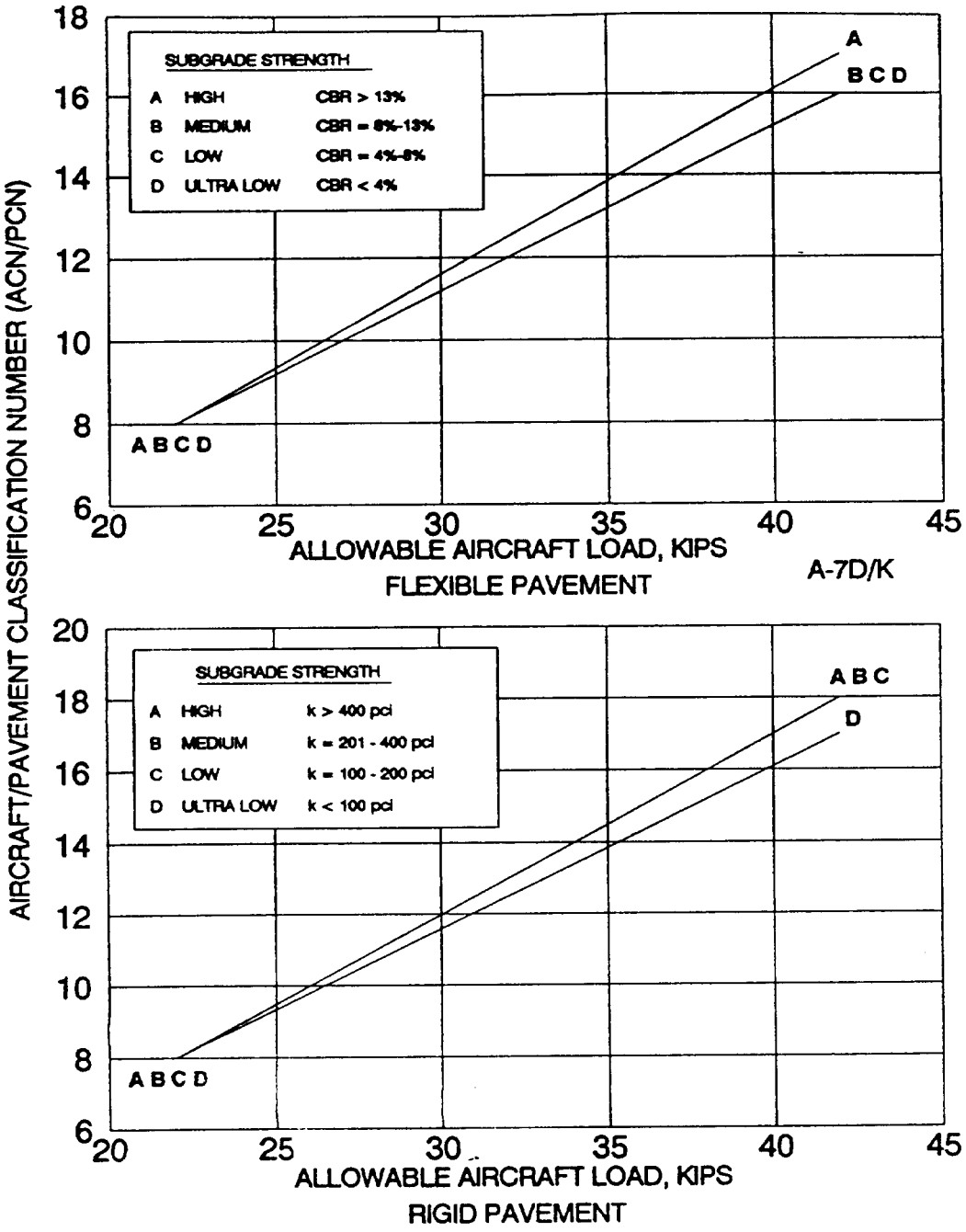


Figure A-115. A-7D/K, ACN/PCN Curves

Aircraft Manufacturer Fairchild

Aircraft Engine Manufacturer General Electric (TF34-GE-100)

No. of Engines 2 Engine Rating 8,900 lb

Min. T/O Wt. 28.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,000 ft

Max. T/O Wt. Peace-Time 50.0 k-lb Max. T/O Wt. War-Time 50.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,000 ft

Min. Ldg. Wt. 25.0 k-lb Max. Ldg. Wt. 33.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
25	8	8	8	9	8	9	9	10
33	12	12	12	13	12	13	13	13
50	21	21	21	21	20	20	20	20

Figure A-116. A-10A, Thunderbolt II

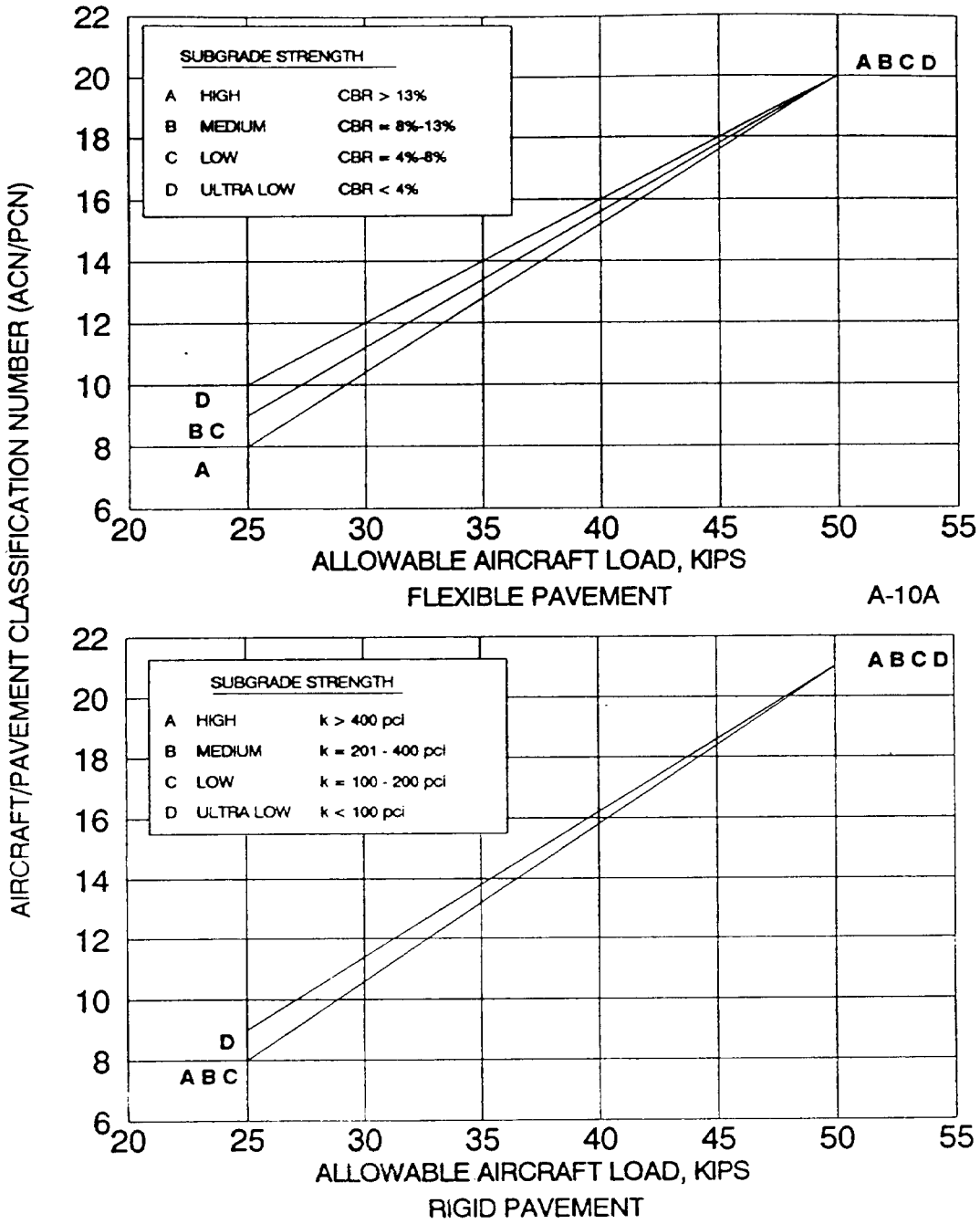


Figure A-117. A-10A, ACN/FCN Curves

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer General Electric (J85-GE-17A)

No. of Engines 2 Engine Rating 2,850 lb

Min. T/O Wt. 8.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 14.0 k-lb Max. T/O Wt. War-Time 14.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 14.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,920 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,150 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8	2	2	2	2	1	2	2	2
14	5	5	5	5	4	5	5	5

Figure A-118. A-37B, Dragonfly

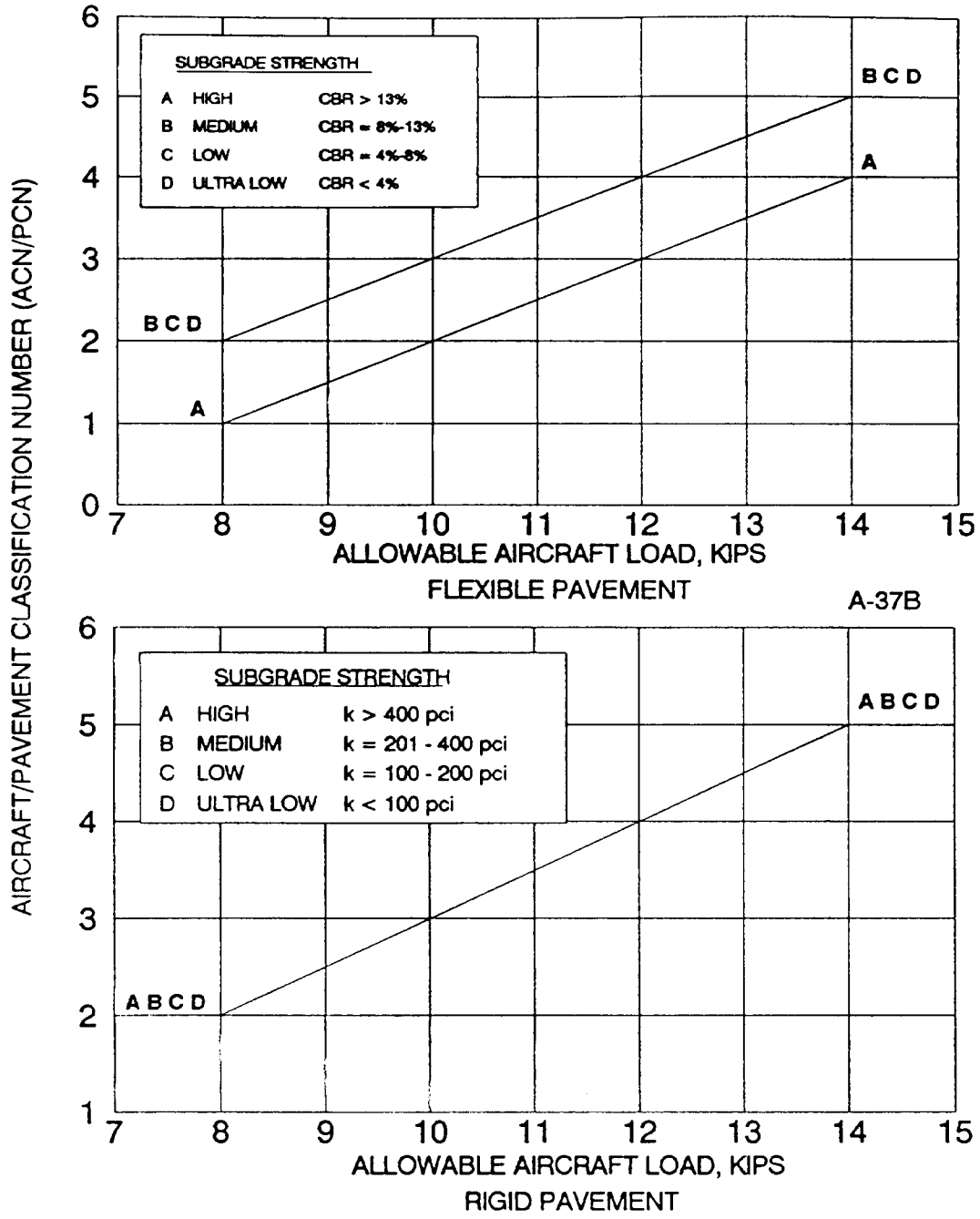


Figure A-119. A-37B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-9)

No. of Engines 4 Engine Rating 3,750 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,450 ft

Max. T/O Wt. Peace-Time 124.2 k-lb Max. T/O Wt. War-Time 124.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,800 ft

Min. Ldg. Wt. 96.0 k-lb Max. Ldg. Wt. 124.2 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
96	14	16	18	19	11	14	17	21
124	21	24	26	28	18	21	24	29

Figure A-120. AC-130A, Spectre

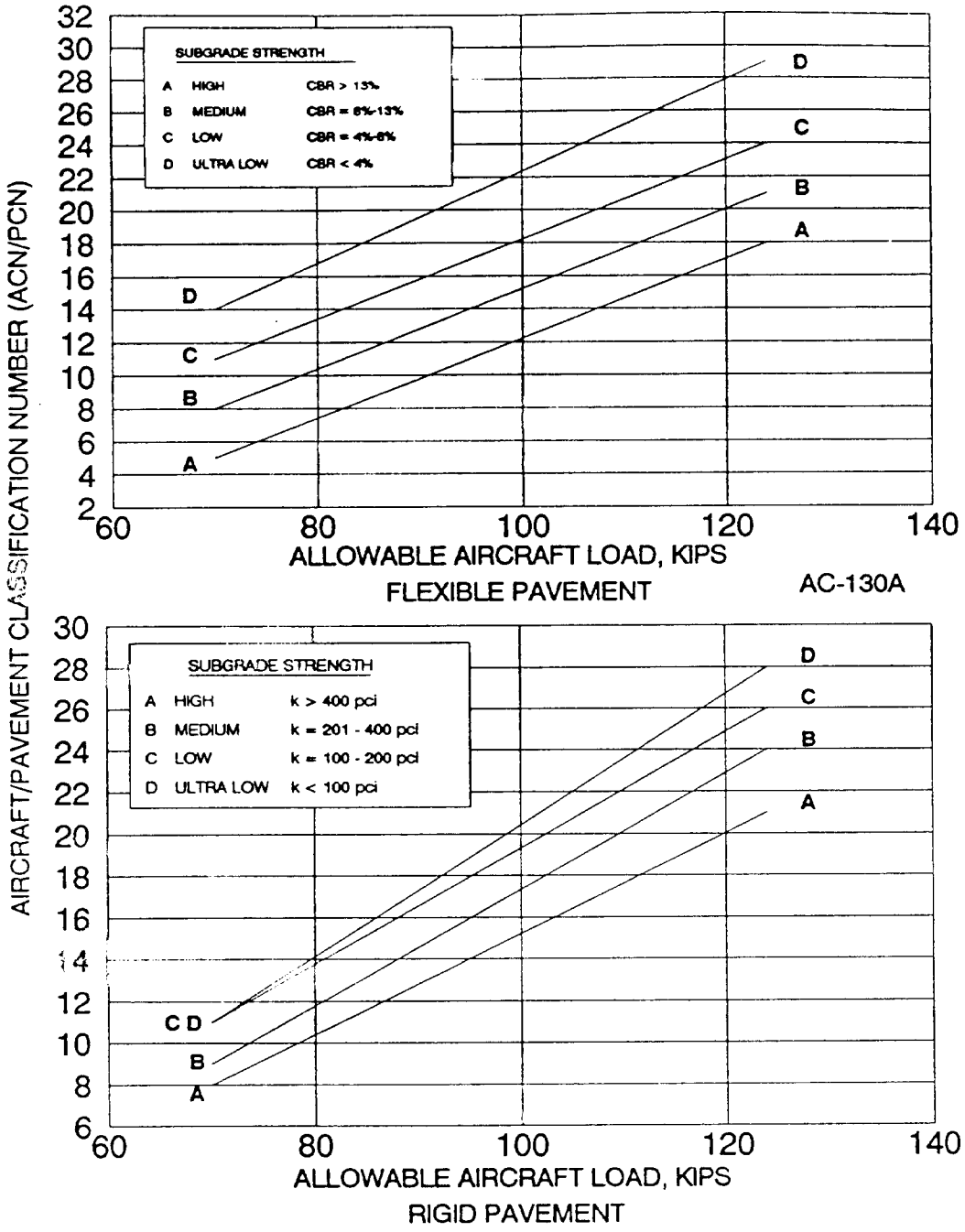


Figure A-121. AC-130A, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-15)

No. of Engines 4 Engine Rating 4910 ESHP

Min. T/O Wt. 80.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 750 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,900 ft

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 175.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 5,500 ft

Min. Ldg. Wt. 100.0 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
100	16	17	19	21	13	14	19	22
155	29	32	35	37	25	29	32	37
175	34	37	41	43	30	34	37	43

Figure A-122. AC-130H/U, Spectre

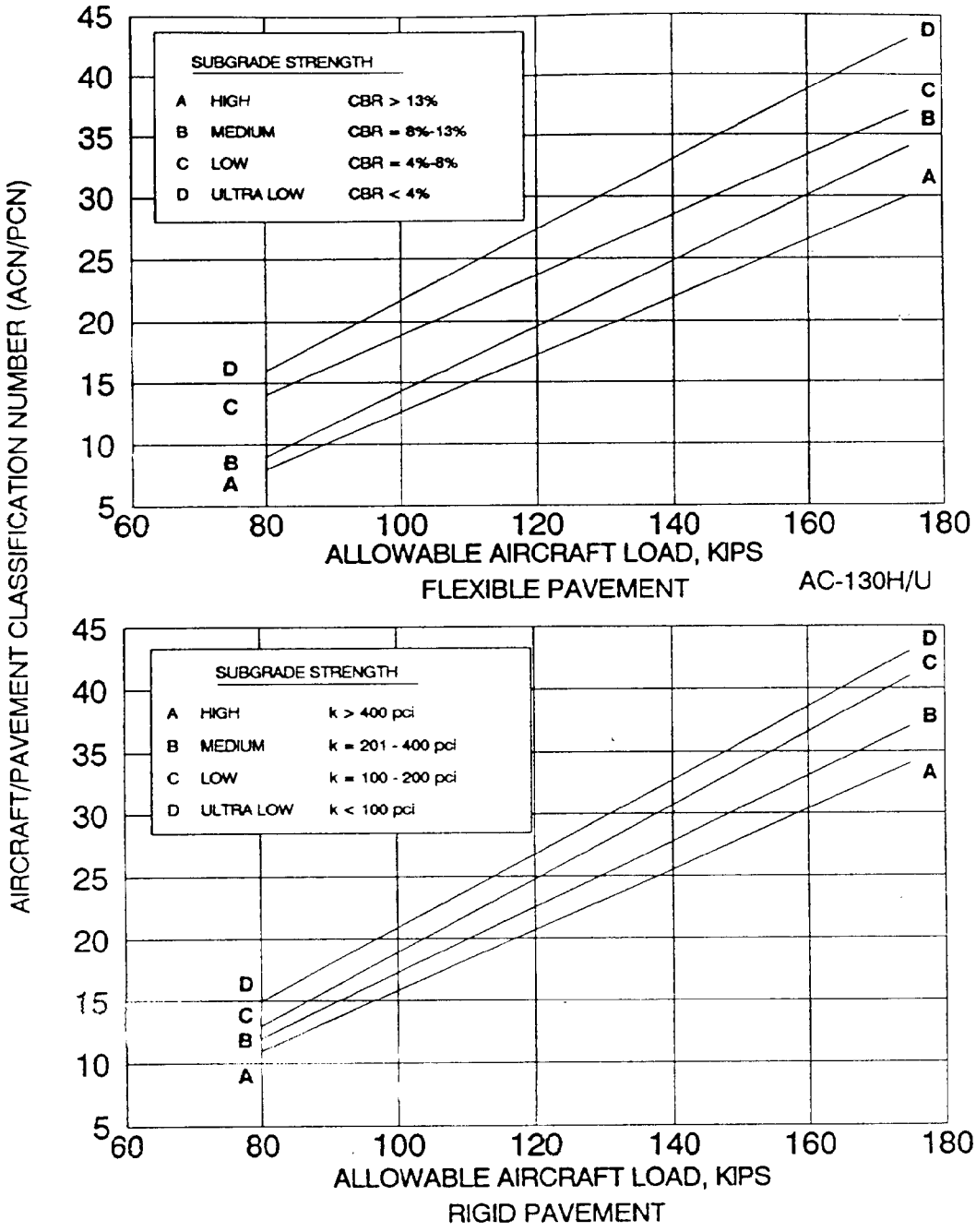


Figure A-123. AC-130H/U, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (J79-GE-15)

No. of Engines 2 Engine Rating 17,000 lb

Min. T/O Wt. 35.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 51.7 k-lb Max. T/O Wt. War-Time 58.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 33.9 k-lb Max. Ldg. Wt. 46.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,450 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
34	12	13	13	13	14	14	14	14
46	19	20	19	19	21	20	20	19
52	23	23	22	22	24	23	23	22
58	26	26	25	25	27	26	26	25

Figure A-124. F-4C, Phantom II

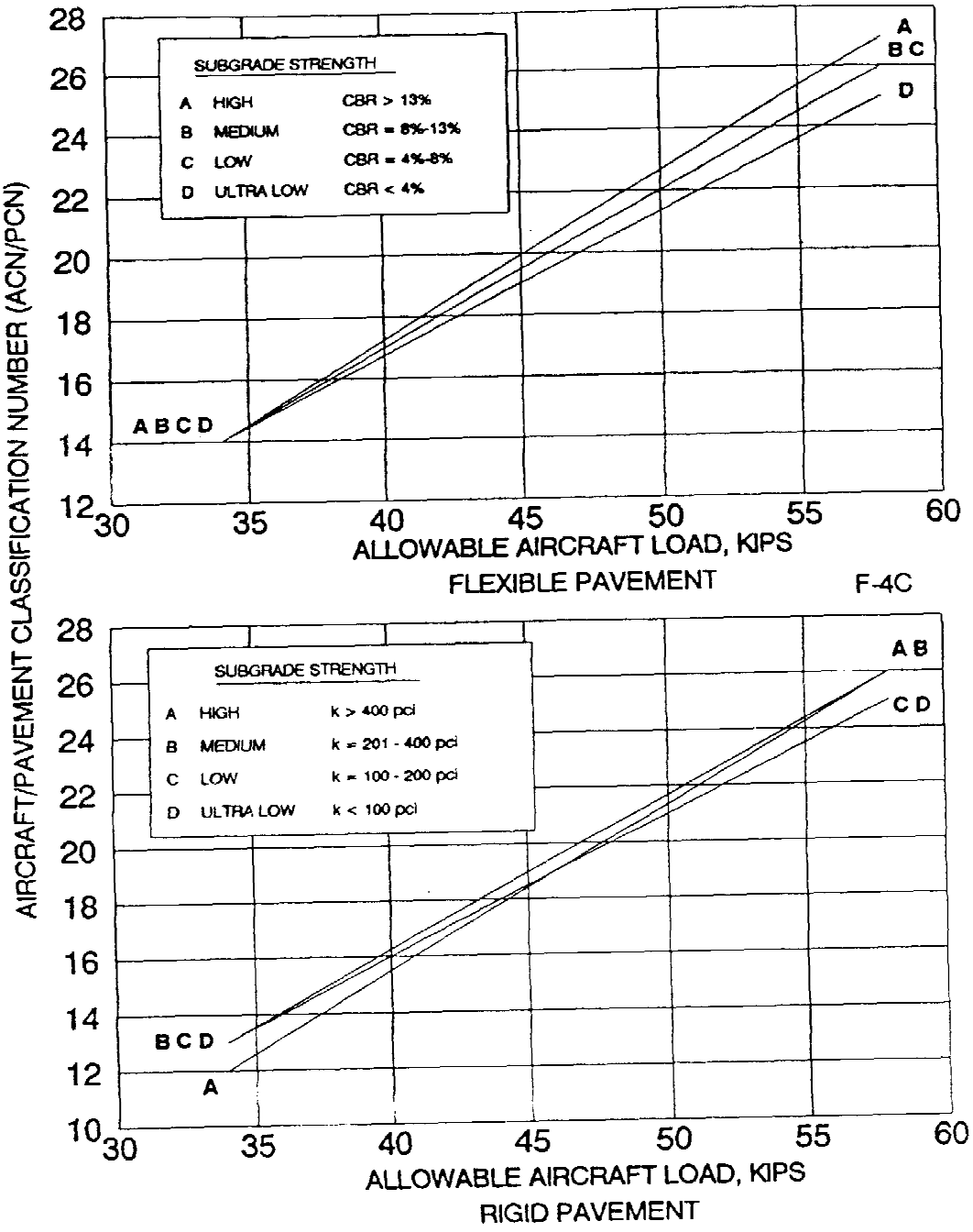


Figure A-125. F-4C, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (J79-GE-15)

No. of Engines 2 Engine Rating 17,000 lb

Min. T/O Wt. 35.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 51.5 k-lb Max. T/O Wt. War-Time 58.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 34.2 k-lb Max. Ldg. Wt. 46.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,460 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
34	12	13	13	13	14	14	14	14
46	19	20	19	19	21	20	20	19
52	23	23	22	22	24	23	23	22
58	26	26	25	25	27	26	26	25

Figure A-126. F-4D, Phantom II

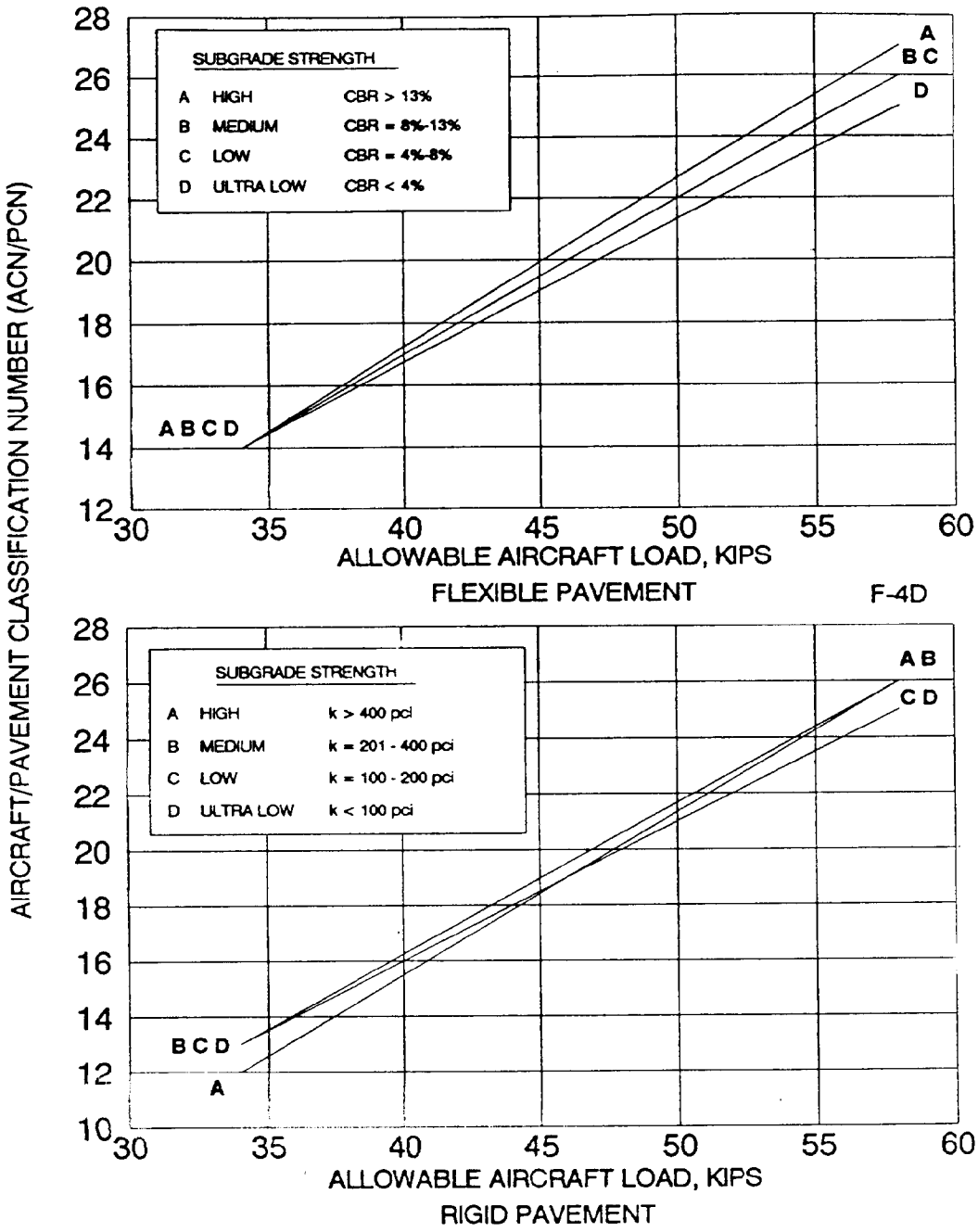


Figure A-127. F-4D, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (J79-GE-17)

No. of Engines 2 Engine Rating 17,900 lb

Min. T/O Wt. 38.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 53.8 k-lb Max. T/O Wt. War-Time 58.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 36.8 k-lb Max. Ldg. Wt. 46.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,040 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
37	14	15	15	15	16	16	16	15
46	19	20	19	19	21	20	20	19
54	24	24	23	23	25	24	24	23
58	26	26	25	25	27	26	26	25

Figure A-128. F-4E, Phantom II

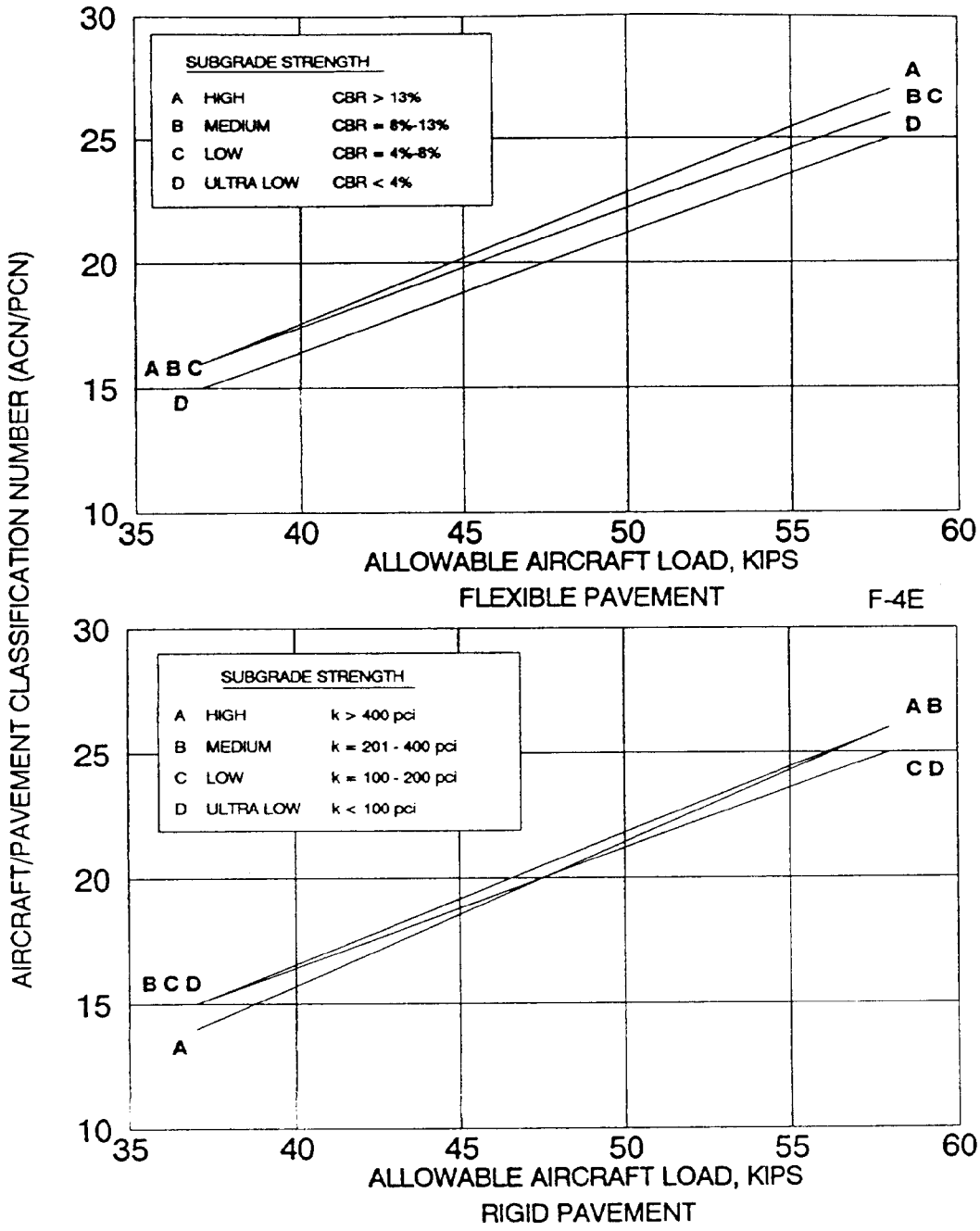


Figure A-129. F-4E, ACN/PCN Curves

Aircraft Manufacturer Northrop

Aircraft Engine Manufacturer General Electric (J85-21)

No. of Engines 2 Engine Rating 4,650 lb

Min. T/O Wt. 14.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,000 ft

Max. T/O Wt. Peace-Time 26.0 k-lb Max. T/O Wt. War-Time 26.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 12,000 ft

Min. Ldg. Wt. 10.0 k-lb Max. Ldg. Wt. 24.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	3	3	3	3	3	3	4	4
24	10	10	10	10	10	10	10	10
26	12	12	12	12	12	10	10	10

Figure A-130. F-5E/F, Tiger II

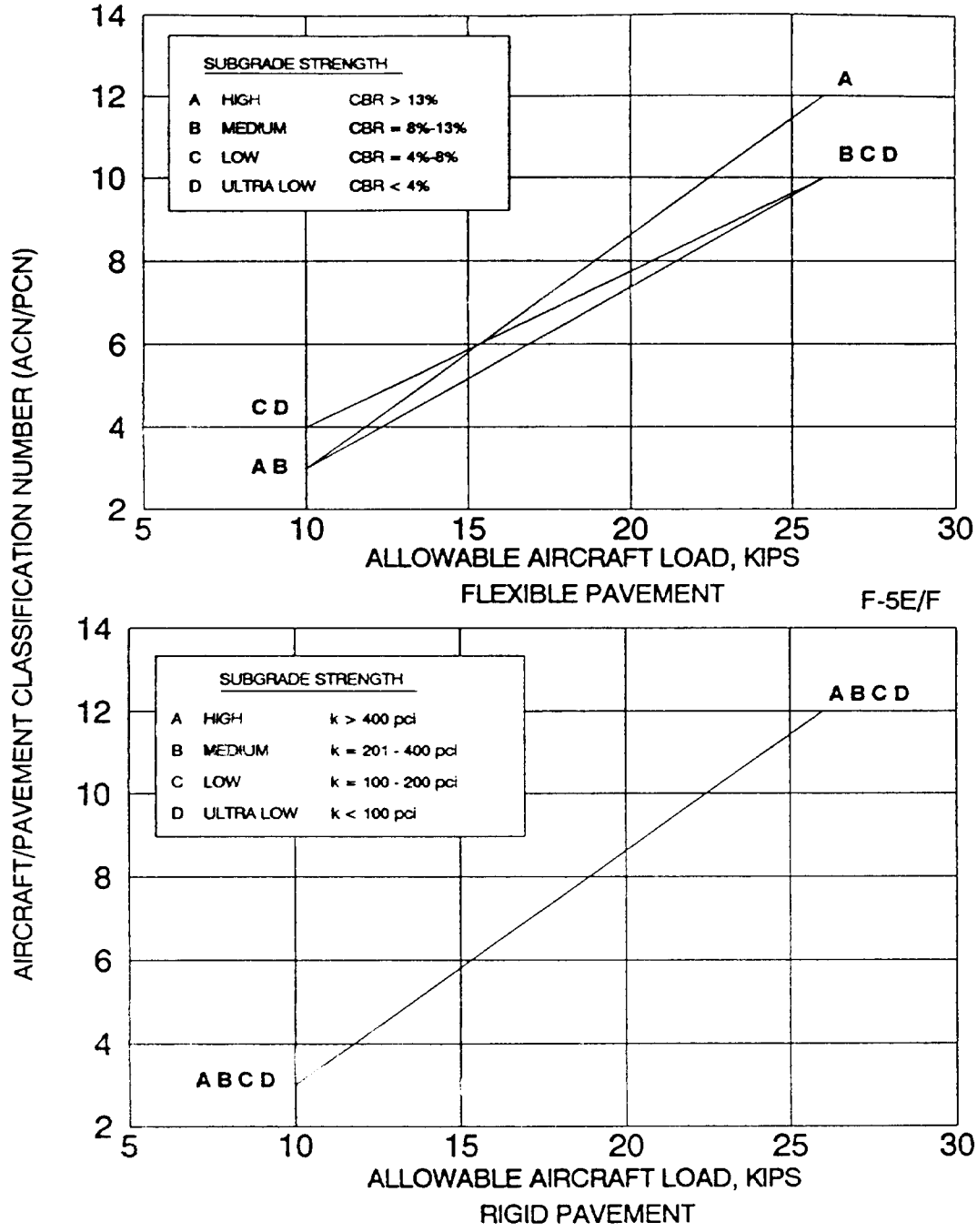


Figure A-131. F-5E/F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (F100-PW-100)

No. of Engines 2 Engine Rating 23,480 lb

Min. T/O Wt. 32.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,450 ft

Max. T/O Wt. Peace-Time 68.0 k-lb Max. T/O Wt. War-Time 68.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 8,600 ft

Min. Ldg. Wt. 30.1 k-lb Max. Ldg. Wt. 68.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
30	11	11	11	11	11	12	12	12
68	32	32	30	30	32	29	28	28

Figure A-132. F-15A/B/C/D, Eagle

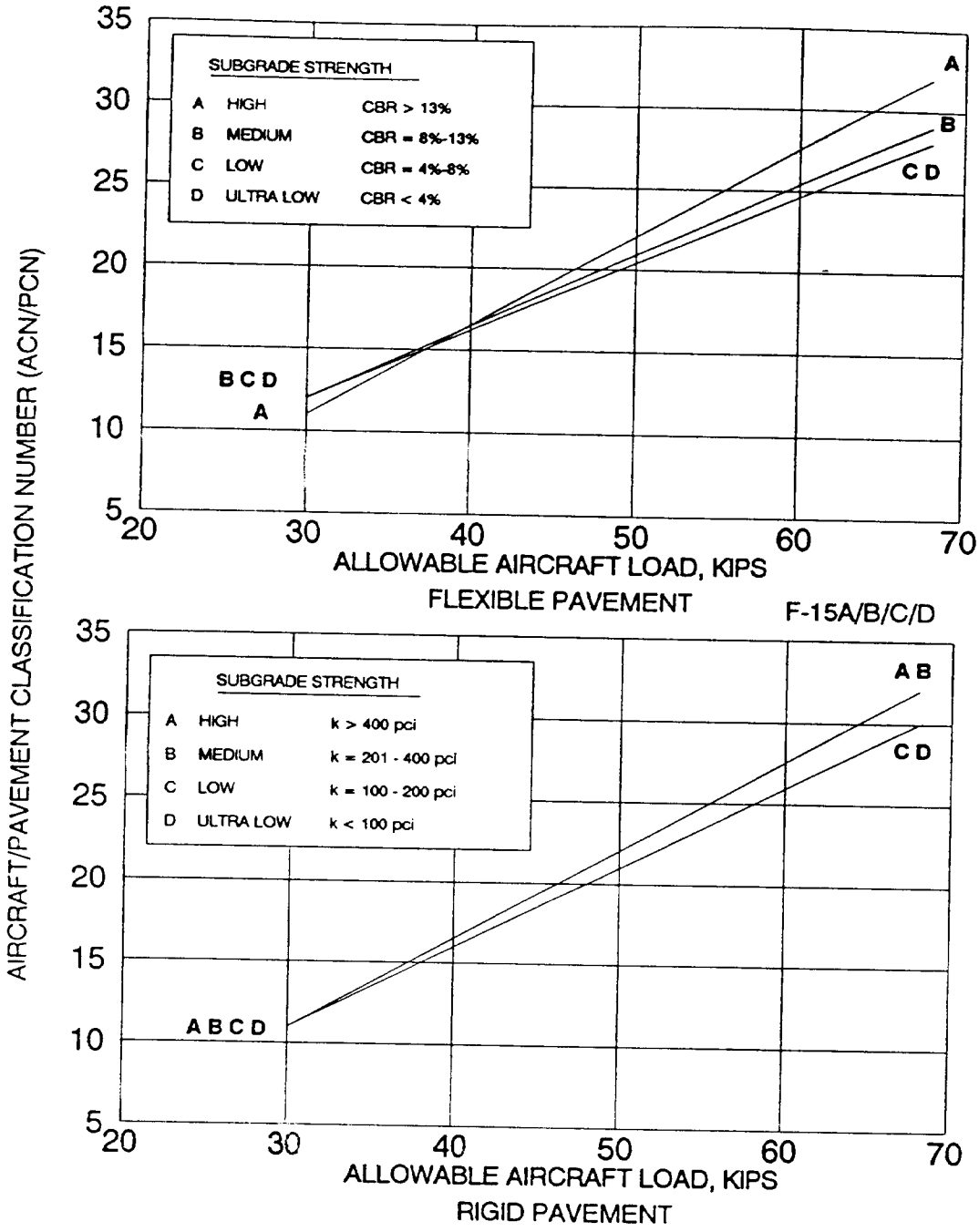


Figure A-133. F-15A/B/C/D, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (F100-PW-220)

No. of Engines 2 Engine Rating 18,800 lb

Min. T/O Wt. 33.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,750 ft

Max. T/O Wt. Peace-Time 81.0 k-lb Max. T/O Wt. War-Time 81.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,000 ft

Min. Ldg. Wt. 35.0 k-lb Max. Ldg. Wt. 81.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
35	13	13	13	13	12	12	13	13
81	37	37	37	36	35	33	33	32

Figure A-134. F-15E, Eagle

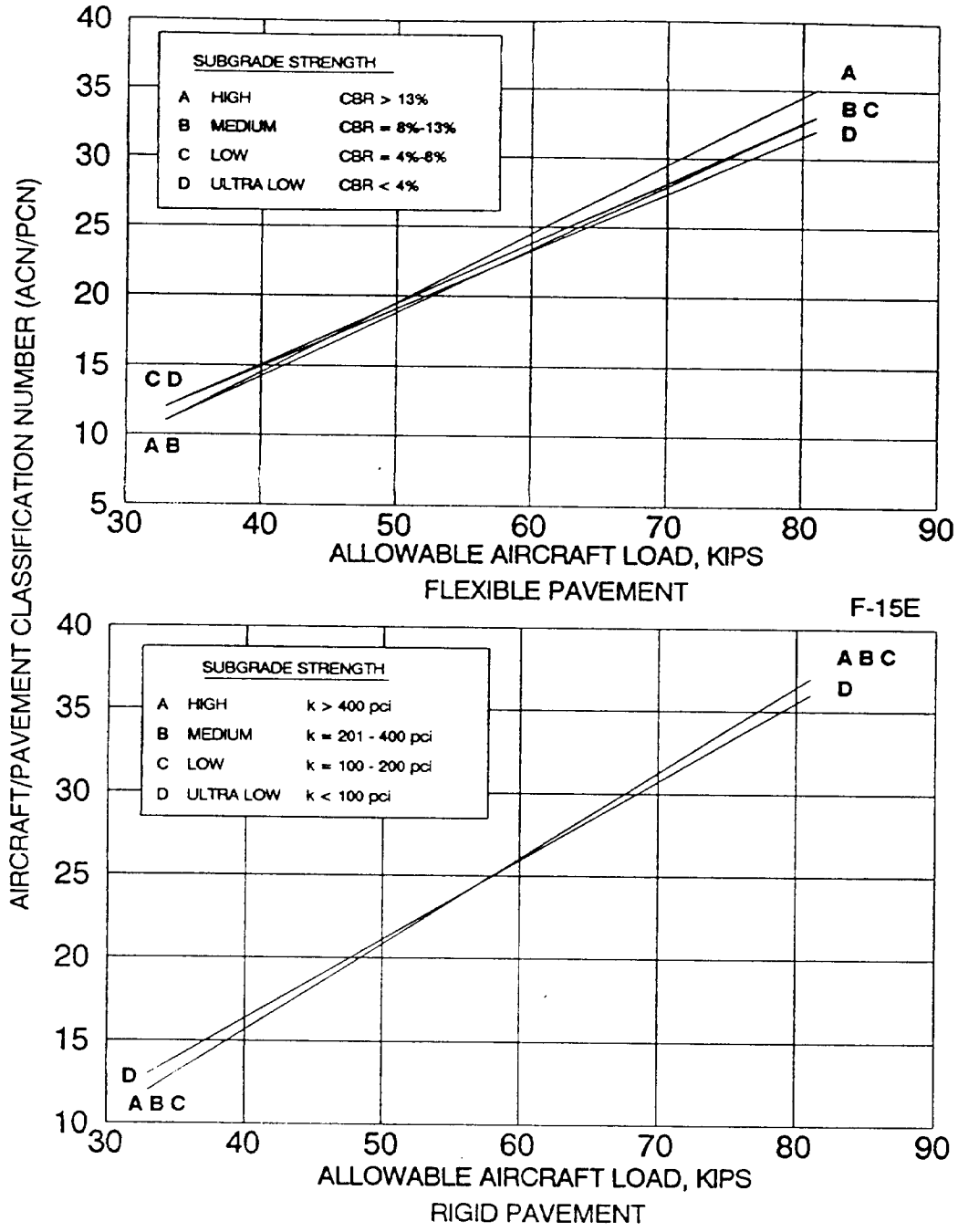


Figure A-135. F-15E, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (F100-PW-200/220)

No. of Engines 1 Engine Rating 23,000 lb

Min. T/O Wt. 16.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,900 ft

Max. T/O Wt. Peace-Time 34.6 k-lb Max. T/O Wt. War-Time 35.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 9,000 ft

Min. Ldg. Wt. 17.6 k-lb Max. Ldg. Wt. 35.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
18	6	6	7	7	6	7	7	7
35	15	15	15	15	14	14	14	13

Figure A-136. F-16A, Fighting Falcon

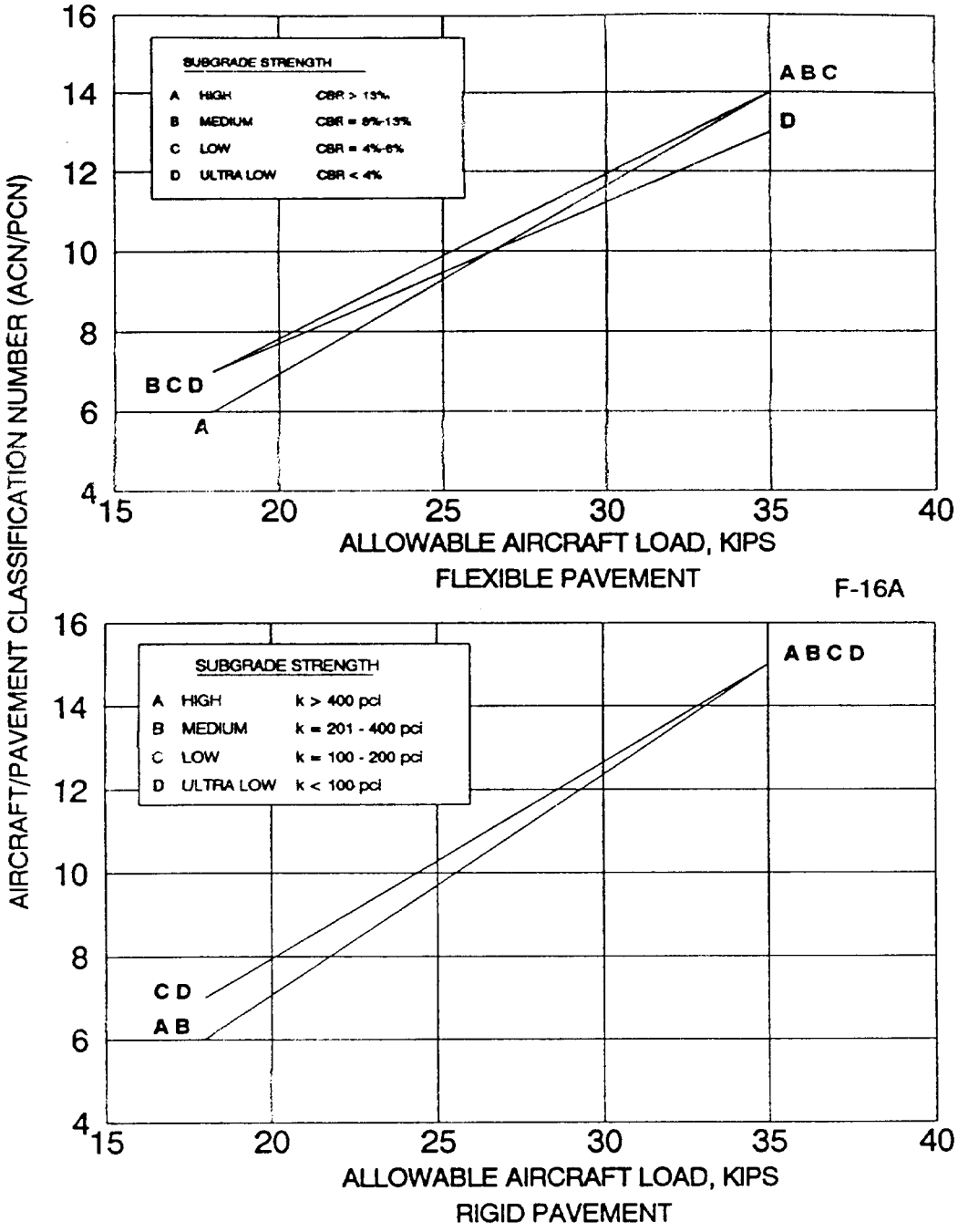


Figure A-137. F-16A, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (F100-PW-200/220)

No. of Engines 1 Engine Rating 23,000 lb

Min. T/O Wt. 17.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 850 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,900 ft

Max. T/O Wt. Peace-Time 34.7 k-lb Max. T/O Wt. War-Time 35.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 9,000 ft

Min. Ldg. Wt. 18.2 k-lb Max. Ldg. Wt. 35.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
18	7	7	7	7	6	6	6	6
35	15	15	15	15	14	14	14	13

Figure A-138. F-16B, Fighting Falcon

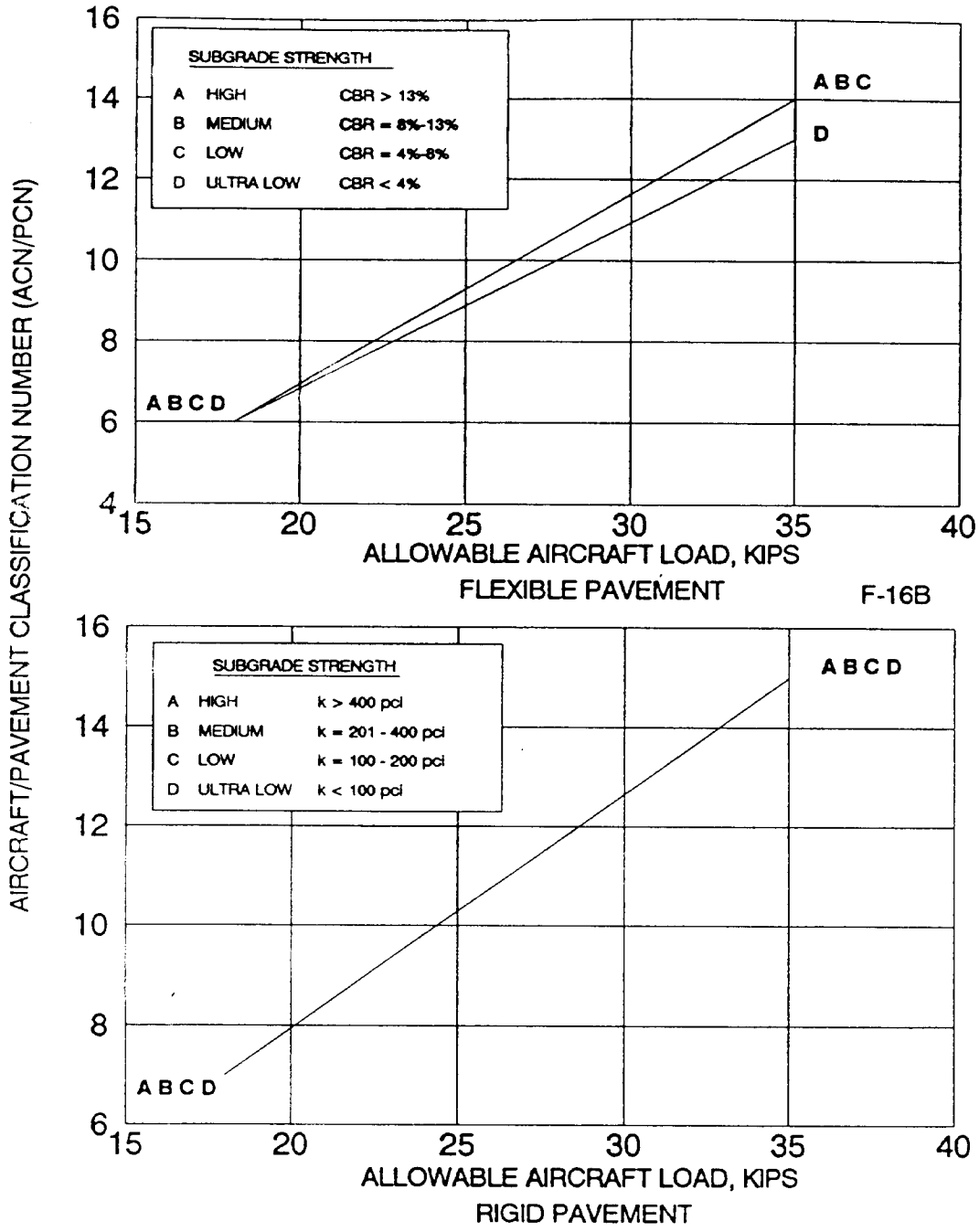


Figure A-139. F-16B, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (F110-GE-100)

No. of Engines 1 Engine Rating 28,000 lb

Min. T/O Wt. 18.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,000 ft

Max. T/O Wt. Peace-Time 36.3 k-lb Max. T/O Wt. War-Time 37.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,000 ft

Min. Ldg. Wt. 19.3 k-lb Max. Ldg. Wt. 37.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
19	7	7	7	7	6	7	7	7
36	15	15	15	14	14	14	13	13
38	16	16	16	15	15	15	14	14

Figure A-140. F-16C, Fighting Falcon

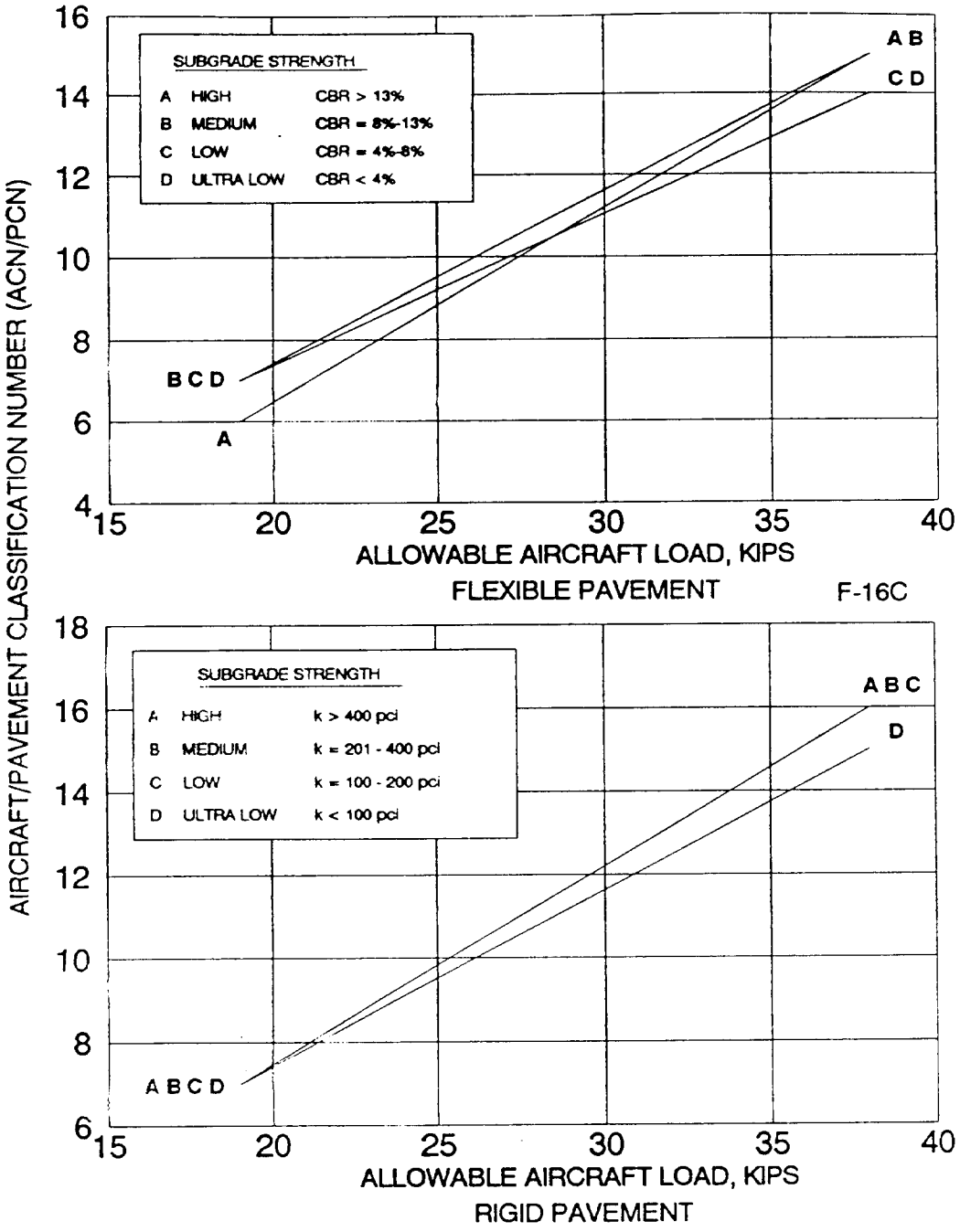


Figure A-141. F-16C, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer General Electric (F110-GE-100)

No. of Engines 1 Engine Rating 28,000 lb

Min. T/O Wt. 19.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,400 ft

Max. T/O Wt. Peace-Time 35.6 k-lb Max. T/O Wt. War-Time 37.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,000 ft

Min. Ldg. Wt. 19.7 k-lb Max. Ldg. Wt. 37.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,350 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
20	7	7	7	7	7	7	7	7
36	15	15	15	15	14	14	13	13
38	16	16	16	16	15	15	14	14

Figure A-142. F-16D, Fighting Falcon

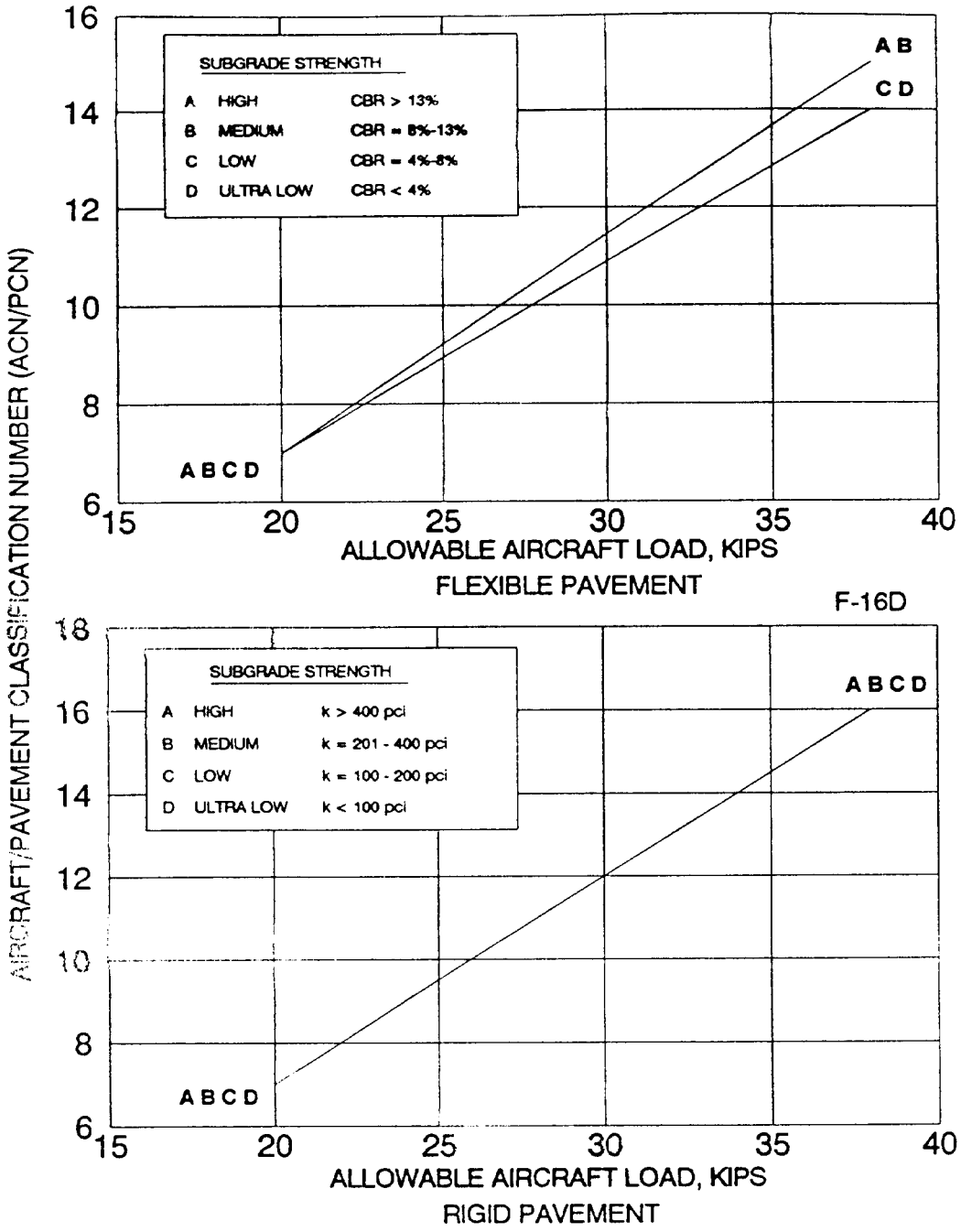


Figure A-143. F-16D, ACN/PCN Curves

Aircraft Manufacturer North American

Aircraft Engine Manufacturer Pratt and Whitney (J57-P-7)

No. of Engines 1 Engine Rating 13,000 lb

Min. T/O Wt. 23.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 7,900 ft

Max. T/O Wt. Peace-Time 41.5 k-lb Max. T/O Wt. War-Time 41.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 16,000 ft

Min. Ldg. Wt. 23.0 k-lb Max. Ldg. Wt. 41.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
23	9	9	9	9	9	9	9	9
42	20	20	20	19	19	18	18	17

Figure A-144. F-100, Super Sabre

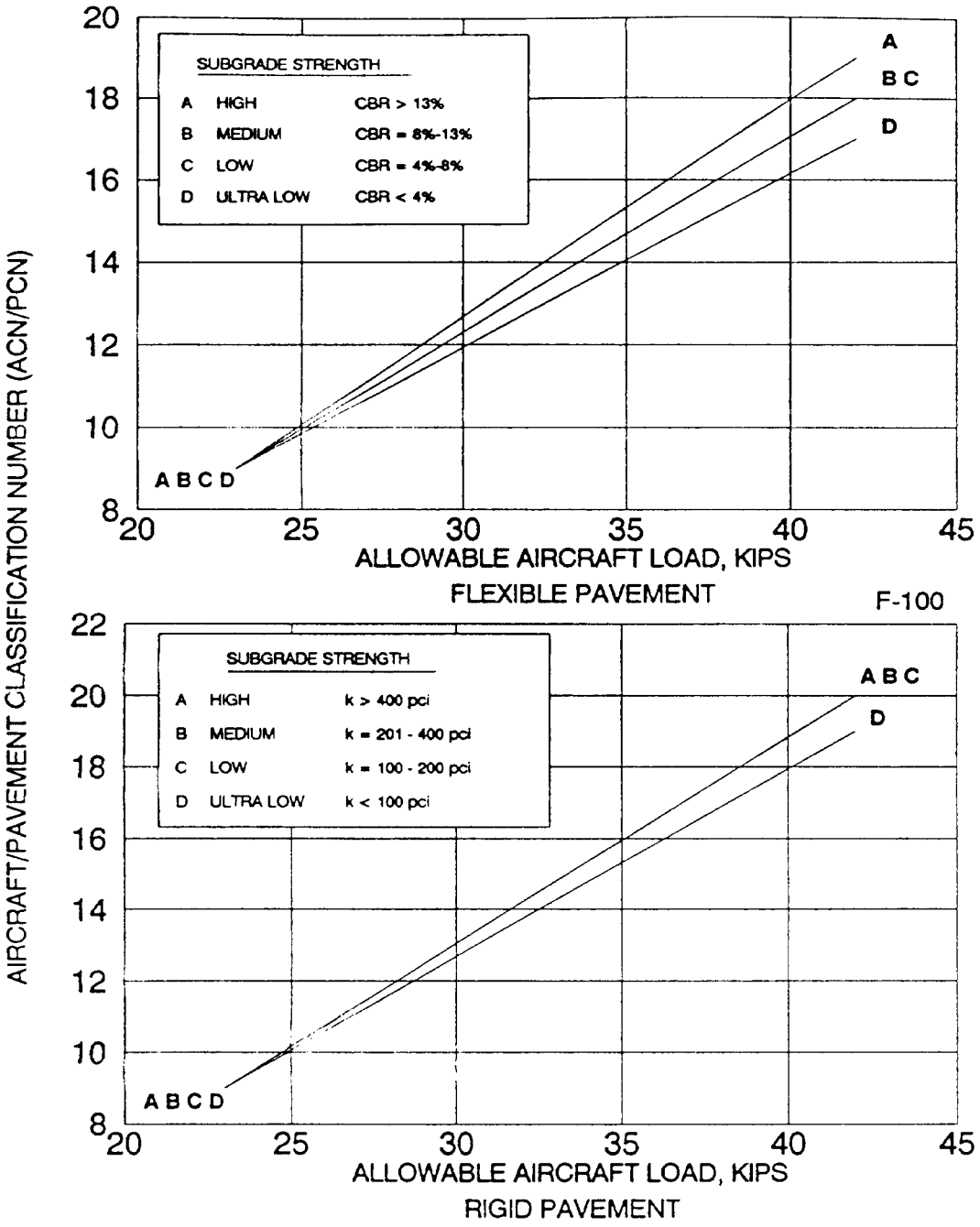


Figure A-145. F-100, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (J57-P-55)

No. of Engines 2 Engine Rating 16,900 lb

Min. T/O Wt. 35.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,800 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 52.4 k-lb Max. T/O Wt. War-Time 52.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 33.6 k-lb Max. Ldg. Wt. 35.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,200 ft (Estimated)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
34	17	17	16	16	14	14	14	14
36	17	17	17	17	15	15	15	15
52	26	26	25	25	24	23	22	22

Figure A-146. F-101B, Voodoo

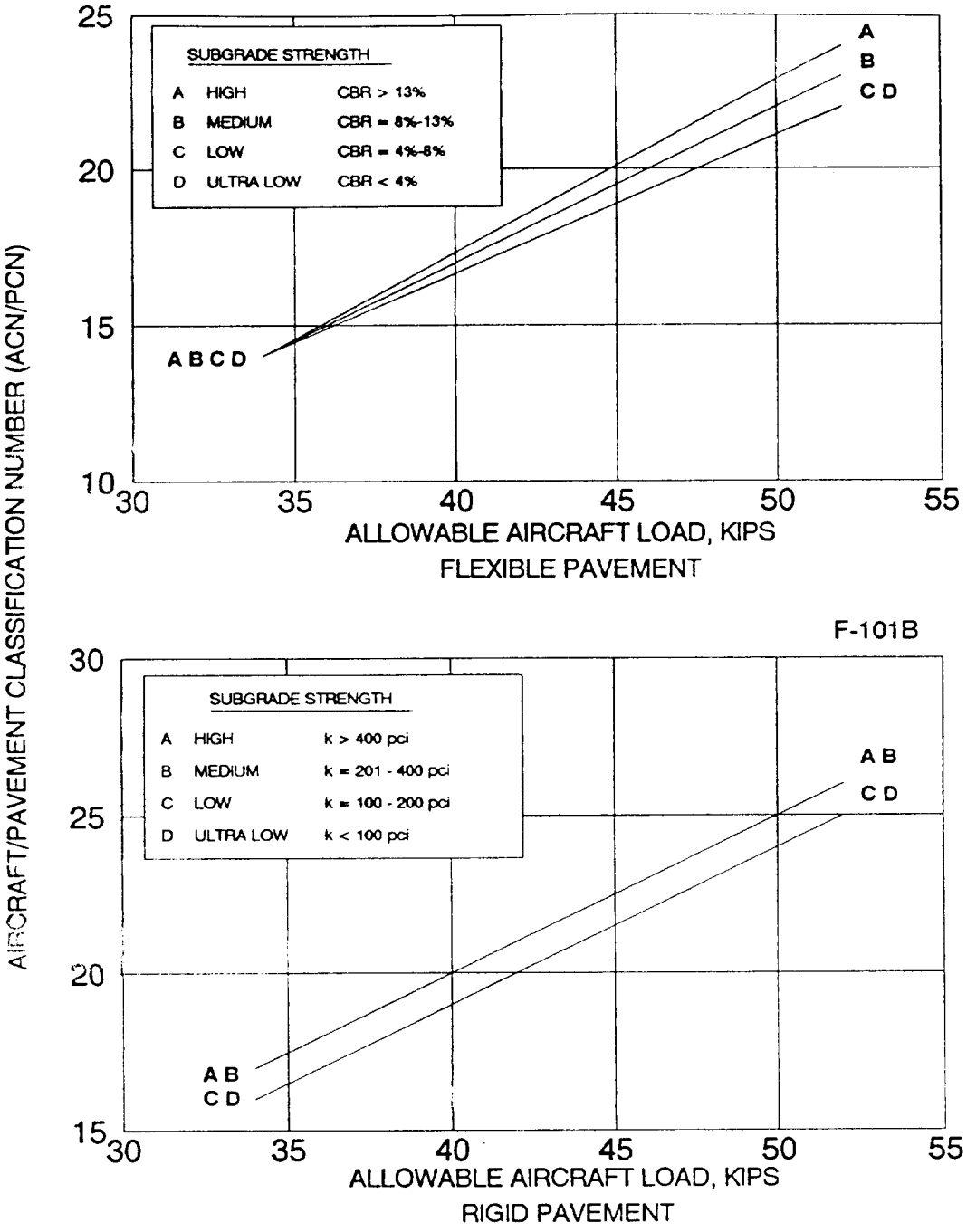


Figure A-147. F-101B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer General Electric (J79-GE-11A)

No. of Engines 1 Engine Rating 15,600 lb

Min. T/O Wt. 18.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 29.0 k-lb Max. T/O Wt. War-Time 29.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 16.9 k-lb Max. Ldg. Wt. 17.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
17	7	7	7	8	8	8	7	7
29	12	12	12	13	13	12	12	12

Figure A-148. F-104G, Starfighter

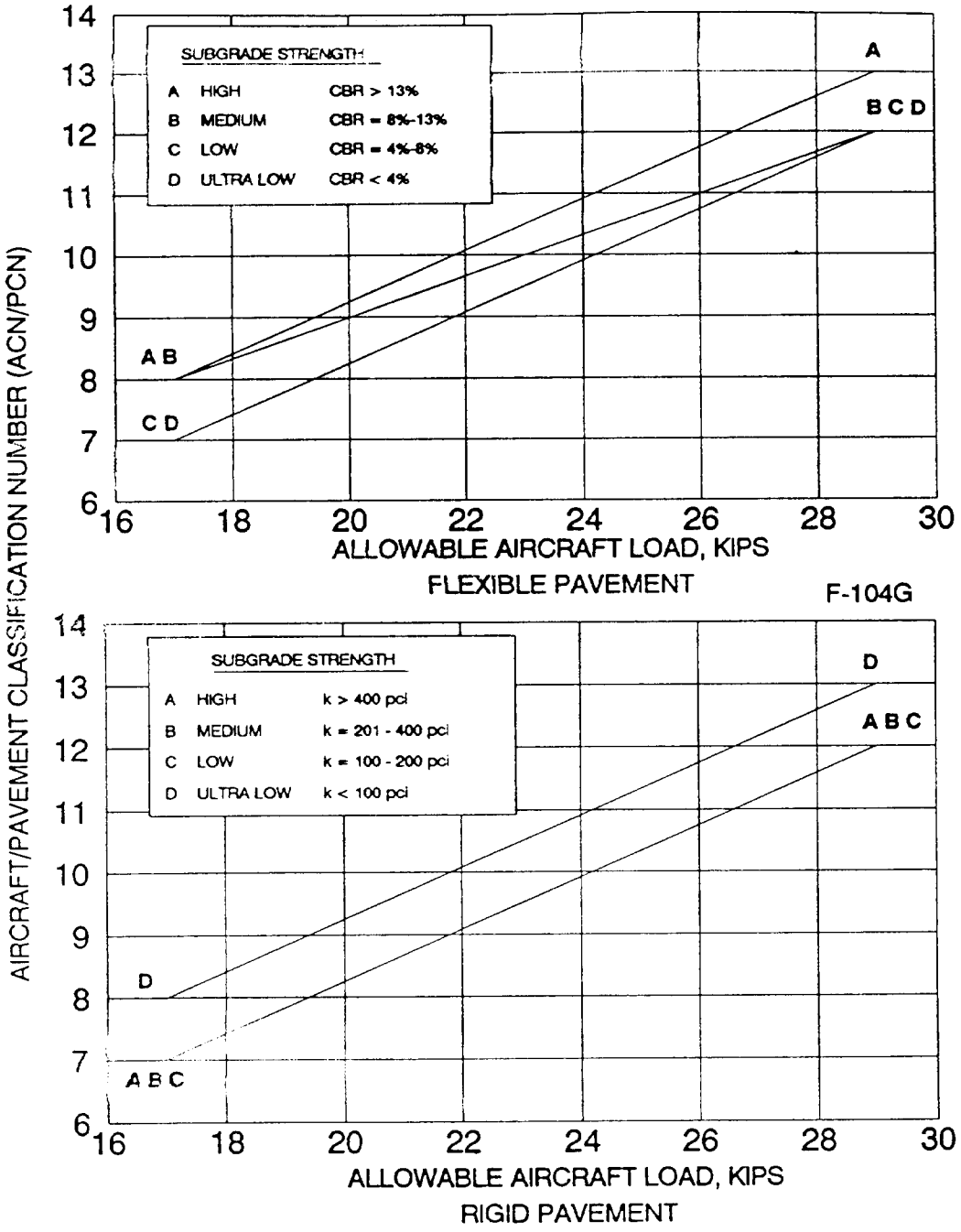


Figure A-149. F-104G, ACN/PCN Curves

Aircraft Manufacturer Fairchild

Aircraft Engine Manufacturer Pratt and Whitney (J75-P-19W)

No. of Engines 1 Engine Rating 26,500 lb

Min. T/O Wt. 37.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 54.6 k-lb Max. T/O Wt. War-Time 54.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,260 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 35.3 k-lb Max. Ldg. Wt. 51.7 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,760 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
35	14	14	14	15	13	14	14	14
52	21	21	21	23	22	22	22	22
55	22	22	23	24	24	23	23	23

Figure A-150. F-105G, Thunderchief

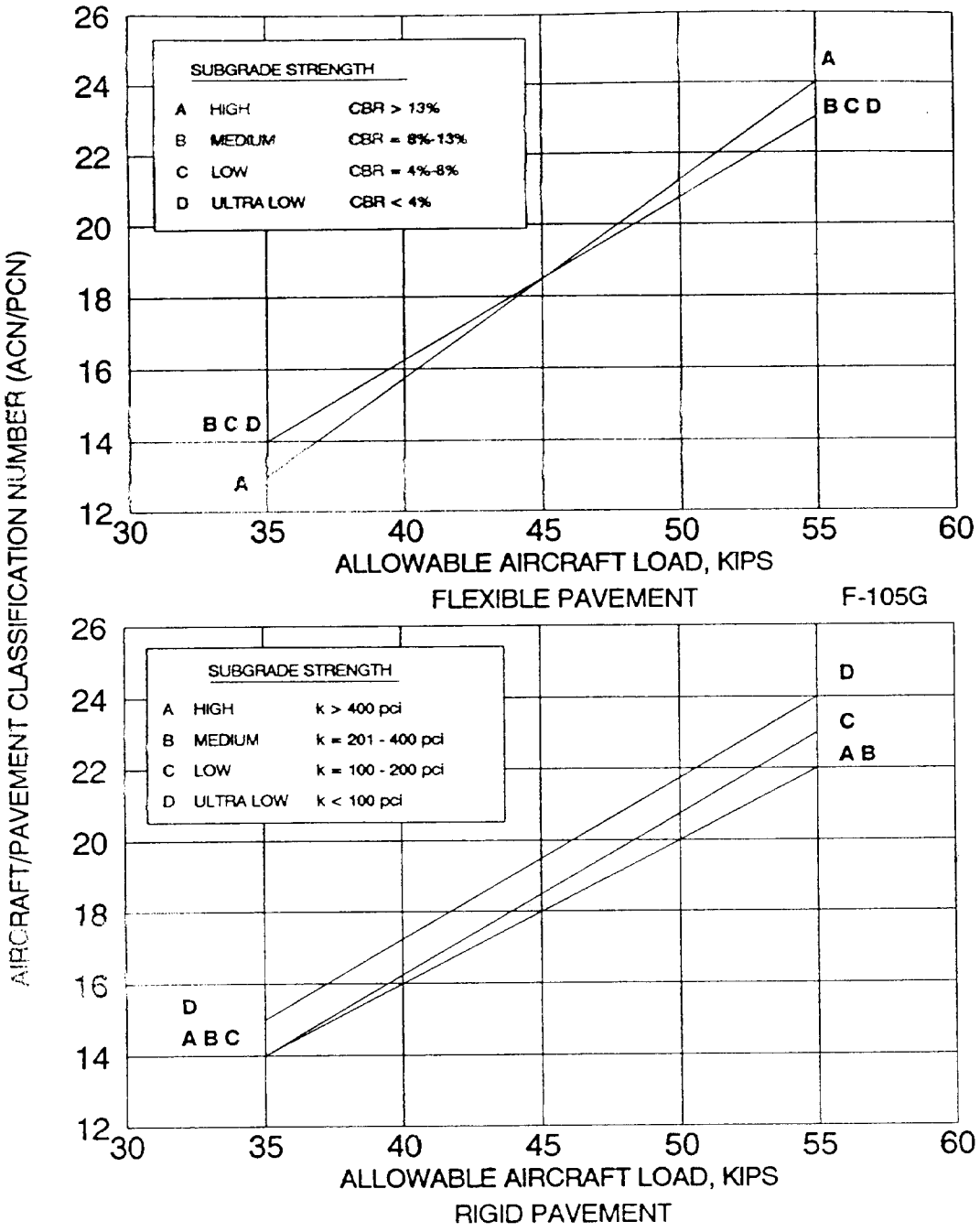


Figure A-151. F-105G, AGN/PCN Curves

Aircraft Manufacturer General Dynamics/Convair

Aircraft Engine Manufacturer Pratt and Whitney (J75-P-17)

No. of Engines 1 Engine Rating 24,500 lb

Min. T/O Wt. 26.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 8,500 ft

Max. T/O Wt. Peace-Time 41.0 k-lb Max. T/O Wt. War-Time 42.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 9,600 ft

Min. Ldg. Wt. 26.0 k-lb Max. Ldg. Wt. 42.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 9,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
26	11	11	11	11	11	10	10	10
41	20	20	19	19	19	17	17	16
43	21	21	20	20	20	18	18	17

Figure A-152. F-106A/B, Delta Dart

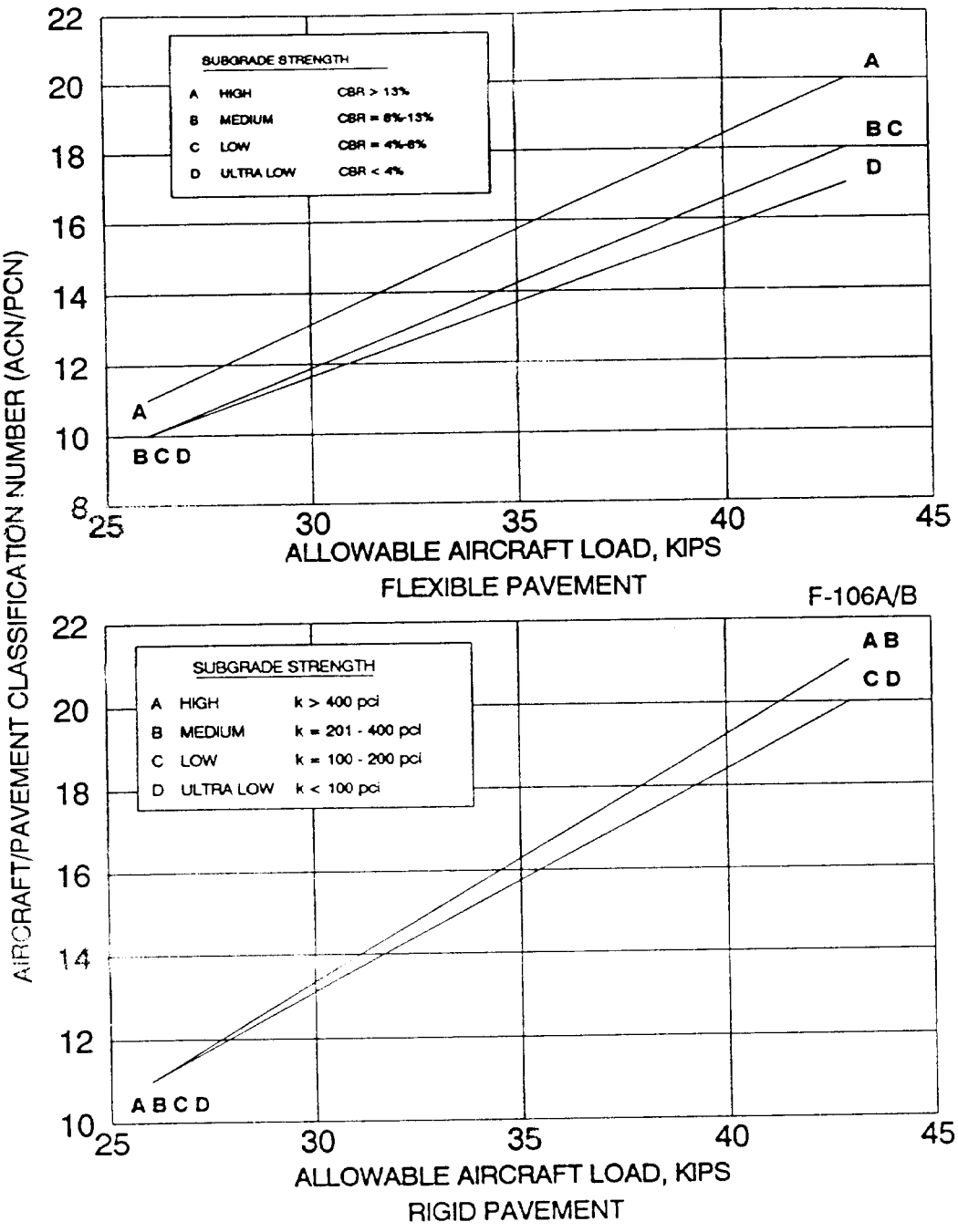


Figure A-153. F-106A/B, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (TF30-P-3)

No. of Engines 2 Engine Rating 18,500 lb

Min. T/O Wt. 59.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,700 ft

Max. T/O Wt. Peace-Time 91.3 k-lb Max. T/O Wt. War-Time 98.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 13,500 ft

Min. Ldg. Wt. 51.6 k-lb Max. Ldg. Wt. 72.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,480 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
52	17	17	18	18	19	21	23	24
72	29	29	29	29	31	32	33	34
91	40	40	40	39	43	42	43	43
99	44	44	44	43	47	46	47	47

Figure A-154. F-111A/E

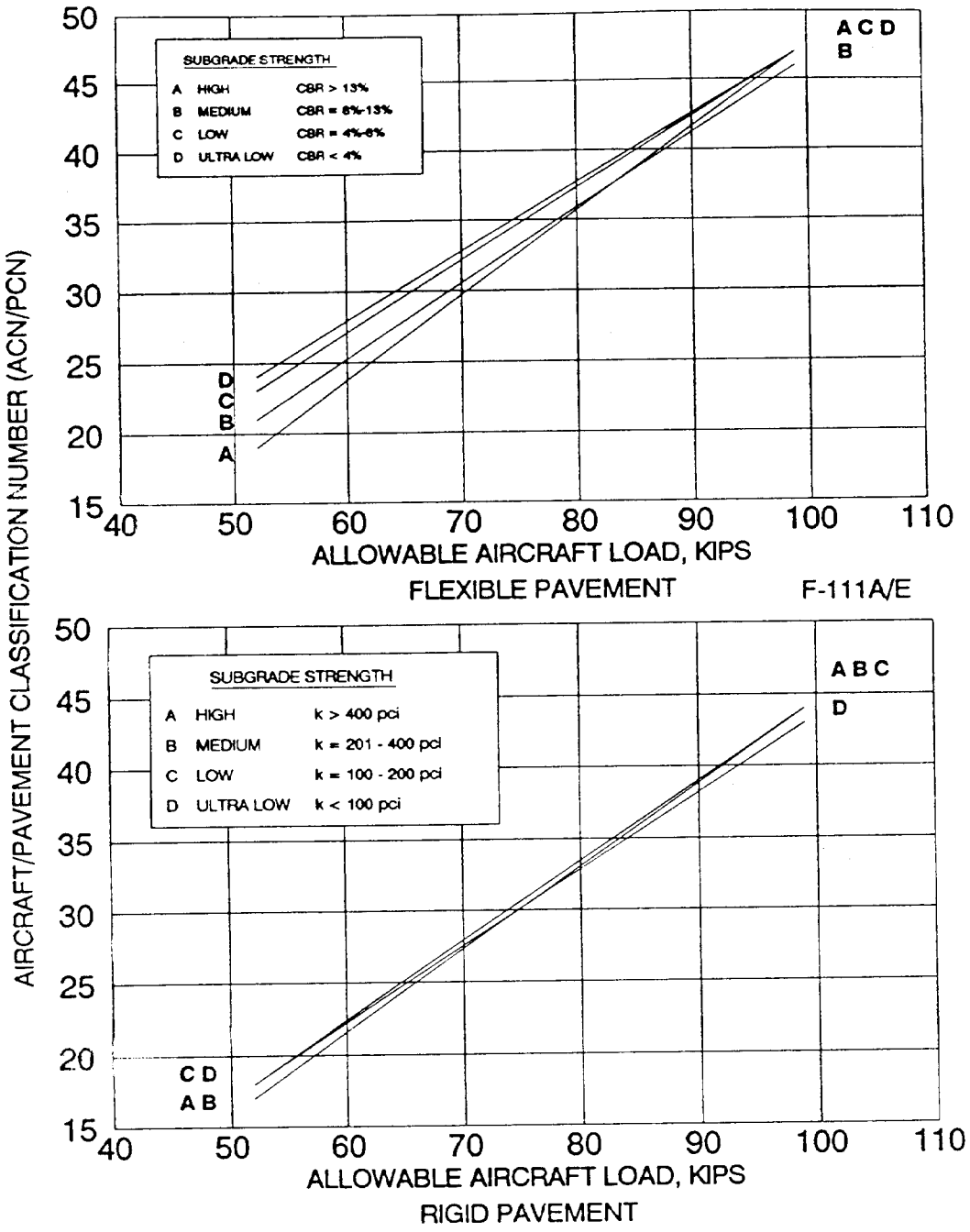


Figure A-155. F-111A/E, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (TF30-P-9)

No. of Engines 2 Engine Rating 20,840 lb

Min. T/O Wt. 53.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,700 ft

Max. T/O Wt. Peace-Time 97.5 k-lb Max. T/O Wt. War-Time 100.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 13,500 ft

Min. Ldg. Wt. 52.9 k-lb Max. Ldg. Wt. 82.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
53	17	18	19	19	20	22	23	24
83	35	35	35	35	38	38	38	39
98	44	44	44	43	47	46	46	46
100	45	45	45	44	48	47	47	47

Figure A-156. F-111D

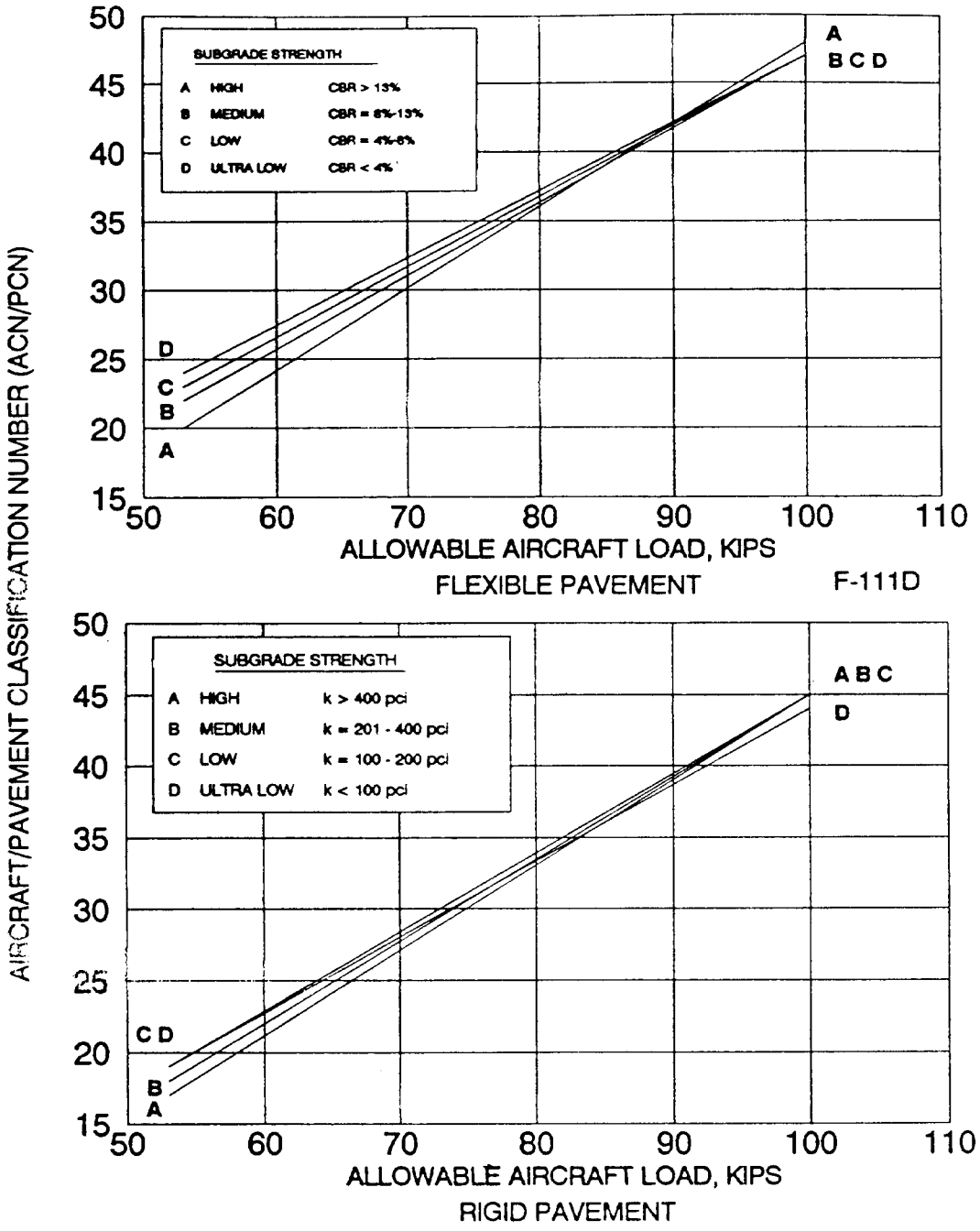


Figure A-157. F-111D, ACN/PCN Curves

Aircraft Manufacturer General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (TF30-P-100)

No. of Engines 2 Engine Rating 25,100 lb

Min. T/O Wt. 62.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,200 ft

Max. T/O Wt. Peace-Time 97.0 k-lb Max. T/O Wt. War-Time 100.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 11,700 ft

Min. Ldg. Wt. 54.9 k-lb Max. Ldg. Wt. 82.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
55	18	19	19	19	21	23	24	25
83	35	35	35	35	38	38	38	39
97	43	43	43	42	46	45	45	46
100	45	45	45	44	48	47	47	47

Figure A-158. F-111F

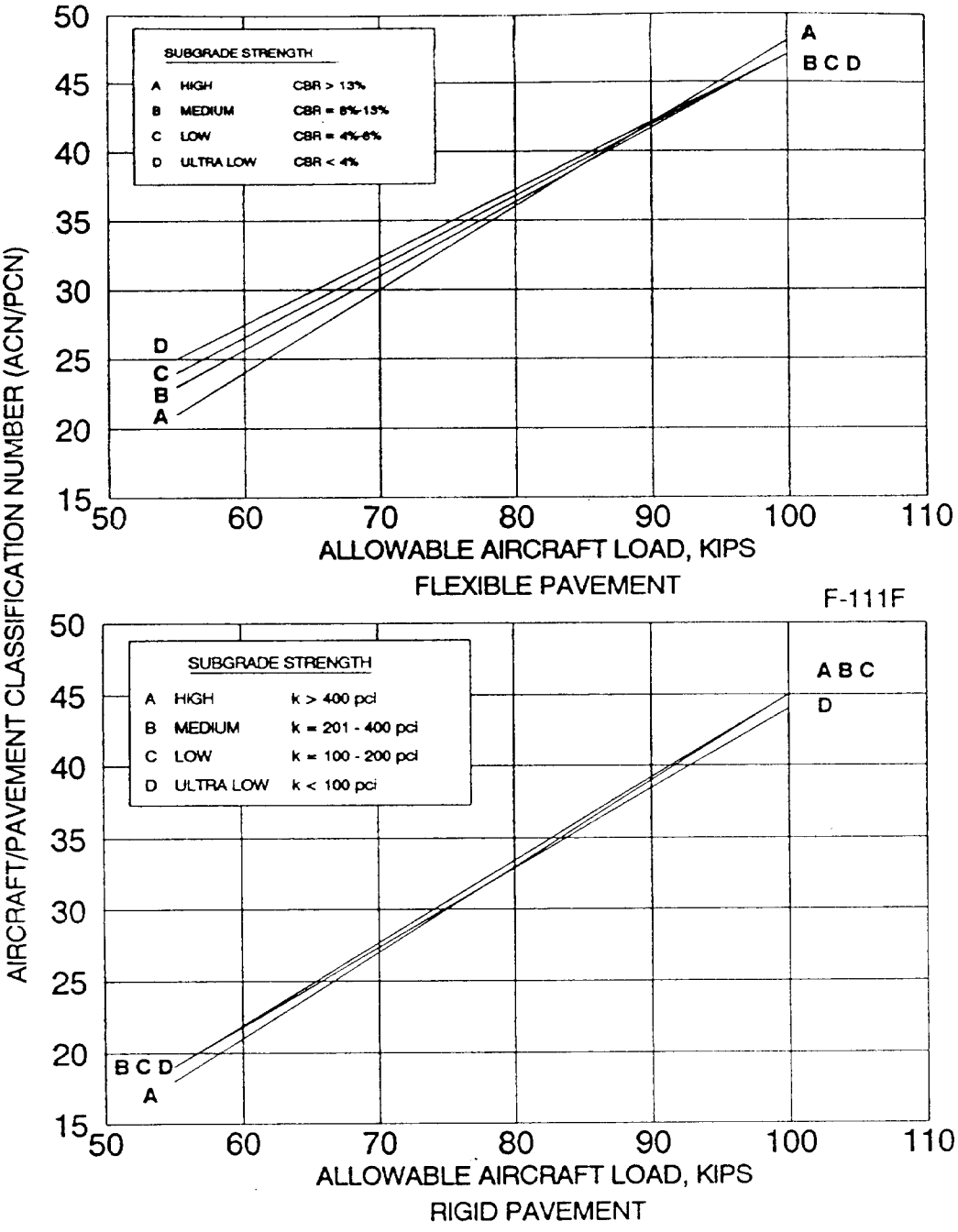


Figure A-159. F-111F, ACN/PCN Curves

Aircraft Manufacturer Bellanca (formerly manufactured by Champion)

Aircraft Engine Manufacturer Lycoming (O-320-A2D)

No. of Engines 1 Engine Rating 150 HP

Min. T/O Wt. 1.38 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.65 k-lb Max. T/O Wt. War-Time 1.65 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 380 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.38 k-lb Max. Ldg. Wt. 1.65 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,650 lb/24 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-160. Bellanca 7, Citabria

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (C85-12)

No. of Engines 1 Engine Rating 85 HP

Min. T/O Wt. 1.02 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.45 k-lb Max. T/O Wt. War-Time 1.45 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.02 k-lb Max. Ldg. Wt. 1.45 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
1,450 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-161. Cessna 120/140

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (C145)

No. of Engines 1 Engine Rating 145 HP

Min. T/O Wt. 1.44 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.2 k-lb Max. T/O Wt. War-Time 2.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.44 k-lb Max. Ldg. Wt. 2.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,200 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-162. Cessna 170

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (O-470-R)

No. of Engines 1 Engine Rating 230 HP

Min. T/O Wt. 1.86 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.8 k-lb Max. T/O Wt. War-Time 2.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 625 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.86 k-lb Max. Ldg. Wt. 2.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 480 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,800 lb/35 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-163. Cessna 180, Skywagon

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-520-D)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 1.90 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.35 k-lb Max. T/O Wt. War-Time 3.35 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 770 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.90 k-lb Max. Ldg. Wt. 3.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 480 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,350 lb/35 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-164. Cessna 185, Skywagon

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (R-670-23)

No. of Engines 1 Engine Rating 240 HP

Min. T/O Wt. 2.37 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.35 k-lb Max. T/O Wt. War-Time 3.35 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.37 k-lb Max. Ldg. Wt. 3.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,350 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-165. Cessna 190

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Jacobs (R-755-A2)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.35 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.35 k-lb Max. T/O Wt. War-Time 3.35 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.35 k-lb Max. Ldg. Wt. 3.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
	3,350 lb/ †**							

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-166. Cessna 195

Aircraft Manufacturer Helio Aircraft

Aircraft Engine Manufacturer Lycoming (O-540-A1A5)

No. of Engines 1 Engine Rating 250 HP

Min. T/O Wt. 2.62 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.4 k-lb Max. T/O Wt. War-Time 3.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 420 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.62 k-lb Max. Ldg. Wt. 3.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 270 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

3,400 lb/28 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-167. Helio H-250, Heijo Courier

Aircraft Manufacturer Helio Aircraft

Aircraft Engine Manufacturer Lycoming (GO-480-G1D6)

No. of Engines 1 Engine Rating 295 HP

Min. T/O Wt. 2.74 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.4 k-lb Max. T/O Wt. War-Time 3.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 335 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.74 k-lb Max. Ldg. Wt. 3.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 270 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,400 lb/28 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-168. Helio H-295, Super Courier

Aircraft Manufacturer Helio Aircraft

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-27)

No. of Engines 1 Engine Rating 680 SHP

Min. T/O Wt. 3.25 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 5.1 k-lb Max. T/O Wt. War-Time 5.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 320 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.25 k-lb Max. Ldg. Wt. 5.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
5,100 lb/22 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-169. Helio HST-550, Helia Stallion

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-235-C)

No. of Engines 1 Engine Rating 104 HP

Min. T/O Wt. 1.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.75 k-lb Max. T/O Wt. War-Time 1.75 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 640 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.2 k-lb Max. Ldg. Wt. 1.75 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 410 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,750 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-170. Piper PA-12, Super Cruiser

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-235-C1)

No. of Engines 1 Engine Rating 115 HP

Min. T/O Wt. 1.26 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.85 k-lb Max. T/O Wt. War-Time 1.85 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 720 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.26 k-lb Max. Ldg. Wt. 1.85 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 470 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,850 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-171. Piper PA-14, Family Cruiser

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-145)

No. of Engines 1 Engine Rating 65 HP

Min. T/O Wt. 0.87 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.1 k-lb Max. T/O Wt. War-Time 1.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 0.87 k-lb Max. Ldg. Wt. 1.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
1,100 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-172. Piper PA-15, Vagabond

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-320)

No. of Engines 1 Engine Rating 150 HP

Min. T/O Wt. 1.17 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.75 k-lb Max. T/O Wt. War-Time 1.75 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.17 k-lb Max. Ldg. Wt. 1.75 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 350 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,750 lb/18 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-173. Piper PA-18, Super Cub

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-290-D)

No. of Engines 1 Engine Rating 125 HP

Min. T/O Wt. 1.21 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.8 k-lb Max. T/O Wt. War-Time 1.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.21 k-lb Max. Ldg. Wt. 1.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
1,800 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-174. Piper PA-20, Pacer

Aircraft Manufacturer Silvaire Aircraft Co.

Aircraft Engine Manufacturer Continental (C90-12F)

No. of Engines 1 Engine Rating 90 HP

Min. T/O Wt. 1.09 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.4 k-lb Max. T/O Wt. War-Time 1.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 550 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.09 k-lb Max. Ldg. Wt. 1.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 450 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,400 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-175. Silvaire 8

Aircraft Manufacturer Taylorcraft Aviation Corp.

Aircraft Engine Manufacturer Avco Lycoming (O-235-L2C)

No. of Engines 1 Engine Rating 118 HP

Min. T/O Wt. 1.18 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.5 k-lb Max. T/O Wt. War-Time 1.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 275 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.18 k-lb Max. Ldg. Wt. 1.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 350 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,500 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-176. Taylorcraft F-21

Aircraft Manufacturer Univair Aircraft Corp.

Aircraft Engine Manufacturer Avco Lycoming (IO-360-A1A)

No. of Engines 1 Engine Rating 200 HP

Min. T/O Wt. 1.57 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.4 k-lb Max. T/O Wt. War-Time 2.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.57 k-lb Max. Ldg. Wt. 2.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,400 lb/20 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-177. Univair 108, Stinson

Aircraft Manufacturer Bede Aircraft, Inc.

Aircraft Engine Manufacturer Lycoming (0-360)

No. of Engines 1 Engine Rating 180 HP

Min. T/O Wt. 1.41 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.95 k-lb Max. T/O Wt. War-Time 1.95 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.41 k-lb Max. Ldg. Wt. 1.95 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,950 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-178. Bede BD-4

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (O-200-A)

No. of Engines 1 Engine Rating 100 HP

Min. T/O Wt. 1.22 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.60 k-lb Max. T/O Wt. War-Time 1.60 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 735 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.22 k-lb Max. Ldg. Wt. 1.60 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 445 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,600 lb/30 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-179. Cessna 150

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Lycoming (O-320-E2D)

No. of Engines 1 Engine Rating 150 HP

Min. T/O Wt. 1.49 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.30 k-lb Max. T/O Wt. War-Time 2.30 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 865 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.49 k-lb Max. Ldg. Wt. 2.30 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 520 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
2,300 lb/23 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-180. Cessna 172, Skyhawk

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Lycoming (O-360-A1F)

No. of Engines 1 Engine Rating 180 HP

Min. T/O Wt. 1.70 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.50 k-lb Max. T/O Wt. War-Time 2.50 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 845 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.70 k-lb Max. Ldg. Wt. 2.50 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 435 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
2,500 lb/30 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-181. Cessna 177, Cardinal

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (O-470-R)

No. of Engines 1 Engine Rating 230 HP

Min. T/O Wt. 1.92 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.95 k-lb Max. T/O Wt. War-Time 2.95 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 705 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.92 k-lb Max. Ldg. Wt. 2.80 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 590 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,950 lb/32 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-182. Cessna 182, Skylane

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-520-A)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.15 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.6 k-lb Max. T/O Wt. War-Time 3.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.15 k-lb Max. Ldg. Wt. 3.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 735 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,600 lb/42 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-183. Cessna 206, Stationair

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-520-F)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.12 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.8 k-lb Max. T/O Wt. War-Time 3.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.12 k-lb Max. Ldg. Wt. 3.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 765 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,800 lb/55 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-184. Cessna 207, Super Skywagon

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-520-A)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.58 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.8 k-lb Max. T/O Wt. War-Time 3.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,170 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.58 k-lb Max. Ldg. Wt. 3.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 765 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,800 lb/42 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-185. Cessna 210, Centurion

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (0-320)

No. of Engines 1 Engine Rating 160 HP

Min. T/O Wt. 1.34 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.0 k-lb Max. T/O Wt. War-Time 2.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.34 k-lb Max. Ldg. Wt. 2.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 350 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
2,000 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-186. Piper PA-22, Tri-Pacer

Aircraft Manufacturer: Aerostar Aviation (formerly manufactured by Engineering and Research Corp.)

Aircraft Engine Manufacturer: Continental (C85-12)

No. of Engines: 1 Engine Rating: 85 HP

Min. T/O Wt.: 1.03 k-lb * Min. T/O Dist. @ Min. T/O Wt.: †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist.: †

Max. T/O Wt. Peace-Time: 1.4 k-lb Max. T/O Wt. War-Time: 1.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time: †

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist.: †

Min. Ldg. Wt.: 1.03 k-lb Max. Ldg. Wt.: 1.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt.: †

* Min. Ldg. Dist. @ Max. Ldg. Wt.: †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,400 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-187. Aerostar 415, Ercoupe

Aircraft Manufacturer Aerostar Aviation (formerly manufactured by Mooney Aircraft)

Aircraft Engine Manufacturer Lycoming (O-360-A1D)

No. of Engines 1 Engine Rating 180 HP

Min. T/O Wt. 1.86 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.53 k-lb Max. T/O Wt. War-Time 2.53 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 780 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.86 k-lb Max. Ldg. Wt. 2.53 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 725 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,530 lb/30 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-188. Aerostar M-20

Aircraft Manufacturer Aerostar Aviation (formerly manufactured by Mooney Aircraft)

Aircraft Engine Manufacturer Lycoming (TIO-541-A1A)

No. of Engines 1 Engine Rating 310 HP

Min. T/O Wt. 2.78 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.68 k-lb Max. T/O Wt. War-Time 3.68 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,140 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.78 k-lb Max. Ldg. Wt. 3.68 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 960 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,680 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-189. Aerostar M-22, Mark 22

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-360-A2B)

No. of Engines 1 Engine Rating 200 HP

Min. T/O Wt. 1.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.55 k-lb Max. T/O Wt. War-Time 2.55 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 950 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.7 k-lb Max. Ldg. Wt. 2.55 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 660 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,550 lb/40 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-190. Beechcraft 23, Musketeer

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-520-BB)

No. of Engines 1 Engine Rating 285 HP

Min. T/O Wt. 2.41 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.4 k-lb Max. T/O Wt. War-Time 3.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.41 k-lb Max. Ldg. Wt. 3.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 760 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,400 lb/40 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-191. Beechcraft V-35B, Bonanza

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-470-K)

No. of Engines 1 Engine Rating 225 HP

Min. T/O Wt. 2.18 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.05 k-lb Max. T/O Wt. War-Time 3.05 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 980 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.18 k-lb Max. Ldg. Wt. 3.05 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,050 lb/40 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-192. Beechcraft F-33, Bonanza

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-520-B)

No. of Engines 1 Engine Rating 285 HP

Min. T/O Wt. 2.28 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.4 k-lb Max. T/O Wt. War-Time 3.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 965 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.28 k-lb Max. Ldg. Wt. 3.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 650 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,400 lb/40 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-193. Beechcraft F-33A, Debonair

Aircraft Manufacturer Bellanca Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-470-F)

No. of Engines 1 Engine Rating 260 HP

Min. T/O Wt. 2.13 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.0 k-lb Max. T/O Wt. War-Time 3.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 340 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.13 k-lb Max. Ldg. Wt. 3.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,000 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-194. Bellanca 260, Viking

Aircraft Manufacturer Bellanca Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-520-D)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.18 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.33 k-lb Max. T/O Wt. War-Time 3.33 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 450 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.18 k-lb Max. Ldg. Wt. 3.33 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 575 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,330 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-195. Bellanca 300, Viking

Aircraft Manufacturer Grumman Corp (formerly manufactured by American Aviation)

Aircraft Engine Manufacturer Lycoming (O-235-C2C)

No. of Engines 1 Engine Rating 108 HP

Min. T/O Wt. 1.18 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 1.5 k-lb Max. T/O Wt. War-Time 1.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.18 k-lb Max. Ldg. Wt. 1.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 490 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,500 lb/26 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-196. Grumman AA-1, Yankee

Aircraft Manufacturer Navion Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-470-H)

No. of Engines 1 Engine Rating 260 HP

Min. T/O Wt. 2.32 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.32 k-lb Max. T/O Wt. War-Time 3.32 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 725 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.32 k-lb Max. Ldg. Wt. 3.32 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,320 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-197. Navion G-1, Rangemaster

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-540)

No. of Engines 1 Engine Rating 260 HP

Min. T/O Wt. 2.06 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.2 k-lb Max. T/O Wt. War-Time 3.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 820 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.06 k-lb Max. Ldg. Wt. 3.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 690 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,200 lb/42 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-198. Piper PA-24, Commanche

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-360-A3A)

No. of Engines 1 Engine Rating 180 HP

Min. T/O Wt. 1.57 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.4 k-lb Max. T/O Wt. War-Time 2.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 720 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.57 k-lb Max. Ldg. Wt. 2.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,400 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-199. Piper PA-28-180, Cherokee

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-360-C1C)

No. of Engines 1 Engine Rating 200 HP

Min. T/O Wt. 1.73 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.6 k-lb Max. T/O Wt. War-Time 2.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.73 k-lb Max. Ldg. Wt. 2.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 680 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,600 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-200. Piper PA-28-200, Cherokee Arrow

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-540-K1G5)

No. of Engines 1 Engine Rating 300 HP

Min. T/O Wt. 2.18 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.4 k-lb Max. T/O Wt. War-Time 3.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.18 k-lb Max. Ldg. Wt. 3.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 630 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,400 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-201. Piper PA-32, Cherokee Six

Aircraft Manufacturer Rockwell International Corp.

Aircraft Engine Manufacturer Lycoming (IO-360-C1D6)

No. of Engines 1 Engine Rating 200 HP

Min. T/O Wt. 1.96 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 2.65 k-lb Max. T/O Wt. War-Time 2.65 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,190 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 1.96 k-lb Max. Ldg. Wt. 2.55 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 680 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,650 lb/29 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-202. Rockwell 112

Aircraft Manufacturer Aerostar Aviation (formerly manufactured by Ted Smith Aircraft)

Aircraft Engine Manufacturer Lycoming (IO-540)

No. of Engines 2 Engine Rating 290 HP

Min. T/O Wt. 3.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 5.5 k-lb Max. T/O Wt. War-Time 5.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.9 k-lb Max. Ldg. Wt. 5.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 930 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
5,500 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-203. Aerostar 600/601, Aerostar

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-470-L)

No. of Engines 2 Engine Rating 260 HP

Min. T/O Wt. 3.38 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 5.1 k-lb Max. T/O Wt. War-Time 5.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 910 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.38 k-lb Max. Ldg. Wt. 5.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 840 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
5,100 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-204. Beechcraft B-55, Baron

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Continental (IO-520-C)

No. of Engines 2 Engine Rating 285 HP

Min. T/O Wt. 3.49 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 5.3 k-lb Max. T/O Wt. War-Time 5.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 970 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.49 k-lb Max. Ldg. Wt. 5.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 870 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
5,300 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-205. Beechcraft E-55, Baron

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (TIO-541-E1A4)

No. of Engines 2 Engine Rating 380 HP

Min. T/O Wt. 4.72 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 6.78 k-lb Max. T/O Wt. War-Time 6.78 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,280 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 4.72 k-lb Max. Ldg. Wt. 6.78 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,320 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
6,780 lb/70 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-206. Beechcraft A-60, Duke

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-470-V0)

No. of Engines 2 Engine Rating 260 HP

Min. T/O Wt. 3.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 5.5 k-lb Max. T/O Wt. War-Time 5.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,310 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.8 k-lb Max. Ldg. Wt. 5.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 640 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
5,500 lb/60 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-207. Cessna 310

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (TSIO-520-E)

No. of Engines 2 Engine Rating 300 HP

Min. T/O Wt. 4.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 6.3 k-lb Max. T/O Wt. War-Time 6.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 5.2 k-lb Max. Ldg. Wt. 6.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 780 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
6,300 lb/70 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-208. Cessna 401/402, Twin Cessna

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (GTSIO-520-N)

No. of Engines 2 Engine Rating 375 HP

Min. T/O Wt. 5.34 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 7.45 k-lb Max. T/O Wt. War-Time 7.45 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,790 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.0 k-lb Max. Ldg. Wt. 7.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 720 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
7,450 lb/70 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-209. Cessna 421, Golden Eagle

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (O-320-B)

No. of Engines 2 Engine Rating 160 HP

Min. T/O Wt. 2.58 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.8 k-lb Max. T/O Wt. War-Time 3.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,190 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.58 k-lb Max. Ldg. Wt. 3.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,800 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-210. Piper PA-23-160, Apache

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-540-C4B5)

No. of Engines 2 Engine Rating 250 HP

Min. T/O Wt. 3.37 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 4.8 k-lb Max. T/O Wt. War-Time 4.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.37 k-lb Max. Ldg. Wt. 4.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
4,800 lb/54 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-211. Piper PA-23-250, Aztec

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-320-B)

No. of Engines 2 Engine Rating 160 HP

Min. T/O Wt. 2.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.6 k-lb Max. T/O Wt. War-Time 3.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 950 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.5 k-lb Max. Ldg. Wt. 3.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
3,600 lb/42 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-212. Piper PA-30, Twin Commanche

Aircraft Manufacturer Piper Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IO-540-M)

No. of Engines 2 Engine Rating 300 HP

Min. T/O Wt. 4.26 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 6.2 k-lb Max. T/O Wt. War-Time 6.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 790 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 4.26 k-lb Max. Ldg. Wt. 6.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,120 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D
6,200 lb/60 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-213. Piper PA-31, Navajo

Aircraft Manufacturer Cessna Aircraft Co.

Aircraft Engine Manufacturer Continental (IO-360-C)

No. of Engines 2 Engine Rating 210 HP

Min. T/O Wt. 3.04 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 4.63 k-lb Max. T/O Wt. War-Time 4.63 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 3.04 k-lb Max. Ldg. Wt. 4.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
4,630 lb/45 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-214. Cessna 336/337, Super Skymaster

Aircraft Manufacturer Rockwell International (formerly manufactured by Aero Commander Inc.)

Aircraft Engine Manufacturer Lycoming (IO-540-B1A)

No. of Engines 2 Engine Rating 290 HP

Min. T/O Wt. 4.76 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 6.75 k-lb Max. T/O Wt. War-Time 6.75 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,300 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 4.76 k-lb Max. Ldg. Wt. 6.75 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,155 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
6,750 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-215. Rockwell 500, Aero Commander

Aircraft Manufacturer Rockwell International (formerly manufactured by Aero Commander Inc.)

Aircraft Engine Manufacturer Lycoming (IGO-540-B1A)

No. of Engines 2 Engine Rating 350 HP

Min. T/O Wt. 5.26 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 7.7 k-lb Max. T/O Wt. War-Time 7.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,350 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 5.26 k-lb Max. Ldg. Wt. 7.7 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,375 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,700 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-216. Rockwell 560

Aircraft Manufacturer Rockwell International (formerly manufactured by Aero Commander Inc.)

Aircraft Engine Manufacturer Lycoming (IGSO-540-B1A)

No. of Engines 2 Engine Rating 380 HP

Min. T/O Wt. 5.38 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.0 k-lb Max. T/O Wt. War-Time 8.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,180 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 5.38 k-lb Max. Ldg. Wt. 8.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,100 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,000 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-217. Rockwell 680

Aircraft Manufacturer Rockwell International (formerly manufactured by Aero Commander Inc.)

Aircraft Engine Manufacturer Lycoming (IGSO-540-B1A)

No. of Engines 2 Engine Rating 380 HP

Min. T/O Wt. 5.71 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.5 k-lb Max. T/O Wt. War-Time 8.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,560 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 5.71 k-lb Max. Ldg. Wt. 8.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,450 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,500 lb/50 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-2l8. Rockwell SHRIKE, Grand Commander

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (R-985AN-14B)

No. of Engines 2 Engine Rating 450 HP

Min. T/O Wt. 6.22 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 9.9 k-lb Max. T/O Wt. War-Time 9.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,072 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 6.22 k-lb Max. Ldg. Wt. 9.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,850 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9,900 lb/62 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-219. Beechcraft 18

Aircraft Manufacturer Beech Aircraft Corp/Volpar Inc.

Aircraft Engine Manufacturer AiResearch (TPE 331-1-101B)

No. of Engines 2 Engine Rating 605 HP

Min. T/O Wt. 6.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.3 k-lb Max. T/O Wt. War-Time 10.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,665 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.2 k-lb Max. Ldg. Wt. 9.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 870 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,300 lb/80 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-220. Beechcraft Turbo 18

Aircraft Manufacturer Beech Aircraft/Volpar Inc.

Aircraft Engine Manufacturer AiResearch (TPE 331-1-101B)

No. of Engines 2 Engine Rating 705 HP

Min. T/O Wt. 7.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.5 k-lb Max. T/O Wt. War-Time 11.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,870 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 10.7 k-lb Max. Ldg. Wt. 11.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,040 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,500 lb/80 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-22l. Beechcraft Volpar Turboliner

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IGSO-480-A1E6)

No. of Engines 2 Engine Rating 340 HP

Min. T/O Wt. 5.39 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 7.7 k-lb Max. T/O Wt. War-Time 7.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,180 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 6.38 k-lb Max. Ldg. Wt. 7.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,700 lb/47 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-222. Beechcraft A-65, Queen Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IGSO-540-A1A)

No. of Engines 2 Engine Rating 380 HP

Min. T/O Wt. 5.74 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.8 k-lb Max. T/O Wt. War-Time 8.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,370 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.64 k-lb Max. Ldg. Wt. 8.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,340 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,800 lb/48 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-223. Beechcraft B-80, Queen Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-20)

No. of Engines 2 Engine Rating 550 SHP

Min. T/O Wt. 6.32 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 9.65 k-lb Max. T/O Wt. War-Time 9.65 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.13 k-lb Max. Ldg. Wt. 9.17 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9,650 lb/55 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-224. Beechcraft A-90, King Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-28)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 7.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.5 k-lb Max. T/O Wt. War-Time 11.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,060 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.7 k-lb Max. Ldg. Wt. 11.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,302 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,500 lb/105 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-225. Beechcraft A-l00, King Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-27)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 6.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.4 k-lb Max. T/O Wt. War-Time 10.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,730 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.4 k-lb Max. Ldg. Wt. 10.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,220 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,400 lb/87 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-226. Beechcraft 99A

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer Garrett AiResearch (TPE 331-1-151G)

No. of Engines 2 Engine Rating 665 SHP

Min. T/O Wt. 7.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.0 k-lb Max. T/O Wt. War-Time 10.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,600 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 9.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,220 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,000 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-227. Swearingen Merlin IIB

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3U-303G)

No. of Engines 2 Engine Rating 840 SHP

Min. T/O Wt. 8.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,300 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.9 k-lb Max. Ldg. Wt. 11.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,870 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	4	4	4	4	4	4	4	4
12	4	4	4	4	5	5	5	5
13	5	5	5	5	5	5	5	5

Figure A-228. Swearingen Merlin III

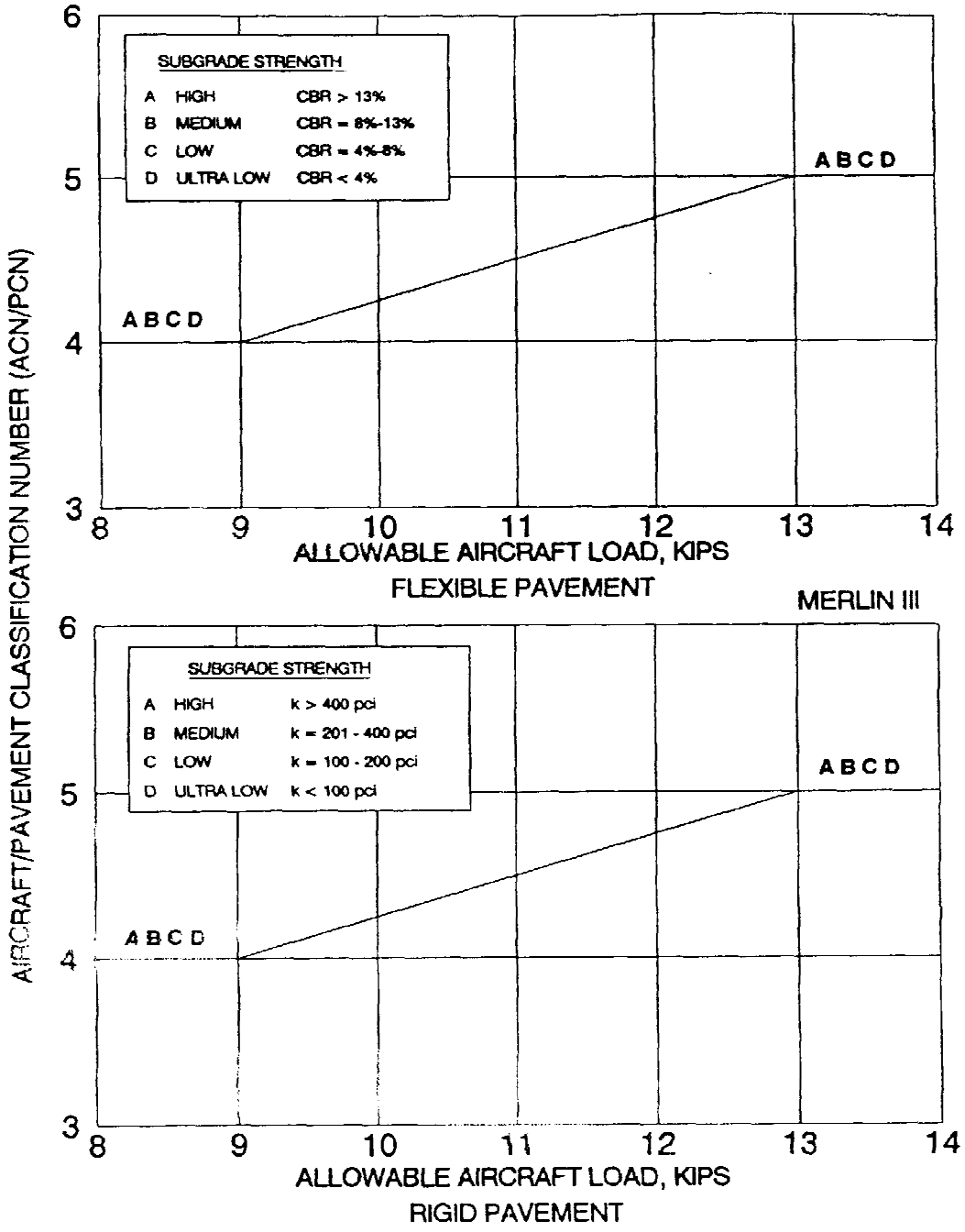


Figure A-229. Swearingen Merlin III, ACN/PCN Curves

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3U-303G)

No. of Engines 2 Engine Rating 940 SHP

Min. T/O Wt. 9.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,385 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.7 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,430 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-230. Swearingen Merlin IV

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3UW-303G)

No. of Engines 2 Engine Rating 940 SHP

Min. T/O Wt. 8.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,620 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.9 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,430 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-231. Swearingen SA-226TC, Metro

Aircraft Manufacturer De Havilland Canada

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-27)

No. of Engines 2 Engine Rating 620 SHP

Min. T/O Wt. 7.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.0 k-lb Max. Ldg. Wt. 12.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 850 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,050 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
12	3	3	3	3	3	3	3	4
13	4	4	4	4	3	3	3	5

Figure A-232. De Havilland DHC-6, Twin Otter

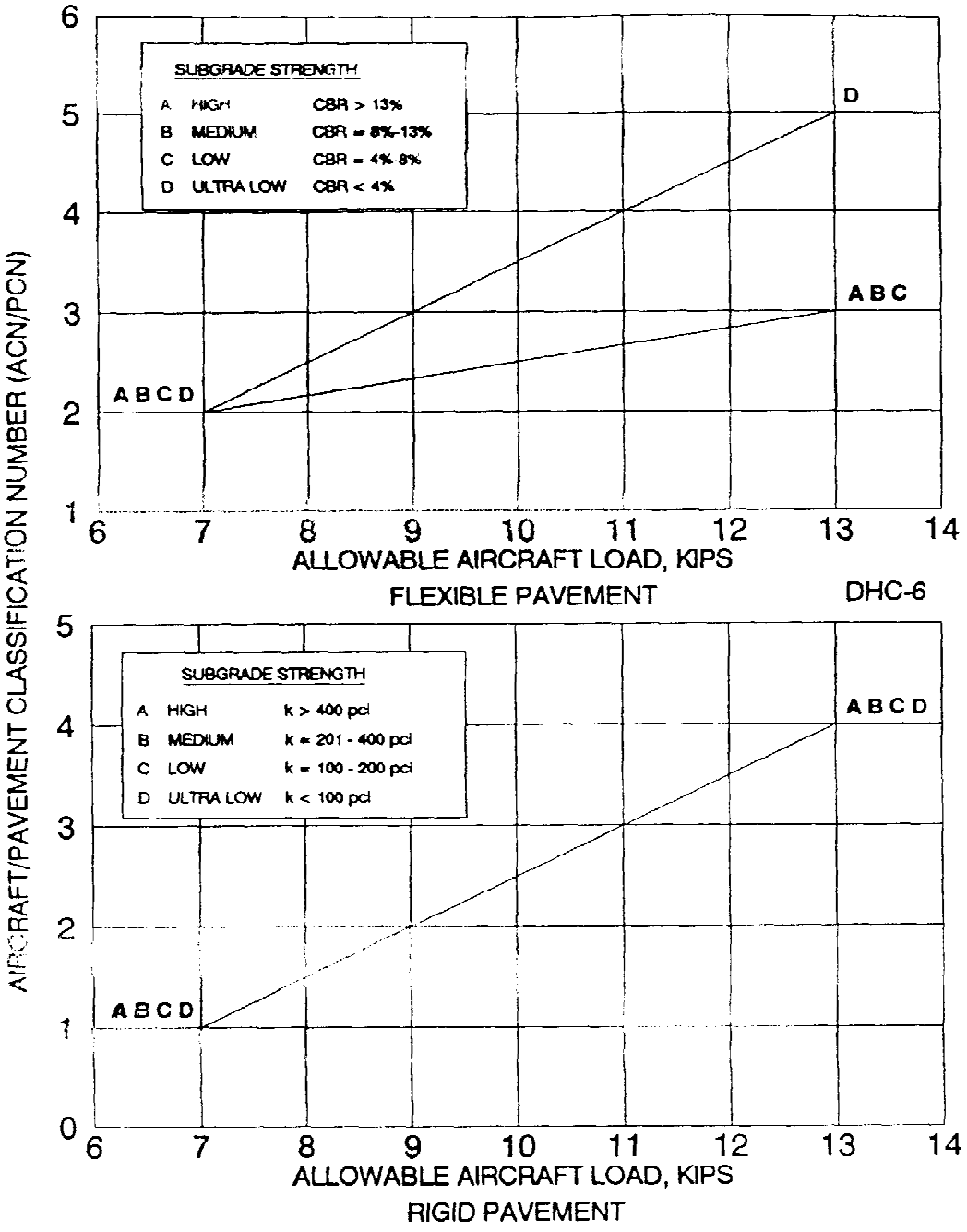


Figure A-233. De Havilland DHC-6, ACN/PCN Curves

Aircraft Manufacturer Hawker Siddeley

Aircraft Engine Manufacturer Bristol Siddeley (Gipsy Queen 70 MK 3)

No. of Engines 2 Engine Rating 400 HP

Min. T/O Wt. 7.04 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.95 k-lb Max. T/O Wt. War-Time 8.95 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,320 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.41 k-lb Max. Ldg. Wt. 8.50 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,910 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,950 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-234. Hawker Siddeley Dove

Aircraft Manufacturer Mitsubishi

Aircraft Engine Manufacturer AiResearch (TPE 331-10-501M)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 8.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.6 k-lb Max. T/O Wt. War-Time 11.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,825 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 10.7 k-lb Max. Ldg. Wt. 11.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,320 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,600 lb/63 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-235. Mitsubishi MU-2 (MU-2B-60)

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Garrett (TPE 331-201)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 7.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 960 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,295 ft

Max. T/O Wt. Peace-Time 7.3 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,635 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 2,200 ft

Min. Ldg. Wt. 7.2 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,060 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,480 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	2	2	2	2
12	3	3	3	3	4	4	4	4
13	4	4	4	4	4	4	4	4

Figure A-236. Short Brothers SC.7

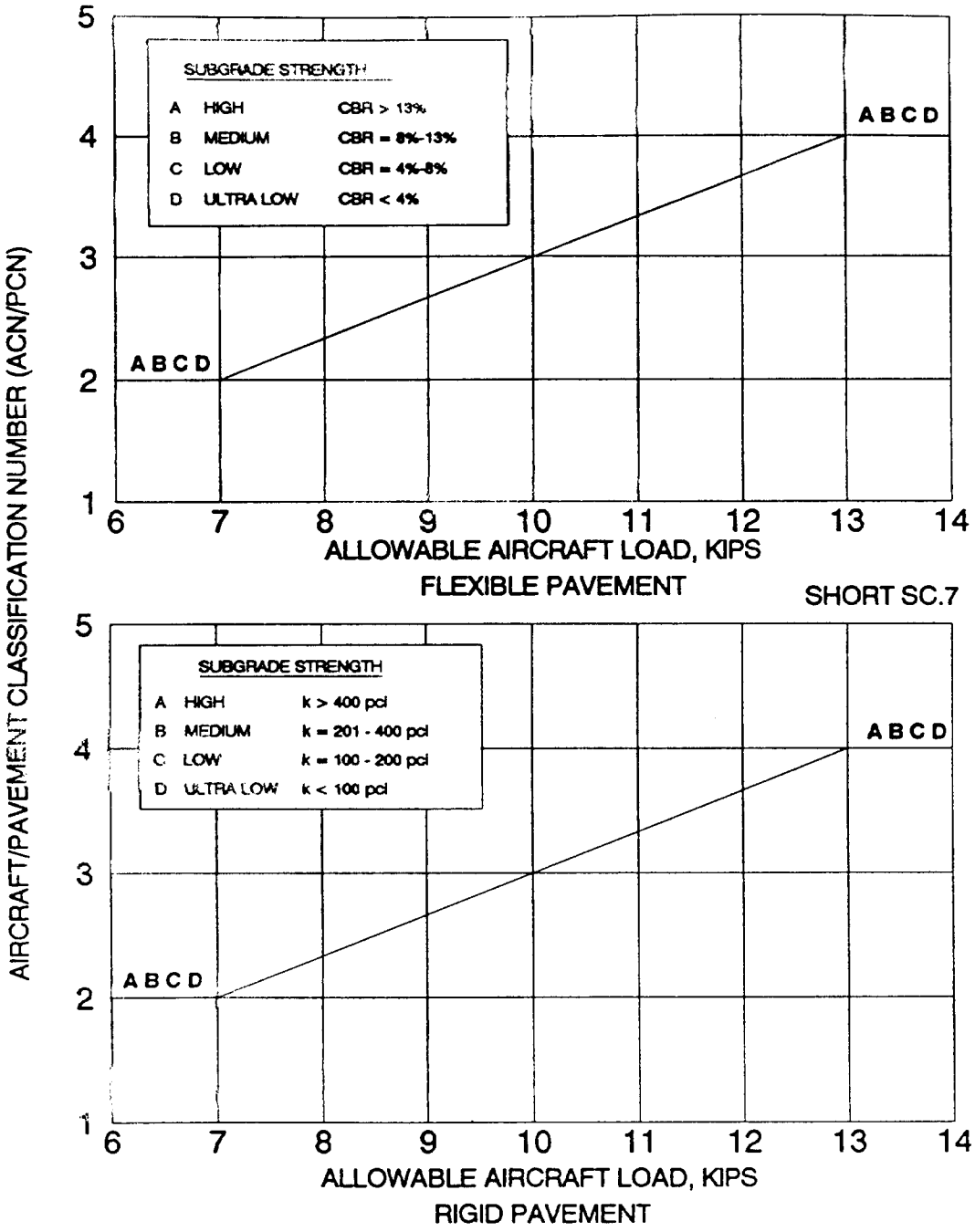


Figure A-237. Short Brothers SC.7, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Garrett (TPE 331-201)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 7.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 800 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 13.7 k-lb Max. T/O Wt. War-Time 14.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,290 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.2 k-lb Max. Ldg. Wt. 13.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,005 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,395 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	2	2	2	2
13	4	4	4	4	4	4	4	4
14	4	4	4	4	4	4	4	5
15	4	4	4	4	4	4	4	5

Figure A-238. Short Brothers SC.7-3M

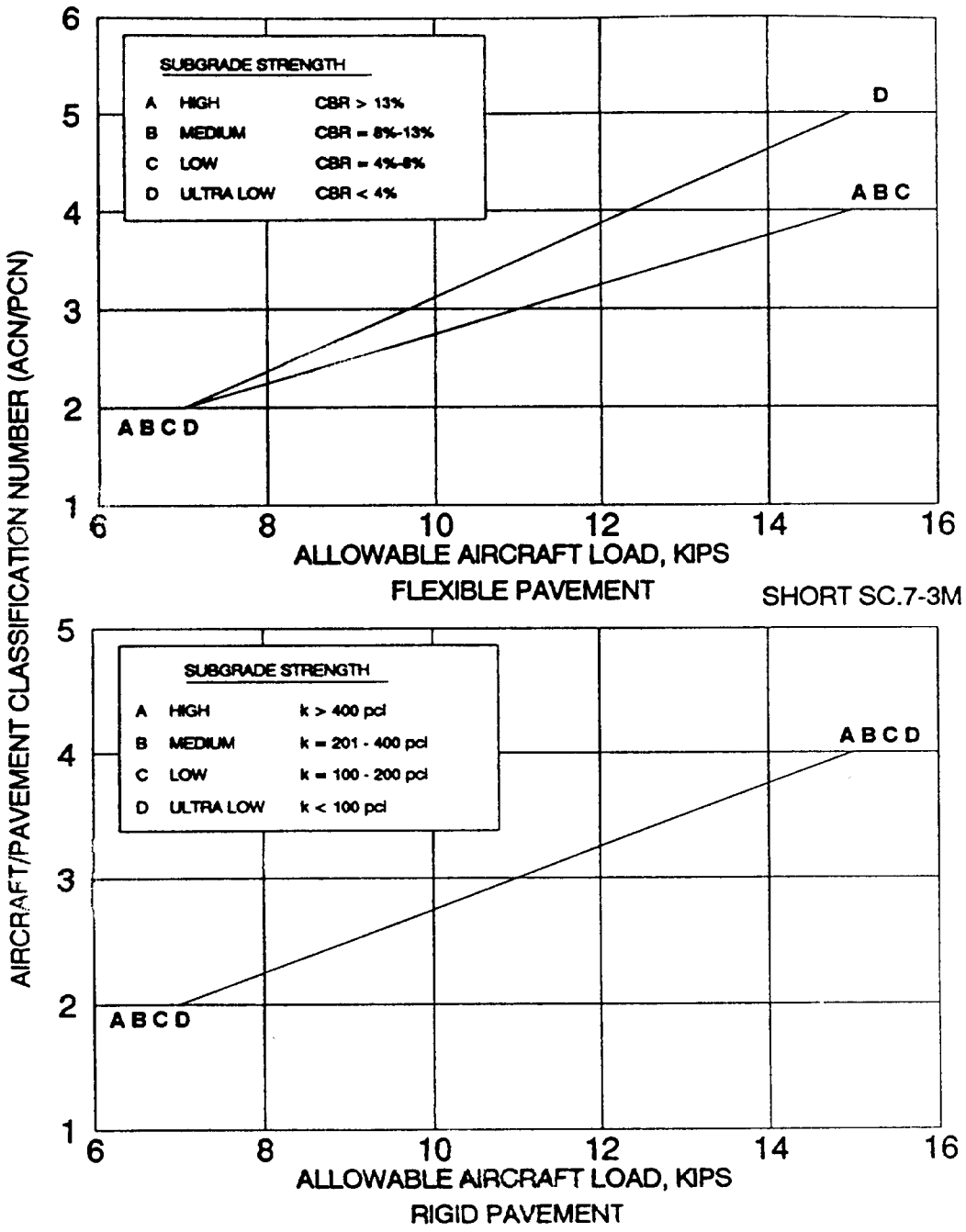


Figure A-239. Short Brothers SC.7-3M, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6A-45R)

No. of Engines 2 Engine Rating 1,180 SHP

Min. T/O Wt. 14.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,810 ft

Max. T/O Wt. Peace-Time 14.7 k-lb Max. T/O Wt. War-Time 22.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,280 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 14.2 k-lb Max. Ldg. Wt. 22.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,980 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,410 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	5	5	5	5	4	4	4	5
15	5	5	5	5	5	5	5	6
23	7	7	8	8	8	8	8	9

Figure A-240. Short Brothers 330

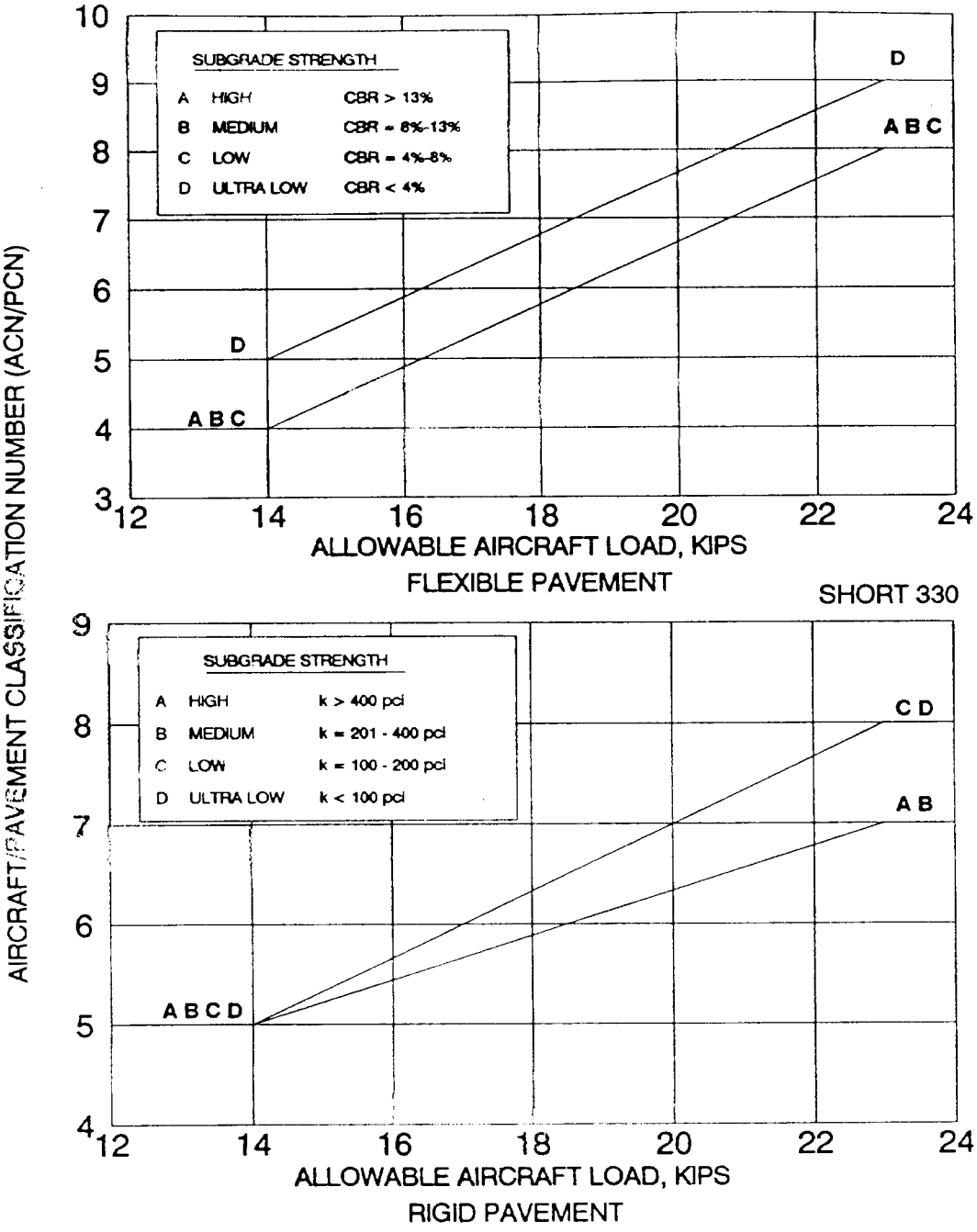


Figure A-241. Short Brothers 330, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6A-65R)

No. of Engines 2 Engine Rating 1,424 SHP

Min. T/O Wt. 16.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,010 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,440 ft

Max. T/O Wt. Peace-Time 17.2 k-lb Max. T/O Wt. War-Time 27.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,960 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 16.6 k-lb Max. Ldg. Wt. 26.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,080 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,360 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
17	6	6	6	6	6	6	6	7
27	10	10	10	10	10	10	11	11

Figure A-242. Short Brothers 360

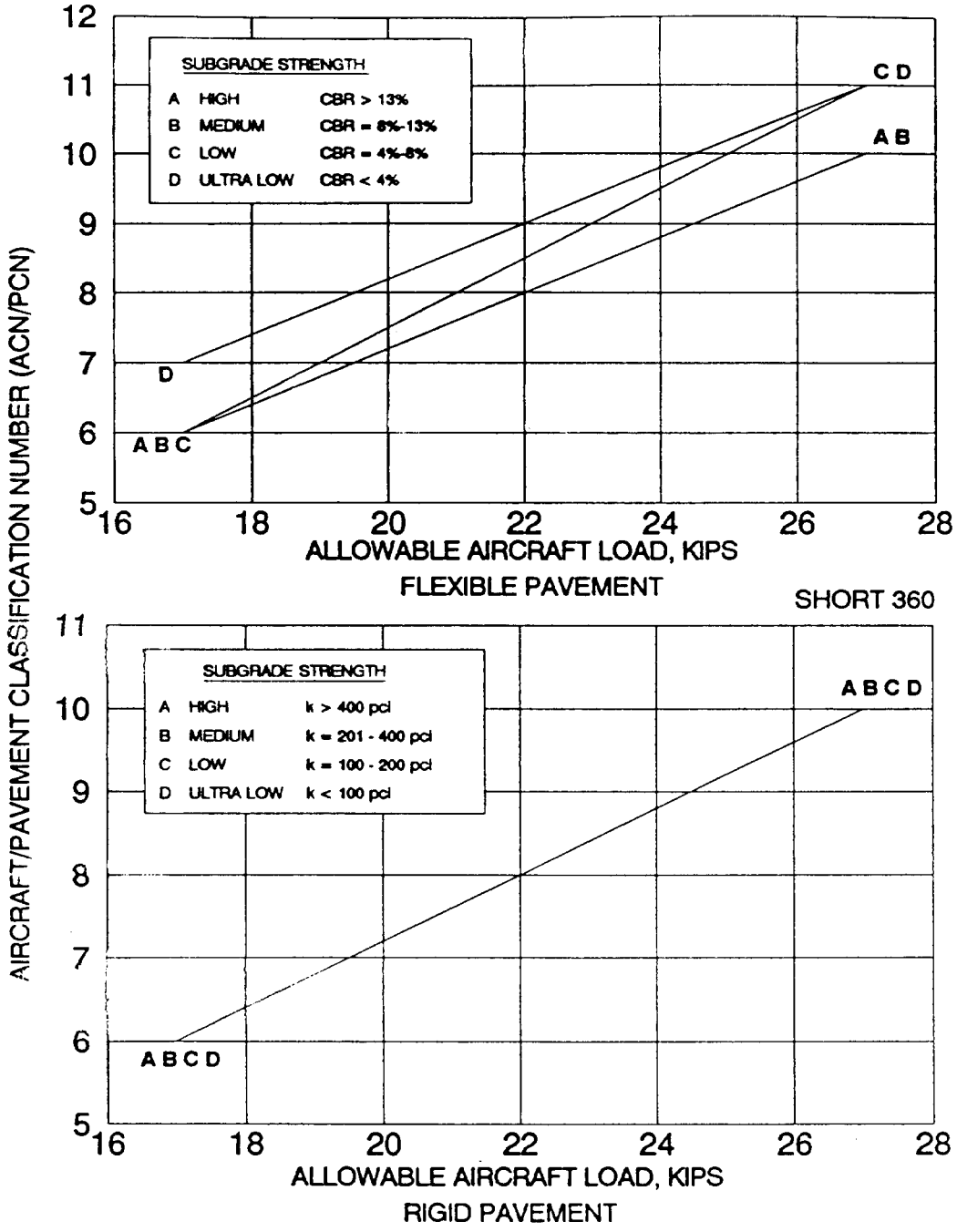


Figure A-243. Short Brothers 360, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (R2800)

No. of Engines 2 Engine Rating 2,400 BHP

Min. T/O Wt. 30.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.5 k-lb Max. T/O Wt. War-Time 42.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,280 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 38.6 k-lb Max. Ldg. Wt. 39.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,850 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
39	9	9	10	10	7	8	9	11
40	9	9	10	10	7	8	9	11
43	10	10	11	12	8	9	10	12

Figure A-244. Convair 240

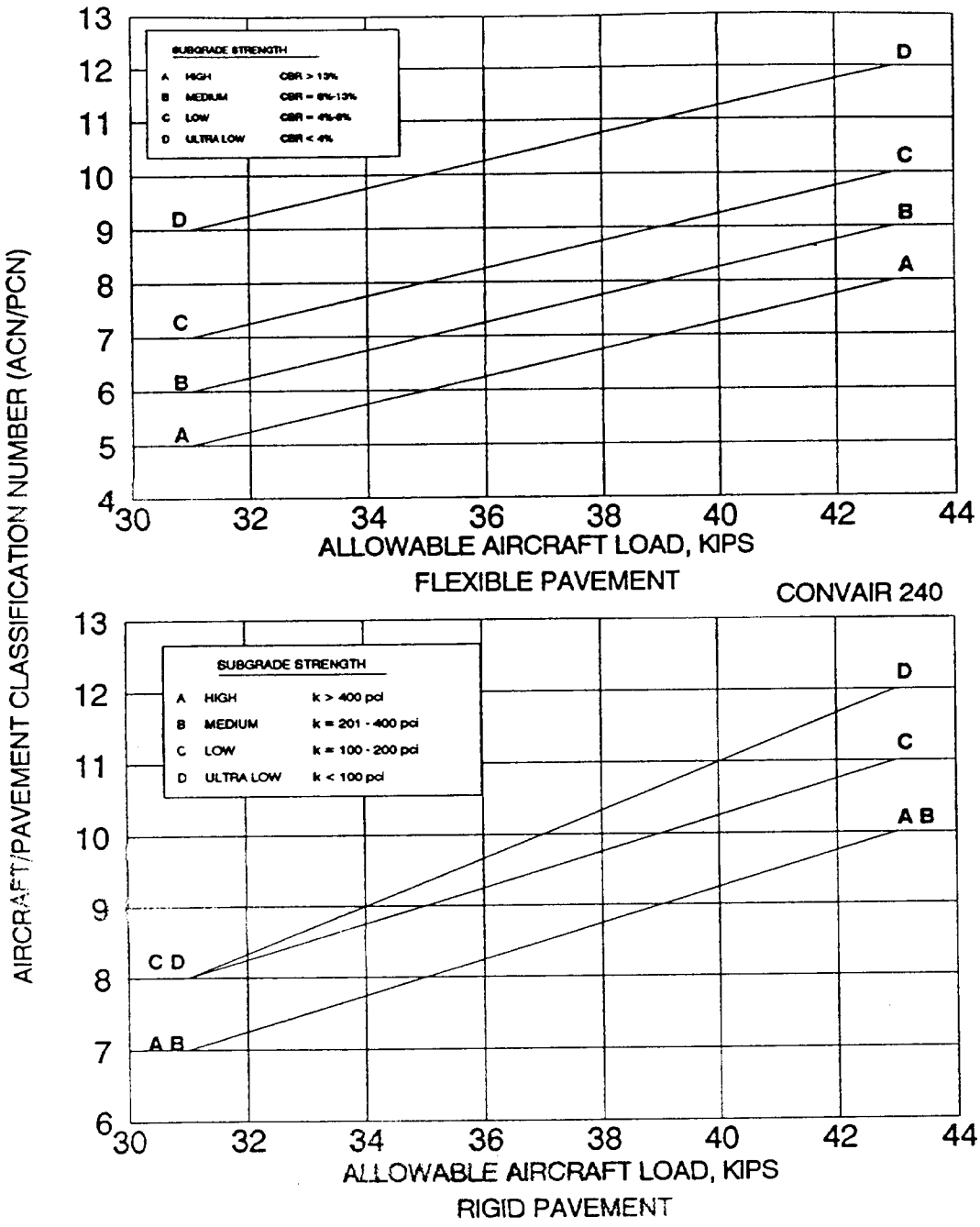


Figure A-245. Convair 240, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (R2800-CB16/17)

No. of Engines 2 Engine Rating 2,400 BHP

Min. T/O Wt. 32.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 47.0 k-lb Max. T/O Wt. War-Time 47.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 45.0 k-lb Max. Ldg. Wt. 46.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
45	8	9	10	11	7	7	9	12
46	8	9	10	11	7	8	10	12
47	9	10	11	12	7	8	10	13

Figure A-246. Convair 340

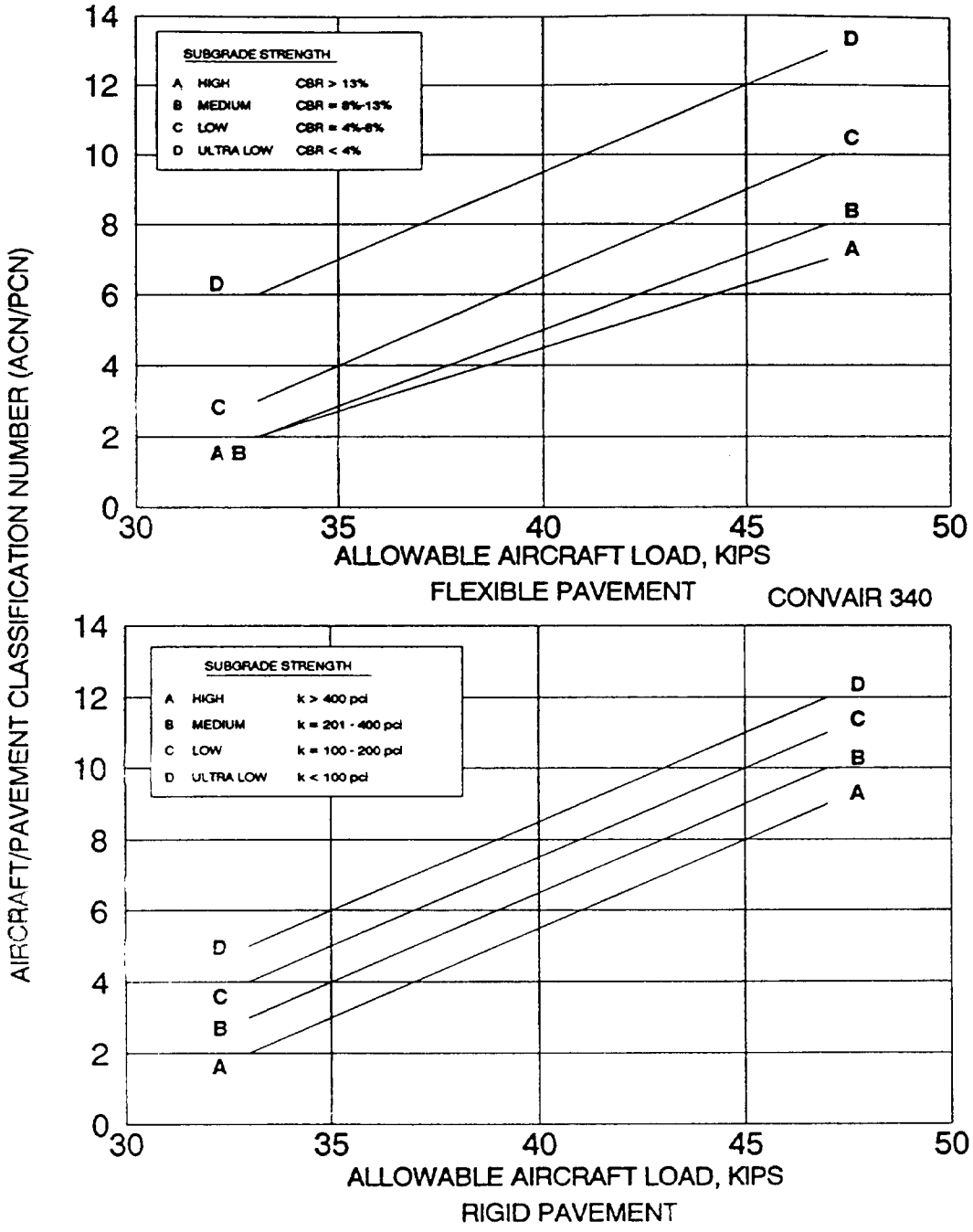


Figure A-247. Convair 340, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer Pratt and Whitney (R2800-CB16/17)

No. of Engines 2 Engine Rating 2,400 BHP

Min. T/O Wt. 33.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 49.1 k-lb Max. T/O Wt. War-Time 49.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 47.0 k-lb Max. Ldg. Wt. 47.7 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
47	9	10	11	12	7	8	10	13
48	9	10	11	12	7	8	10	13
49	9	10	11	12	8	9	11	13
50	10	11	12	13	8	9	11	14

Figure A-248. Convair 440

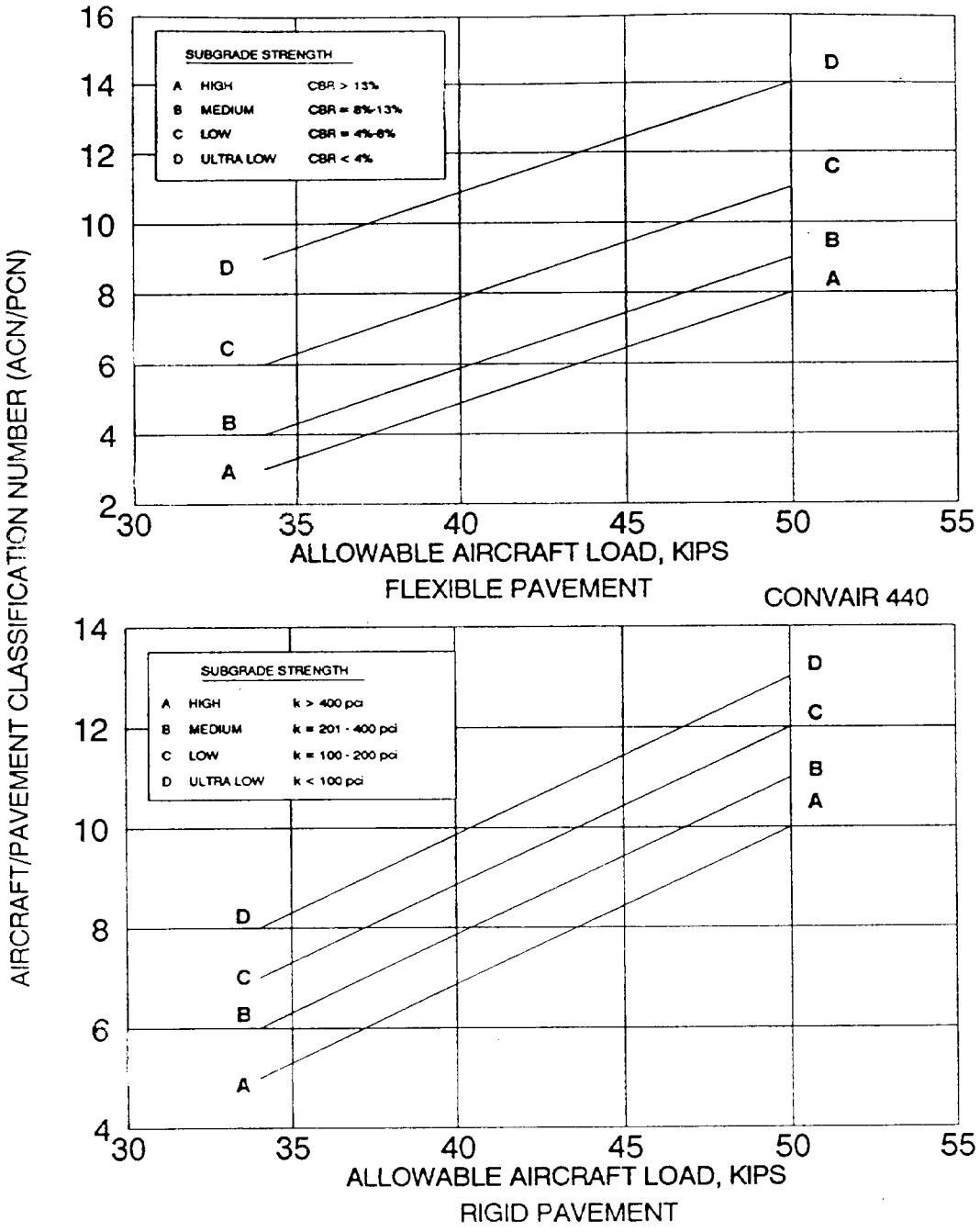


Figure A-249. Convair 440, ACN/PCN Curves

Aircraft Manufacturer Allison Division of GM/Convair

Aircraft Engine Manufacturer Allison (501-D13)

No. of Engines 2 Engine Rating 3,750 ESHP

Min. T/O Wt. 33.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 54.6 k-lb Max. T/O Wt. War-Time 58.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 50.0 k-lb Max. Ldg. Wt. 52.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,260 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
50	10	11	12	13	8	9	11	14
52	11	12	13	14	9	10	12	14
55	11	12	13	14	9	11	13	15
58	12	13	14	15	10	12	14	16

Figure A-250. Convair 580

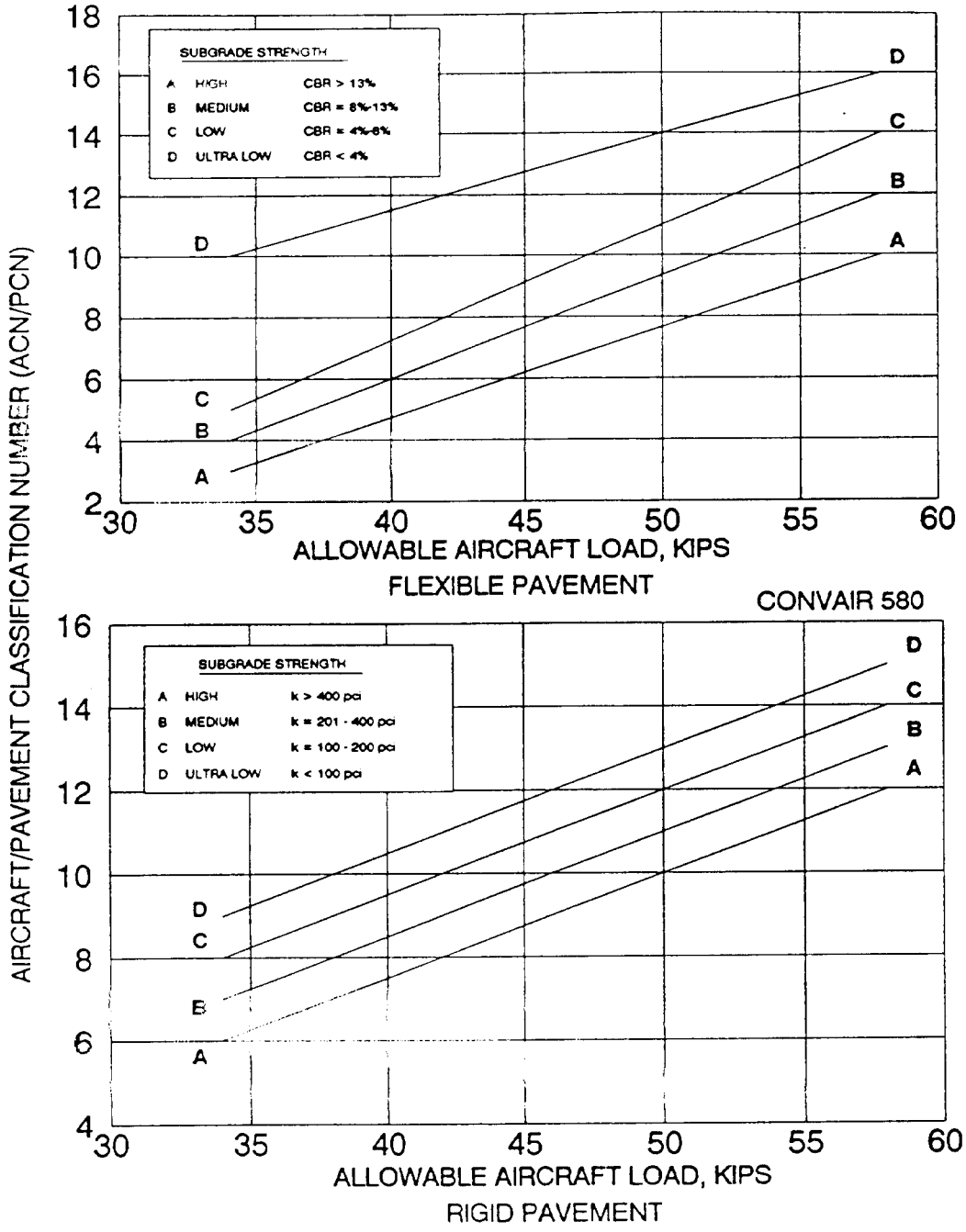


Figure A-251. Convair 580, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer Rolls-Royce (Dart 542-4)

No. of Engines 2 Engine Rating 2,750 SHP

Min. T/O Wt. 30.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 46.2 k-lb Max. T/O Wt. War-Time 46.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 39.5 k-lb Max. Ldg. Wt. 44.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,950 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,350 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
40	9	9	10	10	7	8	9	11
44	10	10	11	12	8	9	10	12
46	10	10	11	12	9	10	11	13

Figure A-252. Convair 600

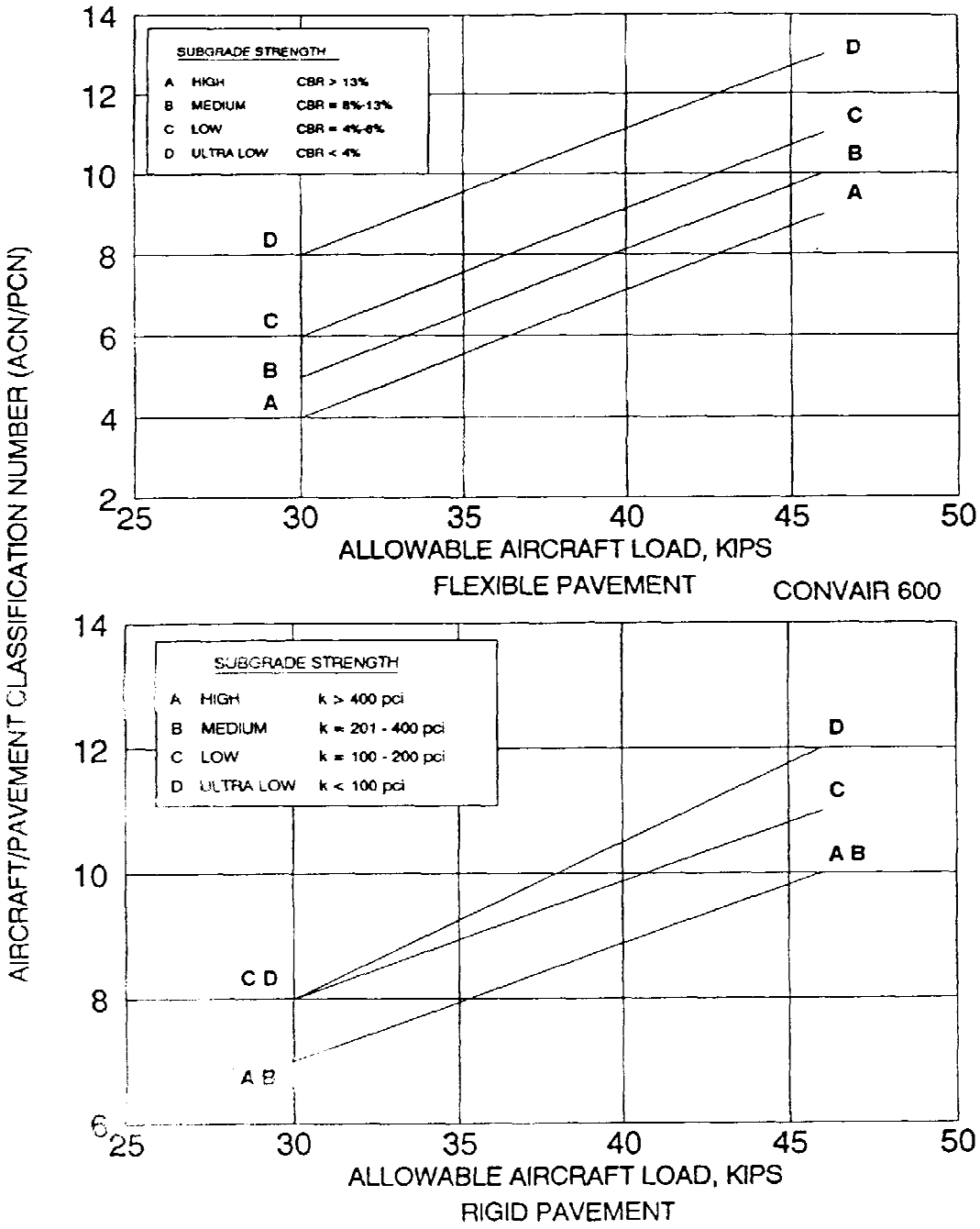


Figure A-253. Convair 600, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer Rolls-Royce (Dart 542-4)

No. of Engines 2 Engine Rating 2,750 SHP

Min. T/O Wt. 32.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 55.0 k-lb Max. T/O Wt. War-Time 55.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 50.0 k-lb Max. Ldg. Wt. 52.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,400 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
50	10	11	12	13	8	9	11	14
52	10	11	12	13	9	10	11	14
55	11	12	13	14	9	10	12	15

Figure A-254. Convair 640

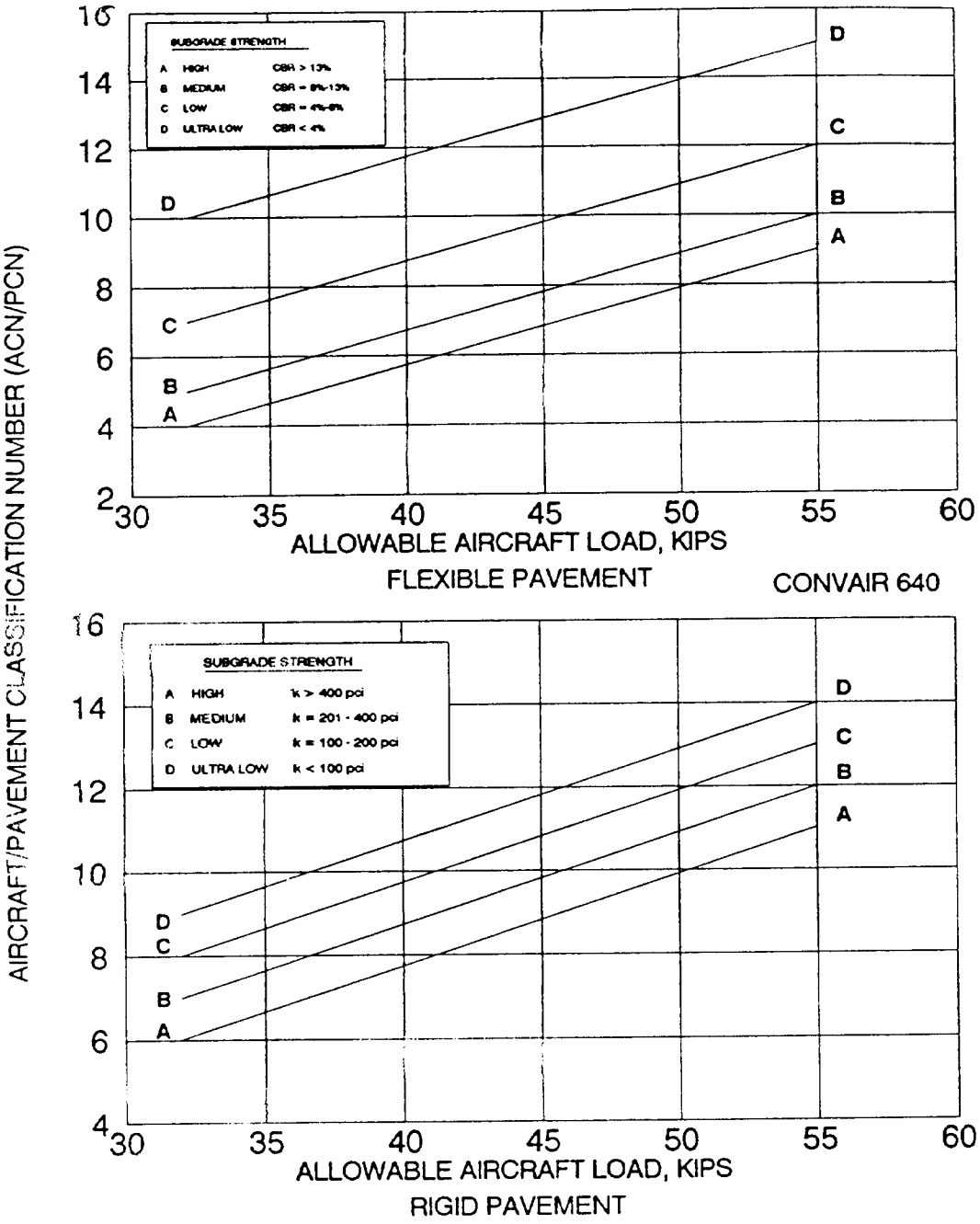


Figure A-255. Convair 640, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (R-1830-S1C3G)

No. of Engines 2 Engine Rating 1,200 BHP

Min. T/O Wt. 18.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 4,500 ft

Max. T/O Wt. Peace-Time 25.2 k-lb Max. T/O Wt. War-Time 26.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 6,600

Min. Ldg. Wt. 24.4 k-lb Max. Ldg. Wt. 24.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
24	6	7	7	7	7	7	8	9
25	6	7	7	7	7	7	8	9
27	7	8	8	8	7	7	9	10

Figure A-256. Douglas DC-3

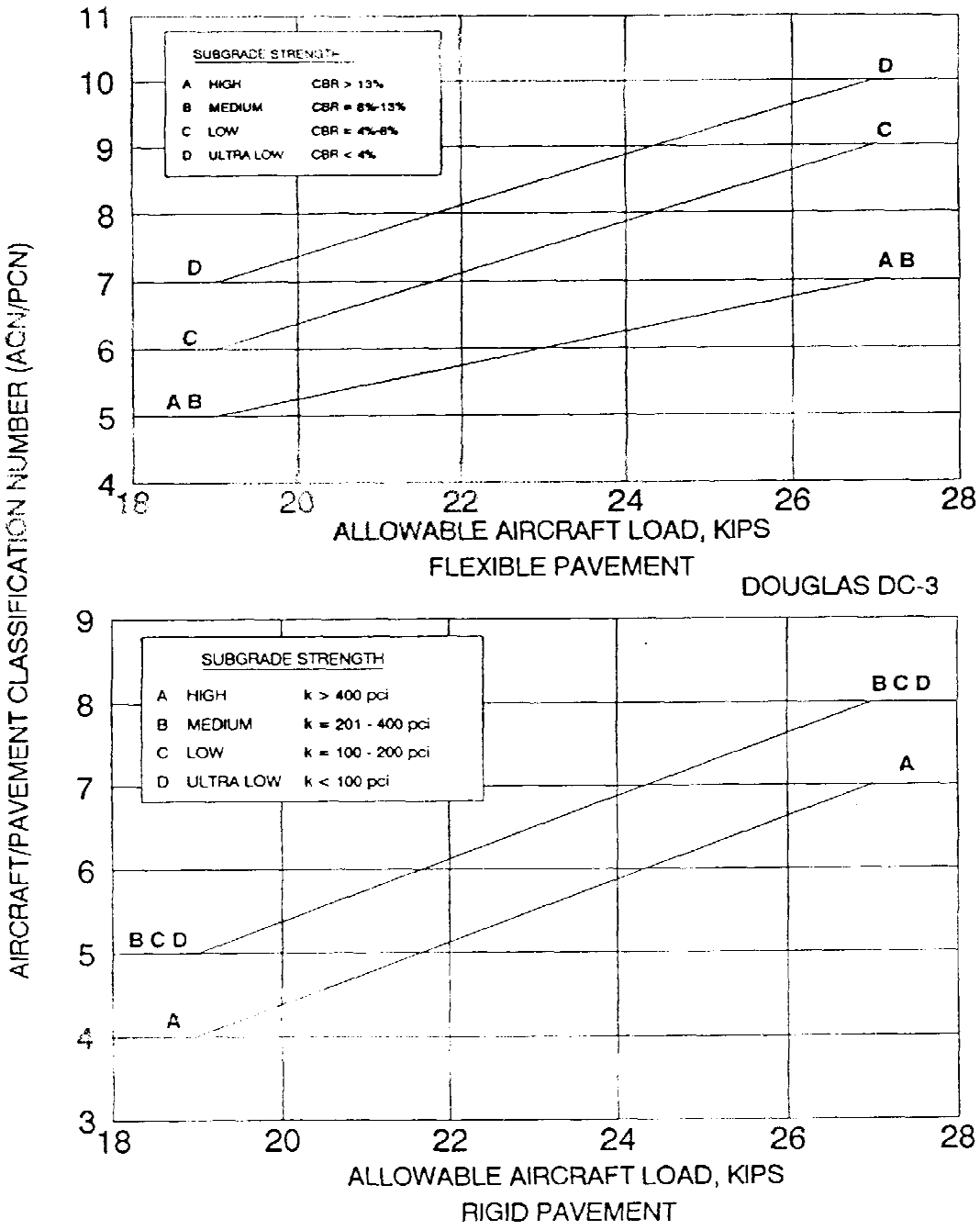


Figure A-257. Douglas DC-3, ACN/PCN Curves

Aircraft Manufacturer Fairchild

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.7 MK529-7E)

No. of Engines 2 Engine Rating 2,185 ESHP

Min. T/O Wt. 25.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.0 k-lb Max. T/O Wt. War-Time 42.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,410 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 37.5 k-lb Max. Ldg. Wt. 40.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,340 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-258. Fairchild F-27

Aircraft Manufacturer Fairchild

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.7 MK532-7)

No. of Engines 2 Engine Rating 2,250 ESHP

Min. T/O Wt. 27.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 45.5 k-lb Max. T/O Wt. War-Time 45.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,730 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 42.2 k-lb Max. Ldg. Wt. 45.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,360 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-259. Fairchild FH-227

Aircraft Manufacturer Grumman Aircraft

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.7/2 MK529-8E)

No. of Engines 2 Engine Rating 2,190 ESHP

Min. T/O Wt. 25.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 35.1 k-lb Max. T/O Wt. War-Time 35.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,550 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 27.1 k-lb Max. Ldg. Wt. 33.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,525 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra Low	High	Medium	Low	Very Low
Weight	A	B	C	D	A	B	C	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-260. Grumman Gulfstream I

Aircraft Manufacturer Glenn L. Martin Co.

Aircraft Engine Manufacturer Pratt and Whitney (R-2800 CB16)

No. of Engines 2 Engine Rating 2,400 HP

Min. T/O Wt. 30.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.8 k-lb Max. T/O Wt. War-Time 42.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,780 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 33.7 k-lb Max. Ldg. Wt. 41.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,670 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-261. Martin 404

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Bastan VII)

No. of Engines 2 Engine Rating 1,145 EHP

Min. T/O Wt. 14.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 23.4 k-lb Max. T/O Wt. War-Time 23.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,970 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 22.7 k-lb Max. Ldg. Wt. 23.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-262. Aerospatiale Nord 262

Aircraft Manufacturer Hawker Siddeley (Formerly De Havilland)

Aircraft Engine Manufacturer De Havilland (D.H. Gipsy Queen 30 MK.2)

No. of Engines 4 Engine Rating 250 HP

Min. T/O Wt. 9.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 13.5 k-lb Max. T/O Wt. War-Time 13.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,425 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 12.0 k-lb Max. Ldg. Wt. 13.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,065 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-263. Hawker Siddeley Heron

Aircraft Manufacturer Hawker Siddeley

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.7 MK532-2L or -2S)

No. of Engines 2 Engine Rating 2,280 HP

Min. T/O Wt. 29.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 44.5 k-lb Max. T/O Wt. War-Time 44.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,670 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 39.5 k-lb Max. Ldg. Wt. 43.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
40	8	9	9	10	7	8	9	11
43	9	10	10	11	7	8	10	12
45	10	10	11	11	8	9	11	12

Figure A-264. Hawker Siddeley HS-748

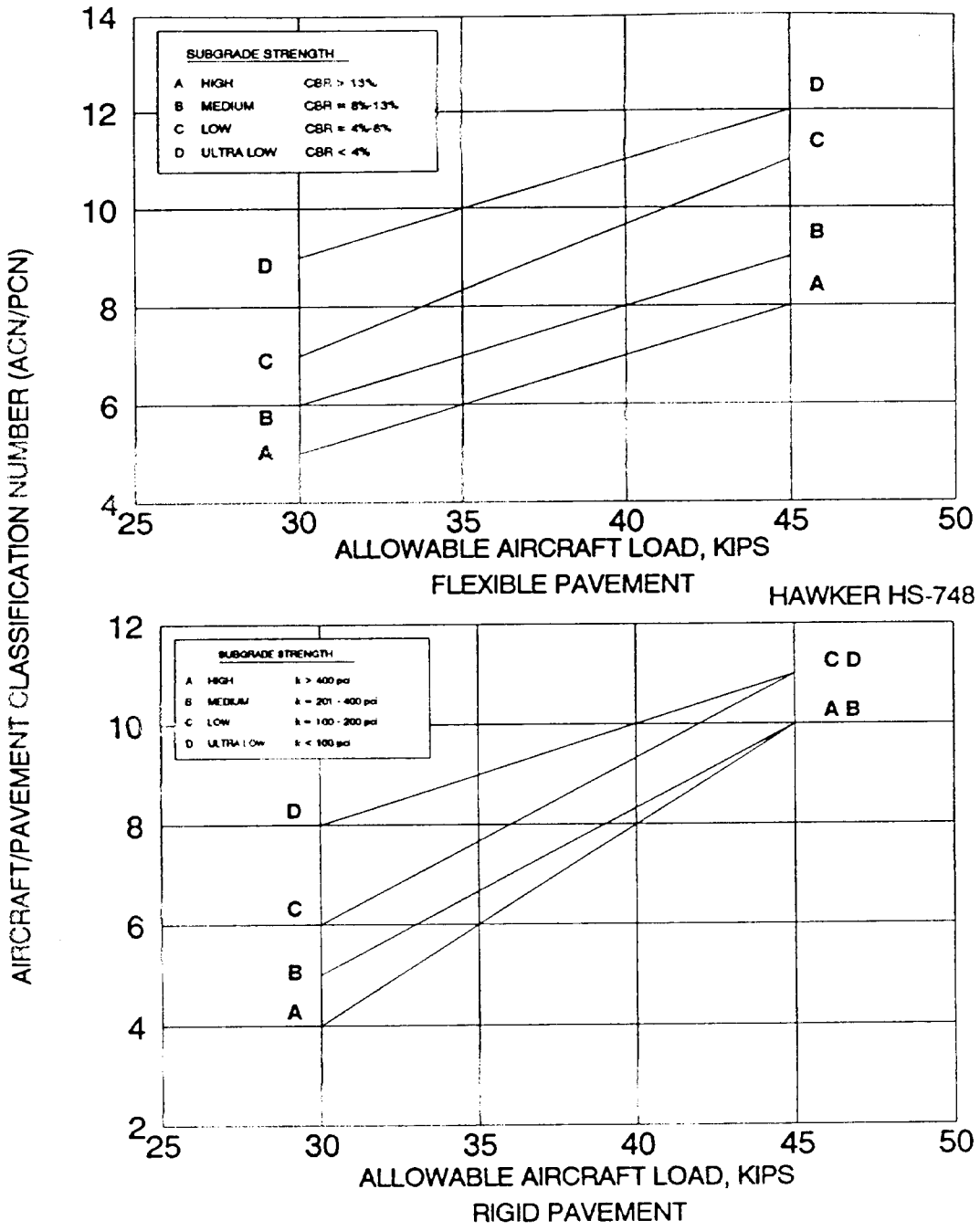


Figure A-265. Hawker Siddeley HS-748, ACN/PCN Curves

Aircraft Manufacturer Nihon Aeroplane Mfg. Co.

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.10/1 MK 542)

No. of Engines 2 Engine Rating 3,060 HP

Min. T/O Wt. 38.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 55.1 k-lb Max. T/O Wt. War-Time 55.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,200 ft (To 35 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 50.8 k-lb Max. Ldg. Wt. 54.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,190 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-266. Nihon/N.A.M.C. YS-11A

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (R-2000)

No. of Engines 4 Engine Rating 1,450 HP

Min. T/O Wt. 45.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 73.0 k-lb Max. T/O Wt. War-Time 73.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 45.0 k-lb Max. Ldg. Wt. 63.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
45	7	8	9	10	5	6	8	10
64	11	12	14	15	8	11	13	16
73	13	14	16	18	11	13	16	20

Figure A-267. Douglas DC-4

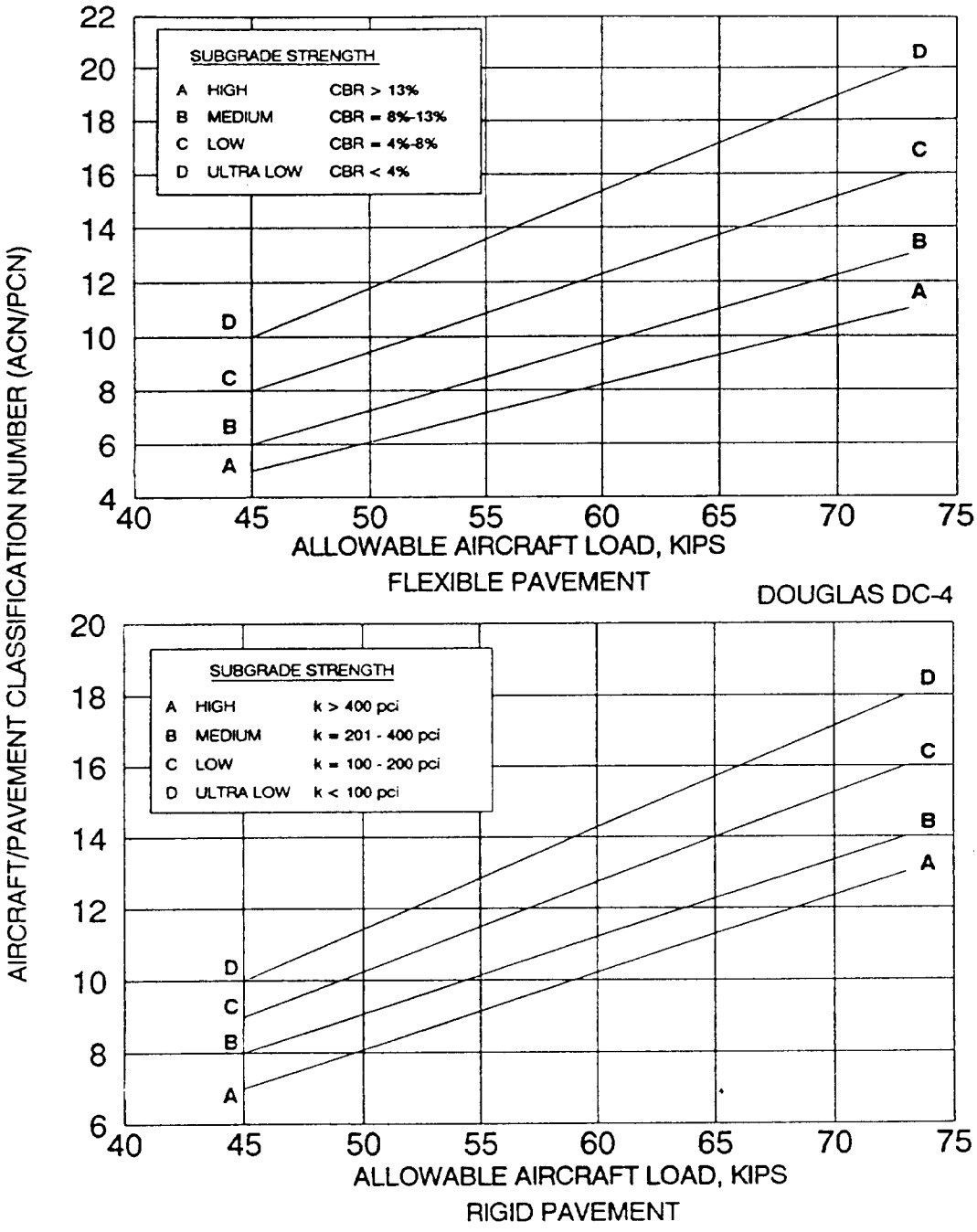


Figure A-268. Douglas DC-4, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (R-2800-CB17)

No. of Engines 4 Engine Rating 2,500 HP

Min. T/O Wt. 64.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 106.0 k-lb Max. T/O Wt. War-Time 106.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 76.2 k-lb Max. Ldg. Wt. 88.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
76	16	17	19	19	11	14	16	20
88	19	20	23	23	15	17	20	25
106	23	25	28	28	20	23	26	31

Figure A-269. Douglas DC-6

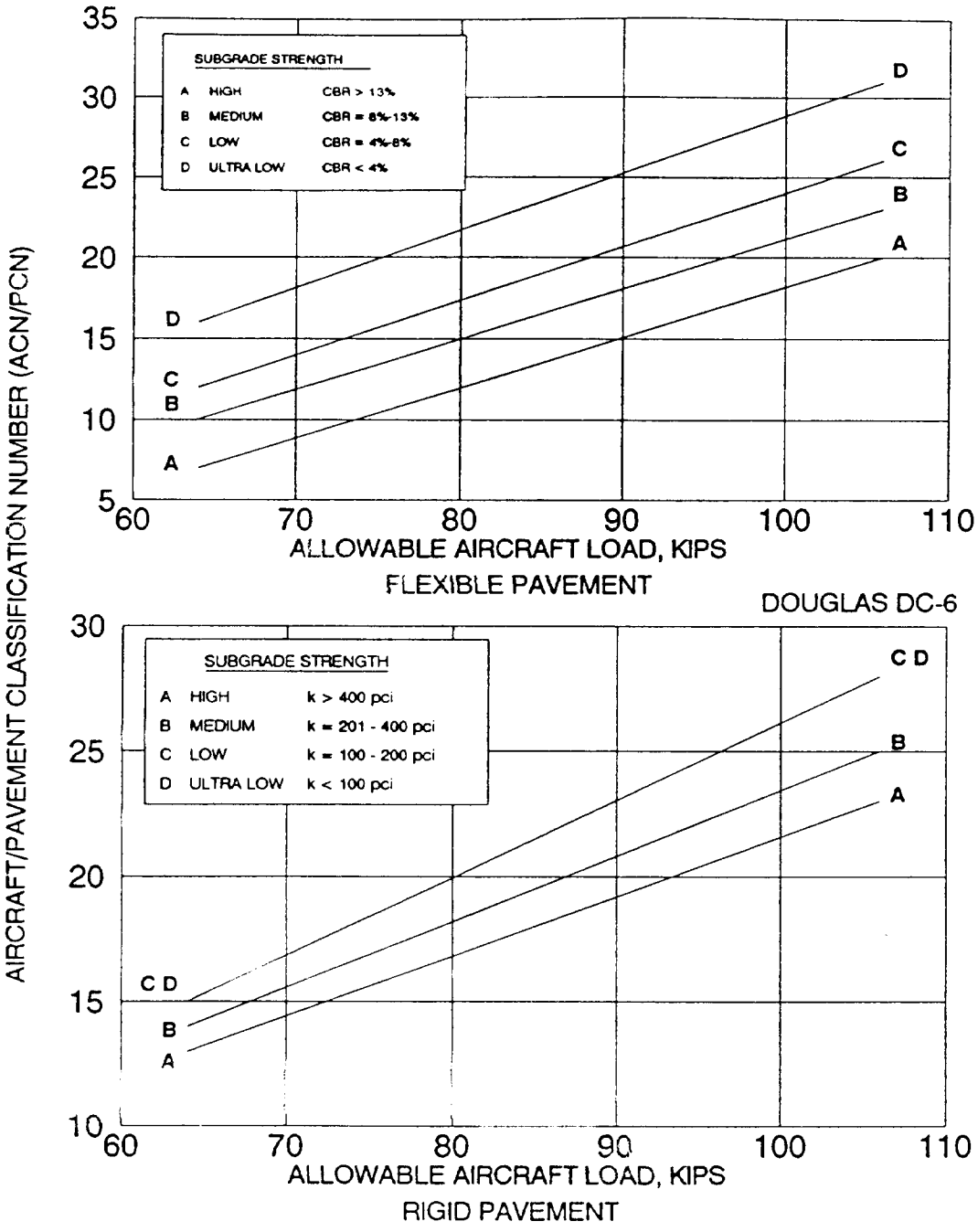


Figure A-270. Douglas DC-6, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Wright (R-3350-18EA1)

No. of Engines 4 Engine Rating 3,400 HP

Min. T/O Wt. 93.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 143.0 k-lb Max. T/O Wt. War-Time 143.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 100.8 k-lb Max. Ldg. Wt. 109.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
101	24	26	28	28	18	21	25	29
109	26	28	30	31	20	23	27	32
143	36	38	41	43	32	35	40	44

Figure A-27l. Douglas DC-7

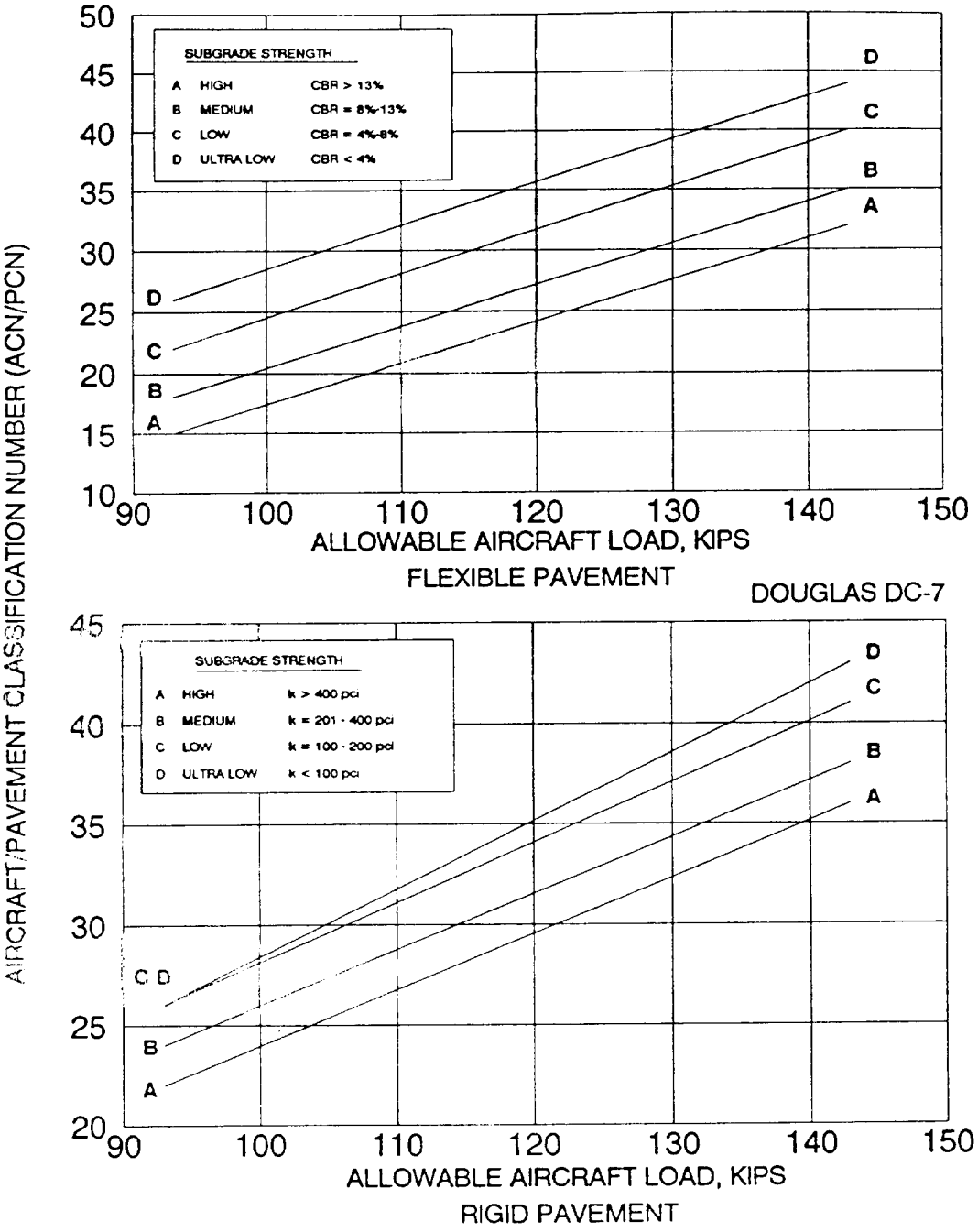


Figure A-272. Douglas DC-7, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (501-D13)

No. of Engines 4 Engine Rating 3,750 SHP

Min. T/O Wt. 66.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 116.0 k-lb Max. T/O Wt. War-Time 116.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 86.0 k-lb Max. Ldg. Wt. 95.7 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
86	22	23	25	26	17	19	22	26
96	25	26	28	29	20	22	26	29
116	32	33	35	36	27	29	33	36

Figure A-273. Lockheed L-188, Electra II

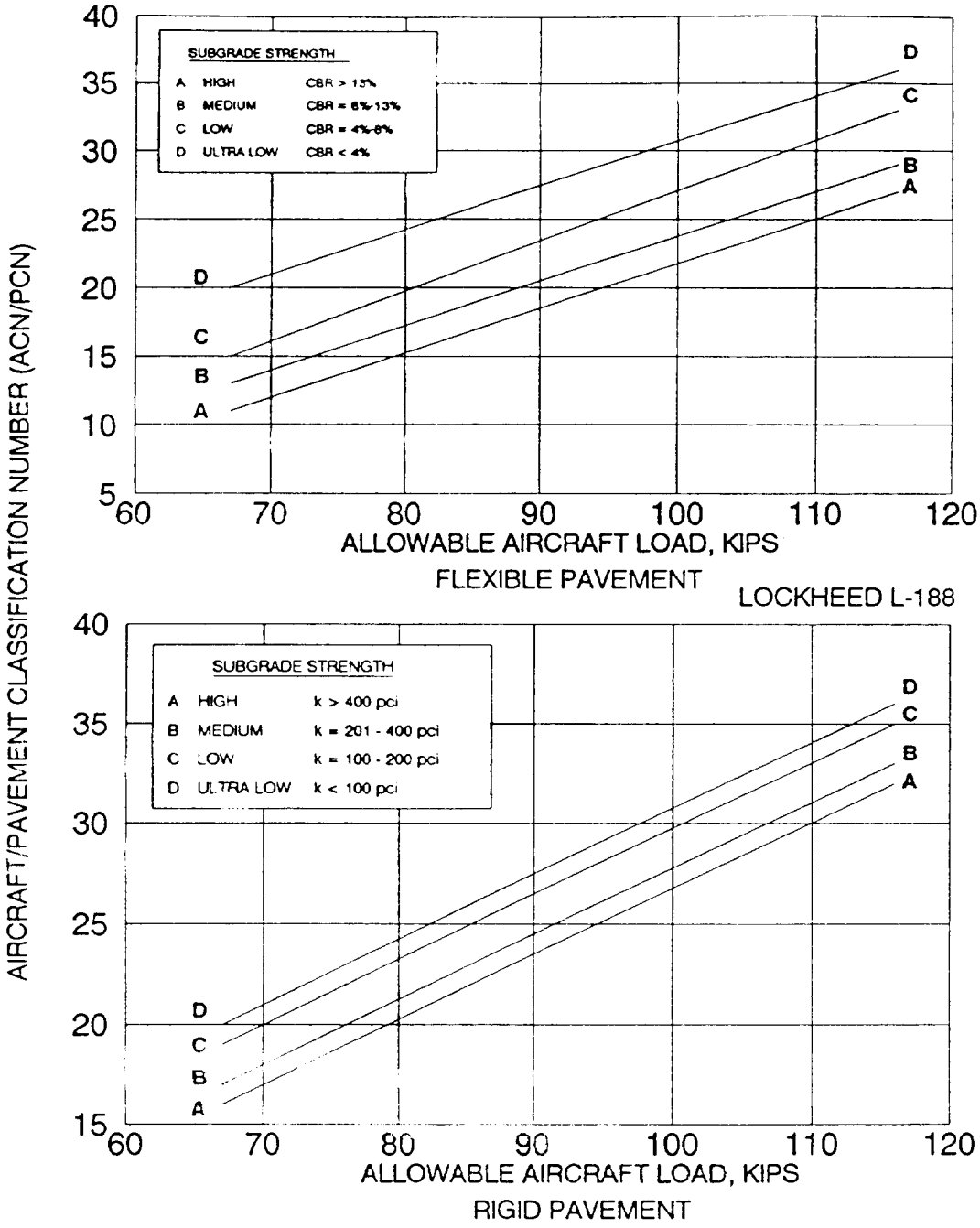


Figure A-274. Lockheed L-188, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (501-D22A)

No. of Engines 4 Engine Rating 4 508 SHP

Min. T/O Wt. 84.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. 4,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 155.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 120.0 k-lb Max. Ldg. Wt. 130.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,760 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
120	23	23	26	27	17	20	23	26
130	25	25	29	30	20	22	25	29
155	31	31	35	36	26	29	31	36

Figure A-275. Lockheed L-382 (L-100-20), Hercules

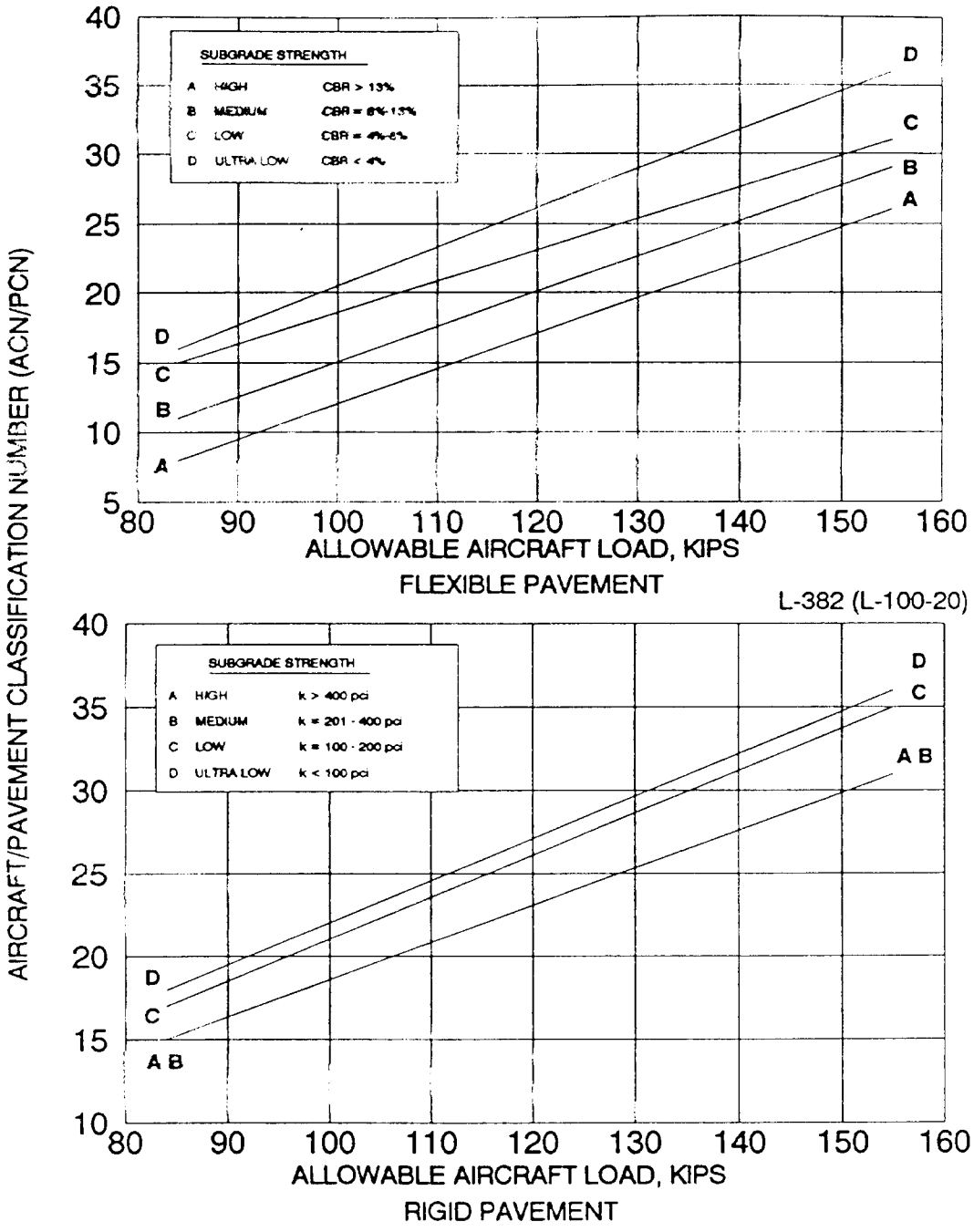


Figure A-276. Lockheed L-382 (L-100-20), ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (501-D22A)

No. of Engines 4 Engine Rating 4,508 SHP

Min. T/O Wt. 84.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 4,050 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 155.0 k-lb Max. T/O Wt. War-Time 155.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 128.8 k-lb Max. Ldg. Wt. 135.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,830 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
129	25	25	28	29	20	22	25	29
135	26	26	30	31	21	24	26	30
155	31	31	35	36	26	29	31	36

Figure A-277. Lockheed L-382 (L-100-30), Hercules

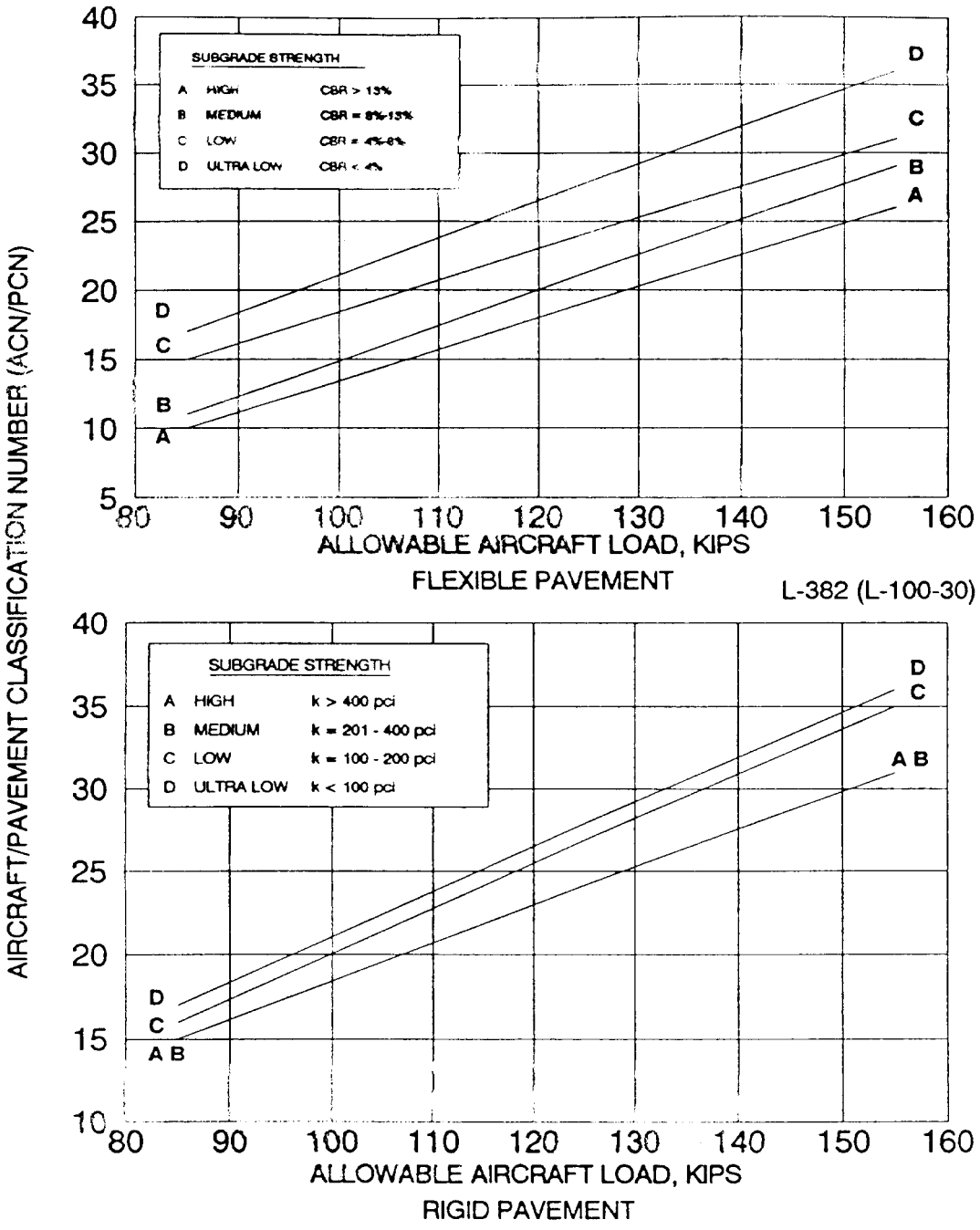


Figure A-278. Lockheed L-382 (L-100-30), ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Wright (GR-3350-BD1)

No. of Engines 4 Engine Rating 2,500 HP

Min. T/O Wt. 67.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 107.0 k-lb Max. T/O Wt. War-Time 107.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 67.6 k-lb Max. Ldg. Wt. 89.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,500 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-279. Lockheed 749A, Constellation

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Wright (R-3350-91)

No. of Engines 4 Engine Rating 3,400 HP

Min. T/O Wt. 87.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,750 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 135.4 k-lb Max. T/O Wt. War-Time 145.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 80.5 k-lb Max. Ldg. Wt. 122.0 k-lb

Min. Ldg. Dist. @ Min. Ldg. Wt. 1,750 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-280. Lockheed 1049, Super Constellation

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Wright (988TC18EA2)

No. of Engines 4 Engine Rating 3,400 BHP

Min. T/O Wt. 103.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 156.0 k-lb Max. T/O Wt. War-Time 156.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 116.0 k-lb Max. Ldg. Wt. 123.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-281. Lockheed 1649A, Starliner

Aircraft Manufacturer British Aircraft/Vickers

Aircraft Engine Manufacturer Rolls-Royce (Dart 510)

No. of Engines 4 Engine Rating 1,600 BHP

Min. T/O Wt. 40.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 64.5 k-lb Max. T/O Wt. War-Time 64.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 51.4 k-lb Max. Ldg. Wt. 57.5 k-lb

Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,060 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-282. B.A.C./Vickers Viscount 745

Aircraft Manufacturer British Aircraft/Vickers

Aircraft Engine Manufacturer Rolls-Royce (Dart RDa.7/1 Mk 525)

No. of Engines 4 Engine Rating 1,990 EHP

Min. T/O Wt. 45.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 72.5 k-lb Max. T/O Wt. War-Time 72.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,930 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 58.9 k-lb Max. Ldg. Wt. 64.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,450 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-283. B.A.C./Vickers Viscount 810

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer Pratt and Whitney (JT15D-1A)

No. of Engines 2 Engine Rating 2,200 lb

Min. T/O Wt. 8.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.9 k-lb Max. T/O Wt. War-Time 11.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,940 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.4 k-lb Max. Ldg. Wt. 11.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,270 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,900 lb/100 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-284. Cessna Citation I

Aircraft Manufacturer Learjet

Aircraft Engine Manufacturer General Electric (CJ610-8A)

No. of Engines 2 Engine Rating 2,950 lb

Min. T/O Wt. 7.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,300 ft

Max. T/O Wt. Peace-Time 11.4 k-lb Max. T/O Wt. War-Time 13.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,300 ft

Min. Ldg. Wt. 9.5 k-lb Max. Ldg. Wt. 11.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,790 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-285. Gates Learjet 24

Aircraft Manufacturer Learjet

Aircraft Engine Manufacturer General Electric (CJ610-8A)

No. of Engines 2 Engine Rating 2,950 lb

Min. T/O Wt. 7.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,800 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,800 ft

Max. T/O Wt. Peace-Time 12.6 k-lb Max. T/O Wt. War-Time 15.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,940 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,940 ft

Min. Ldg. Wt. 10.0 k-lb Max. Ldg. Wt. 13.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,450 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,740 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-286. Gates Learjet 25

Aircraft Manufacturer Learjet

Aircraft Engine Manufacturer Garrett/AiResearch (TFE731-2)

No. of Engines 2 Engine Rating 3,500 lb

Min. T/O Wt. 9.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,150 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,150 ft

Max. T/O Wt. Peace-Time 14.6 k-lb Max. T/O Wt. War-Time 18.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,220 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,220 ft

Min. Ldg. Wt. 12.2 k-lb Max. Ldg. Wt. 15.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,550 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,080 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-287. Gates Learjet 35

Aircraft Manufacturer Learjet

Aircraft Engine Manufacturer Garrett/AiResearch (TFE731-2)

No. of Engines 2 Engine Rating 3,500 lb

Min. T/O Wt. 9.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,250 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 3,250 ft

Max. T/O Wt. Peace-Time 14.8 k-lb Max. T/O Wt. War-Time 18.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,970 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,970 ft

Min. Ldg. Wt. 11.8 k-lb Max. Ldg. Wt. 15.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,520 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,080 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-288. Gates Learjet 36

Aircraft Manufacturer Gulfstream American (Now Grumman)

Aircraft Engine Manufacturer Rolls-Royce (Spey MK 511-8)

No. of Engines 2 Engine Rating 11,400 lb

Min. T/O Wt. 45.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 65.5 k-lb Max. T/O Wt. War-Time 65.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 45.2 k-lb Max. Ldg. Wt. 58.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-289. Grumman Gulfstream II

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (JT12A-8)

No. of Engines 4 Engine Rating 3,300 lb

Min. T/O Wt. 26.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,200 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.0 k-lb Max. T/O Wt. War-Time 42.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 26.9 k-lb Max. Ldg. Wt. 35.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,650 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
27	9	9	9	9	6	7	7	8
35	12	12	12	12	9	10	10	11
42	14	14	15	15	12	12	13	14

Figure A-290. Lockheed 1329, Jetstar

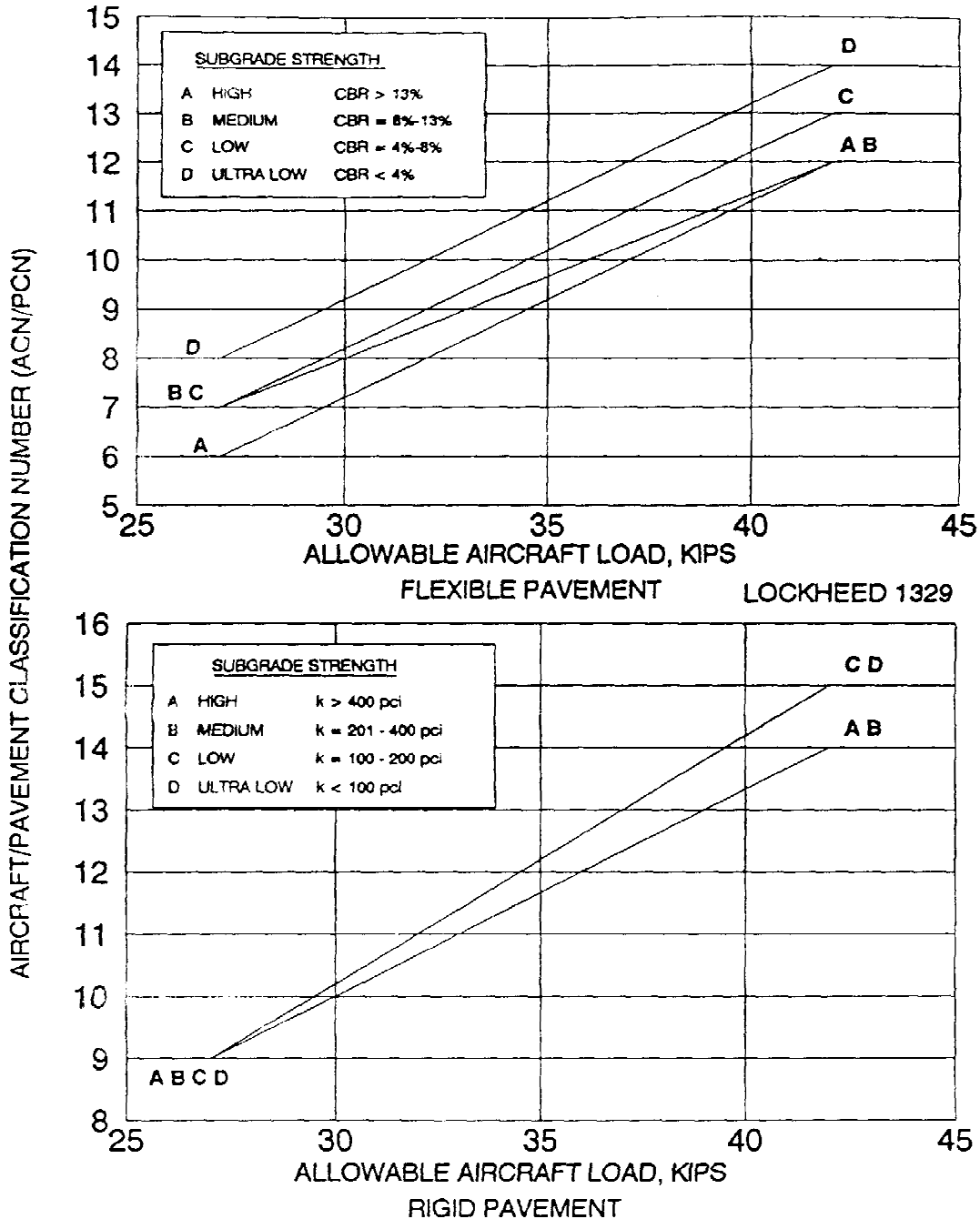


Figure A-291. Lockheed 1329, ACN/PCN Curves

Aircraft Manufacturer Rockwell International

Aircraft Engine Manufacturer Pratt and Whitney (JTI2A-8)

No. of Engines 2 Engine Rating 3,300 lb

Min. T/O Wt. 11.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 18.6 k-lb Max. T/O Wt. War-Time 18.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 13.4 k-lb Max. Ldg. Wt. 17.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
13	6	6	6	6	5	5	5	5
18	8	8	8	7	7	7	7	7
19	9	9	9	8	8	8	8	8

Figure A-292. Rockwell NA-265-40, Sabreliner

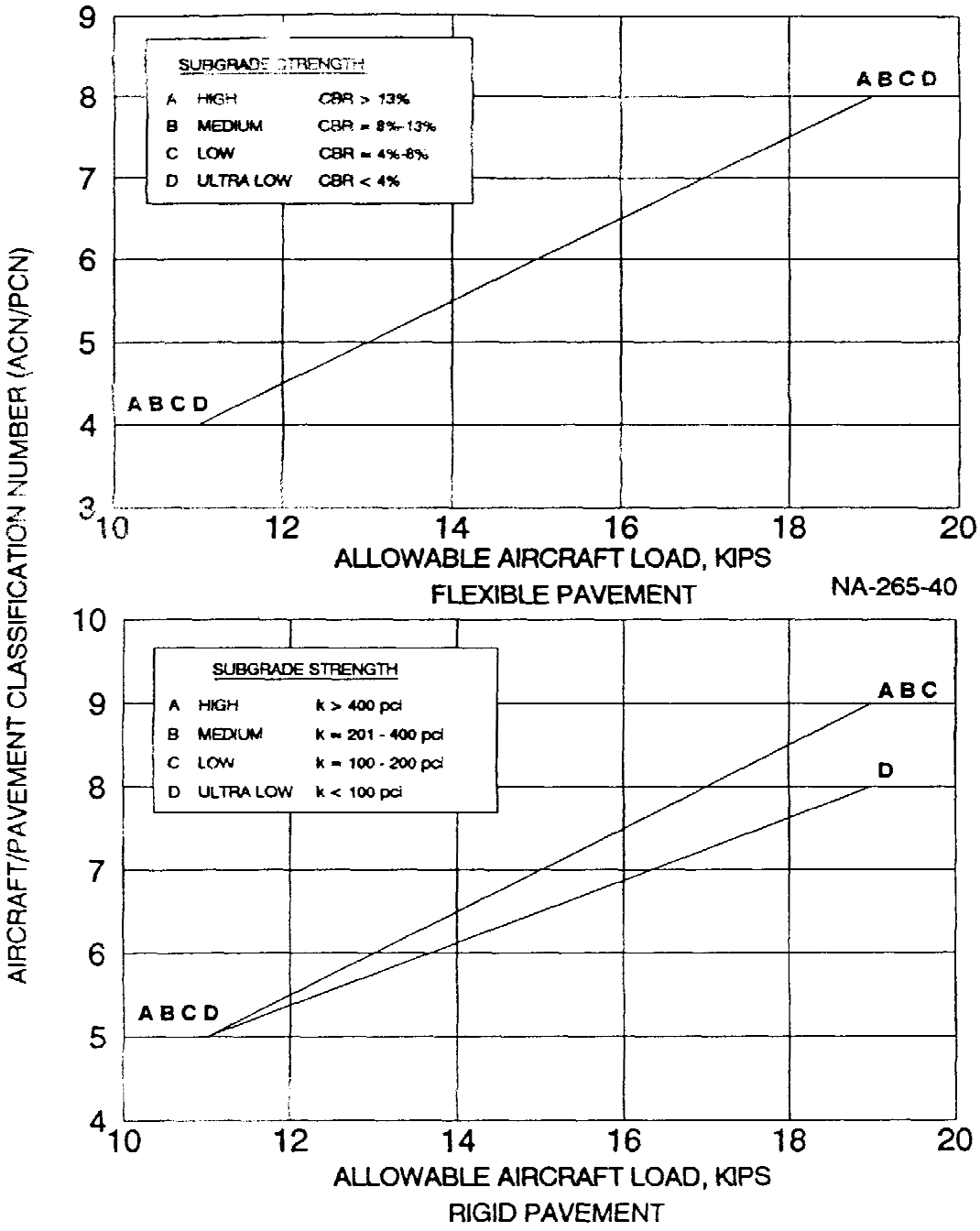


Figure A-293. Rockwell NA-265-40, ACN/PCN Curves

Aircraft Manufacturer Rockwell International

Aircraft Engine Manufacturer Pratt and Whitney (JT12A-8)

No. of Engines 2 Engine Rating 3,300 lb

Min. T/O Wt. 13.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 20.0 k-lb Max. T/O Wt. War-Time 20.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,050 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 13.9 k-lb Max. Ldg. Wt. 17.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,275 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	6	6	6	6	6	6	6	6
18	8	8	8	7	7	7	7	7
20	9	9	9	8	8	8	8	8

Figure A-294. Rockwell NA-265-60, Sabreliner

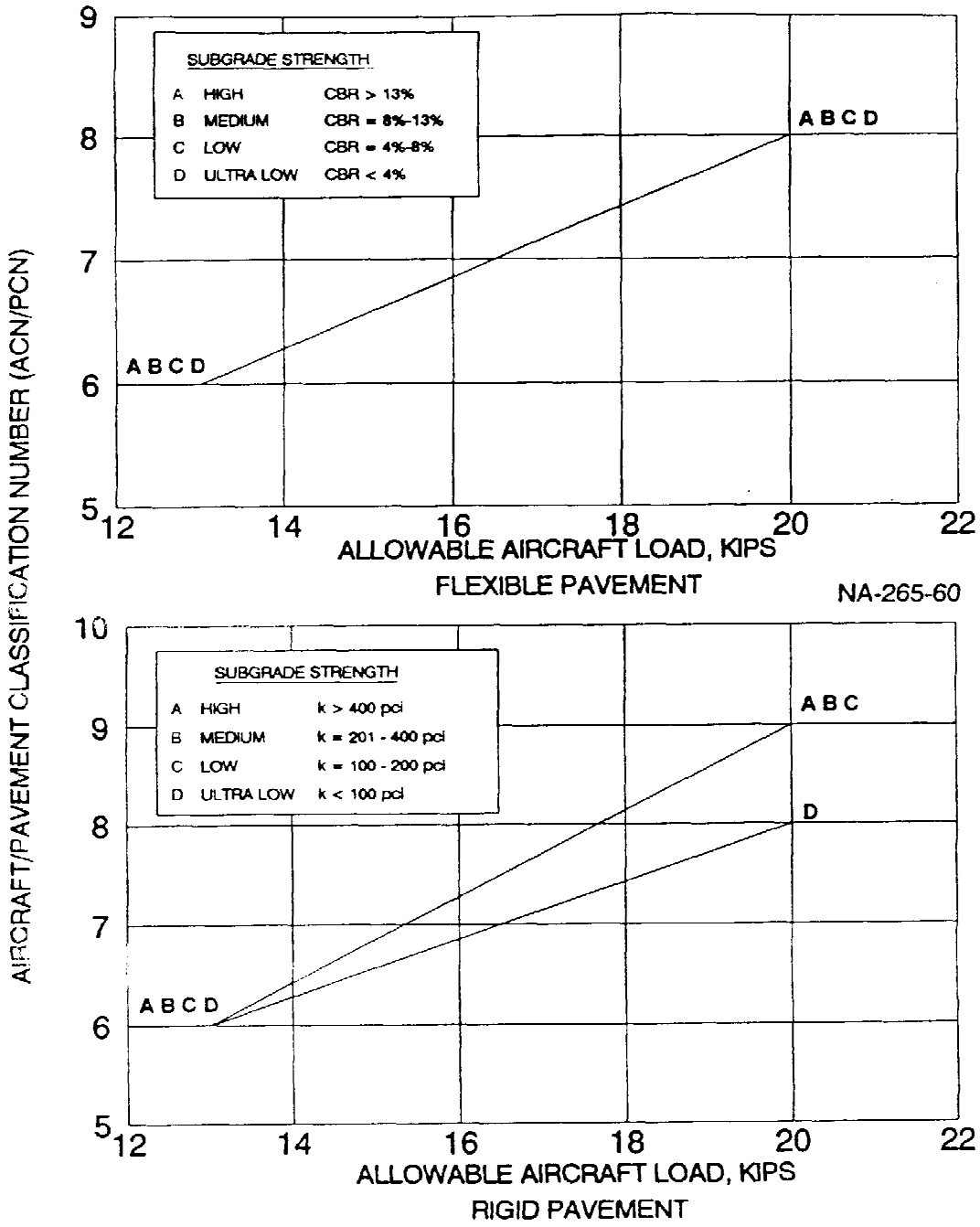


Figure A-295. Rockwell NA-265-60, ACN/PCN Curves

Aircraft Manufacturer Rockwell International

Aircraft Engine Manufacturer General Electric (CF700-2D-2)

No. of Engines 2 Engine Rating 4,500 lb

Min. T/O Wt. 15.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 23.0 k-lb Max. T/O Wt. War-Time 23.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,350 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 16.3 k-lb Max. Ldg. Wt. 22.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,470 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
16	7	7	7	7	6	6	6	7
22	10	10	10	10	9	9	9	9
23	10	10	10	10	10	10	10	10

Figure A-296. Rockwell NA-265-75A, Sabreliner

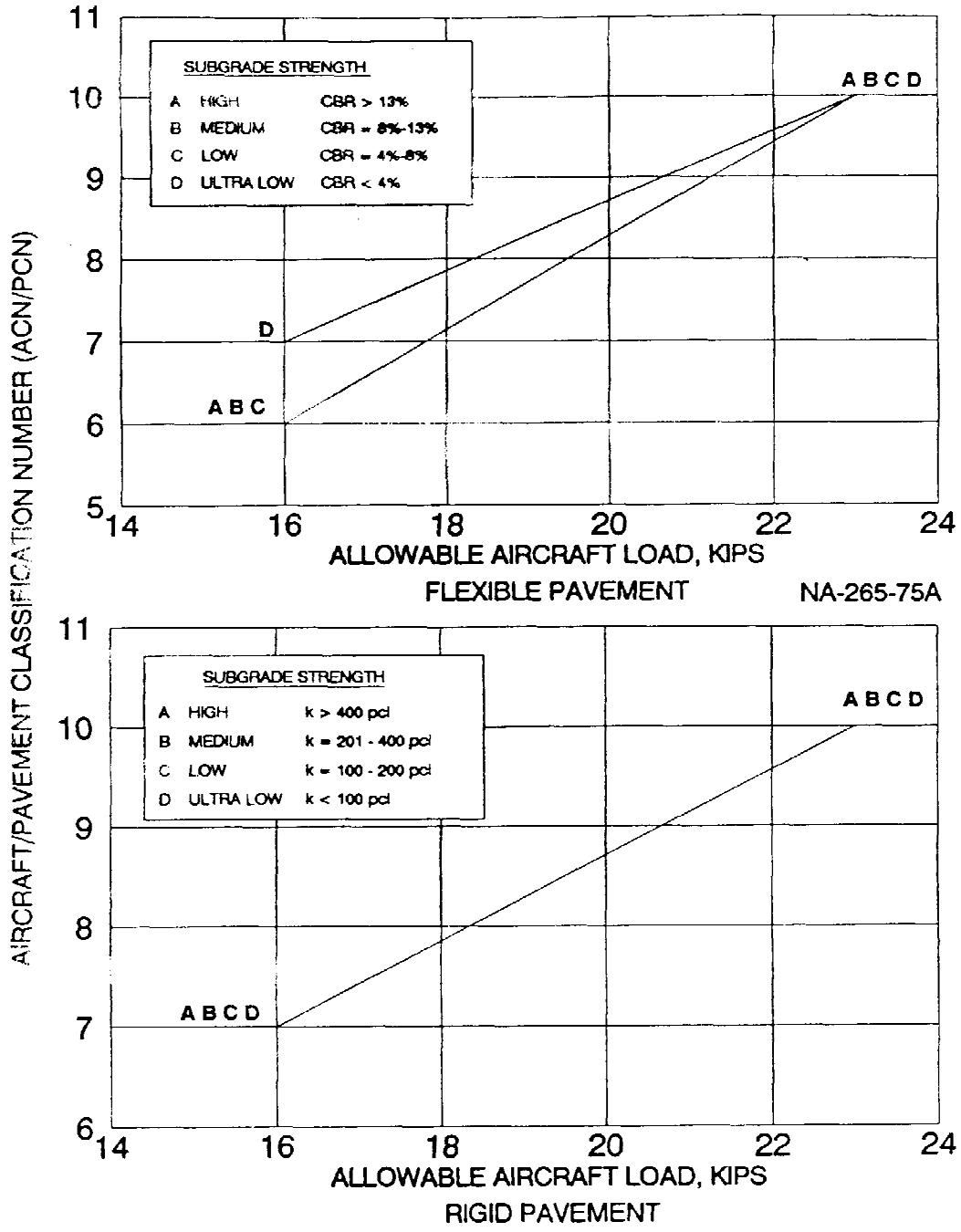


Figure A-297. Rockwell NA-265-75A, ACN/PCN Curves

Aircraft Manufacturer Avions Marcel Dassault

Aircraft Engine Manufacturer General Electric (CF700-2D-2)

No. of Engines 2 Engine Rating 4,500 lb

Min. T/O Wt. 17.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,950 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,500 ft

Max. T/O Wt. Peace-Time 28.3 k-lb Max. T/O Wt. War-Time 28.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,180 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 4,850

Min. Ldg. Wt. 17.0 k-lb Max. Ldg. Wt. 23.3 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,500

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-298. Avions Marcel Dassault Mystere 20, Fan Jet Falcon

Aircraft Manufacturer Fokker

Aircraft Engine Manufacturer Rolls-Royce (RE.183-2 Spey Junior MK 555-15)

No. of Engines 2 Engine Rating 9,850 lb

Min. T/O Wt. 38.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 62.0 k-lb Max. T/O Wt. War-Time 62.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,950 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 49.4 k-lb Max. Ldg. Wt. 54.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
49	11	12	13	14	9	11	12	14
54	12	13	15	15	10	12	14	16
62	14	15	17	17	12	14	16	19

Figure A-299. Fokker F-28

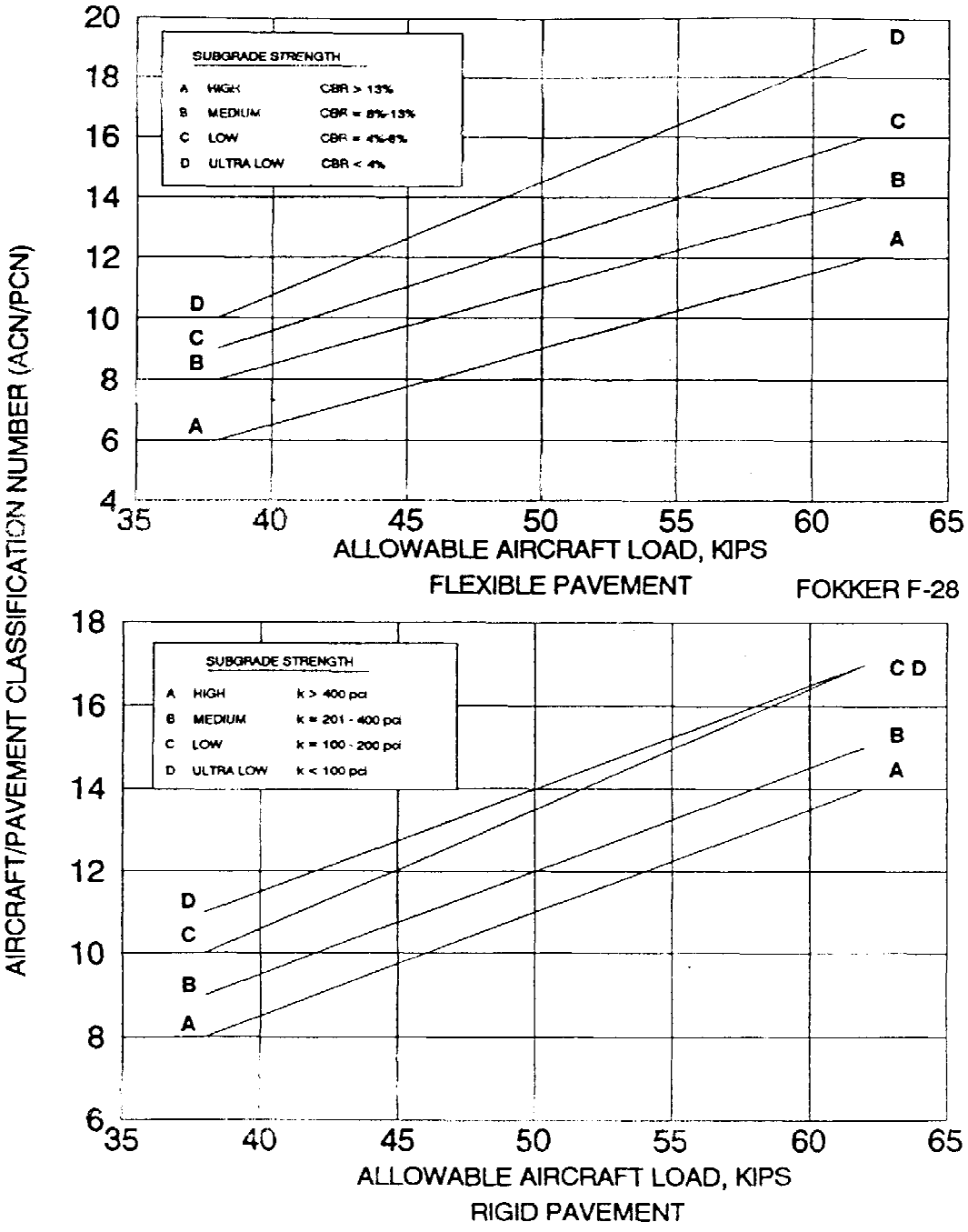


Figure A-300. Fokker F-28, ACN/PCN Curves

Aircraft Manufacturer Hamburger Flugzeugbau
(now Messerschmitt-Bolkow-Blohm)

Aircraft Engine Manufacturer General Electric (CJ610-5)

No. of Engines 2 Engine Rating 2,950 lb

Min. T/O Wt. 14.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,500 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 20.3 k-lb Max. T/O Wt. War-Time 20.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 16.6 k-lb Max. Ldg. Wt. 19.4 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,150 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,650 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
17	7	7	7	7	7	7	7	7
19	8	8	8	8	8	8	8	8
20	8	8	8	8	8	8	8	8

Figure A-301. Hamburger-Flugzeugbau HFB-320, Hansa

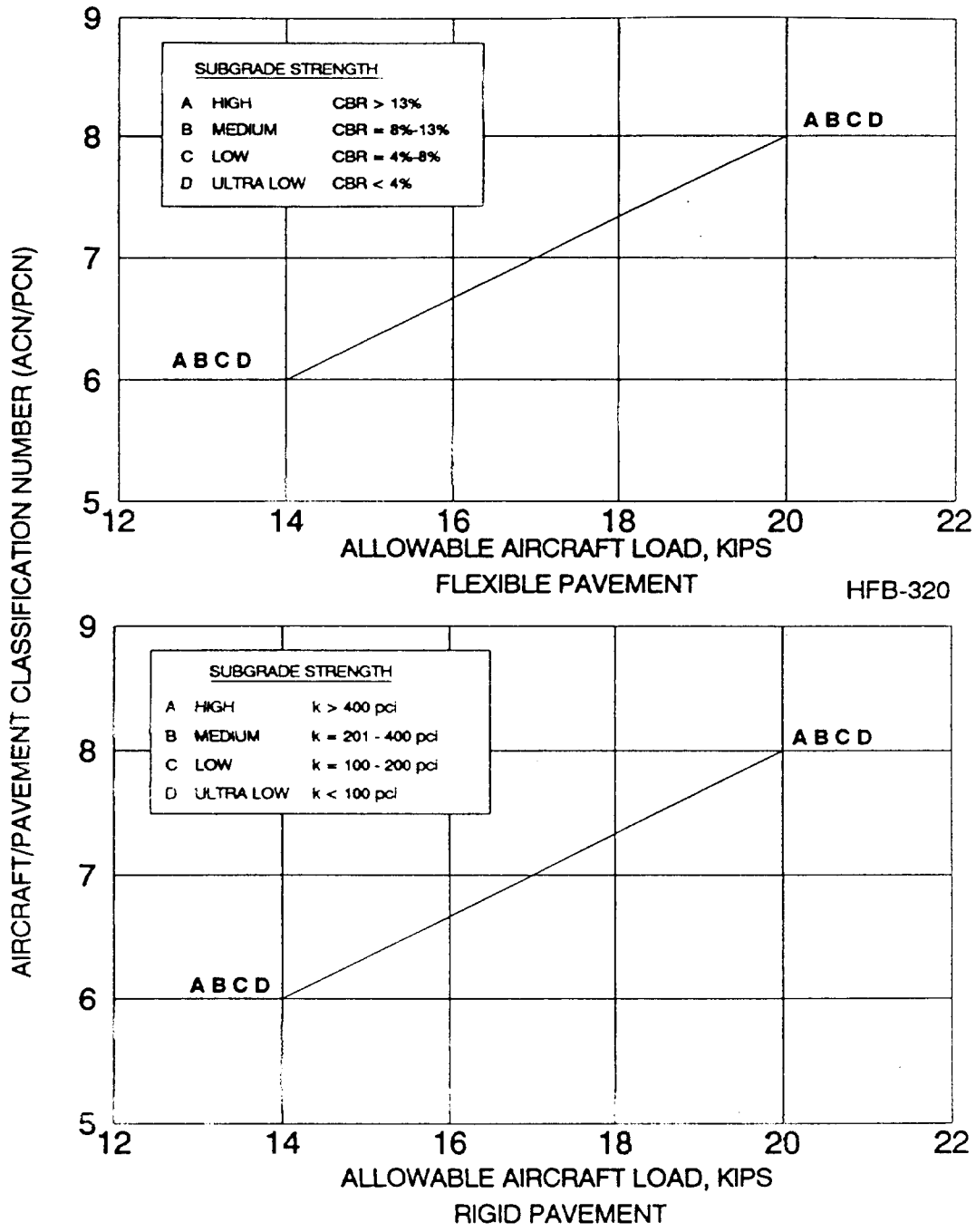


Figure A-302. Hamburger-Flugzeugbau HFB-320, ACN/PCN Curves

Aircraft Manufacturer: Hawker Siddeley

Aircraft Engine Manufacturer: Rolls-Royce (Bristol Viper 522)

No. of Engines: 2 Engine Rating: 3,360 lb

Min. T/O Wt.: 14.8 k-lb * Min. T/O Dist. @ Min. T/O Wt.: †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist.: †

Max. T/O Wt. Peace-Time: 23.3 k-lb Max. T/O Wt. War-Time: 23.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time: 3,440 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist.: †

Min. Ldg. Wt.: 15.0 k-lb Max. Ldg. Wt.: 20.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt.: 1,020 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt.: †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
15	4	4	4	4	3	3	4	4
20	5	5	6	6	4	4	5	6
23	6	6	7	7	5	5	6	7

Figure A-303. Hawker Siddeley HS-125

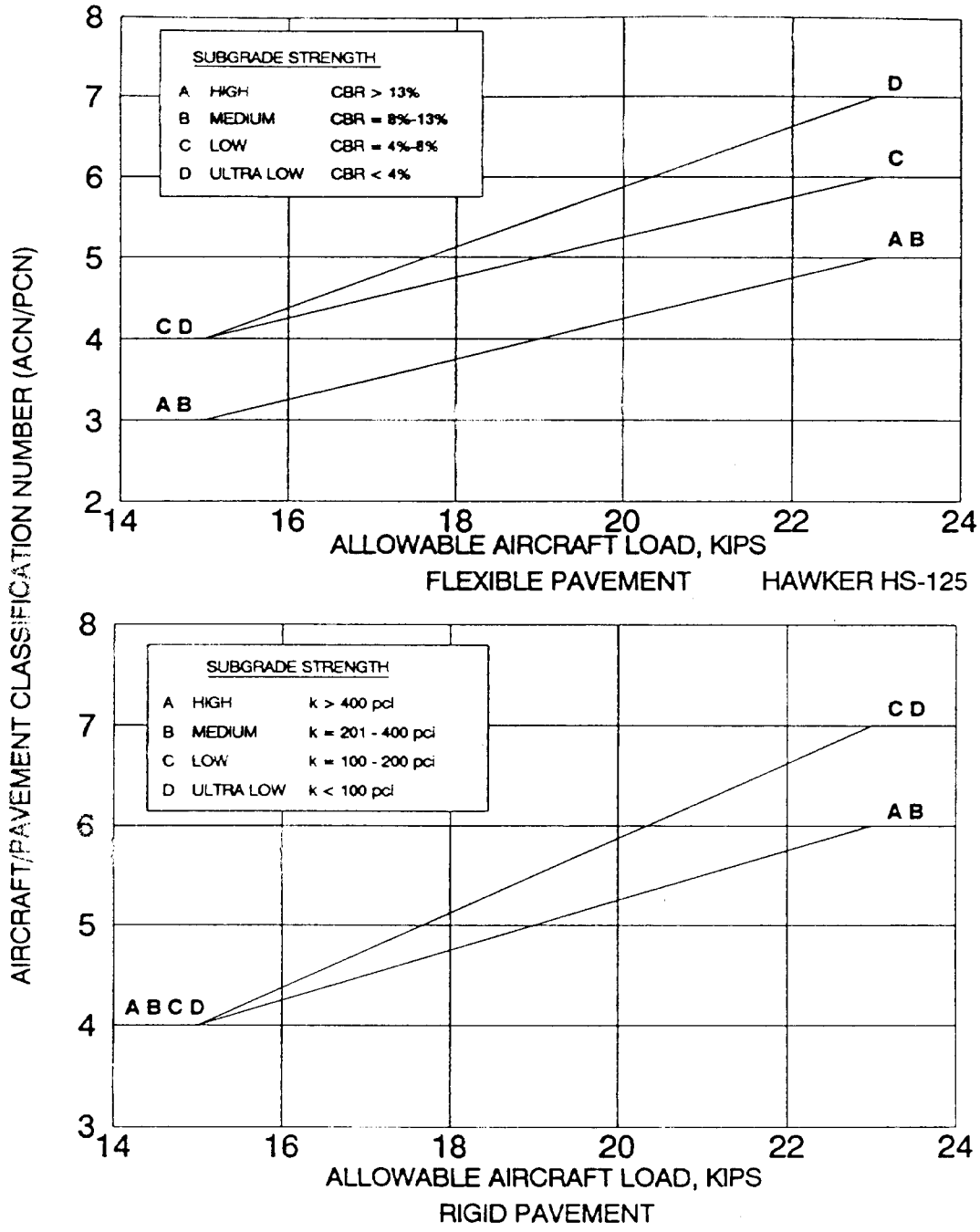


Figure A-304. Hawker Siddeley HS-125, ACN/PCN Curves

Aircraft Manufacturer Israel Aircraft Industries

Aircraft Engine Manufacturer General Electric (CJ610-5)

No. of Engines 2 Engine Rating 2,950 lb

Min. T/O Wt. 12.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 18.5 k-lb Max. T/O Wt. War-Time 18.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,720 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 12.7 k-lb Max. Ldg. Wt. 17.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
13	5	5	5	5	5	5	5	5
18	8	8	8	8	7	7	7	7
19	8	8	8	8	8	8	8	8

Figure A-305. Israel Aircraft 1121, Commodore Jet

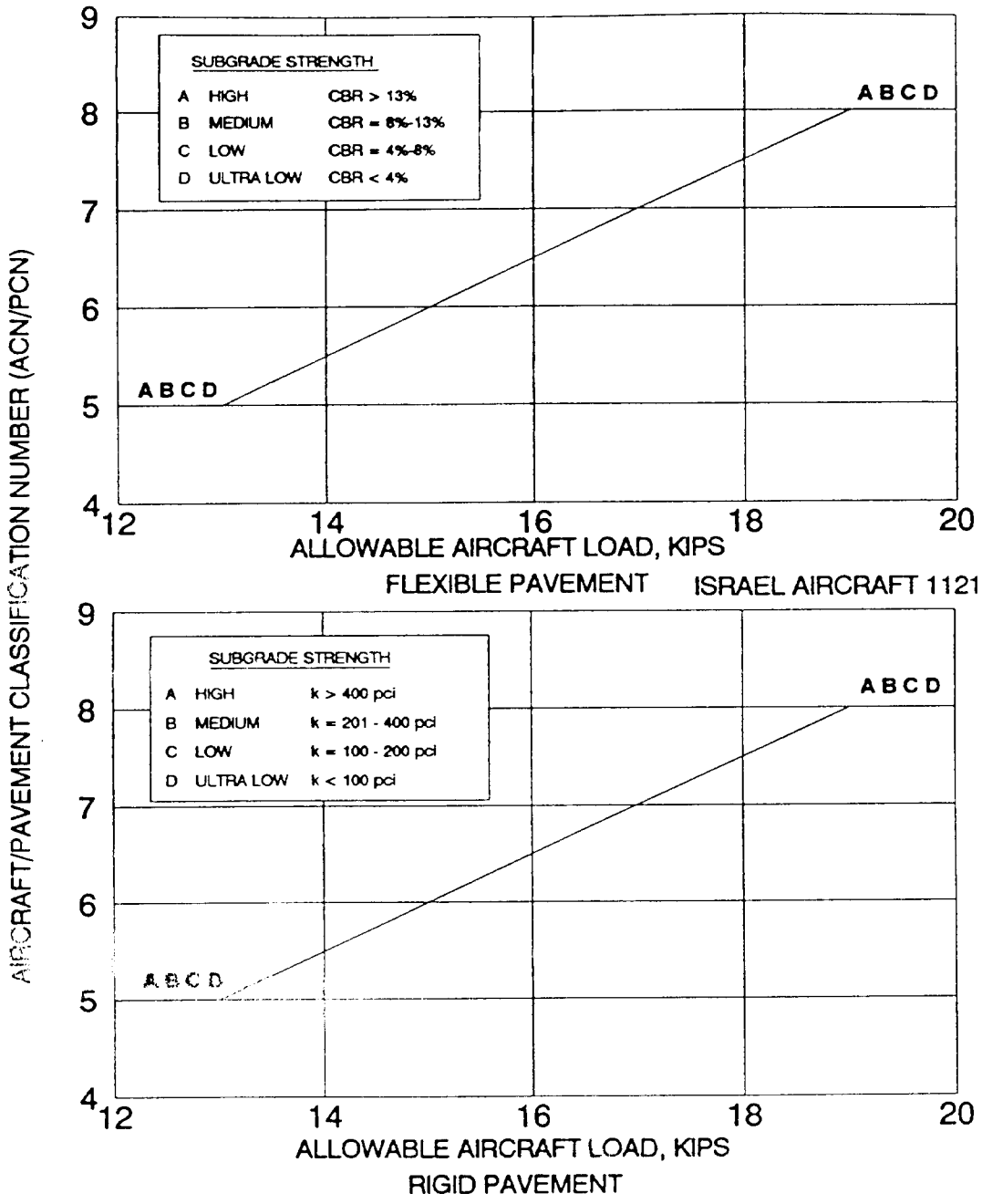


Figure A-306. Israel Aircraft 1121, ACN/PCN Curves

Aircraft Manufacturer Israel Aircraft Industries

Aircraft Engine Manufacturer General Electric (CJ610-9)

No. of Engines 2 Engine Rating 3,100 lb

Min. T/O Wt. 13.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 20.5 k-lb Max. T/O Wt. War-Time 20.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,050 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 14.3 k-lb Max. Ldg. Wt. 19.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	6	6	6	6	5	5	5	6
19	8	8	8	8	8	8	8	8
21	9	9	9	9	8	8	9	9

Figure A-307. Israel Aircraft 1123, Commodore Jet

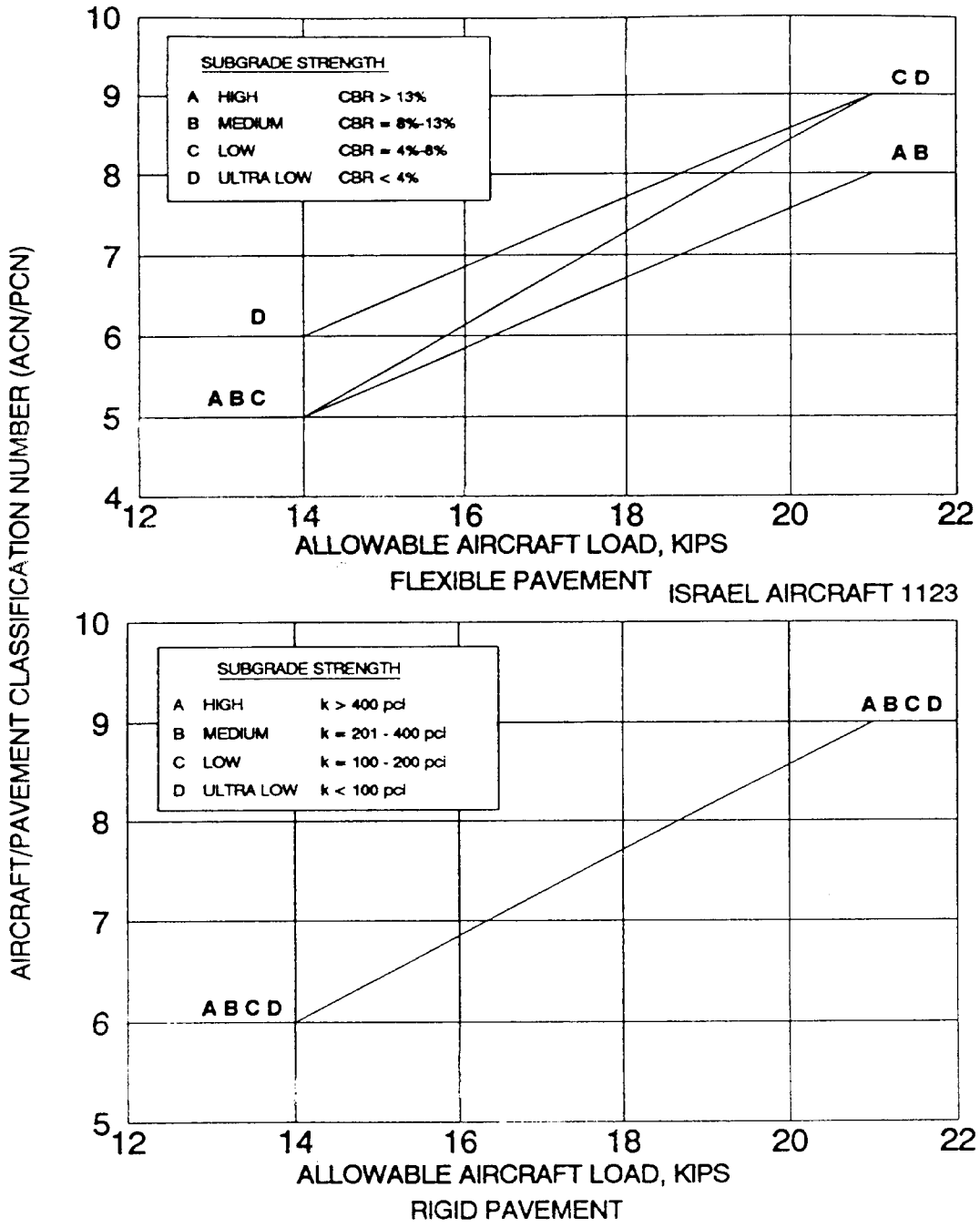


Figure A-308. Israel Aircraft 1123, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3)

No. of Engines 4 Engine Rating 17,000 lb

Min. T/O Wt. 158.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 257.3 k-lb Max. T/O Wt. War-Time 257.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 180.4 k-lb Max. Ldg. Wt. 190.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,250 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
180	18	21	24	28	19	21	24	32
190	19	23	26	30	20	22	26	35
257	29	33	40	47	31	34	41	54

Figure A-309. Boeing 707-120B

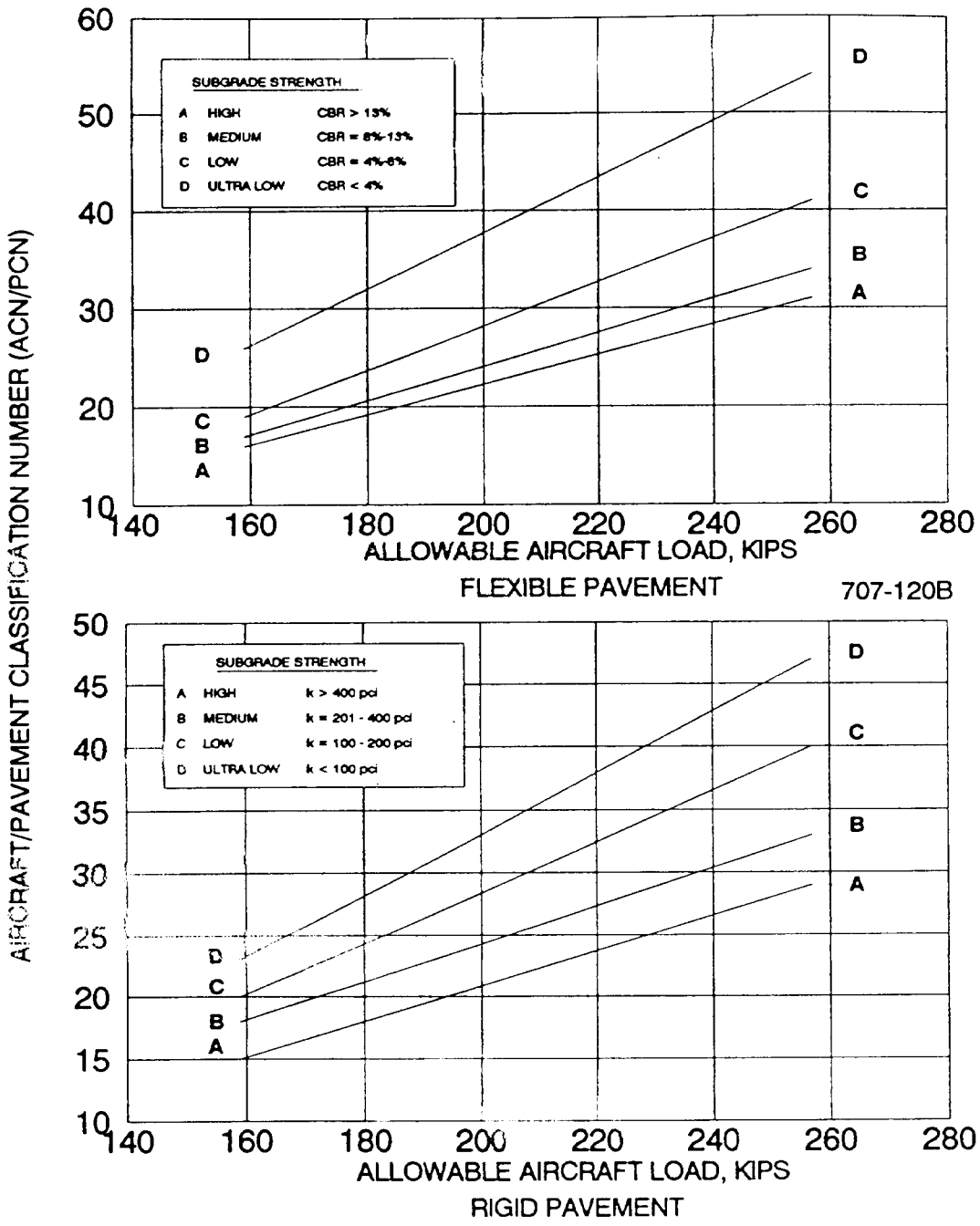


Figure A-310. Boeing 707-120B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT4A-11,-12)

No. of Engines 4 Engine Rating 17,500 lb

Min. T/O Wt. 185.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 312.0 k-lb Max. T/O Wt. War-Time 312.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 204.3 k-lb Max. Ldg. Wt. 207.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 7,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
204	22	25	29	34	21	24	29	39
207	22	26	30	35	22	25	30	40
312	38	44	52	60	40	45	54	70

Figure A-311. Boeing 707-320

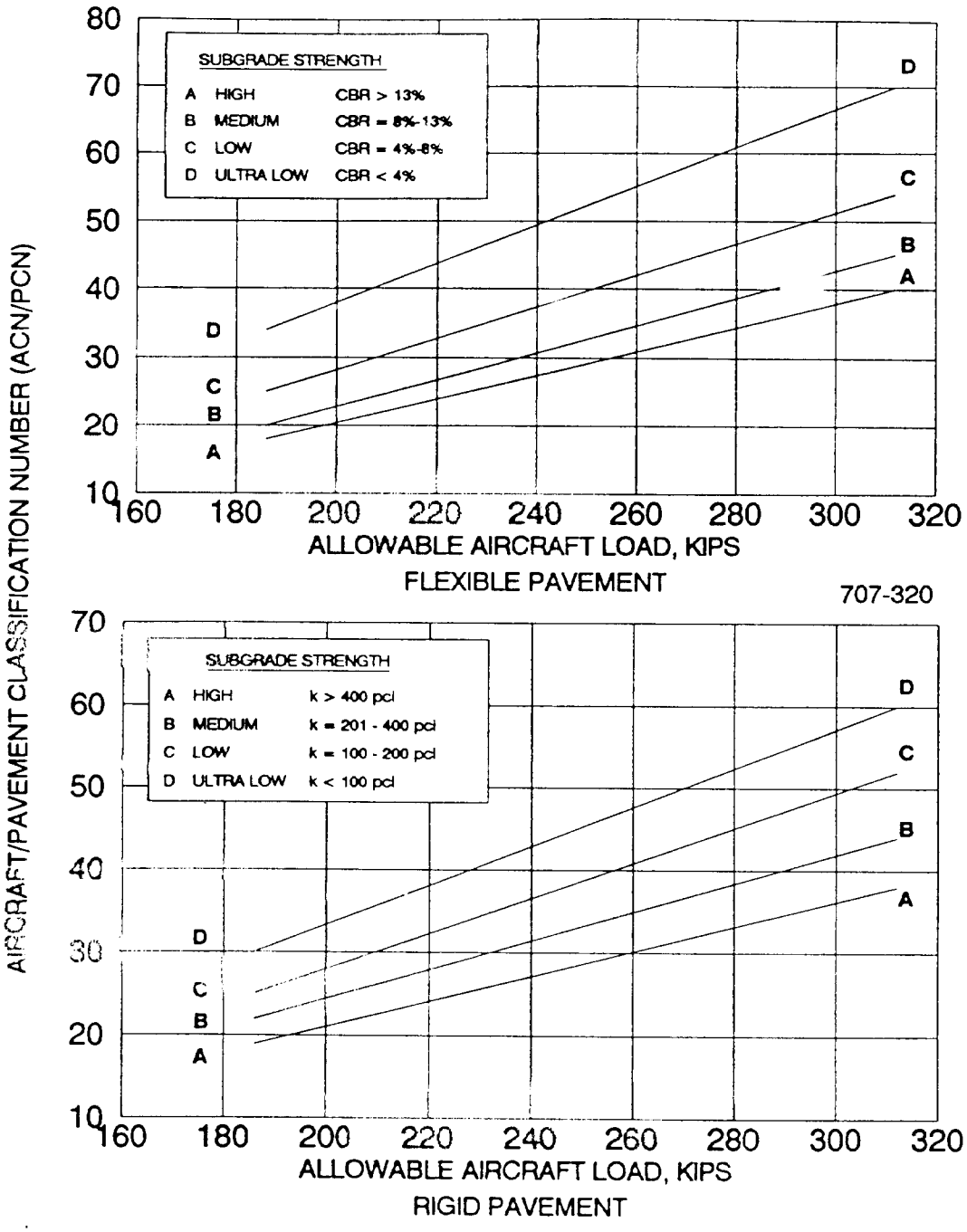


Figure A-312. Boeing 707-320, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-7)

No. of Engines 4 Engine Rating 19,000 lb

Min. T/O Wt. 191.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 333.6 k-lb Max. T/O Wt. War-Time 335.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 209.3 k-lb Max. Ldg. Wt. 215.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
209	23	25	30	35	22	25	30	40
215	24	26	31	36	23	26	31	42
334	42	49	58	65	45	50	61	77
335	42	49	58	65	45	50	61	77

Figure A-313. Boeing 707-320B

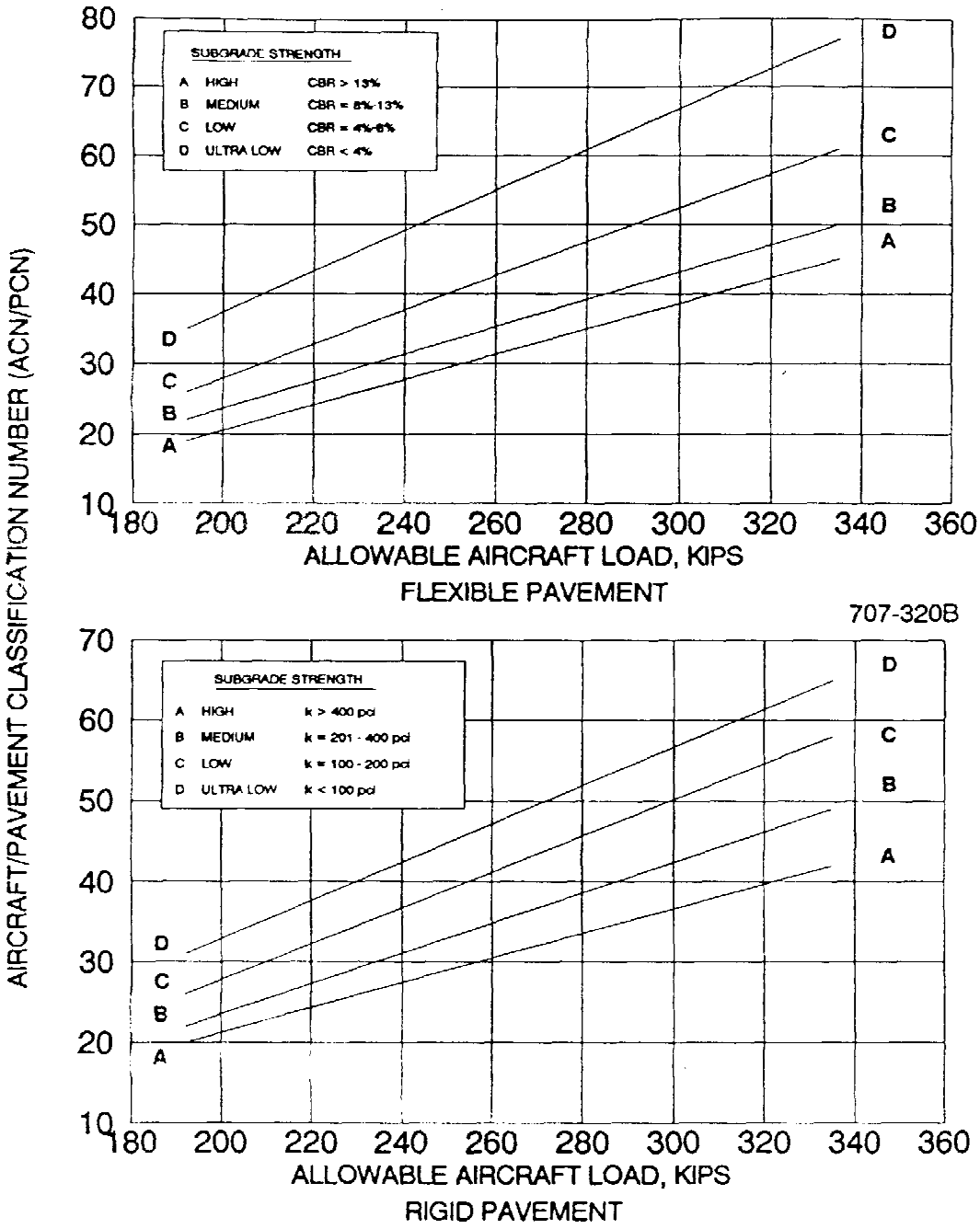


Figure A-314. Boeing 707-320B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-7)

No. of Engines 4 Engine Rating 19,000 lb

Min. T/O Wt. 198.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 333.6 k-lb Max. T/O Wt. War-Time 335.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 244.3 k-lb Max. Ldg. Wt. 247.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
244	27	31	36	43	28	31	38	50
247	27	32	37	44	29	32	39	51
334	42	49	58	65	45	50	61	77
335	42	49	58	65	45	50	61	77

Figure A-315. Boeing 707-320C

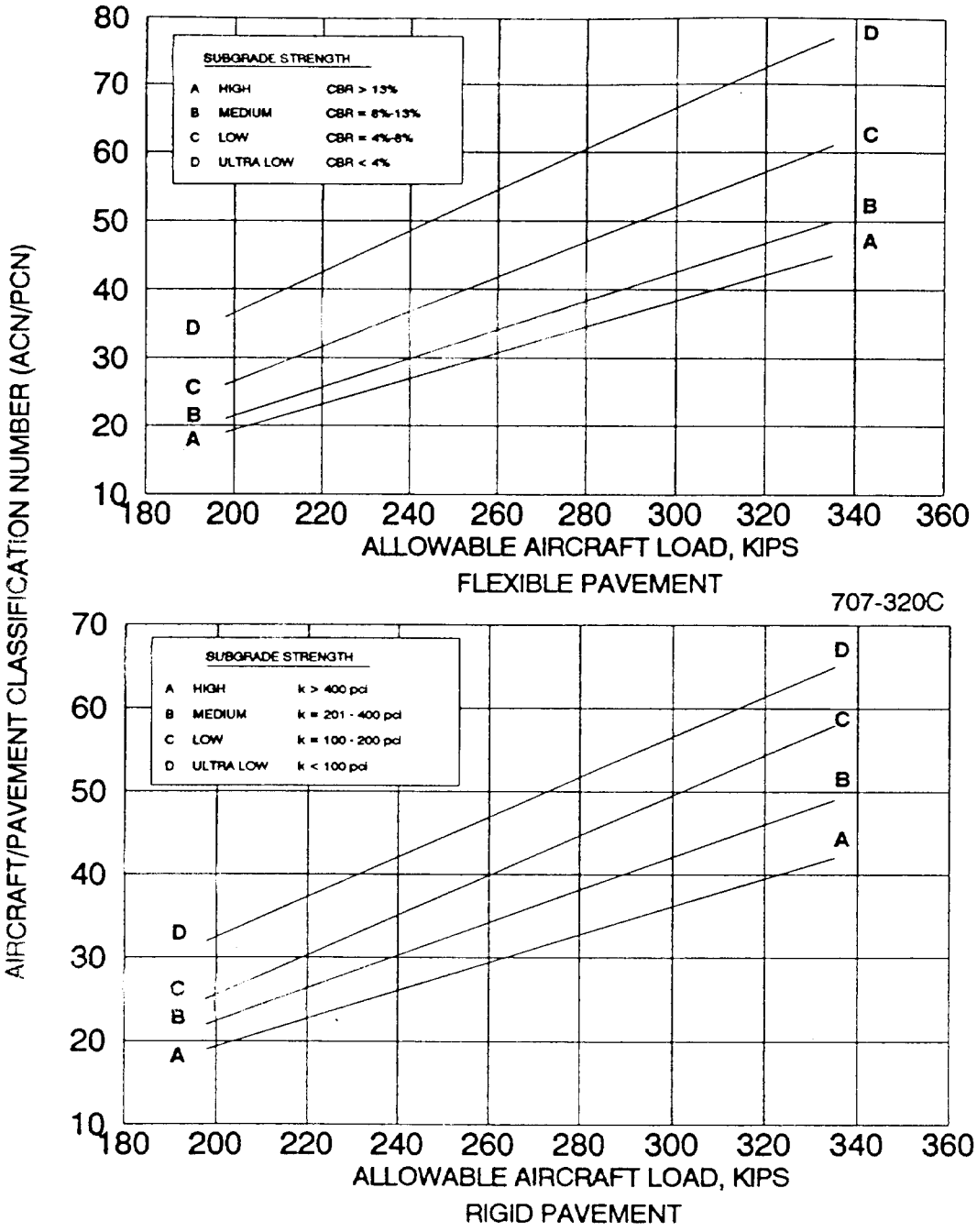


Figure A-316. Boeing 707-320C, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Rolls-Royce (MK 508)

No. of Engines 4 Engine Rating 17,500 lb

Min. T/O Wt. 185.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 312.0 k-lb Max. T/O Wt. War-Time 312.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 204.3 k-lb Max. Ldg. Wt. 207.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 7,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
204	22	25	29	34	21	24	29	39
207	22	26	30	35	22	25	30	40
312	38	44	52	60	40	45	54	70

Figure A-317. Boeing 707-420

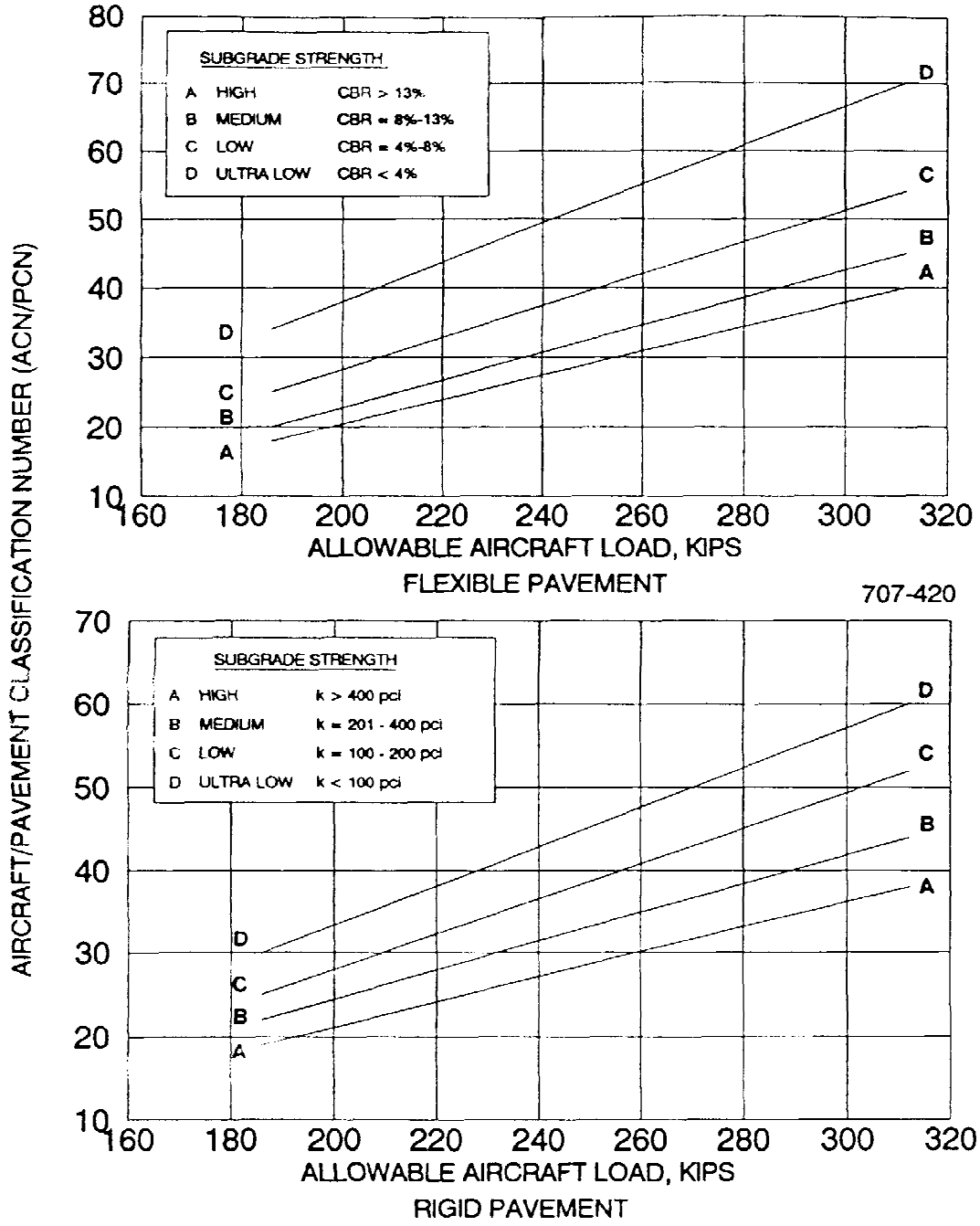


Figure A-318. Boeing 707-420, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3C-7)

No. of Engines 4 Engine Rating 12,000 lb

Min. T/O Wt. 139.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 229.3 k-lb Max. T/O Wt. War-Time 229.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 148.6 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
149	15	16	20	23	14	16	19	27
175	18	21	25	29	18	21	25	34
229	25	30	35	42	27	31	38	50

Figure A-319. Boeing 720

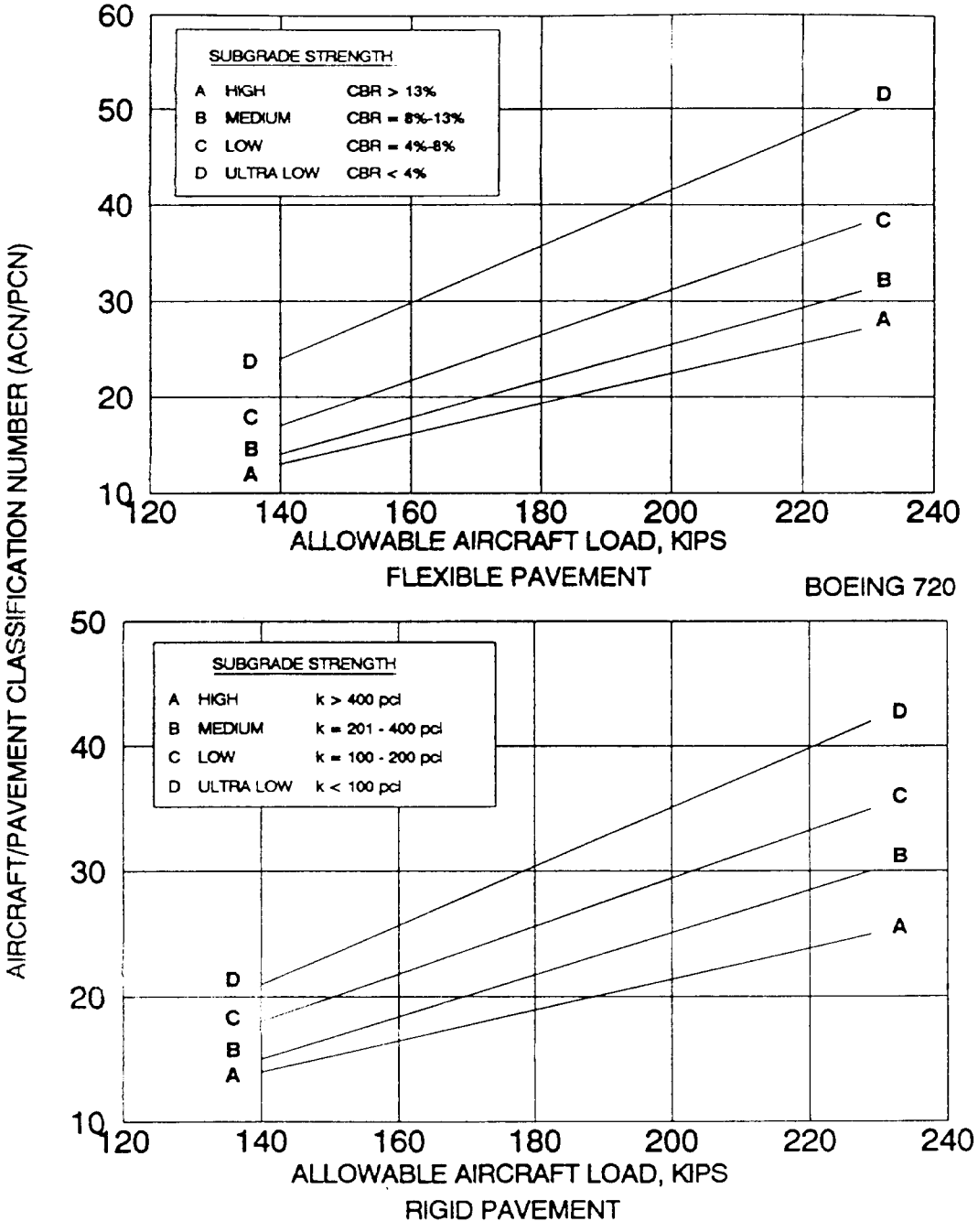


Figure A-320. Boeing 720, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 144.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 234.3 k-lb Max. T/O Wt. War-Time 234.3 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 165.7 k-lb Max. Ldg. Wt. 175.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
166	17	19	23	27	17	19	23	32
175	18	21	25	29	18	21	25	34
234	26	31	36	43	28	32	39	51

Figure A-321. Boeing 720B

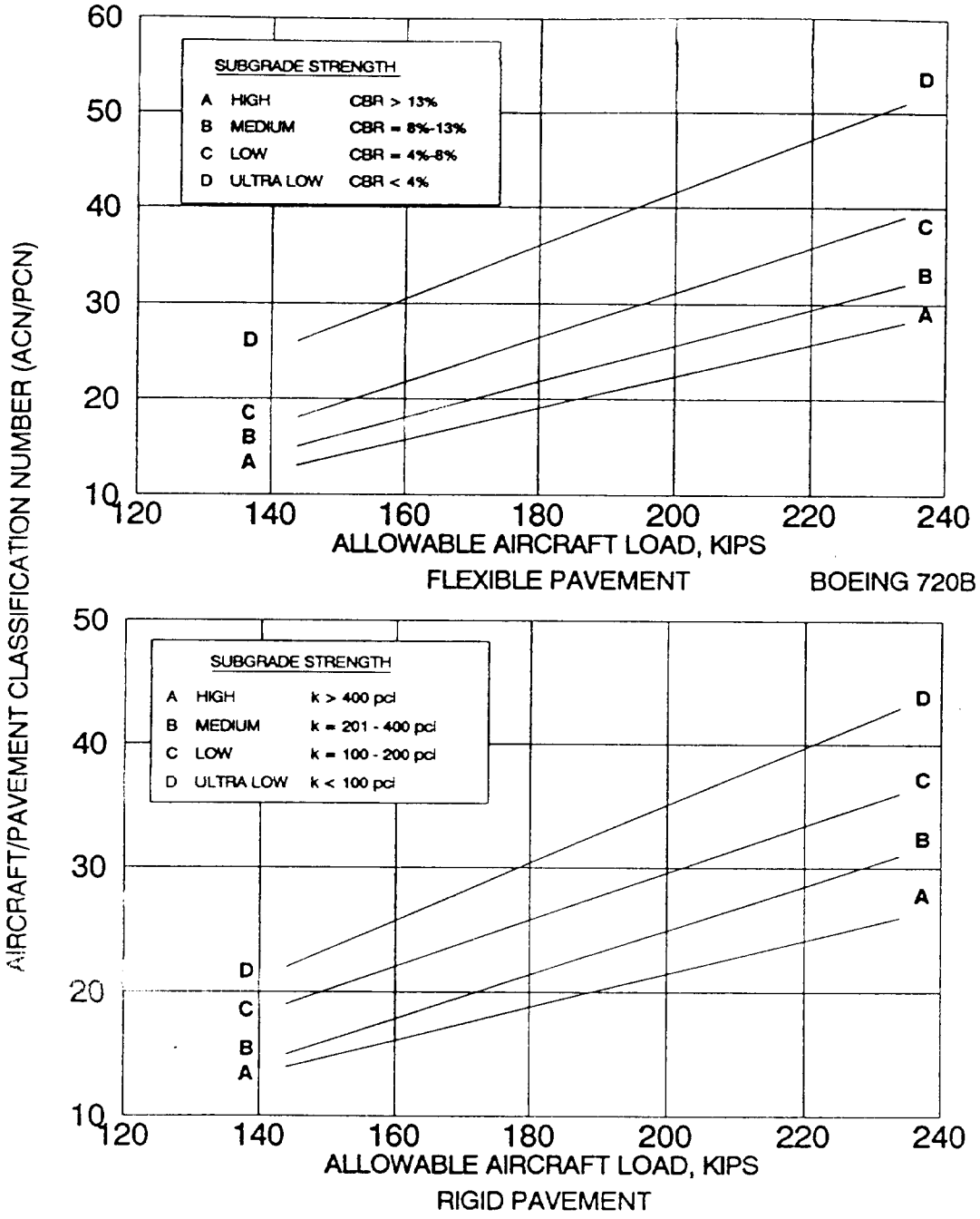


Figure A-322. Boeing 720B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-9)

No. of Engines 3 Engine Rating 14,500 lb

Min. T/O Wt. 101.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 160.0 k-lb Max. T/O Wt. War-Time 169.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 128.1 k-lb Max. Ldg. Wt. 142.5 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
128	32	34	36	38	30	31	34	38
143	37	38	41	43	34	35	39	43
160	42	43	47	49	38	40	45	49
169	45	47	50	52	41	43	48	52

Figure A-323. Boeing 727-100

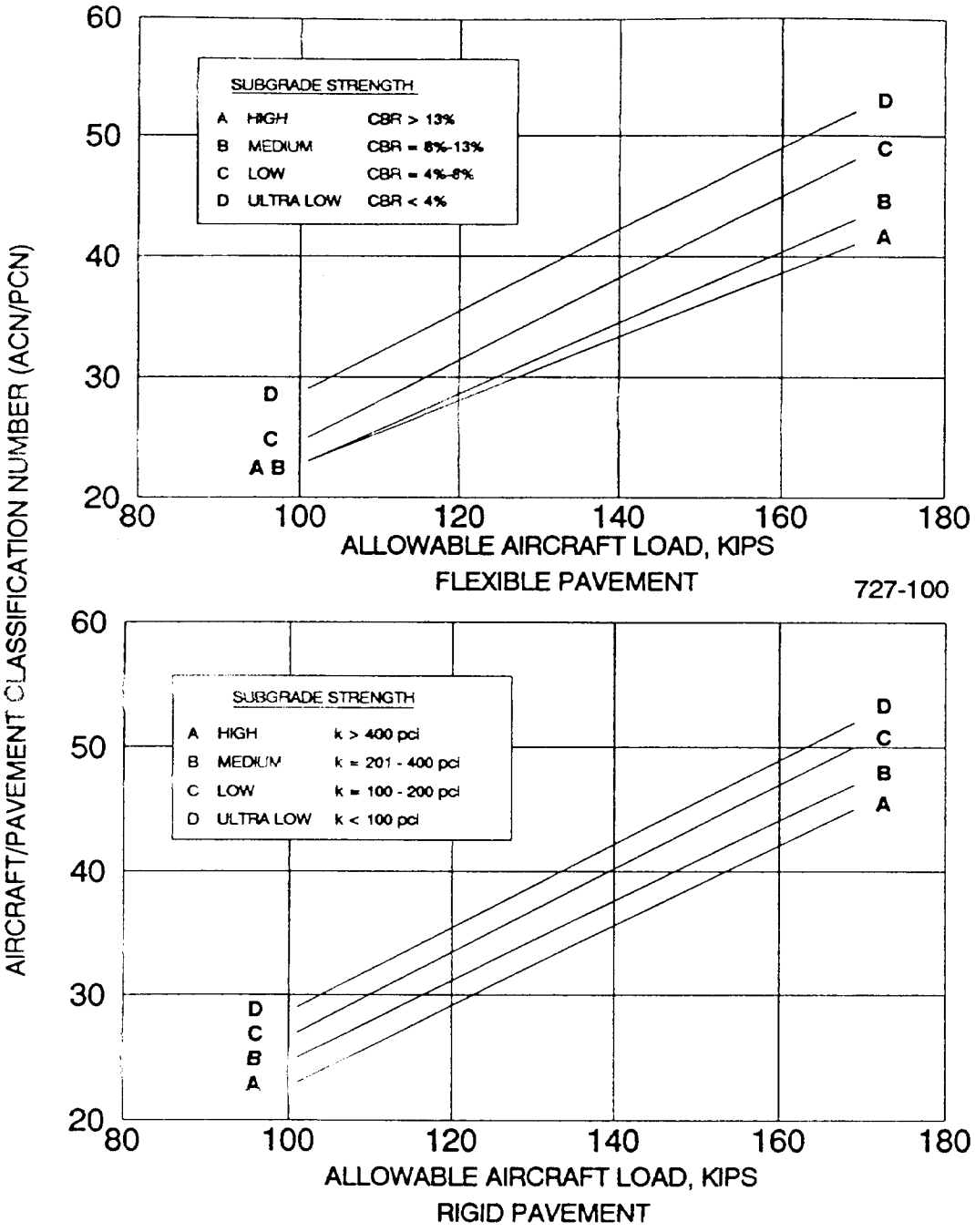


Figure A-324. Boeing 727-100, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-9)

No. of Engines 3 Engine Rating 14,500 lb

Min. T/O Wt. 104.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 160.0 k-lb Max. T/O Wt. War-Time 169.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 136.6 k-lb Max. Ldg. Wt. 142.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
137	35	36	39	41	32	34	37	41
143	37	38	41	43	34	35	39	43
160	42	43	47	49	38	40	45	49
169	45	47	50	52	41	43	48	52

Figure A-325. Boeing 727-100C

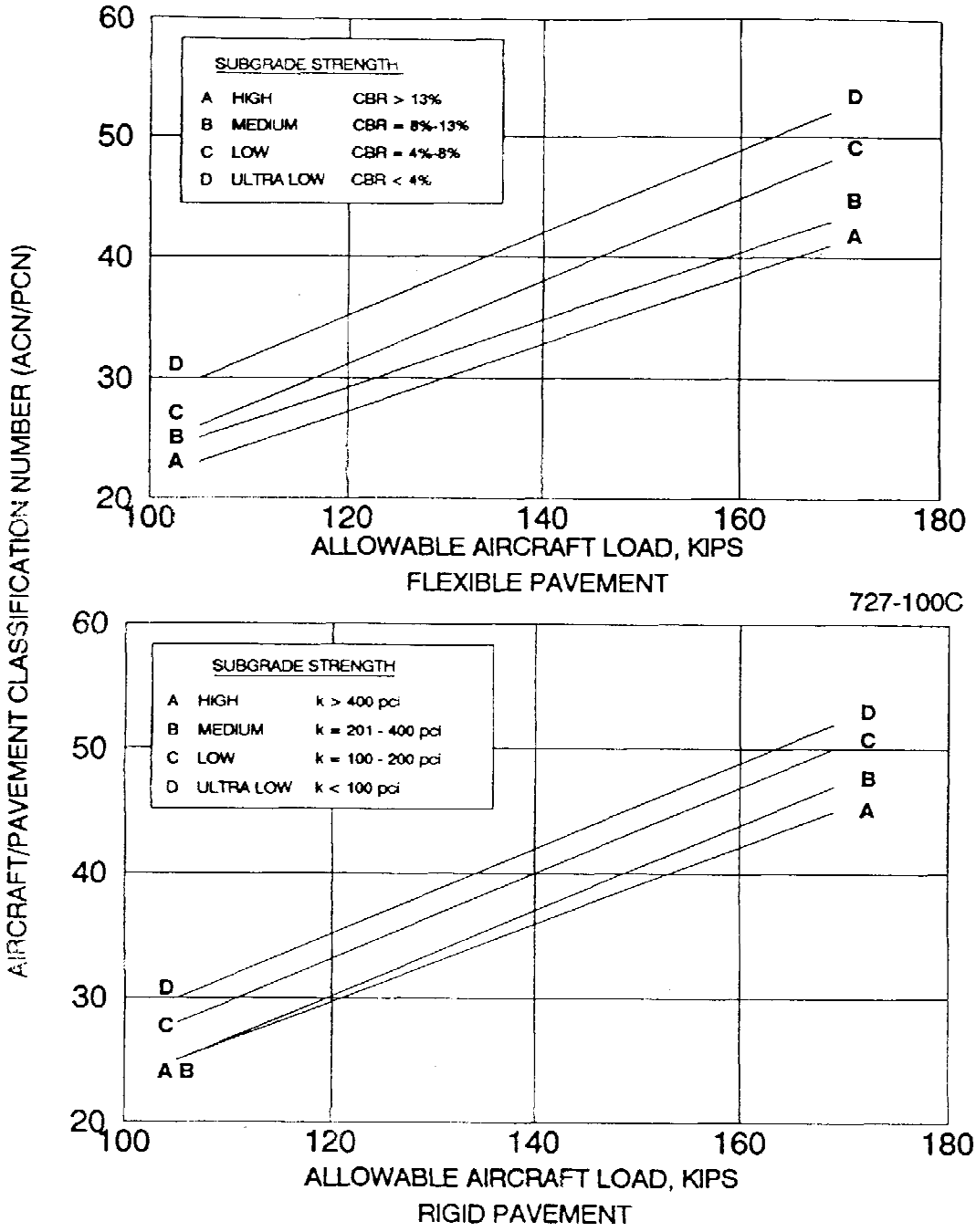


Figure A-326. Boeing 727-100C, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-17R)

No. of Engines 3 Engine Rating 17,400 lb

in. T/O Wt. 119.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 209.5 k-lb Max. T/O Wt. War-Time 209.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 150.4 k-lb Max. Ldg. Wt. 161.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
150	39	40	44	45	35	37	42	46
161	42	44	48	49	38	40	45	49
210	58	62	65	67	52	55	61	66

Figure A-327. Boeing 727-200

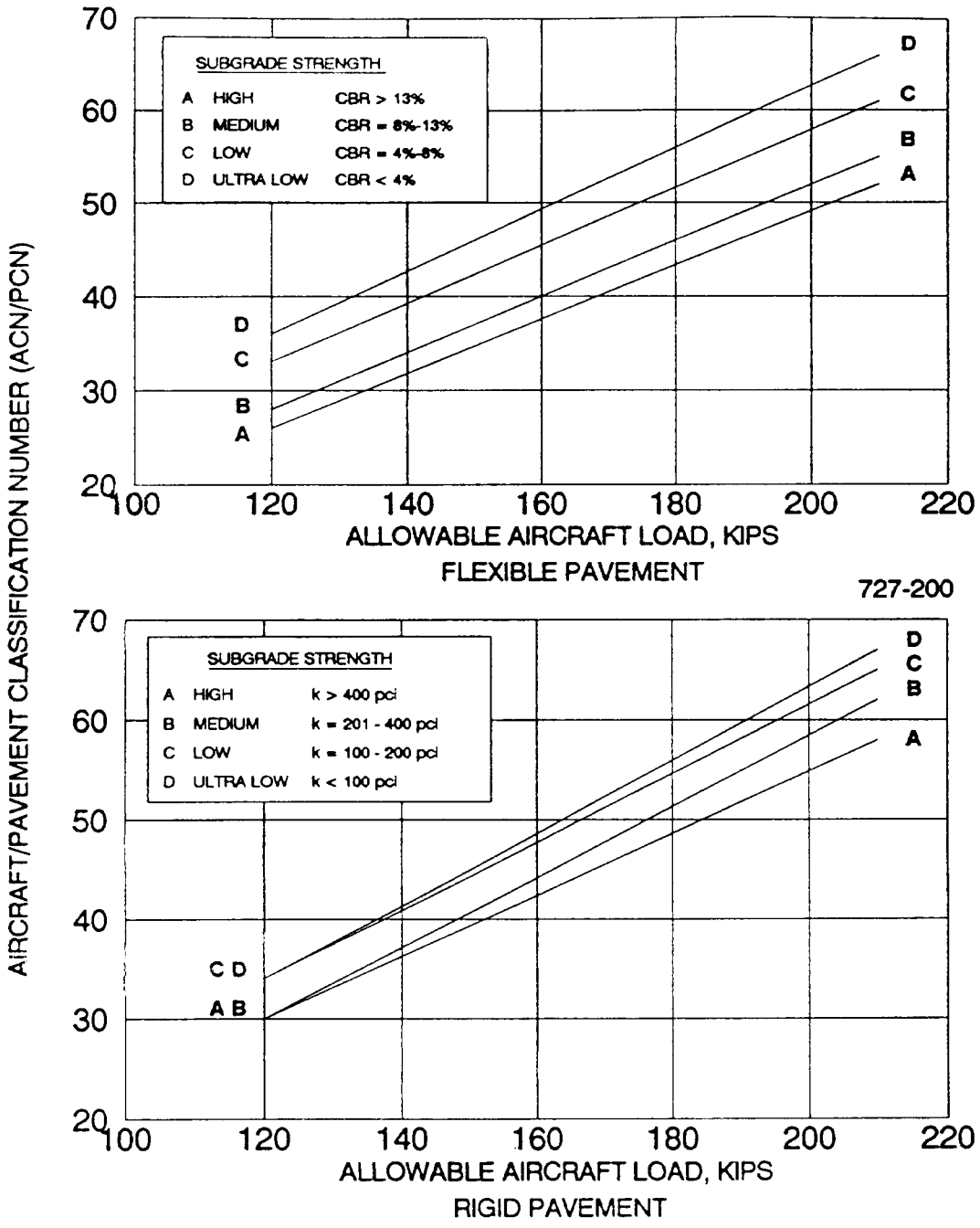


Figure A-328. Boeing 727-200, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-7)

No. of Engines 2 Engine Rating 14,000 lb

Min. T/O Wt. 70.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 110.0 k-lb Max. T/O Wt. War-Time 110.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 92.8 k-lb Max. Ldg. Wt. 99.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
93	23	24	26	27	21	21	24	27
99	25	26	27	29	22	23	26	29
110	28	29	31	32	25	26	29	33

Figure A-329. Boeing 737-100

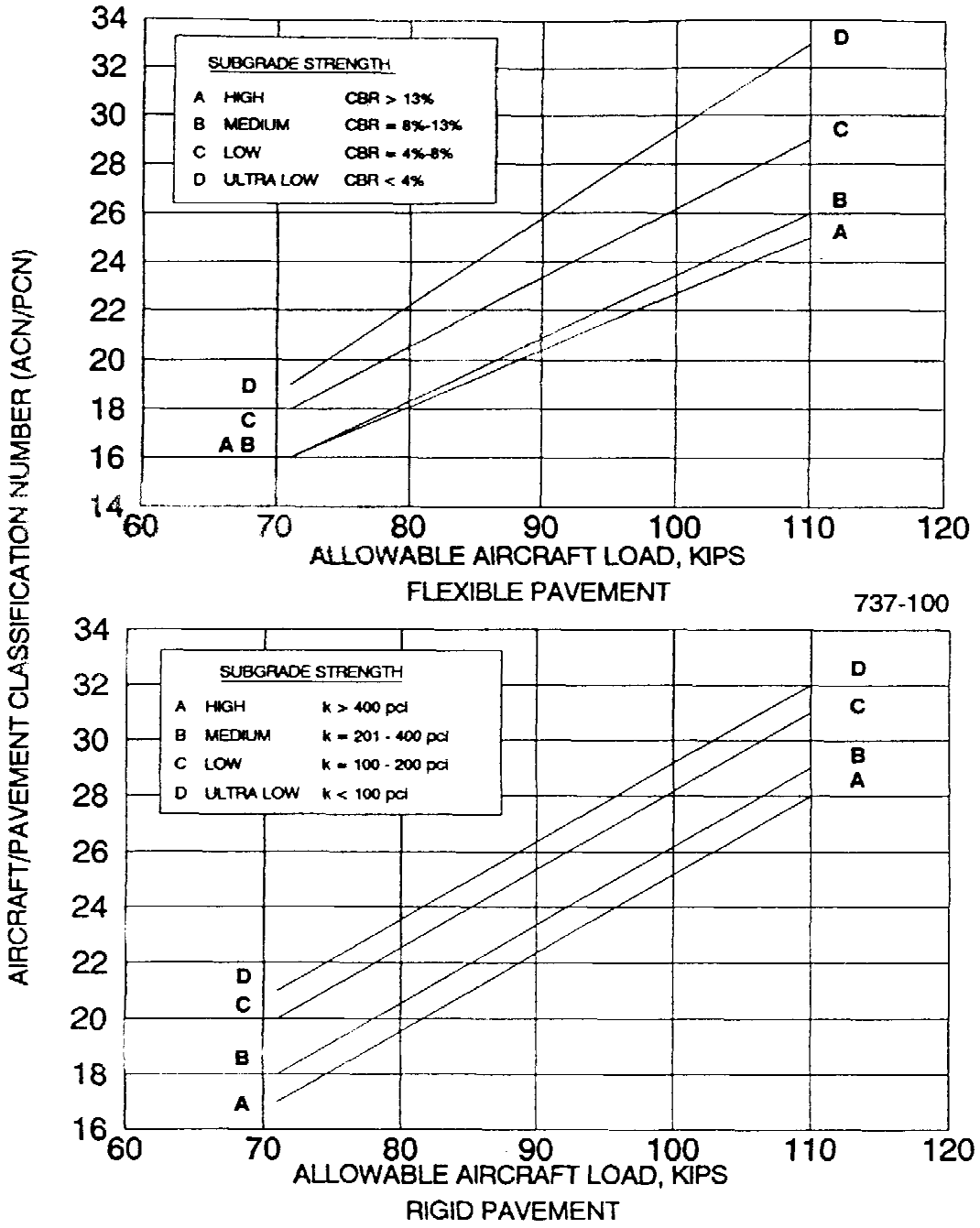


Figure A-330. Boeing 737-100, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-17R/17AR)

No. of Engines 2 Engine Rating 17,400 lb

Min. T/O Wt. 76.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 128.1 k-lb Max. T/O Wt. War-Time 128.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 98.6 k-lb Max. Ldg. Wt. 107.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
99	26	27	28	29	22	23	26	29
107	28	29	31	32	24	25	28	32
128	34	35	37	39	29	31	34	39

Figure A-331. Boeing 737-200

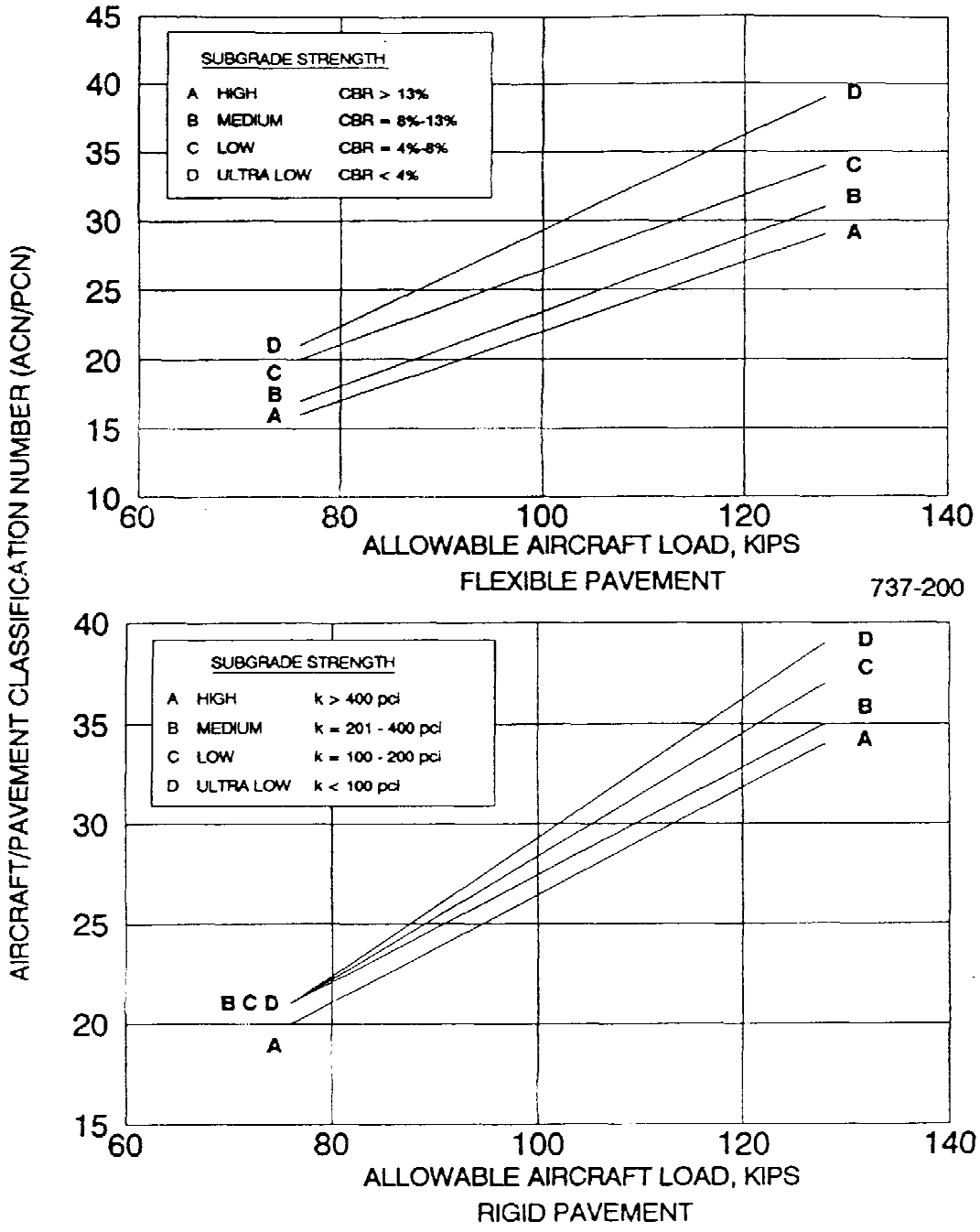


Figure A-332. Boeing 737-200, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer CFM International (CFM56-3B1)

No. of Engines 2 Engine Rating 20,000 lb

Min. T/O Wt. 83.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 135.0 k-lb Max. T/O Wt. War-Time 135.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 110.2 k-lb Max. Ldg. Wt. 114.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
110	29	30	32	33	25	26	29	33
114	30	32	33	35	26	27	31	34
135	37	38	40	42	32	33	37	41

Figure A-333. Boeing 737-300

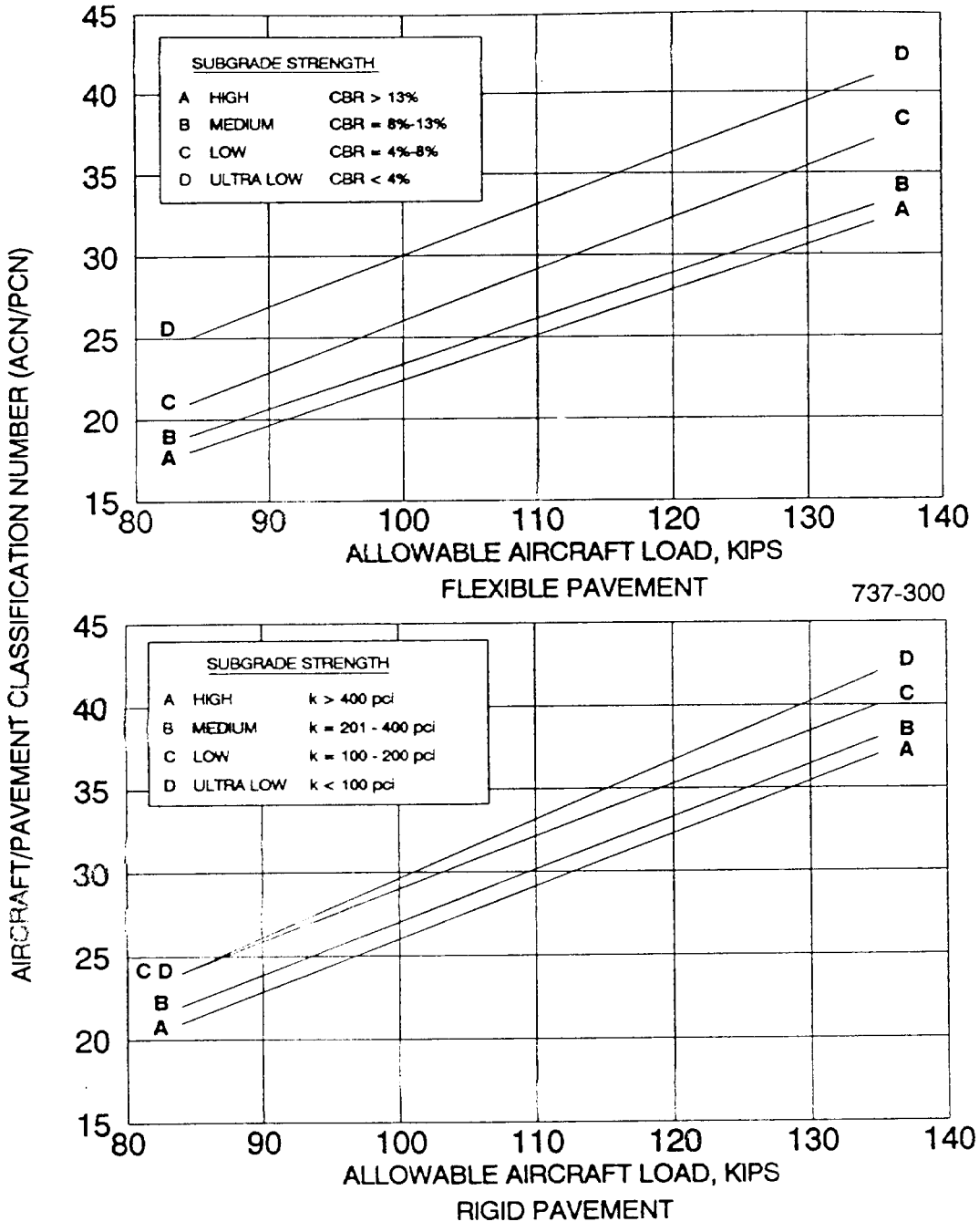


Figure A-334. Boeing 737-200, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer CFM International (CFM56-3C)

No. of Engines 2 Engine Rating 23,500 lb

Min. T/O Wt. 85.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 150.0 k-lb Max. T/O Wt. War-Time 150.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 120.7 k-lb Max. Ldg. Wt. 124.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
121	34	36	37	39	29	31	34	38
124	35	37	38	40	30	32	35	39
150	43	45	47	49	37	39	43	48

Figure A-335. Boeing 737-400

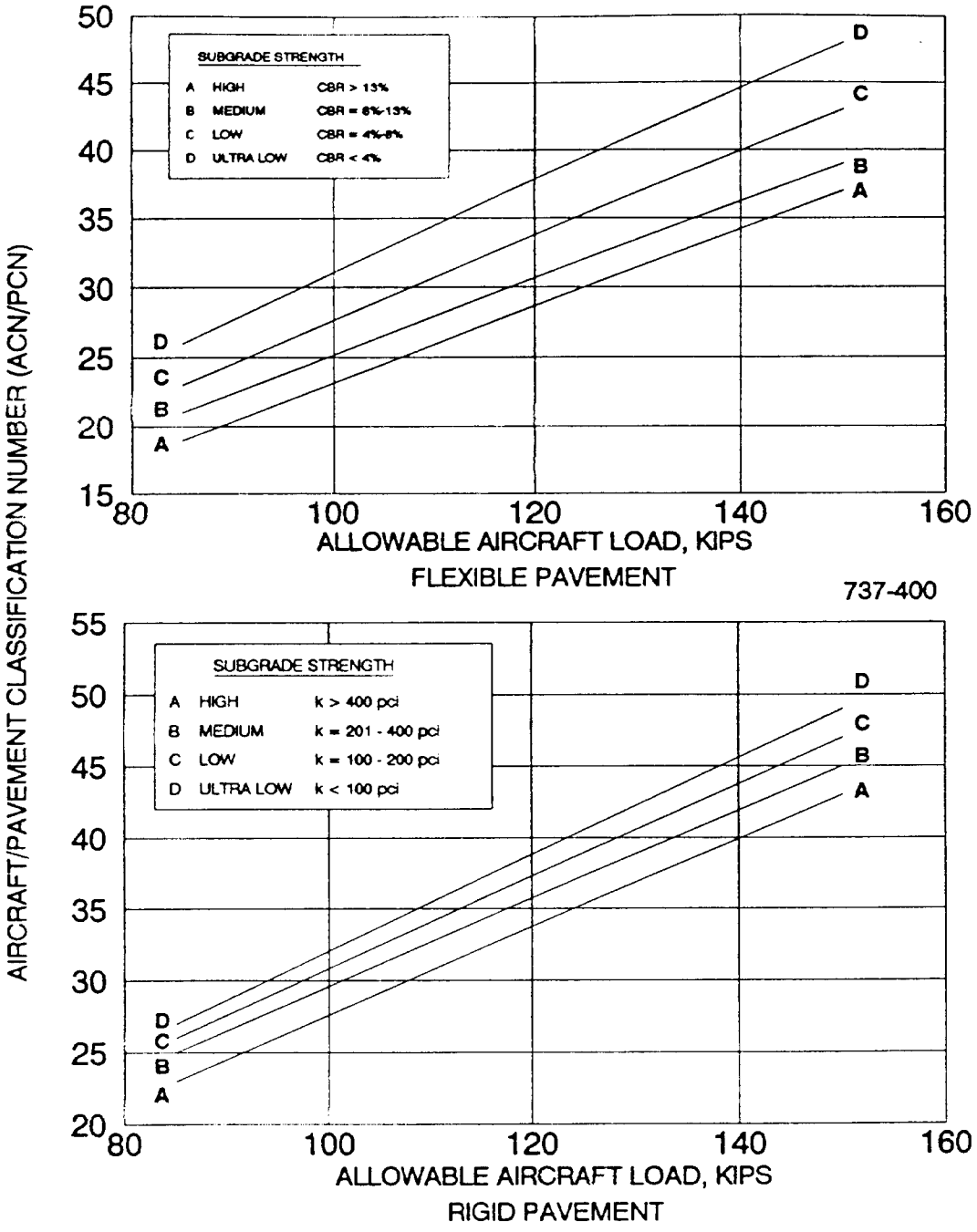


Figure A-336. Boeing 737-400, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Rolls-Royce (RB211-524C2)

No. of Engines 4 Engine Rating 51,500 lb

Min. T/O Wt. 465.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 750.0 k-lb Max. T/O Wt. War-Time 750.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 573.8 k-lb Max. Ldg. Wt. 585.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,200 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
574	31	35	42	49	34	37	44	57
585	32	36	43	50	35	38	45	58
750	42	50	60	68	46	52	63	82

Figure A-337. Boeing 747-100B

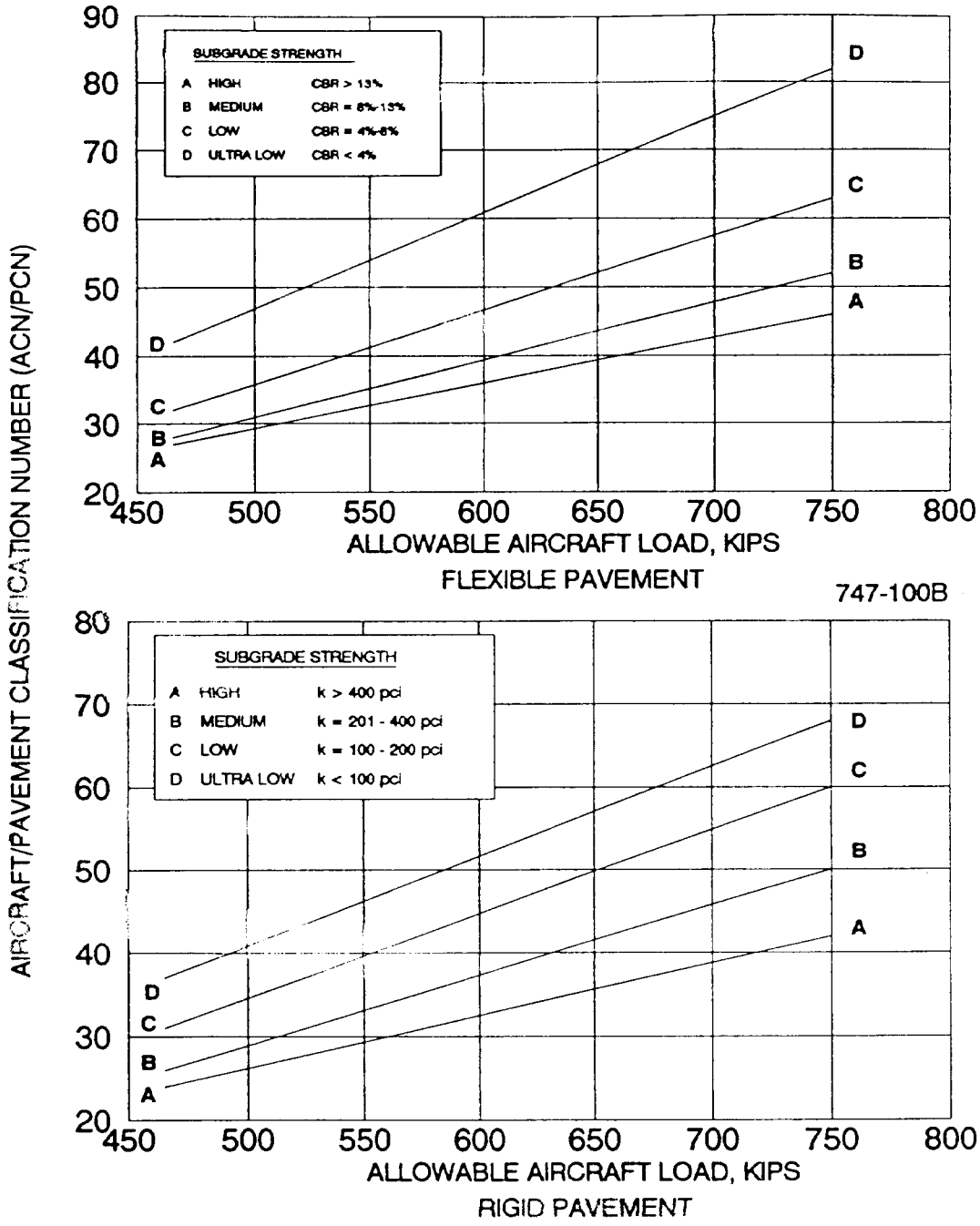


Figure A-338. Boeing 747-100B, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7R4G2)

No. of Engines 4 Engine Rating 54,000 lb

Min. T/O Wt. 470.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 557.9 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
558	30	34	41	47	33	36	42	55
630	34	40	48	55	38	42	50	65
833	48	56	68	78	53	59	73	94

Figure A-339. Boeing 747-200B-Passenger

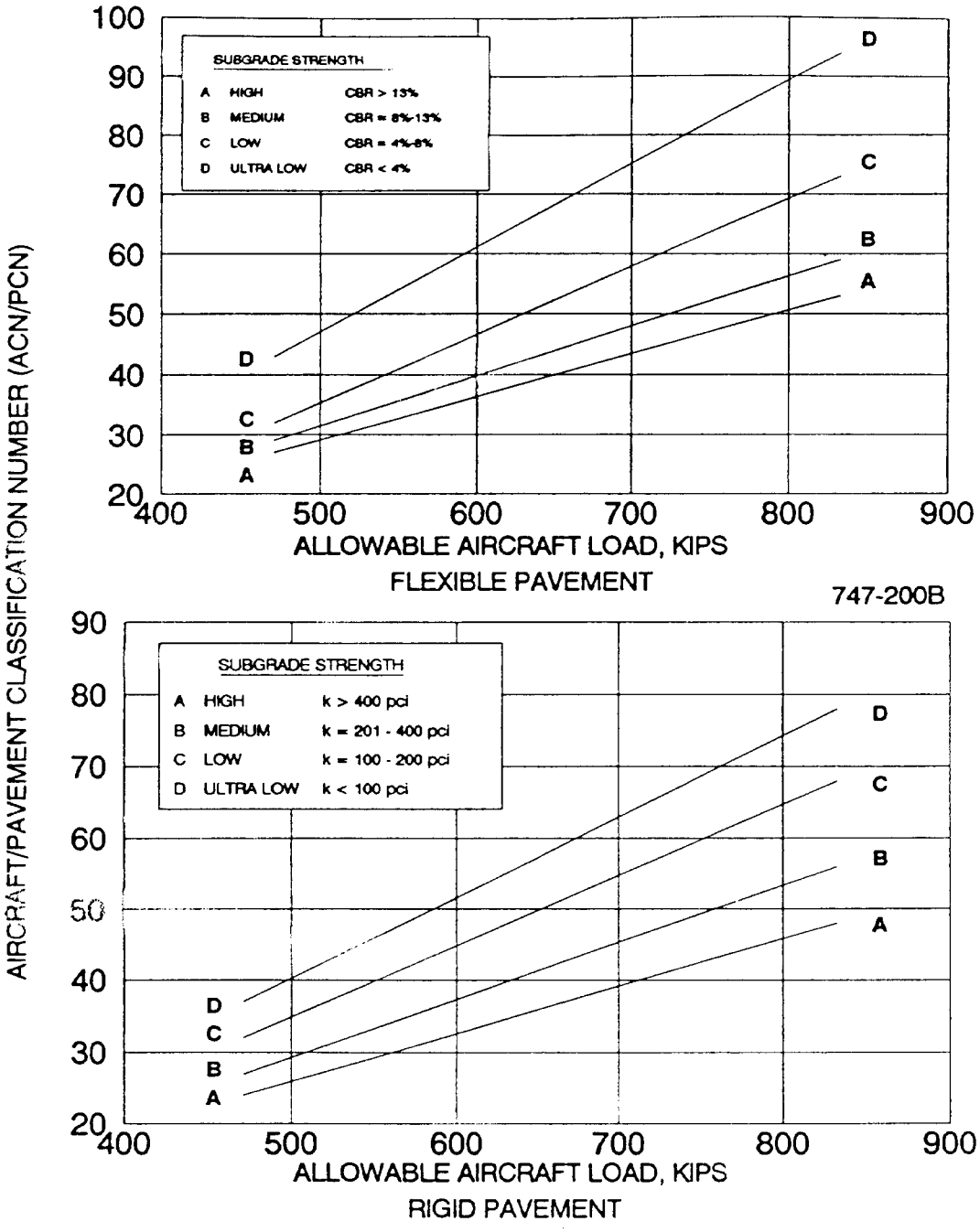


Figure A-340. Boeing 747-200B-Pass., ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-70)

No. of Engines 4 Engine Rating 53,000 lb

Min. T/O Wt. 488.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 621.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
621	34	39	47	54	37	41	49	64
630	34	40	48	55	38	42	50	65
833	48	56	68	78	53	59	73	94

Figure A-341. Boeing 747-200C-Cargo

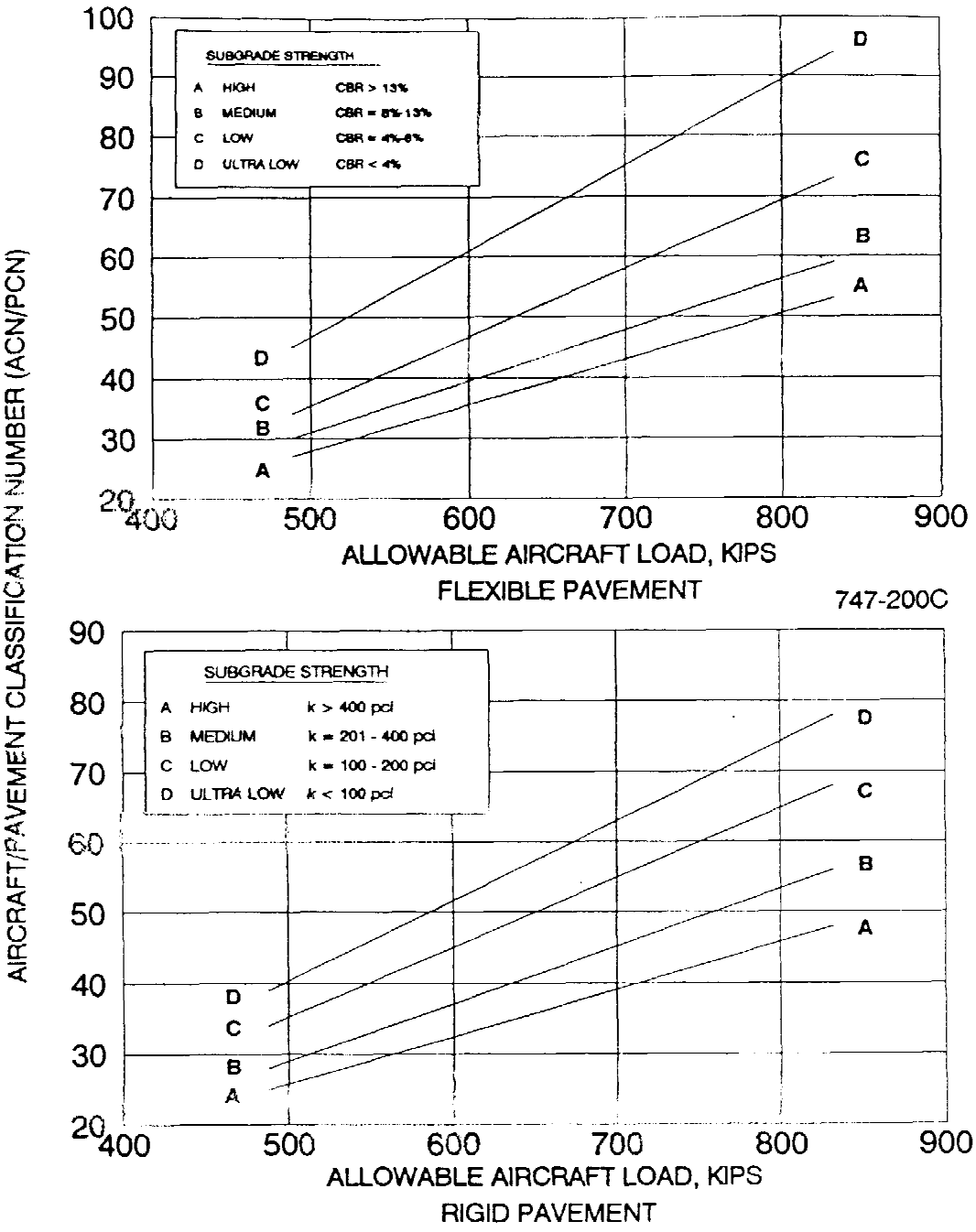


Figure A-342. Boeing 747-200C-Cargo, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7AW)

No. of Engines 4 Engine Rating 48,570 lb

Min. T/O Wt. 485.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 800.0 k-lb Max. T/O Wt. War-Time 800.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 621.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
621	34	39	47	54	37	41	49	64
630	34	40	48	55	38	42	50	65
800	46	54	64	74	50	56	69	89

Figure A-343. Boeing 747-200C-Passenger

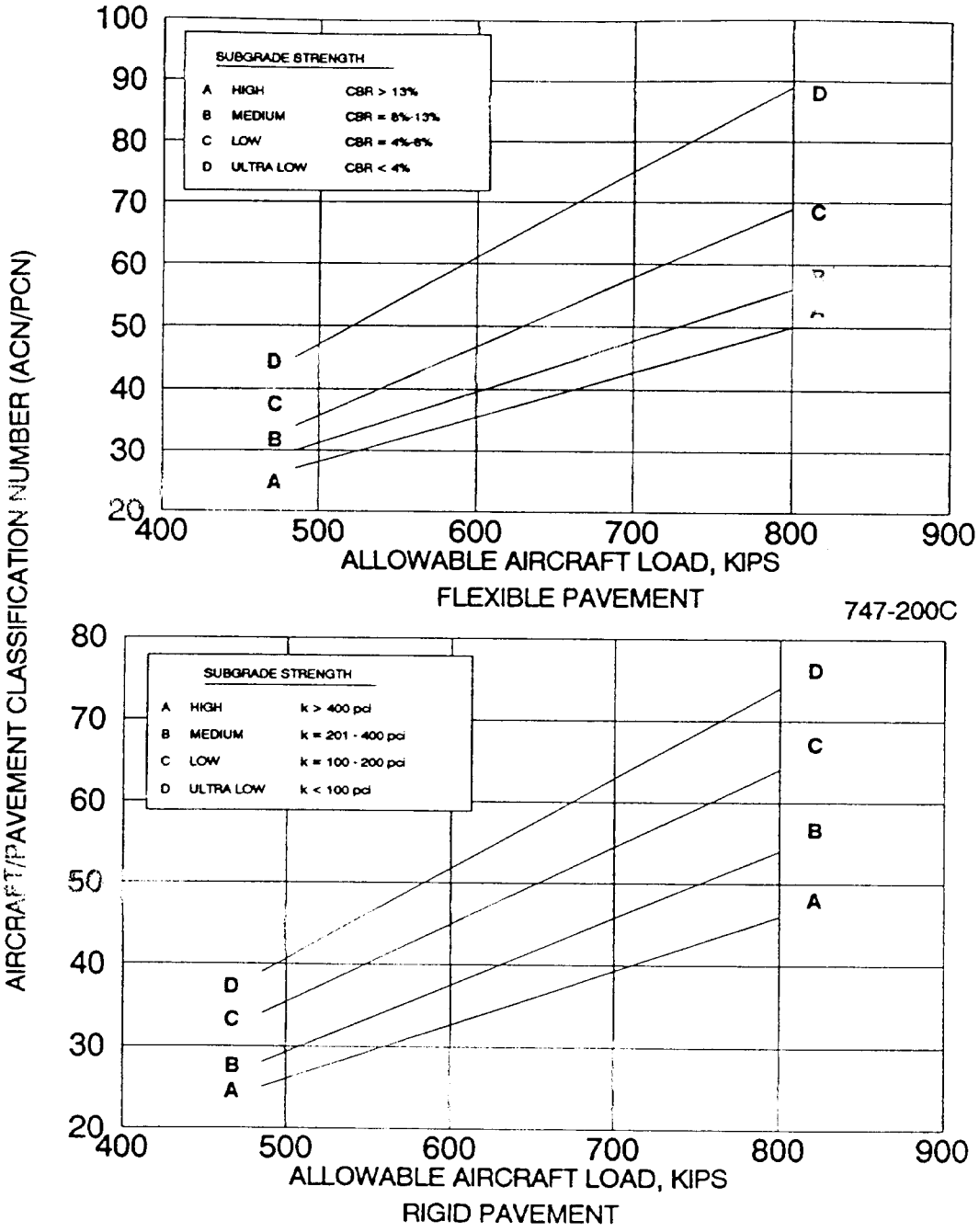


Figure A-344. Boeing 747-200C-Pass., ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7Q)

No. of Engines 4 Engine Rating 53,000 lb

Min. T/O Wt. 439.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 621.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
621	34	39	47	54	37	41	49	64
630	34	40	48	55	38	42	50	65
833	48	56	68	78	53	59	73	94

Figure A-345. Boeing 747-200F-Cargo

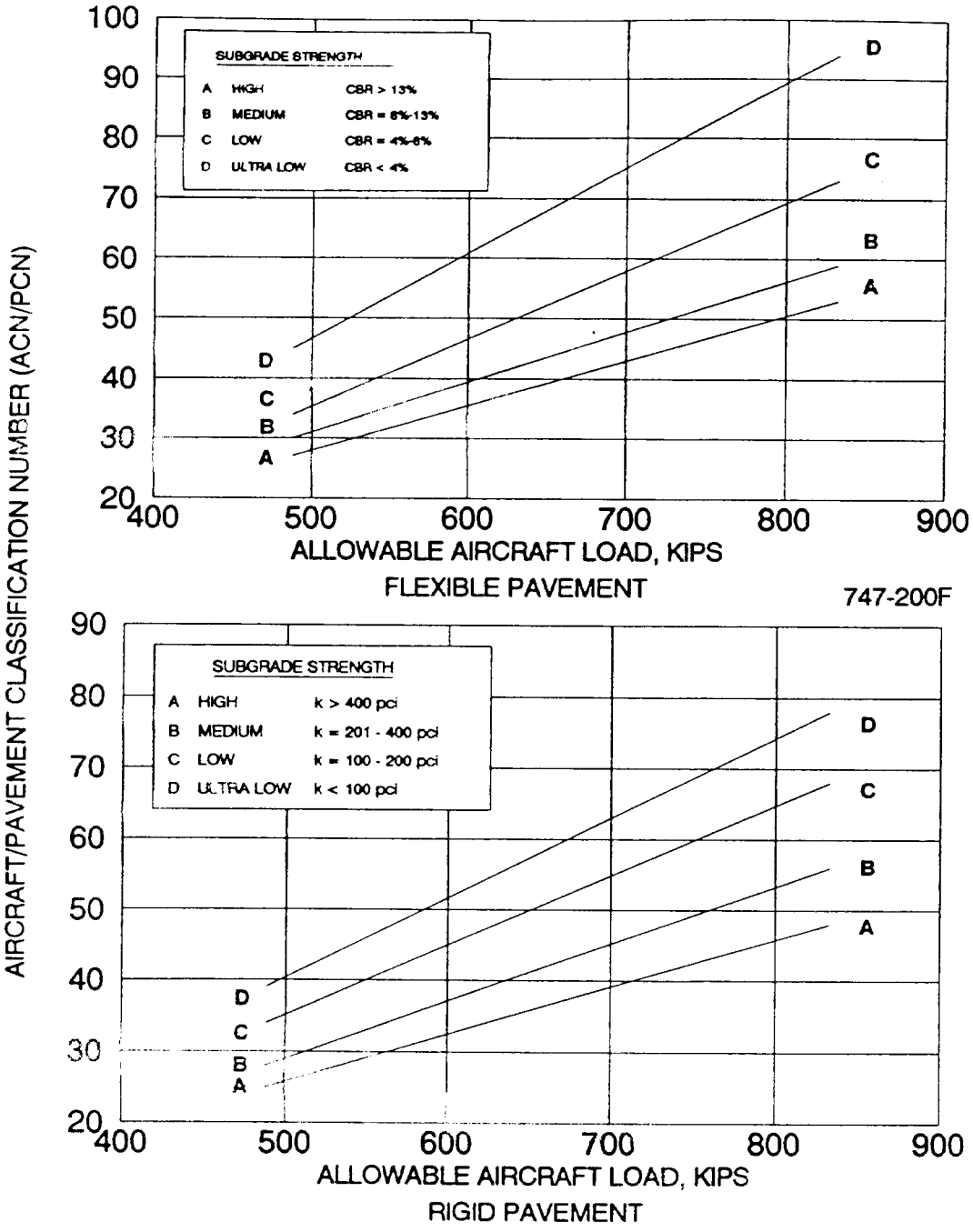


Figure A-346. Boeing 747-200F-Cargo, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7R4G2)

No. of Engines 4 Engine Rating 54,000 lb

Min. T/O Wt. 479.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 566.4 k-lb Max. Ldg. Wt. 574.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
566	30	34	41	47	33	36	43	56
574	31	35	42	49	34	37	44	57
833	48	56	68	78	53	59	73	94

Figure A-347. Boeing 747-300-Passenger

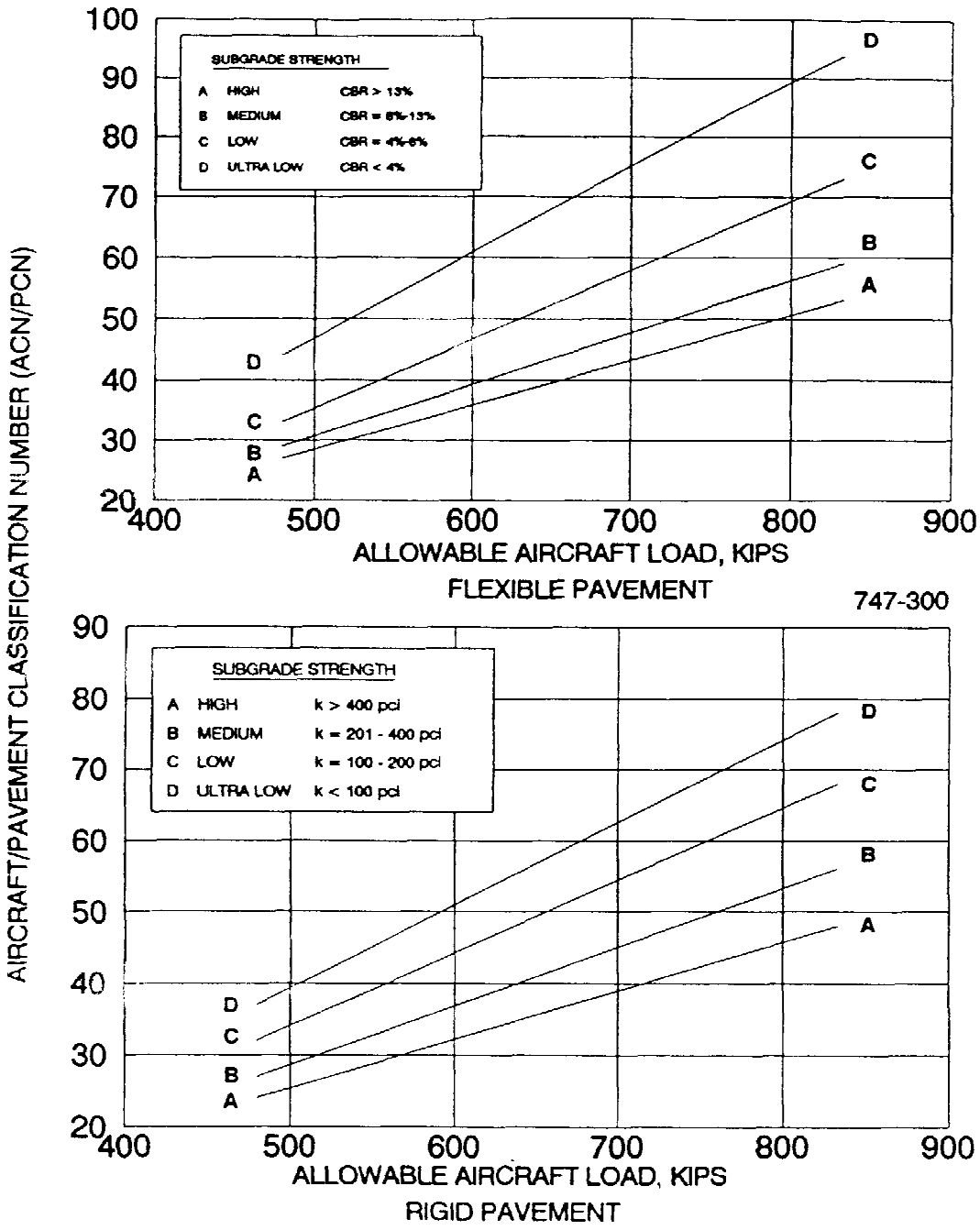


Figure A-348. Boeing 747-300-Pass., ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80C2) or Pratt and Whitney (PW4056) or Rolls-Royce (RB 211-524G)

No. of Engines 4 Engine Rating 57,900 lb

Min. T/O Wt. 494.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 870.0 k-lb Max. T/O Wt. War-Time 870.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 569.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
569	30	36	43	49	34	38	45	58
630	34	41	49	56	38	43	52	67
870	52	62	74	84	56	64	78	100

Figure A-349. Boeing 747-400

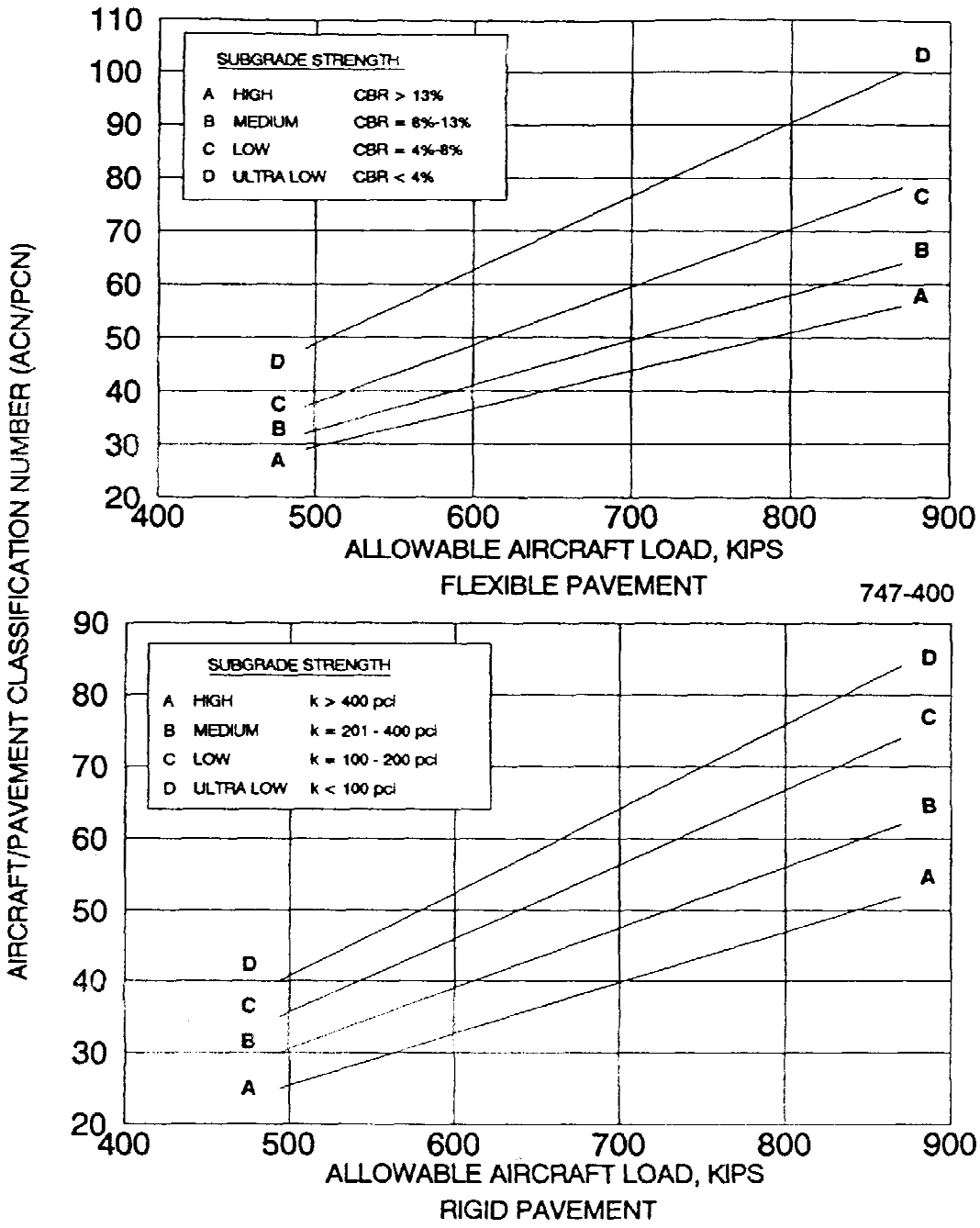


Figure A-350. Boeing 747-400, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7A)

No. of Engines 4 Engine Rating 46,950 lb

Min. T/O Wt. 414.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 696.0 k-lb Max. T/O Wt. War-Time 696.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 439.3 k-lb Max. Ldg. Wt. 450.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
439	22	24	29	33	23	25	29	38
450	23	25	30	34	24	26	30	39
696	38	44	52	60	40	44	53	72

Figure A-351. Boeing 747SP

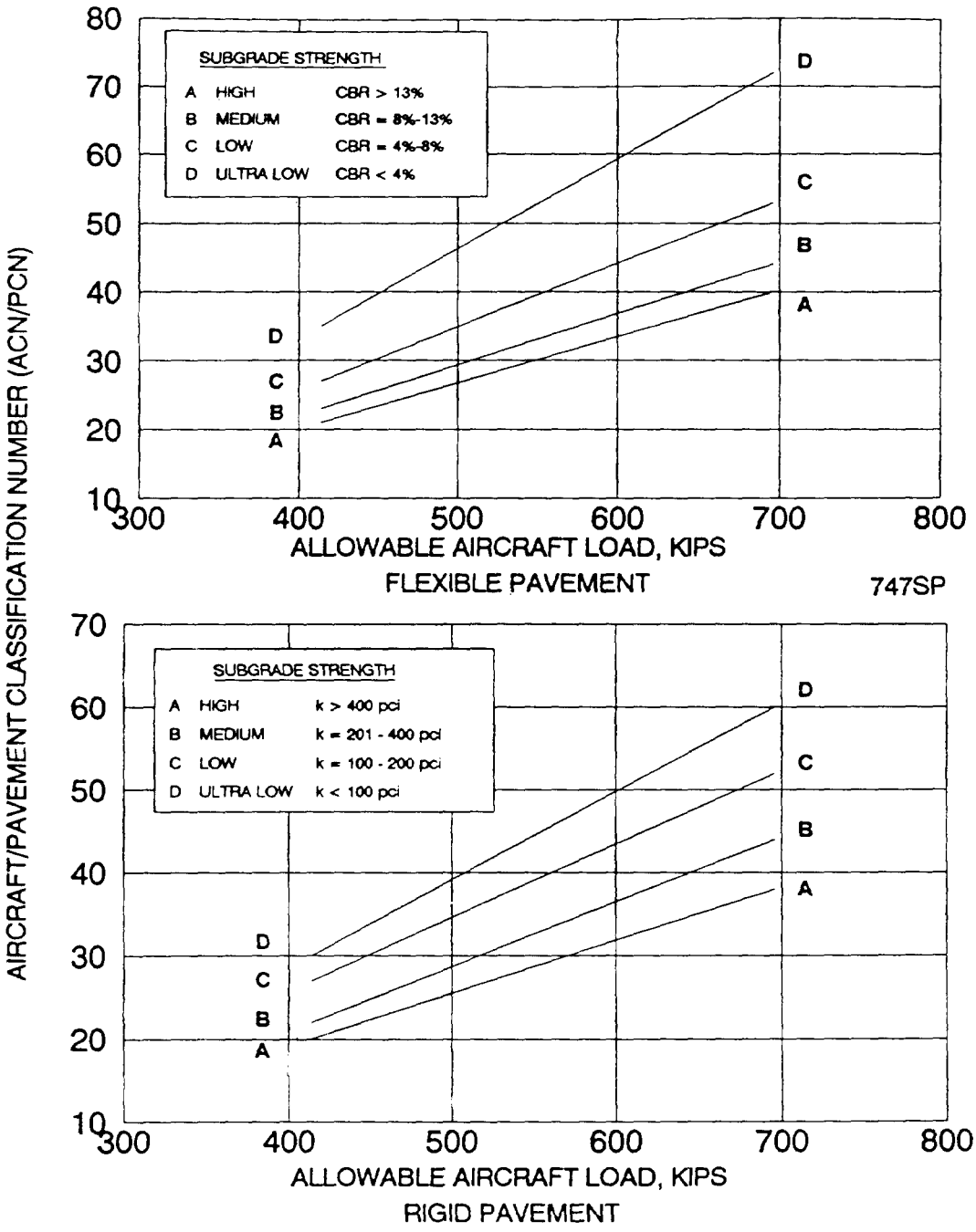


Figure A-352. Boeing 747SP, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Rolls-Royce (RB211-535EA)

No. of Engines 2 Engine Rating 40,100 lb

Min. T/O Wt. 153.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 240.0 k-lb Max. T/O Wt. War-Time 240.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 190.8 k-lb Max. Ldg. Wt. 198.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
191	20	24	28	33	22	24	29	38
198	21	25	30	34	23	25	30	40
240	27	32	38	44	28	32	39	51

Figure A-353. Boeing 757-200

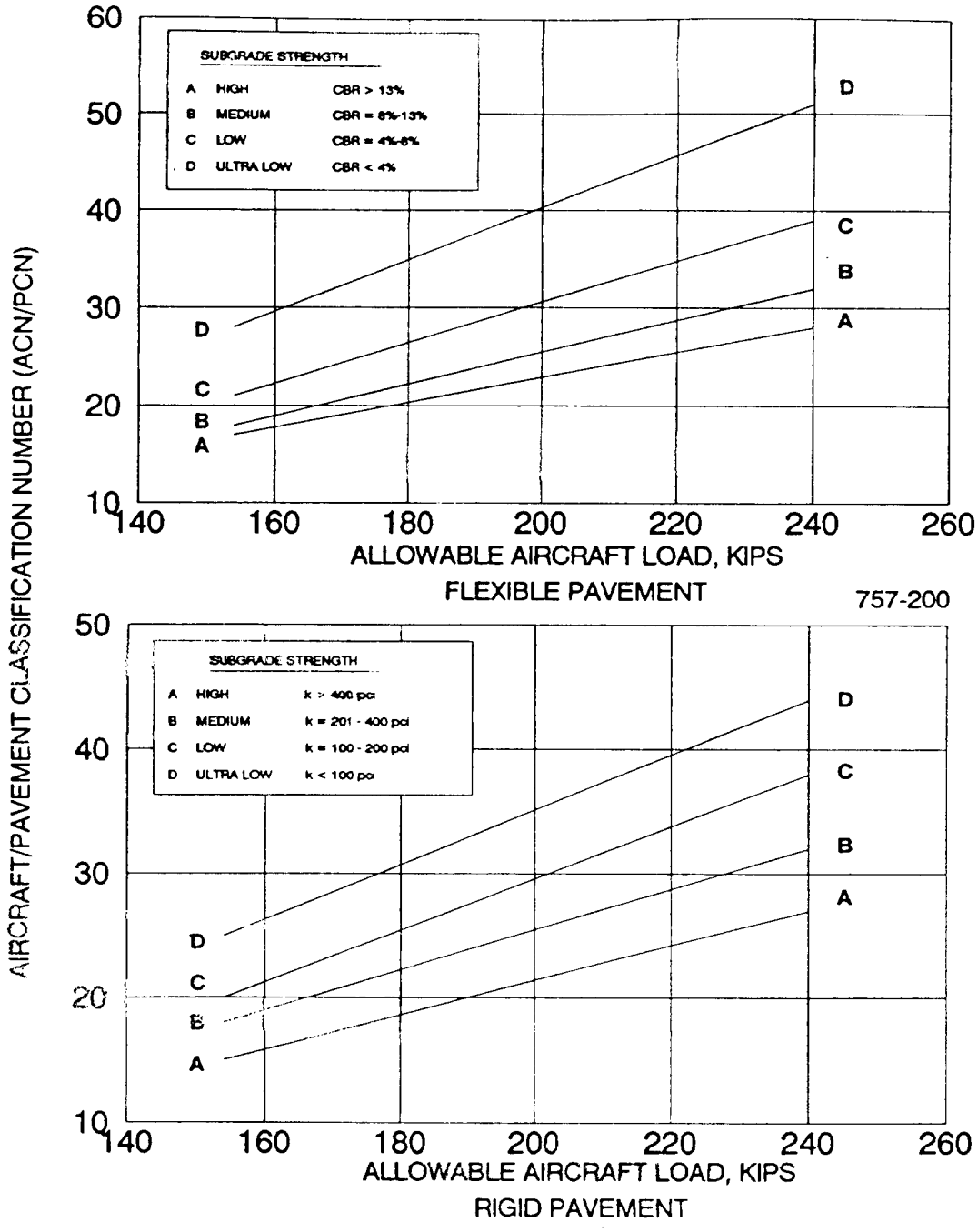


Figure A-354. Boeing 757-200, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 204.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 315.0 k-lb Max. T/O Wt. War-Time 315.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 260.0 k-lb Max. Ldg. Wt. 272.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
260	28	32	38	44	30	33	39	50
272	30	34	40	46	32	34	41	53
315	35	41	48	56	38	42	50	66

Figure A-355. Boeing 767-200

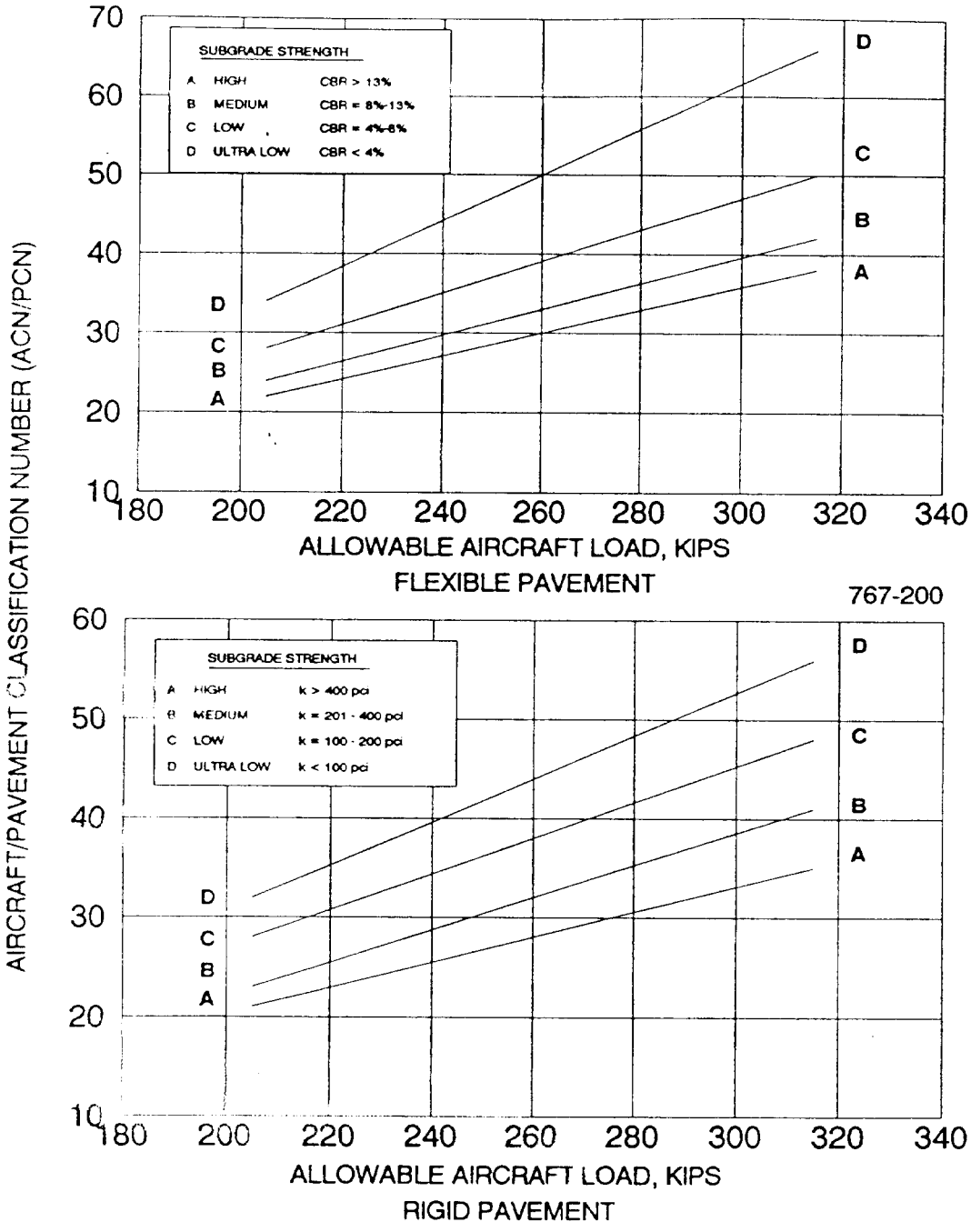


Figure A-356. Boeing 767-200, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80A2) or Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 217.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 351.0 k-lb Max. T/O Wt. War-Time 351.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 265.3 k-lb Max. Ldg. Wt. 278.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,700 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
265	29	33	39	45	31	34	40	52
278	31	35	42	48	33	36	43	56
351	40	46	55	64	43	47	58	75

Figure A-357. Boeing 767-200ER

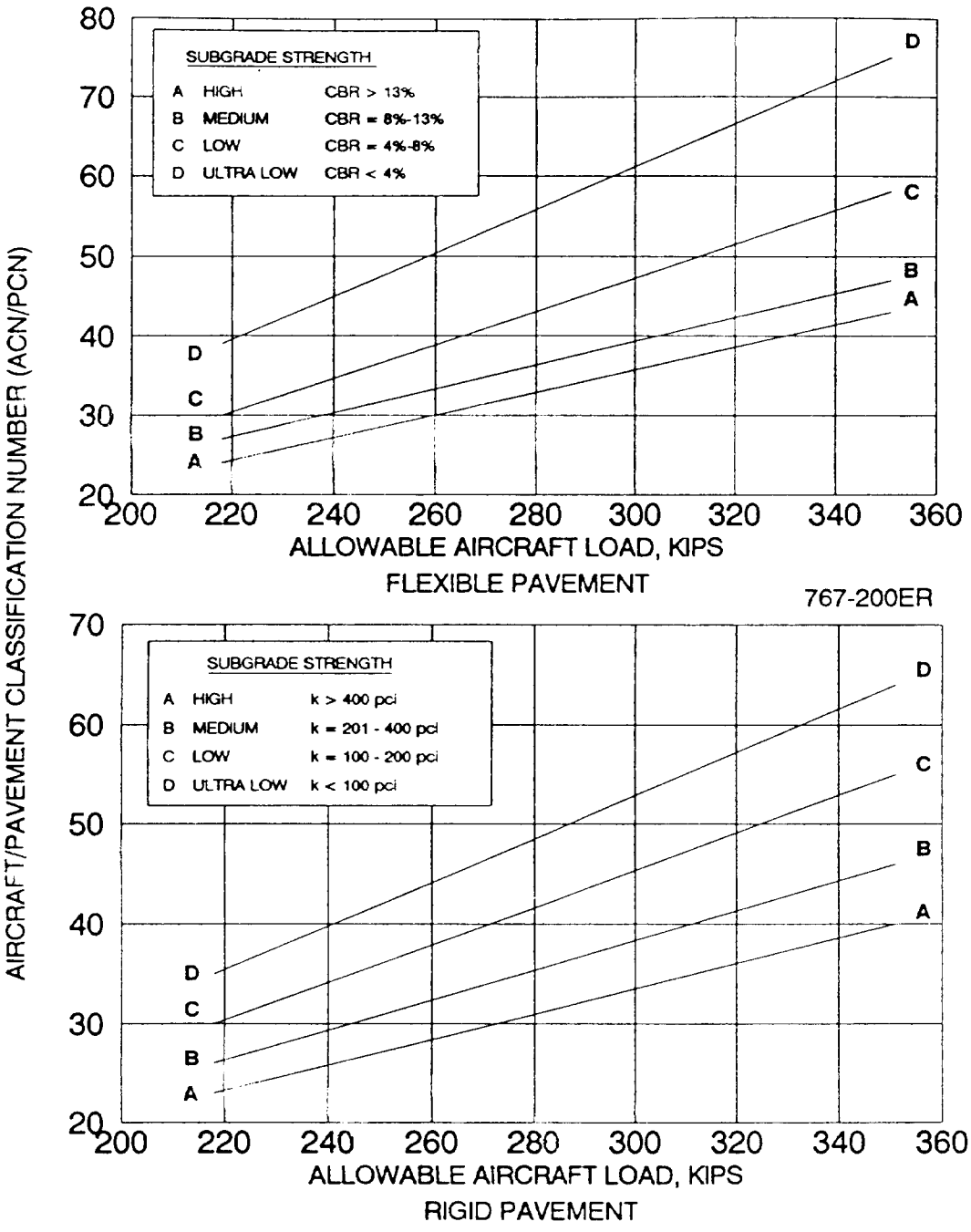


Figure A-358. Boeing 767-200ER, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80A2) or Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 219.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 351.0 k-lb Max. T/O Wt. War-Time 351.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 288.0 k-lb Max. Ldg. Wt. 300.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
288	32	37	44	50	34	38	45	58
300	33	38	46	52	36	39	47	62
351	40	46	55	64	43	47	58	75

Figure A-359. Boeing 767-300.

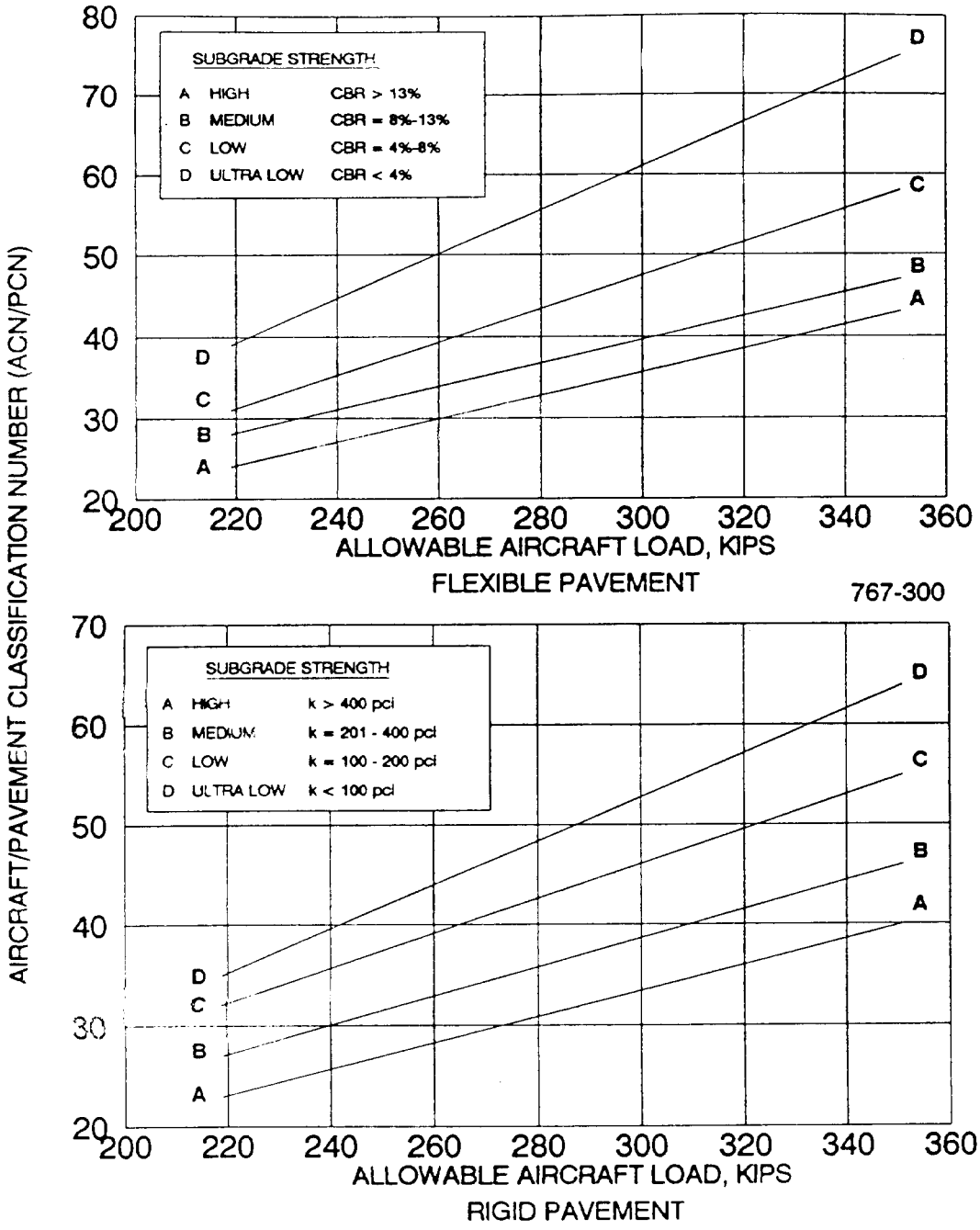


Figure A-360. Boeing 767-300, ACN/PCN Curves

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80C2-B4) or Pratt and Whitney (PW4056)

No. of Engines 2 Engine Rating 57,900 lb

Min. T/O Wt. 237.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 380.0 k-lb Max. T/O Wt. War-Time 380.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 292.4 k-lb Max. Ldg. Wt. 300.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,450 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
292	32	37	44	50	34	38	45	58
300	33	38	46	52	36	39	47	62
380	44	51	61	70	47	52	64	84

Figure A-361. Boeing 767-300ER

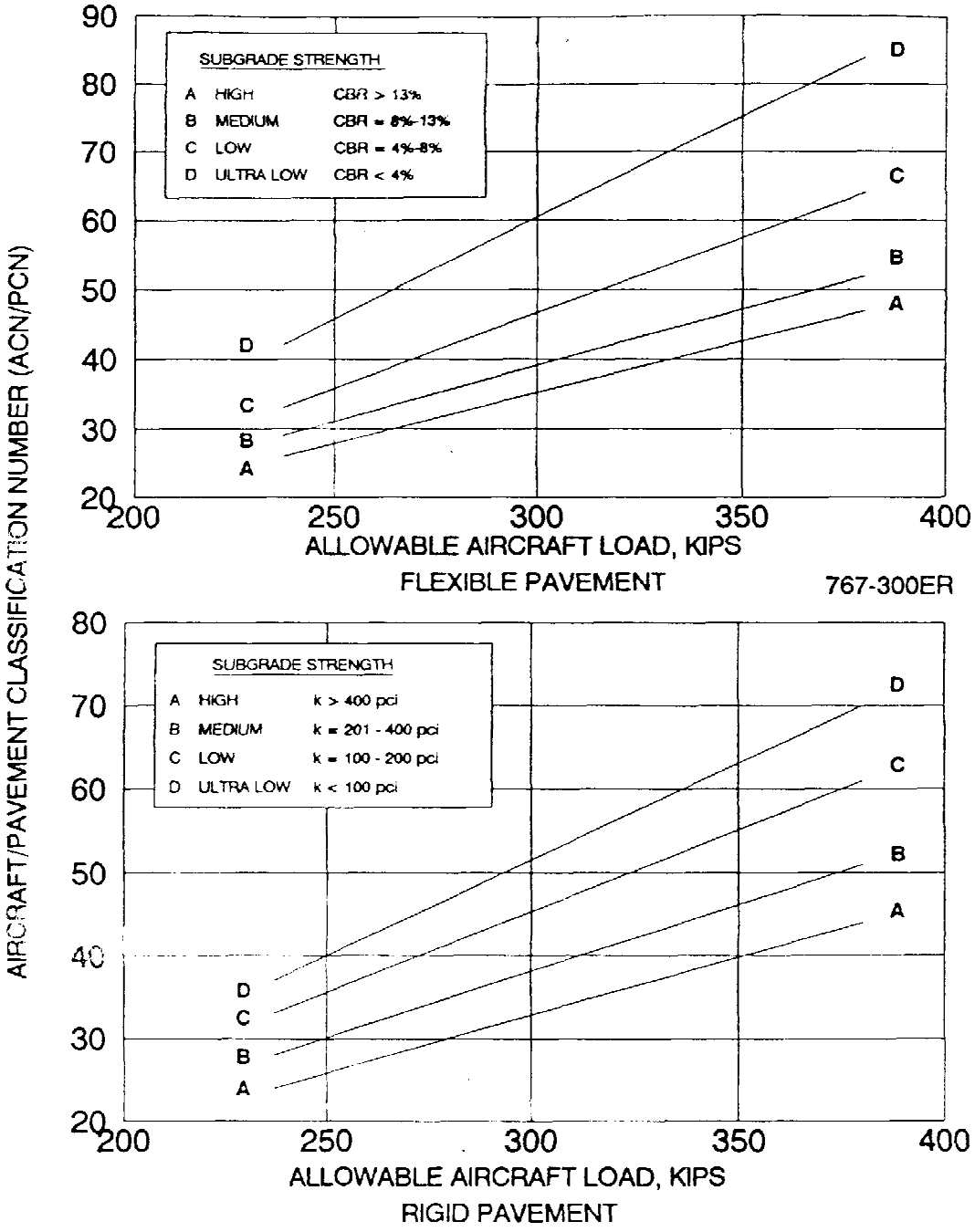


Figure A-362. Boeing 767-300ER, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer General Electric (CJ805-3B)

No. of Engines 4 Engine Rating 11,650 lb

Min. T/O Wt. 93.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. 4,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 193.0 k-lb Max. T/O Wt. War-Time 193.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 121.5 k-lb Max. Ldg. Wt. 155.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
122	14	16	19	22	13	15	19	24
155	20	23	27	30	19	22	27	33
193	27	31	36	41	27	31	37	44

Figure A-363. General Dynamics/Convair 880

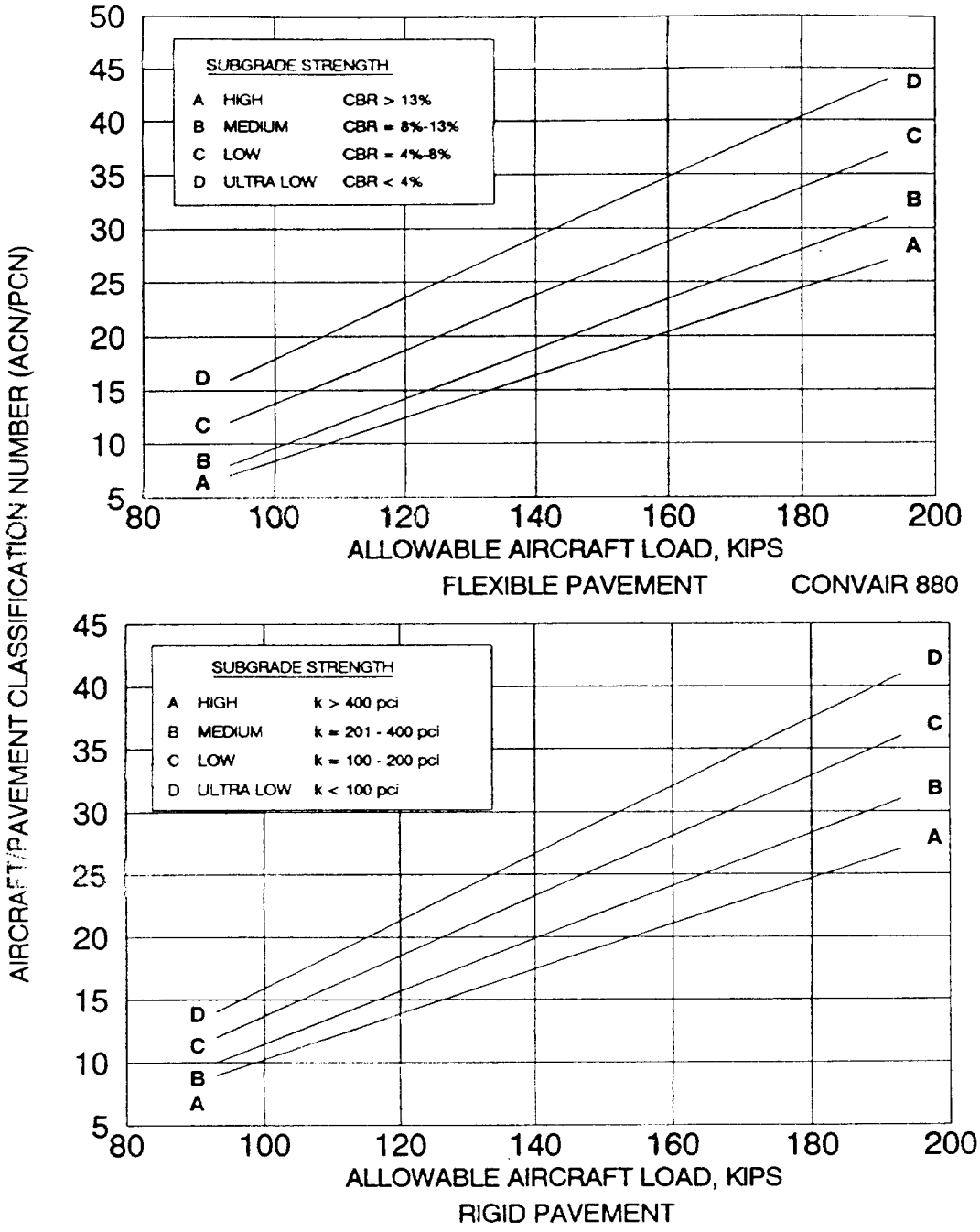


Figure A-364. General Dynamics/Convair 880, ACN/PCN Curves

Aircraft Manufacturer Convair Division - General Dynamics

Aircraft Engine Manufacturer General Electric (CJ805-23B)

No. of Engines 4 Engine Rating 16,050 lb

Min. T/O Wt. 120.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 253.0 k-lb Max. T/O Wt. War-Time 253.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 160.0 k-lb Max. Ldg. Wt. 202.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
160	22	26	30	33	22	24	29	36
202	31	36	40	45	30	34	40	48
253	41	48	54	60	40	45	53	64

Figure A-365. General Dynamics/Convair 990

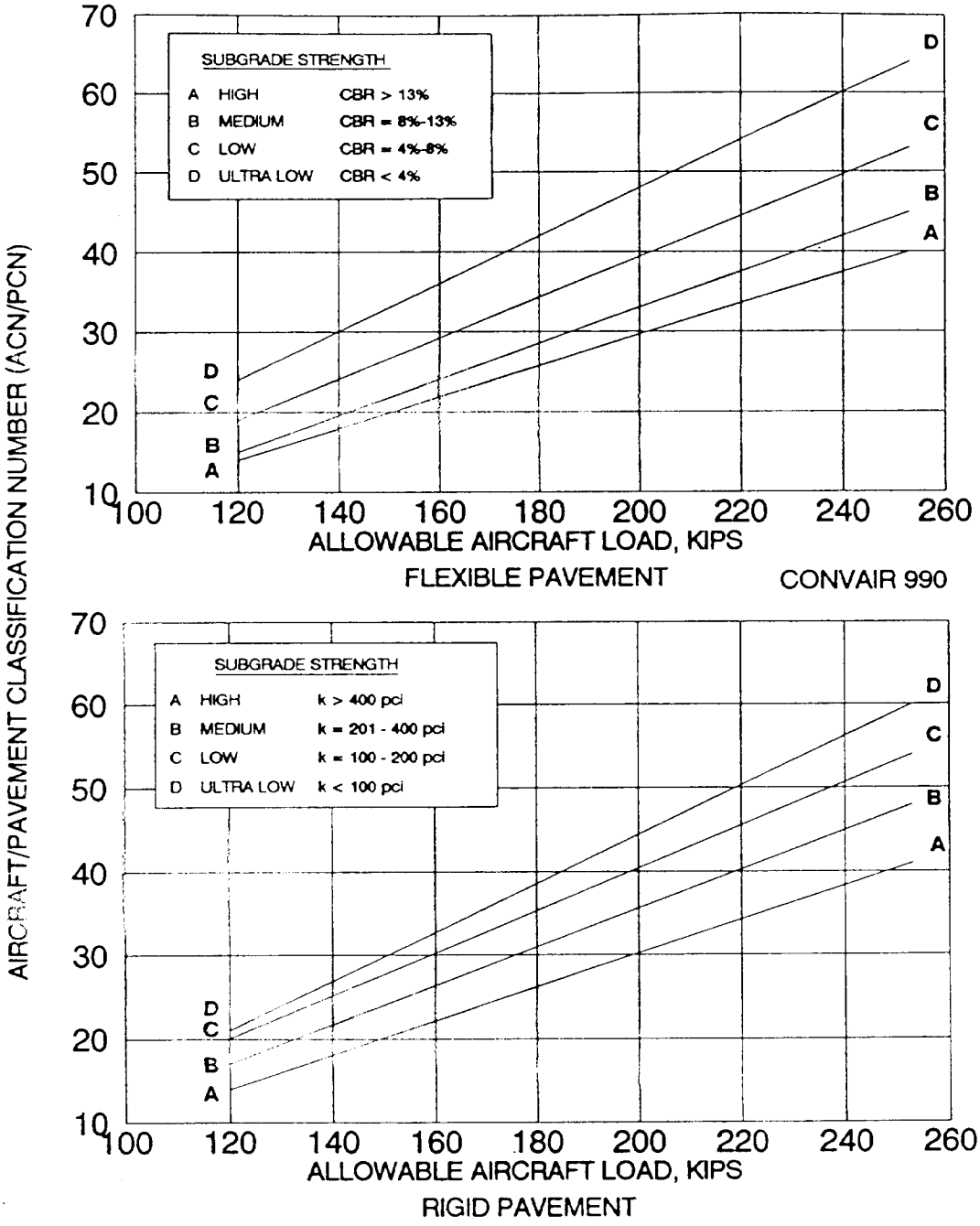


Figure A-366. General Dynamics/Convair 990, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Rolls-Royce (RB211-22B)

No. of Engines 3 Engine Rating 42,000 lb

Min. T/O Wt. 282.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 430.0 k-lb Max. T/O Wt. War-Time 430.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 339.1 k-lb Max. Ldg. Wt. 358.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
339	32	36	43	50	35	39	46	62
358	34	39	46	54	38	42	50	67
430	43	49	58	70	50	54	64	88

Figure A-367. Lockheed L-10l1-1, Tristar

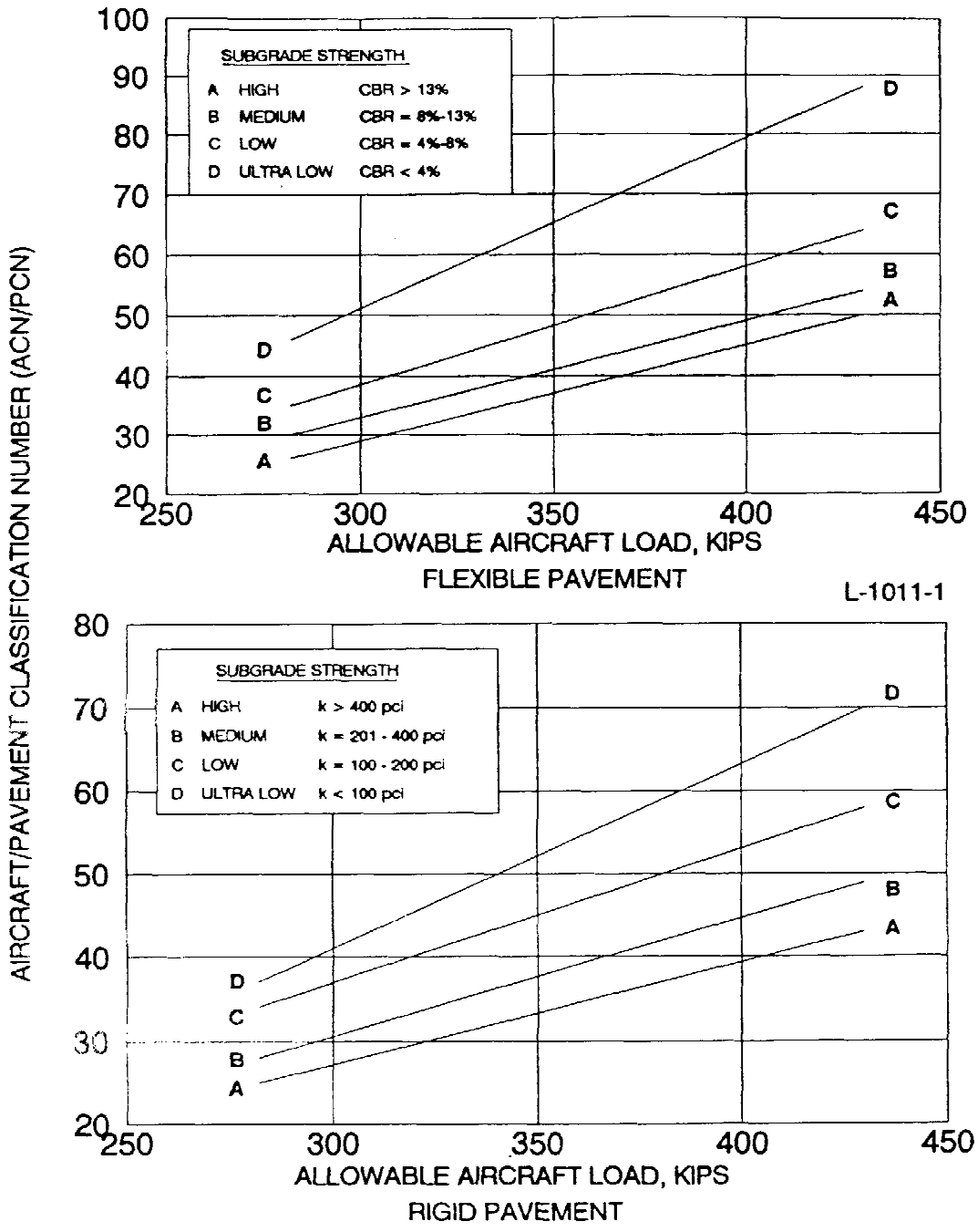


Figure A-368. Lockheed L-10l1-l, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Rolls-Royce (RB211-22B)

No. of Engines 3 Engine Rating 42,000 lb

Min. T/O Wt. 290.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 466.0 k-lb Max. T/O Wt. War-Time 466.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 335.9 k-lb Max. Ldg. Wt. 368.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
336	32	36	42	49	35	38	45	61
368	36	41	48	56	40	44	52	70
466	49	55	65	77	56	61	73	99

Figure A-369. Lockheed L-1011-l00, Tristar

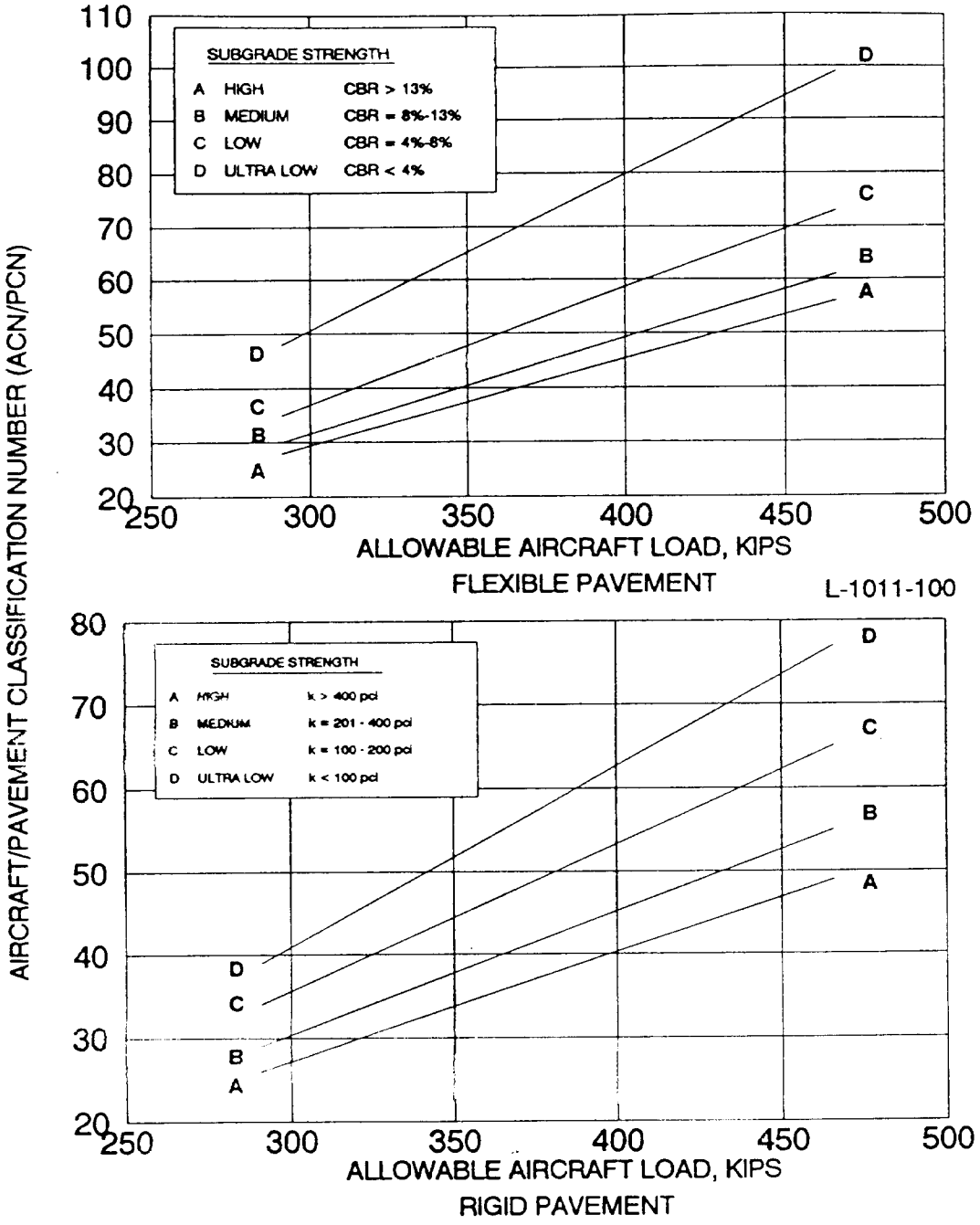


Figure A-370. Lockheed L-1011-100, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Rolls-Royce (RB211-524)

No. of Engines 3 Engine Rating 48,000 lb

Min. T/O Wt. 292.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 466.0 k-lb Max. T/O Wt. War-Time 466.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 335.9 k-lb Max. Ldg. Wt. 368.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
336	32	36	42	49	35	38	45	61
368	36	41	48	56	40	44	52	70
466	49	55	65	77	56	61	73	99

Figure A-371. Lockheed L-101l-200, Tristar

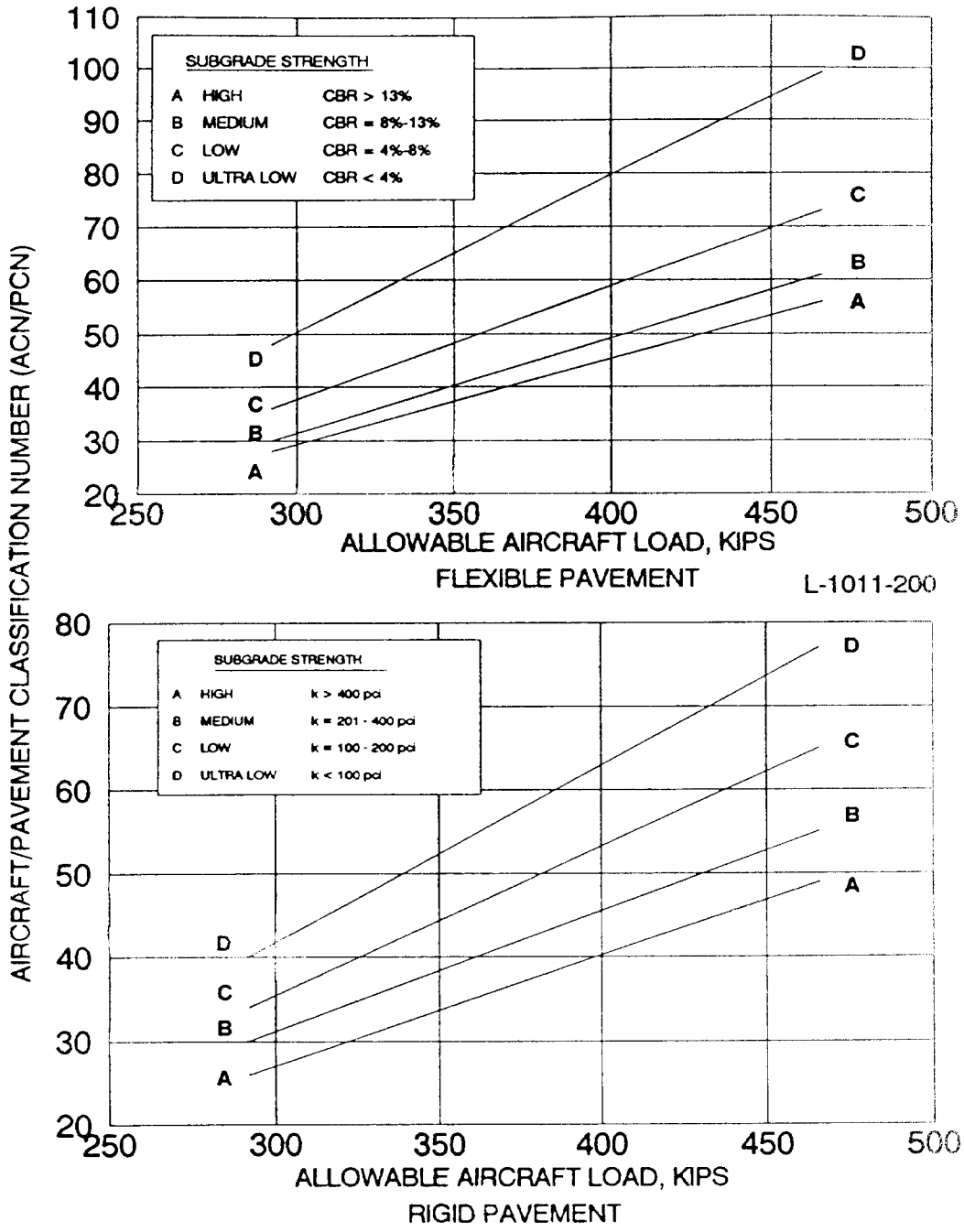


Figure A-372. Lockheed L-1011-200, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Rolls-Royce (RB211-524B)

No. of Engines 3 Engine Rating 50,000 lb

Min. T/O Wt. 297.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 496.0 k-lb Max. T/O Wt. War-Time 496.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 357.0 k-lb Max. Ldg. Wt. 368.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
357	36	40	48	57	39	43	50	67
368	37	41	50	59	40	44	52	70
496	51	57	70	82	56	63	77	104

Figure A-373. Lockheed L-l011-500, Tristar

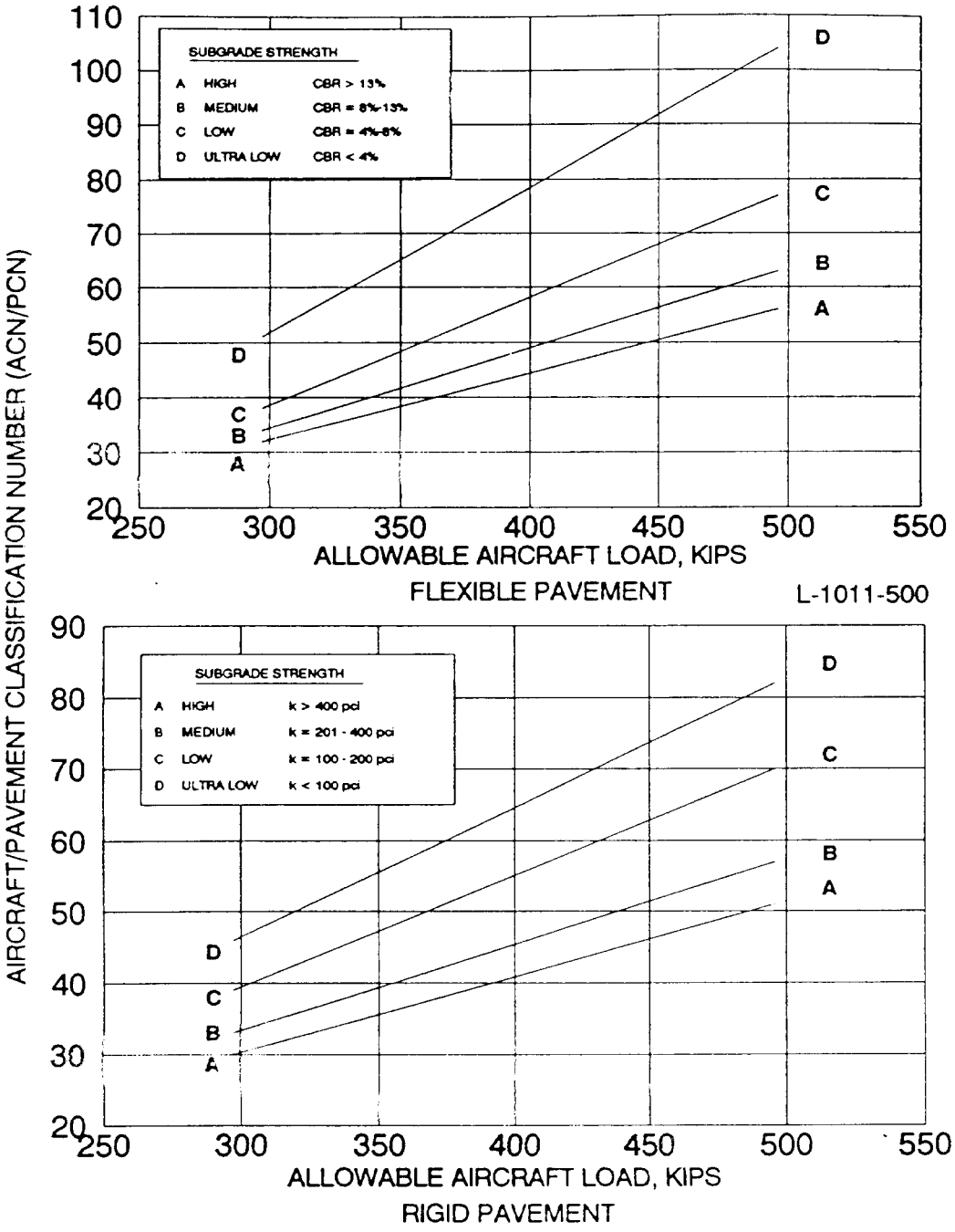


Figure A-374. Lockheed L-101l-500, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Rolls-Royce (RB211-524B)

No. of Engines 3 Engine Rating 50,000 lb

Min. T/O Wt. 297.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 496.0 k-lb Max. T/O Wt. War-Time 496.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 357.0 k-lb Max. Ldg. Wt. 368.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
357	36	40	48	57	39	43	50	67
368	37	41	50	59	40	44	52	70
496	51	57	70	82	56	63	77	104

Figure A-375. Lockheed L-1011-500 (Extended Wing), Tristar

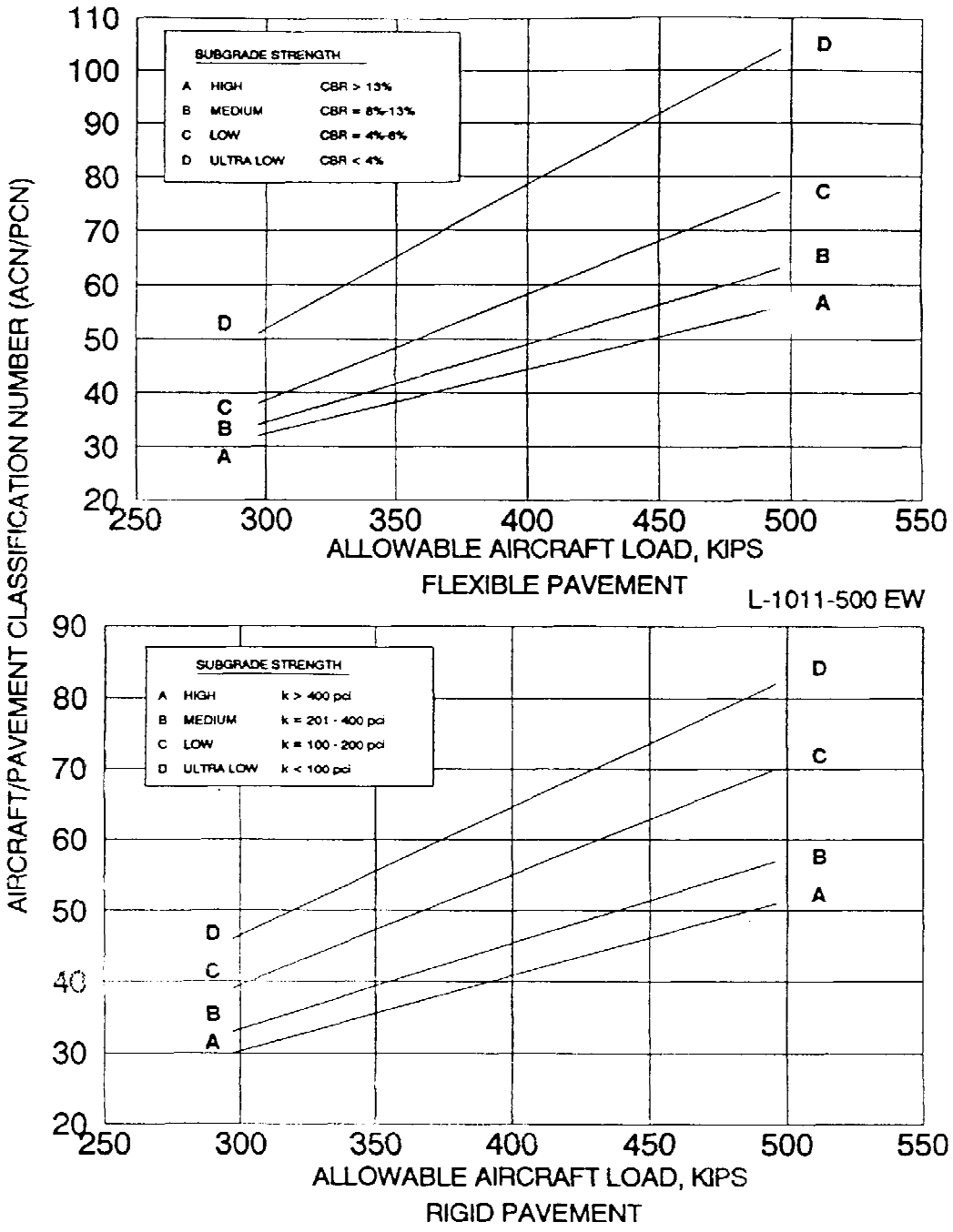


Figure A-376. Lockheed L-l0ll-500 (Extended Wing), ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Rolls-Royce (Conway RCo. 12)

No. of Engines 4 Engine Rating 17,500 lb

Min. T/O Wt. 178.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,500 ft

Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 315.0 k-lb Max. T/O Wt. War-Time 315.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 192.2 k-lb Max. Ldg. Wt. 207.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
192	24	27	32	36	23	26	30	38
207	26	30	35	40	26	29	34	43
315	44	51	60	66	42	49	58	72

Figure A-377. McDonnel Douglas DC-8-43

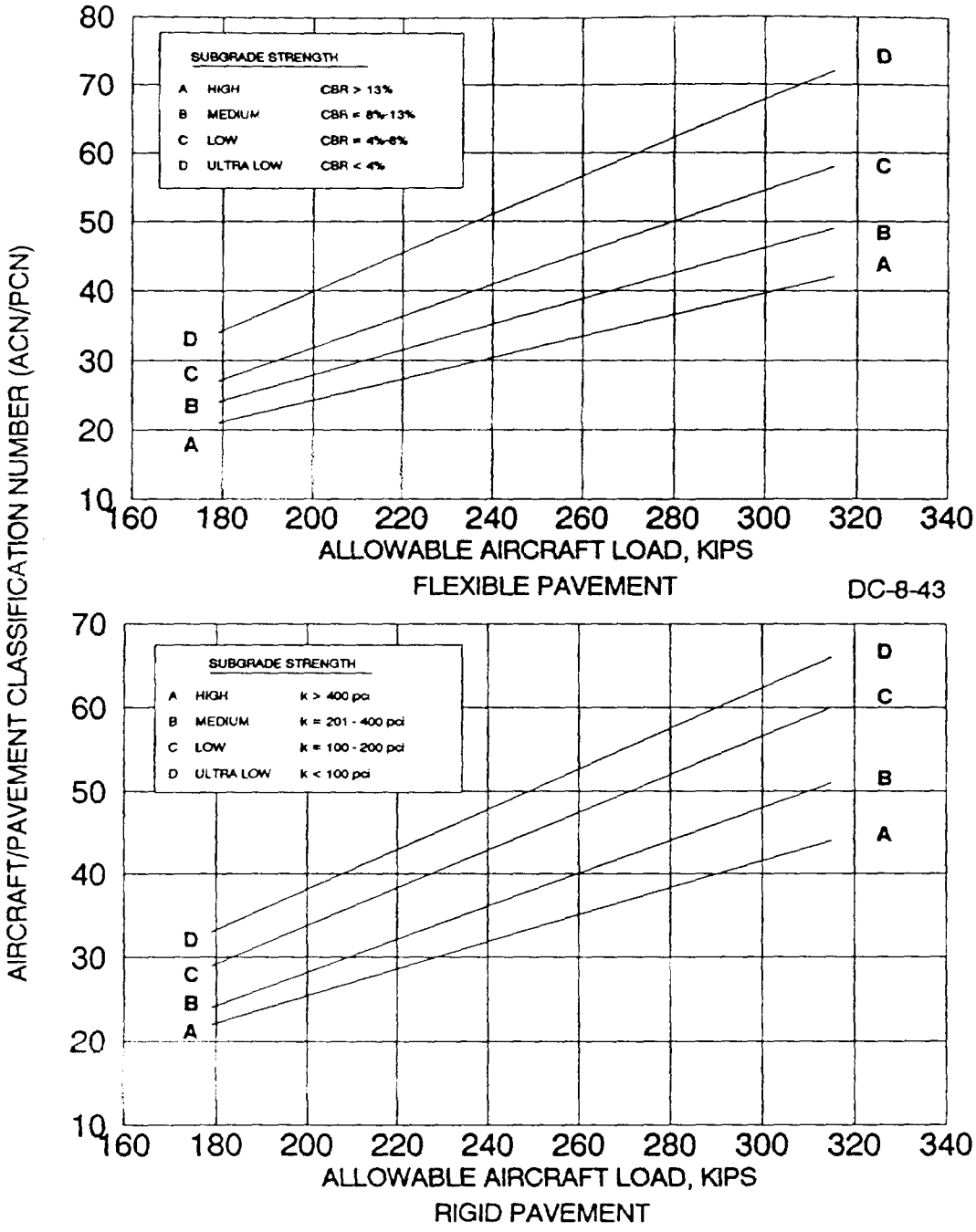


Figure A-378. McDonnell Douglas DC-8-43, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 180.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 204.0 k-lb Max. Ldg. Wt. 217.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
204	26	29	34	39	25	28	33	42
217	28	32	37	42	27	31	36	45
325	45	53	62	68	44	50	60	74

Figure A-379. McDonnell Douglas DC-8-55

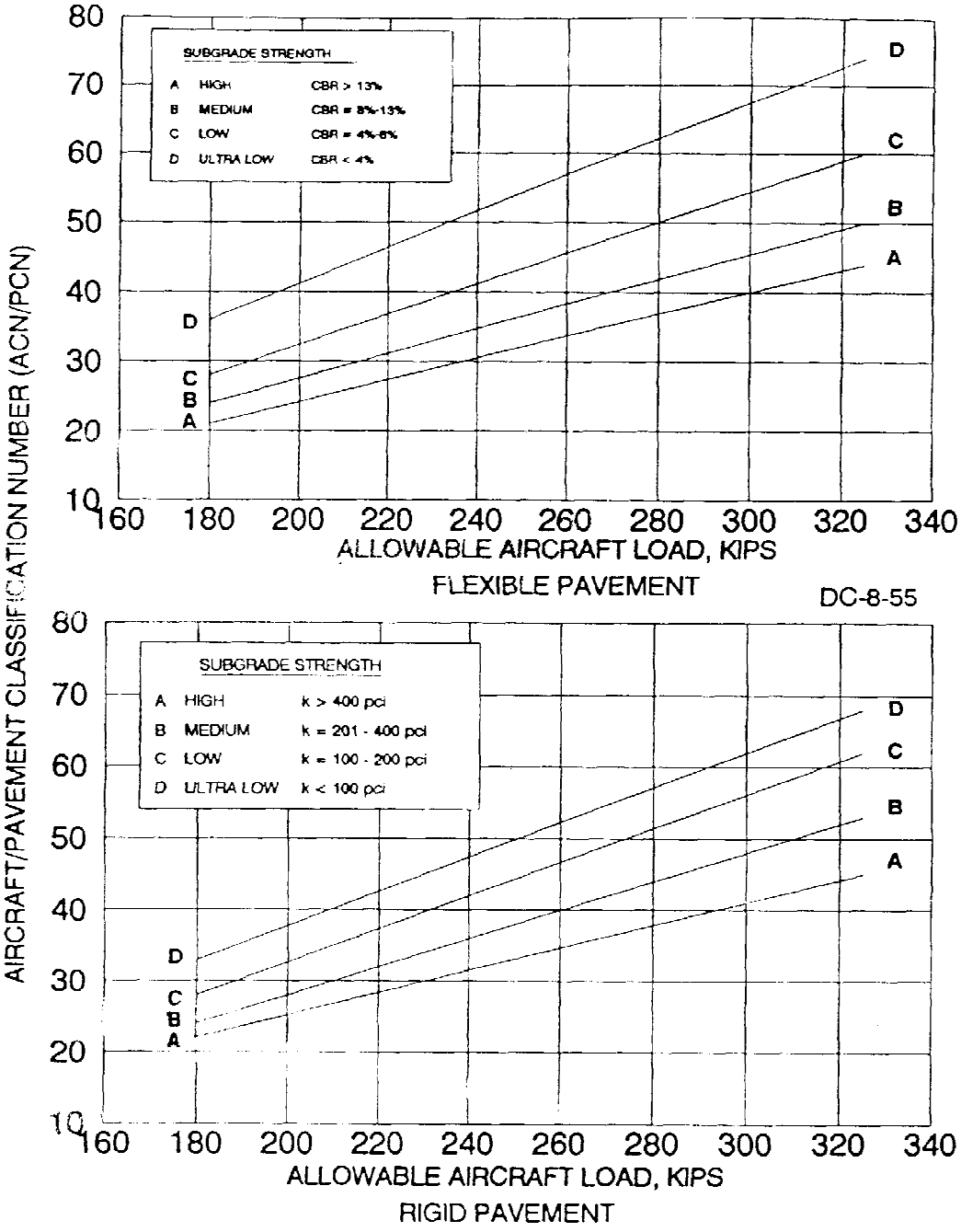


Figure A-380. McDonnell Douglas DC-8-55, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 173.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 238.0 k-lb Max. Ldg. Wt. 240.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,050 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
238	31	35	42	47	31	35	41	52
240	31	35	42	47	31	35	41	52
325	45	53	62	68	44	50	60	74

Figure A-381. McDonnell Douglas DC-8-55F

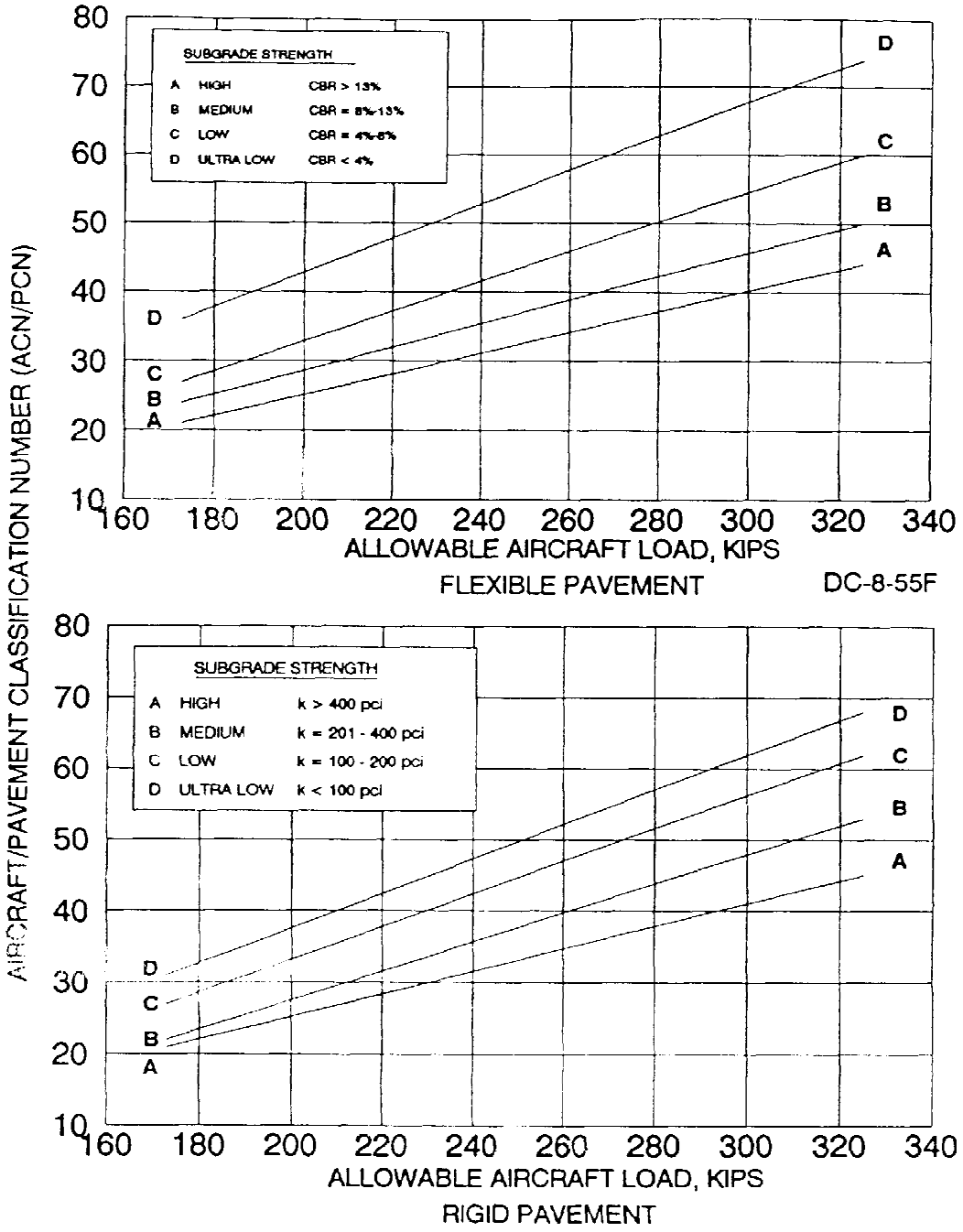


Figure A-382. McDonnell Douglas DC-8-55F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 194.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 4,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 238.0 k-lb Max. Ldg. Wt. 240.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,050 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
238	31	35	42	47	31	35	41	52
240	31	35	42	47	31	35	41	52
325	45	53	62	68	44	50	60	74

Figure A-383. McDonnell Douglas DC-8-6l

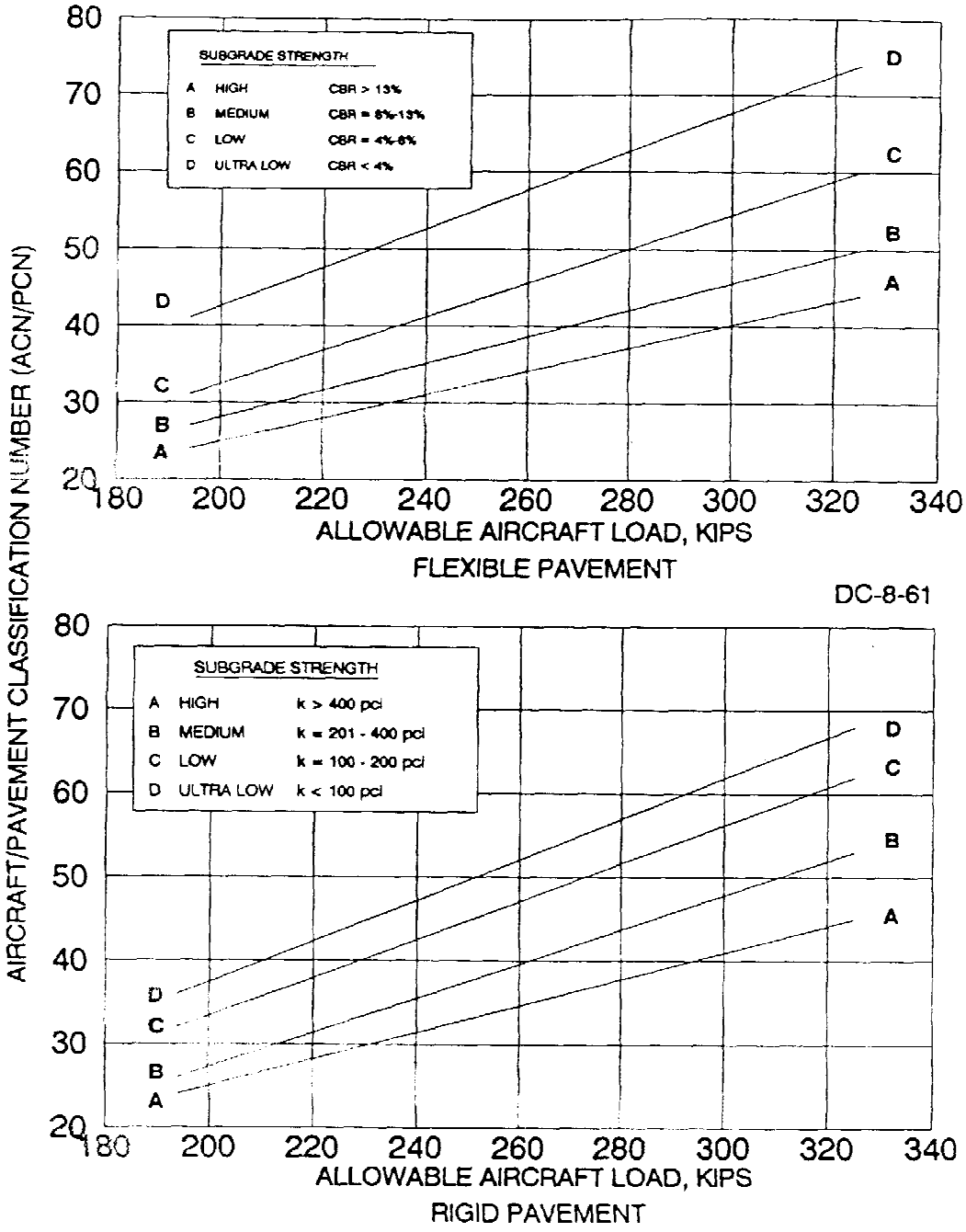


Figure A-384. McDonnell Douglas DC-8-61, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 187.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,800 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 328.0 k-lb Max. T/O Wt. War-Time 328.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 248.0 k-lb Max. Ldg. Wt. 258.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
248	32	37	44	49	32	36	42	53
258	34	40	46	52	34	38	45	56
328	45	53	62	68	44	50	60	74

Figure A-385. McDonnell Douglas DC-8-61F

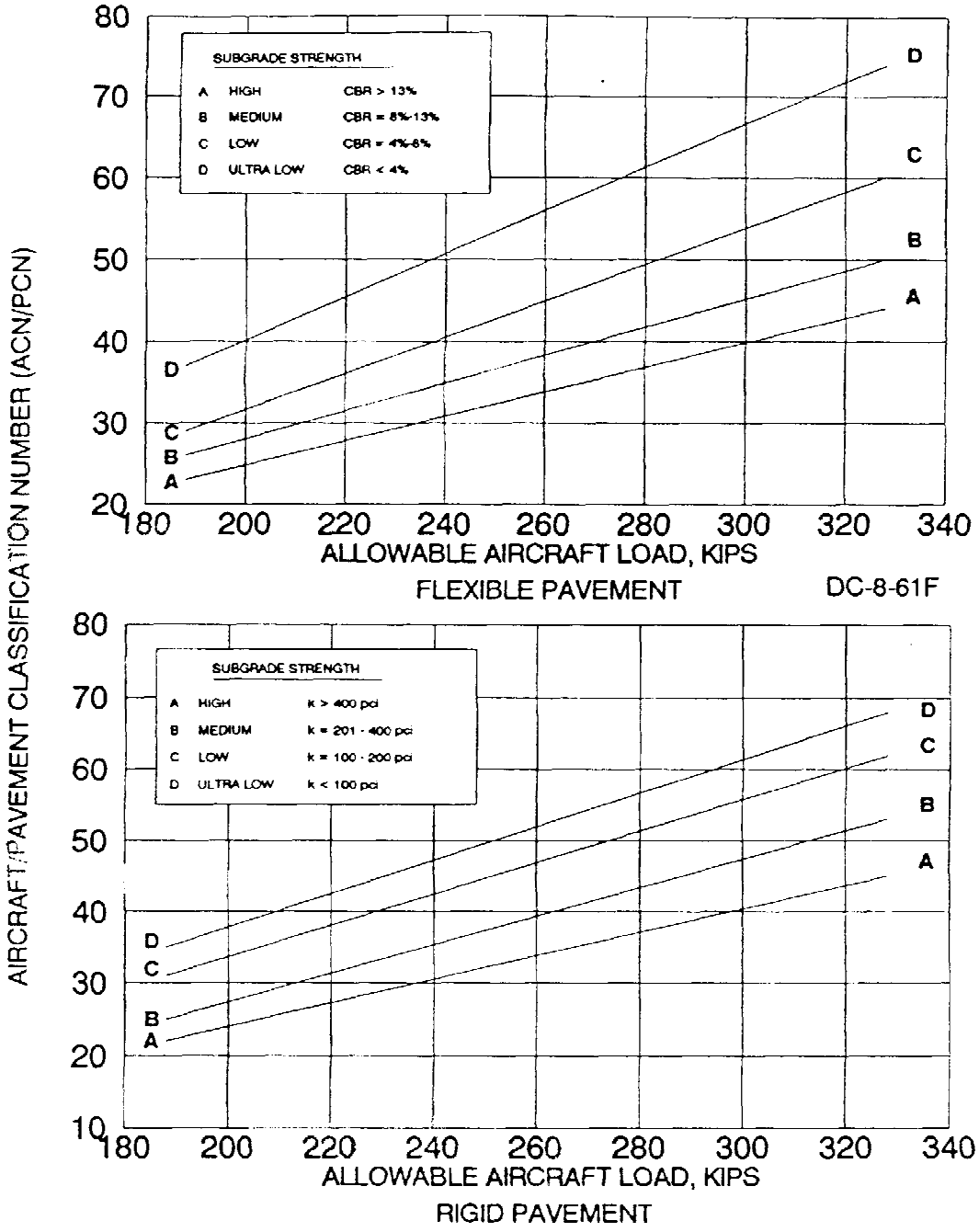


Figure A-386. McDonnell Douglas DC-8-61F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 187.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 350.0 k-lb Max. T/O Wt. War-Time 350.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 209.6 k-lb Max. Ldg. Wt. 240.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
210	25	29	34	38	27	30	34	43
240	30	35	40	46	32	35	40	51
350	46	55	64	72	49	56	66	82

Figure A-387. McDonnell Douglas DC-8-62

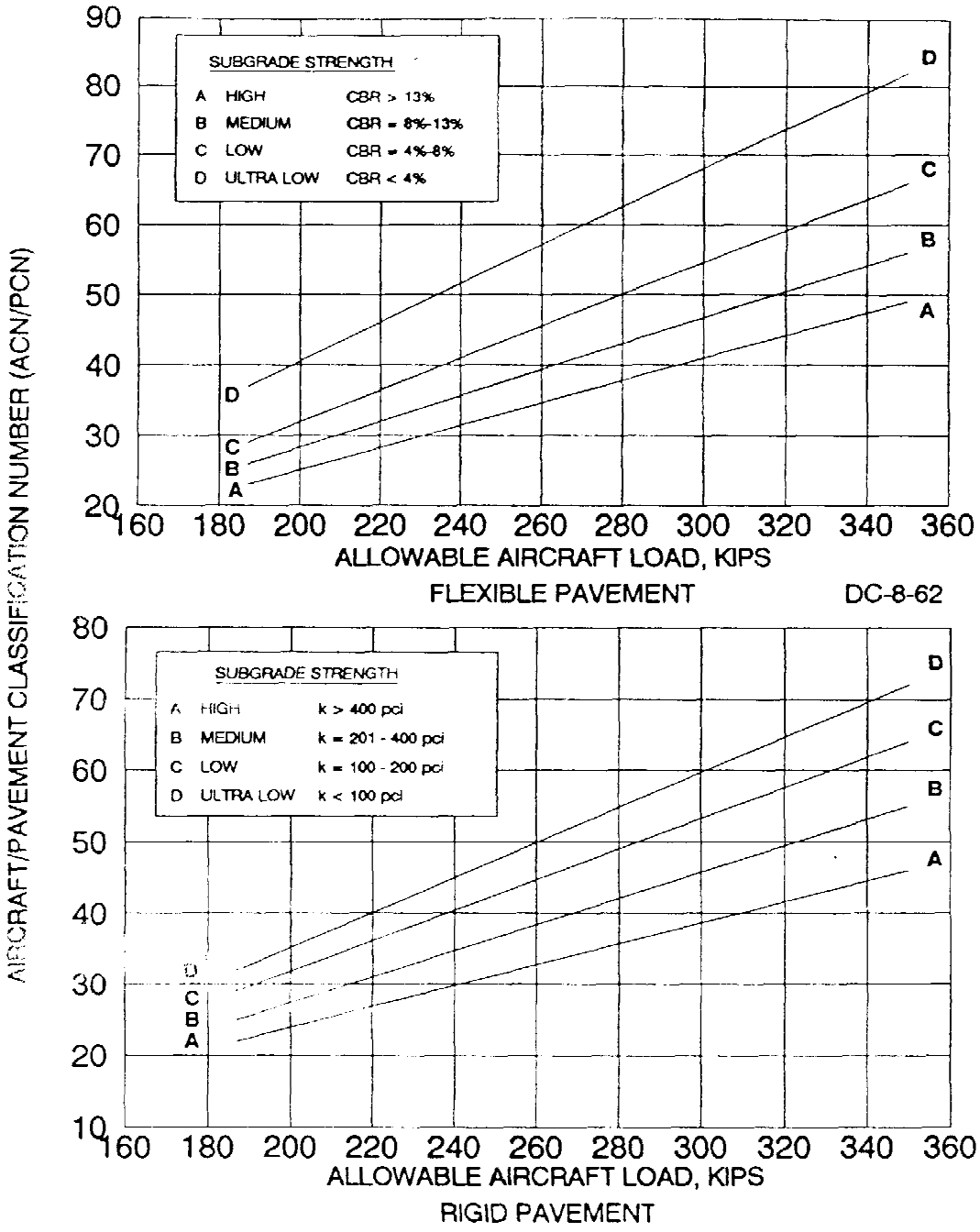


Figure A-388. McDonnell Douglas DC-8-62, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 182.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 350.0 k-lb Max. T/O Wt. War-Time 350.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 244.6 k-lb Max. Ldg. Wt. 250.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
245	30	36	42	47	32	36	42	53
250	31	36	43	48	33	37	43	54
350	46	55	64	72	49	56	66	82

Figure A-389. McDonnell Douglas DC-8-62F

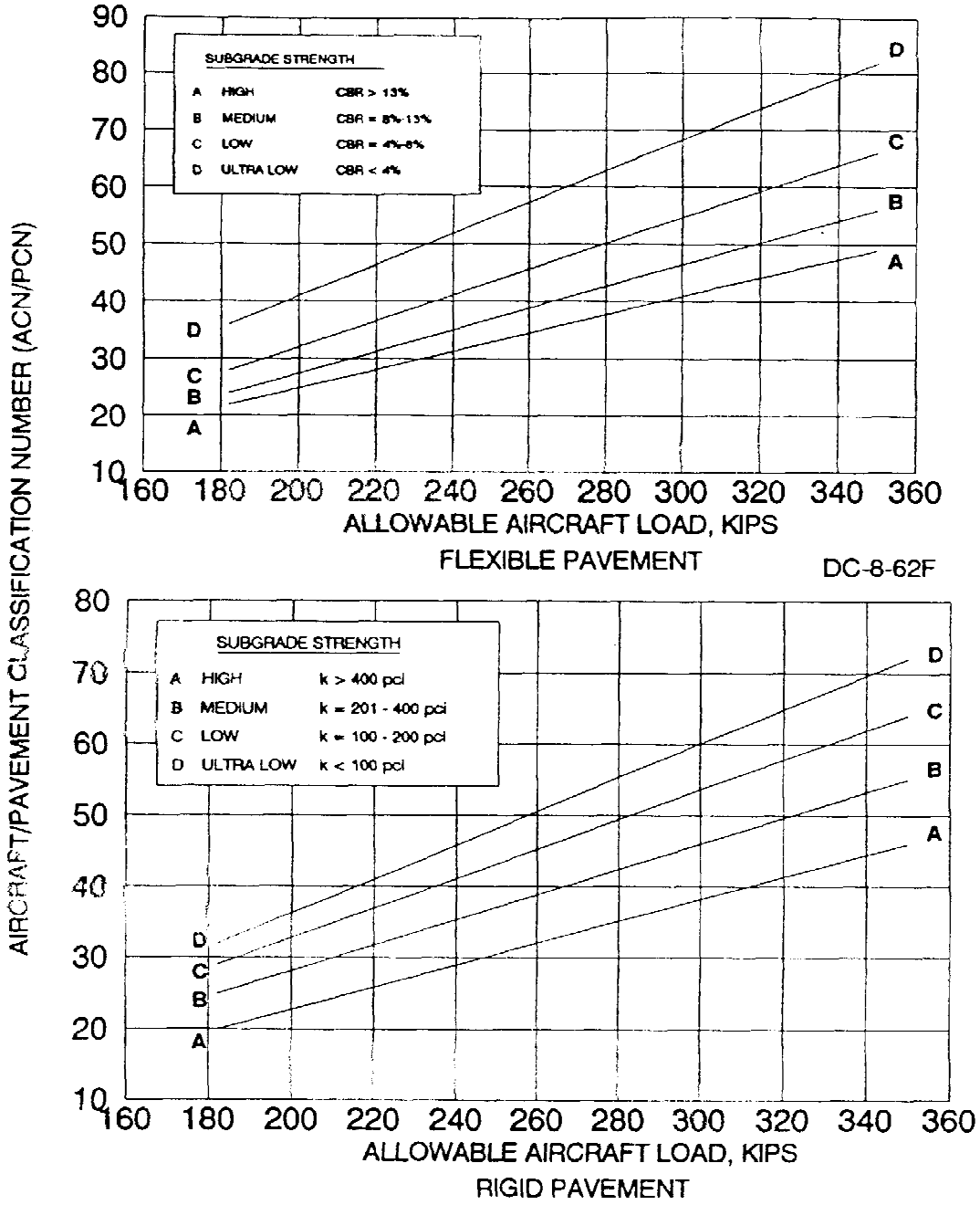


Figure A-390. McDonnell Douglas DC-8-62F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-3B)

No. of Engines 4 Engine Rating 18,000 lb

Min. T/O Wt. 202.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 355.0 k-lb Max. T/O Wt. War-Time 355.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 244.6 k-lb Max. Ldg. Wt. 258.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,000 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,250 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
245	32	37	43	48	33	37	44	54
258	34	40	46	52	35	39	46	58
355	50	60	68	77	52	59	70	86

Figure A-391. McDonnell Douglas DC-8-63

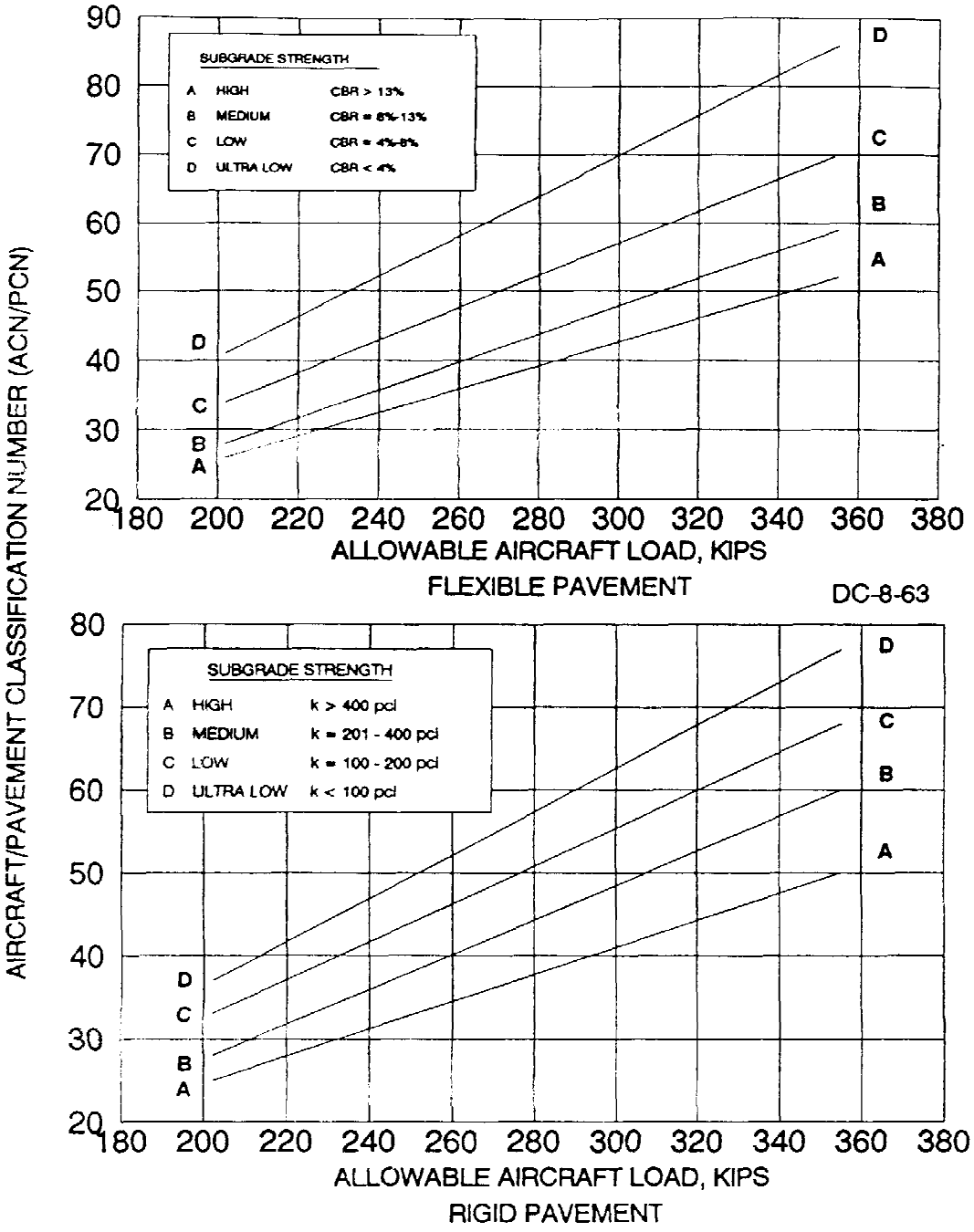


Figure A-392. McDonnell Douglas DC-8-63, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT3D-7)

No. of Engines 4 Engine Rating 19,000 lb

Min. T/O Wt. 185.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 355.0 k-lb Max. T/O Wt. War-Time 355.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 275.0 k-lb Max. Ldg. Wt. 275.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,550 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,550 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
275	36	43	50	56	38	43	51	63
355	50	60	68	77	52	59	70	86

Figure A-393. McDonnell Douglas DC-8-63F

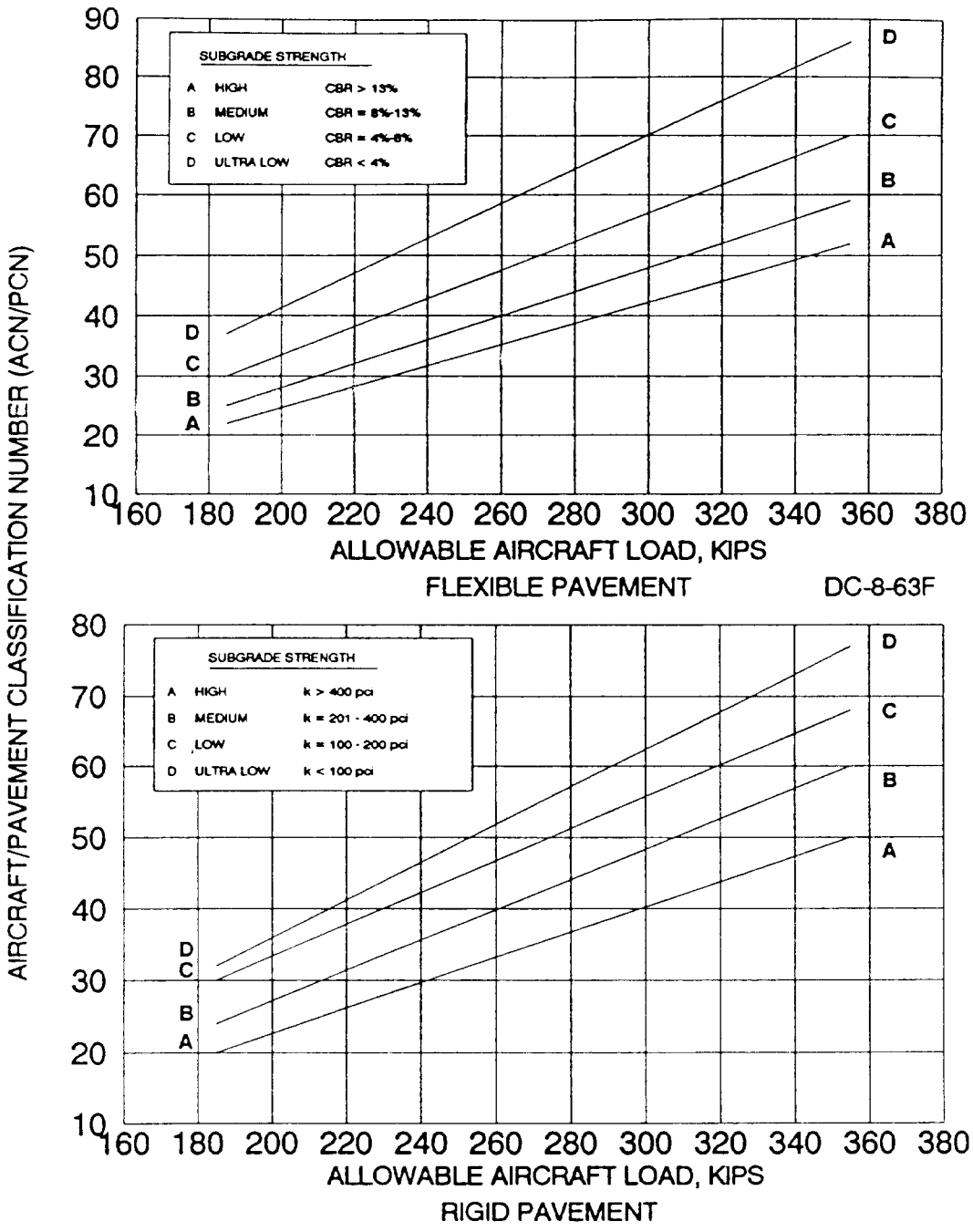


Figure A-394. McDonnell Douglas DC-8-63F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 205.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 325.0 k-lb Max. T/O Wt. War-Time 325.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 238.0 k-lb Max. Ldg. Wt. 240.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,450 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
238	31	35	42	47	31	35	41	52
240	31	35	42	47	31	35	41	52
325	45	53	62	68	44	50	60	74

Figure A-395. McDonnell Douglas DC-8-71

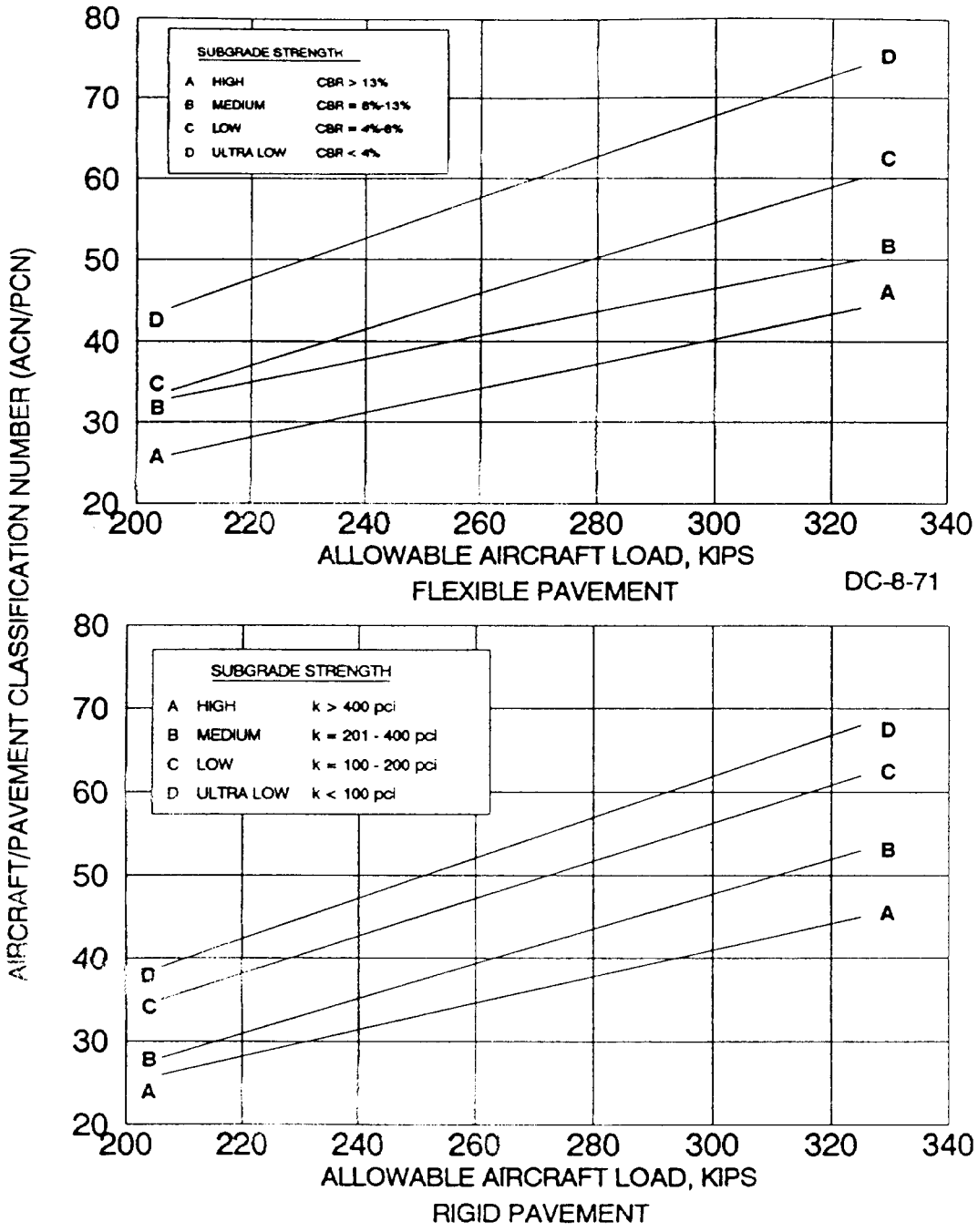


Figure A-396. McDonnell Douglas DC-8-71, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 194.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 328.0 k-lb Max. T/O Wt. War-Time 328.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,050 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 248.0 k-lb Max. Ldg. Wt. 258.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,700 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
248	32	37	44	49	32	36	42	53
258	34	40	46	52	34	38	45	56
328	45	53	62	68	44	50	60	74

Figure A-397. McDonnell Douglas DC-8-71F

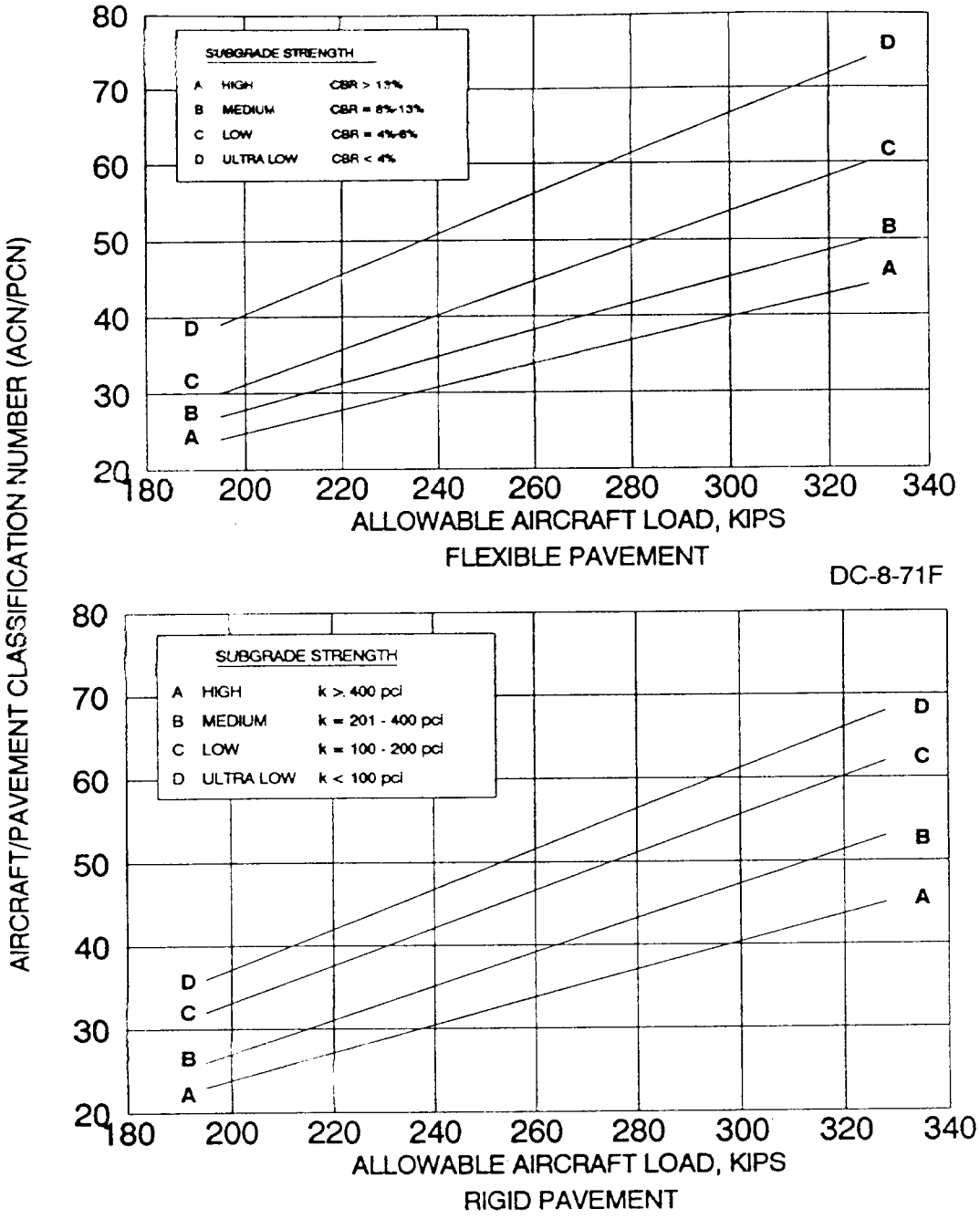


Figure A-398. McDonnell Douglas DC-8-71F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 196.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 335.0 k-lb Max. T/O Wt. War-Time 335.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 209.6 k-lb Max. Ldg. Wt. 240.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
210	25	29	34	38	27	30	34	43
240	30	35	40	46	32	35	40	51
335	44	52	61	68	46	53	63	78

Figure A-399. McDonnell Douglas DC-8-72

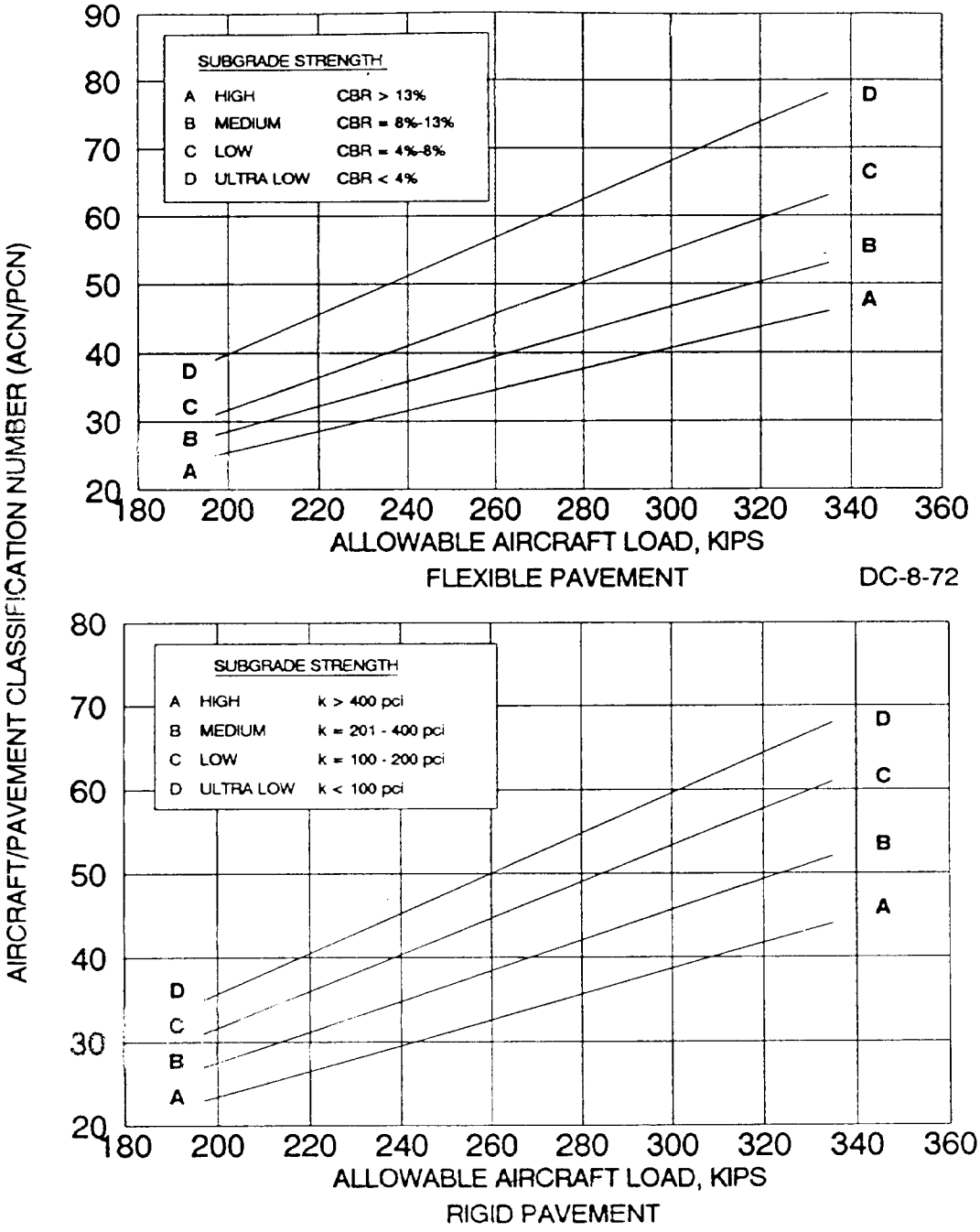


Figure A-400. McDonnell Douglas DC-8-72, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 183.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 335.0 k-lb Max. T/O Wt. War-Time 335.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 245.6 k-lb Max. Ldg. Wt. 250.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,150 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
246	30	36	42	47	32	36	42	53
250	31	36	43	48	33	37	43	54
335	44	52	61	68	46	53	63	78

Figure A-401. McDonnell Douglas DC-8-72F

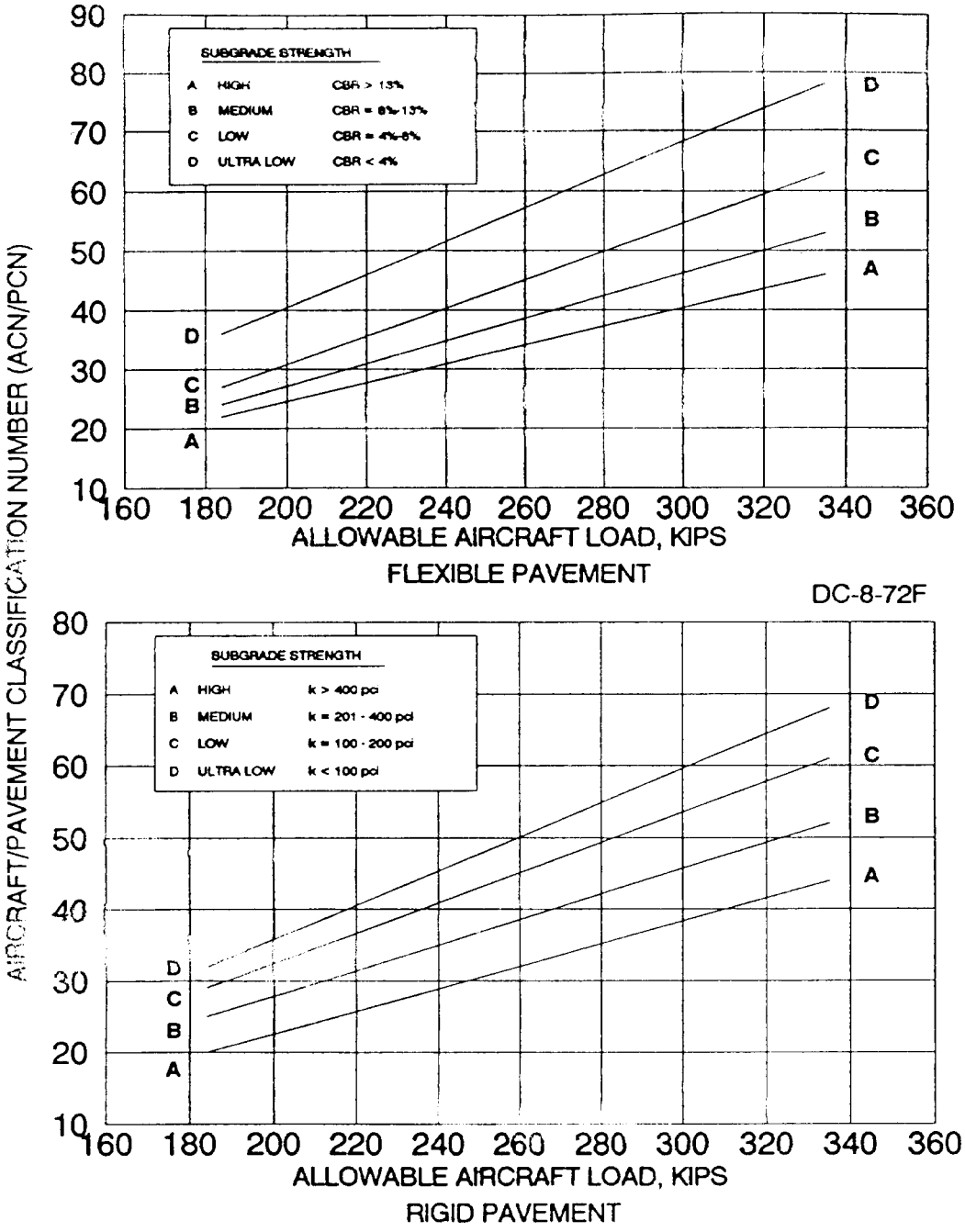


Figure A-402. McDonnell Douglas DC-8-72F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 209.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 355.0 k-lb Max. T/O Wt. War-Time 355.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 245.6 k-lb Max. Ldg. Wt. 258.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,150 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
246	32	37	43	48	33	37	44	54
258	34	40	46	52	35	39	46	58
355	50	60	68	77	52	59	70	86

Figure A-403. McDonnell Douglas DC-8-73

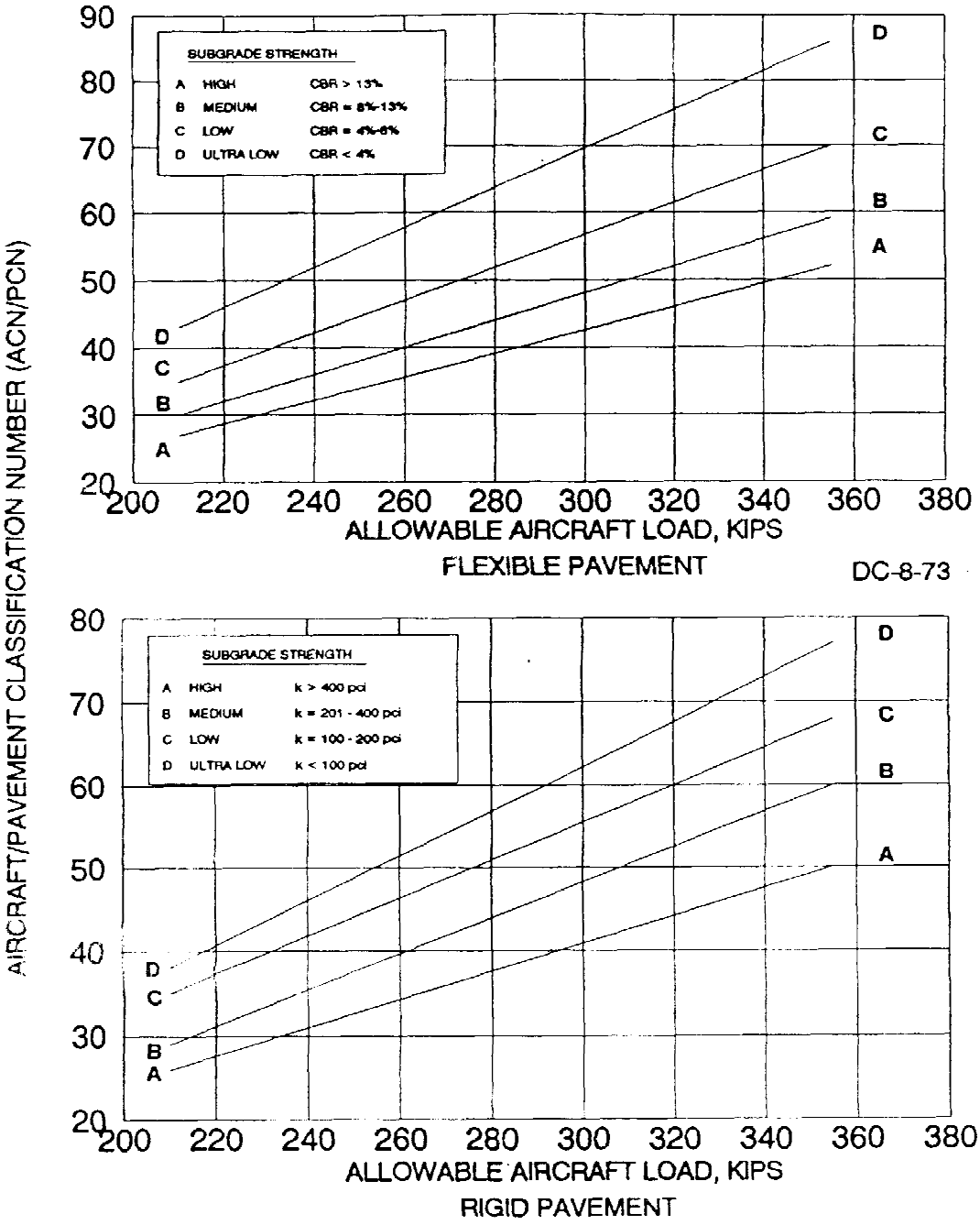


Figure A-404. McDonnell Douglas DC-8-73, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer CFM International (CFM 56-2-C1)

No. of Engines 4 Engine Rating 22,000 lb

Min. T/O Wt. 192.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 355.0 k-lb Max. T/O Wt. War-Time 355.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 275.0 k-lb Max. Ldg. Wt. 275.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
275	36	43	50	56	38	43	51	63
355	50	60	68	77	52	59	70	86

Figure A-405. McDonnell Douglas DC-8-73F

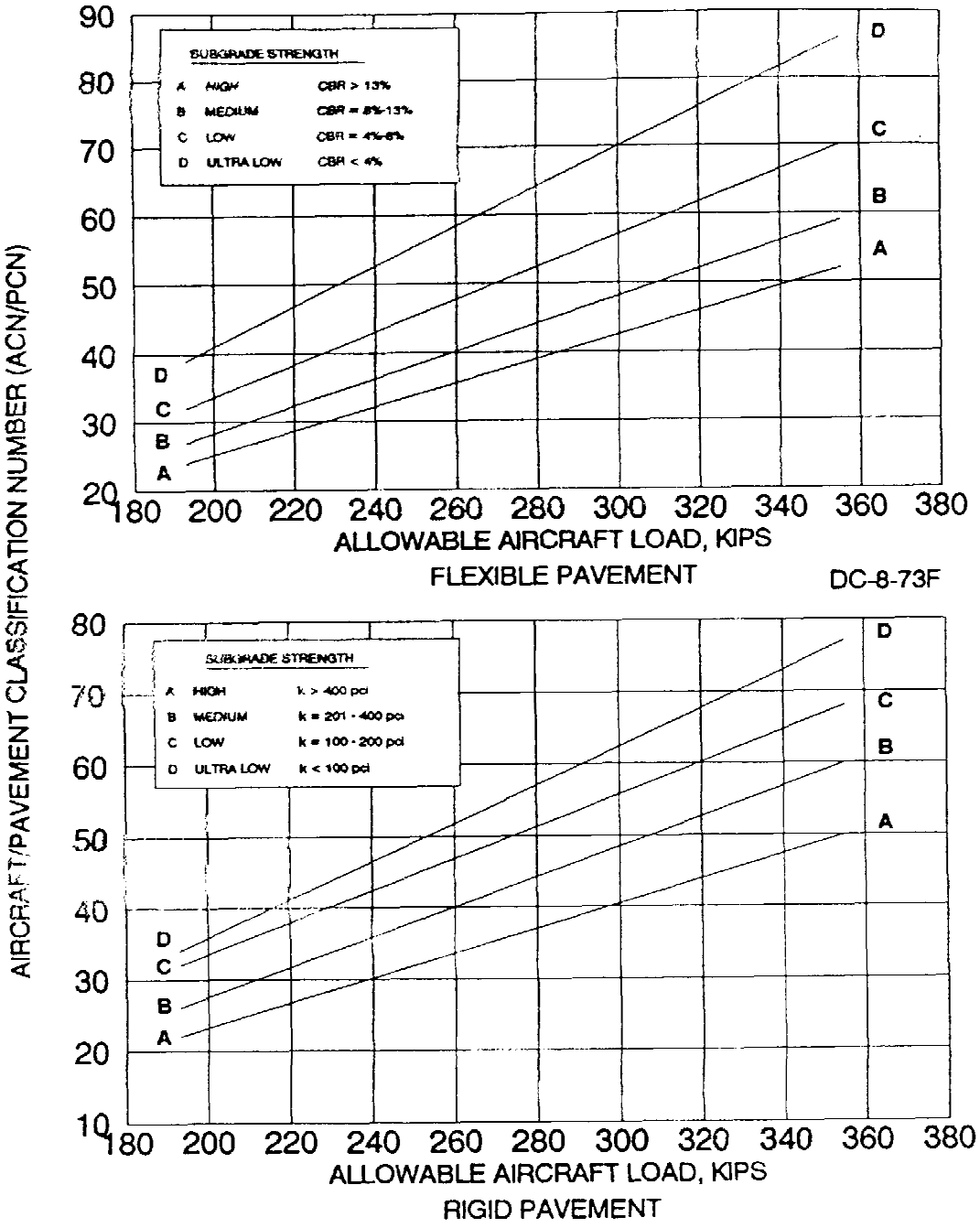


Figure A-406. McDonnell Douglas DC-8-73F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-1)

No. of Engines 2 Engine Rating 14,000 lb

Min. T/O Wt. 55.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 90.7 k-lb Max. T/O Wt. War-Time 90.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 76.2 k-lb Max. Ldg. Wt. 81.7 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
76	18	20	21	22	16	18	20	23
82	20	22	23	24	18	20	23	25
91	23	25	26	28	21	23	26	29

Figure A-407. McDonnell Douglas DC-9-15

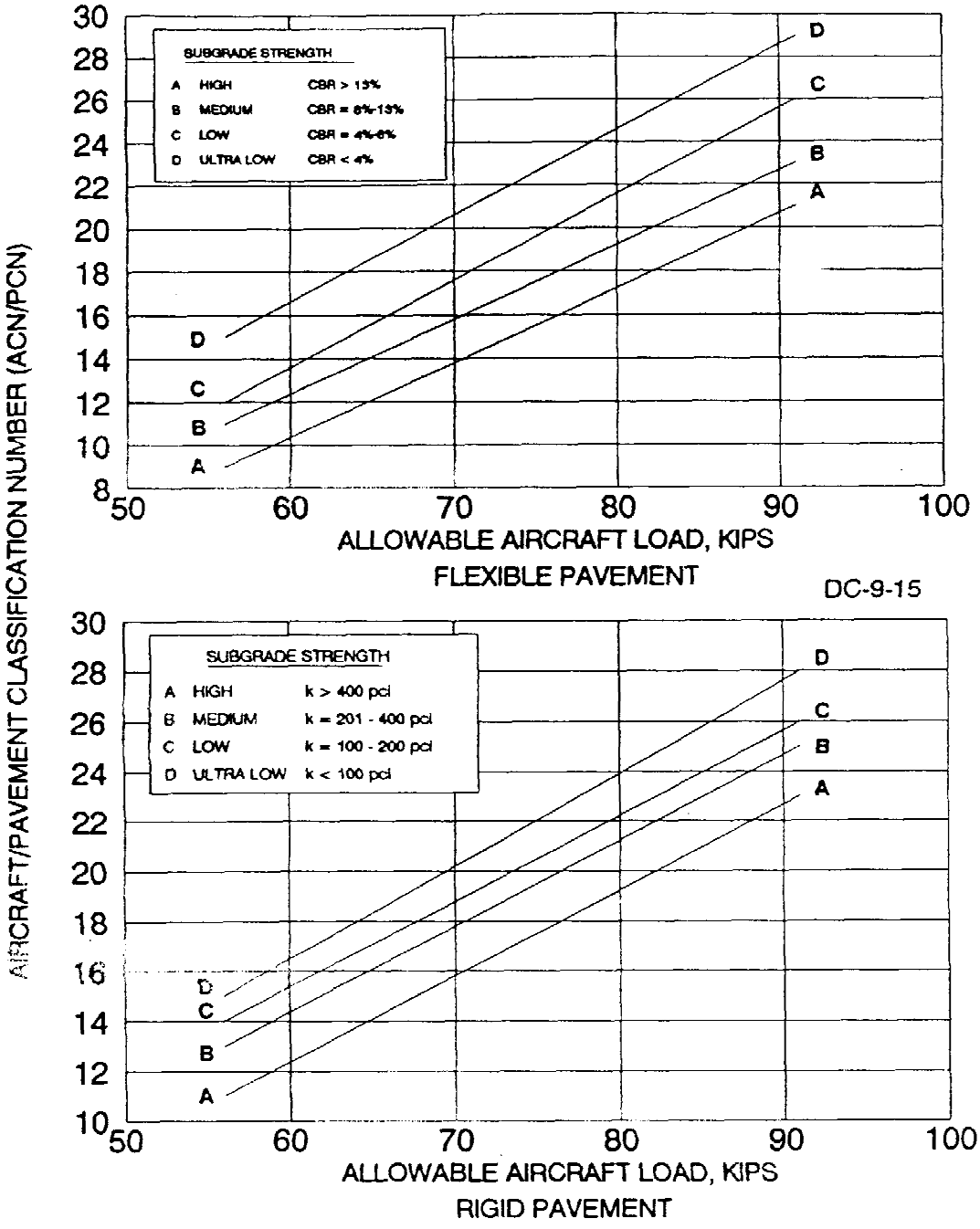


Figure A-408. McDonnell Douglas DC-9-15, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-1)

No. of Engines 2 Engine Rating 14,000 lb

Min. T/O Wt. 59.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 90.7 k-lb Max. T/O Wt. War-Time 90.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 76.2 k-lb Max. Ldg. Wt. 81.7 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
76	18	20	21	22	16	18	20	23
82	20	22	23	24	18	20	23	25
91	23	25	26	28	21	23	26	29

Figure A-409. McDonnell Douglas DC-9-15F

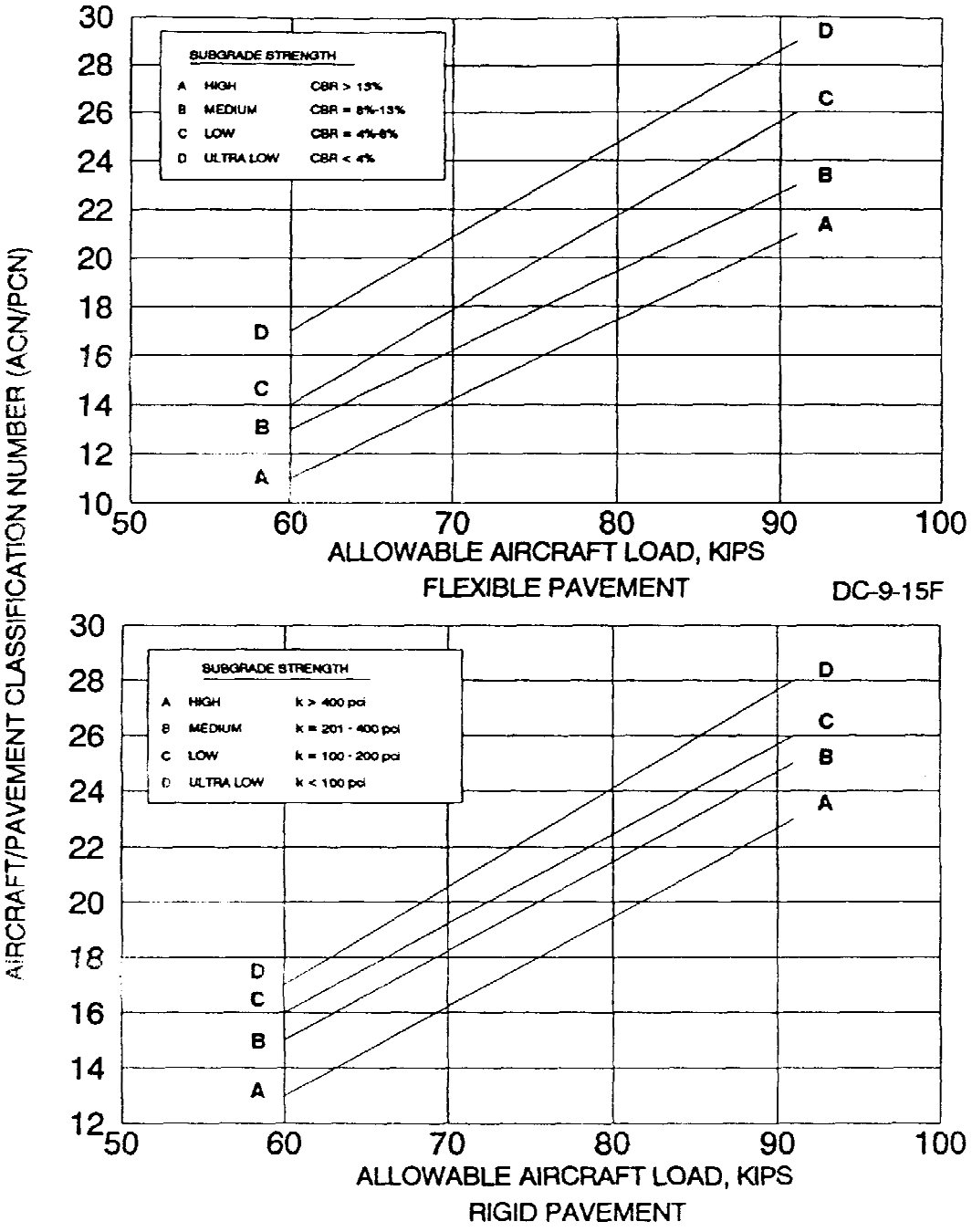


Figure A-410. McDonnell Douglas DC-9-15F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-11)

No. of Engines 2 Engine Rating 15,000 lb

Min. T/O Wt. 59.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 98.0 k-lb Max. T/O Wt. War-Time 98.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 86.2 k-lb Max. Ldg. Wt. 95.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
86	22	23	24	25	19	21	24	26
95	25	27	28	29	22	24	27	30
98	26	28	29	30	23	25	28	31

Figure A-411. McDonnell Douglas DC-9-21

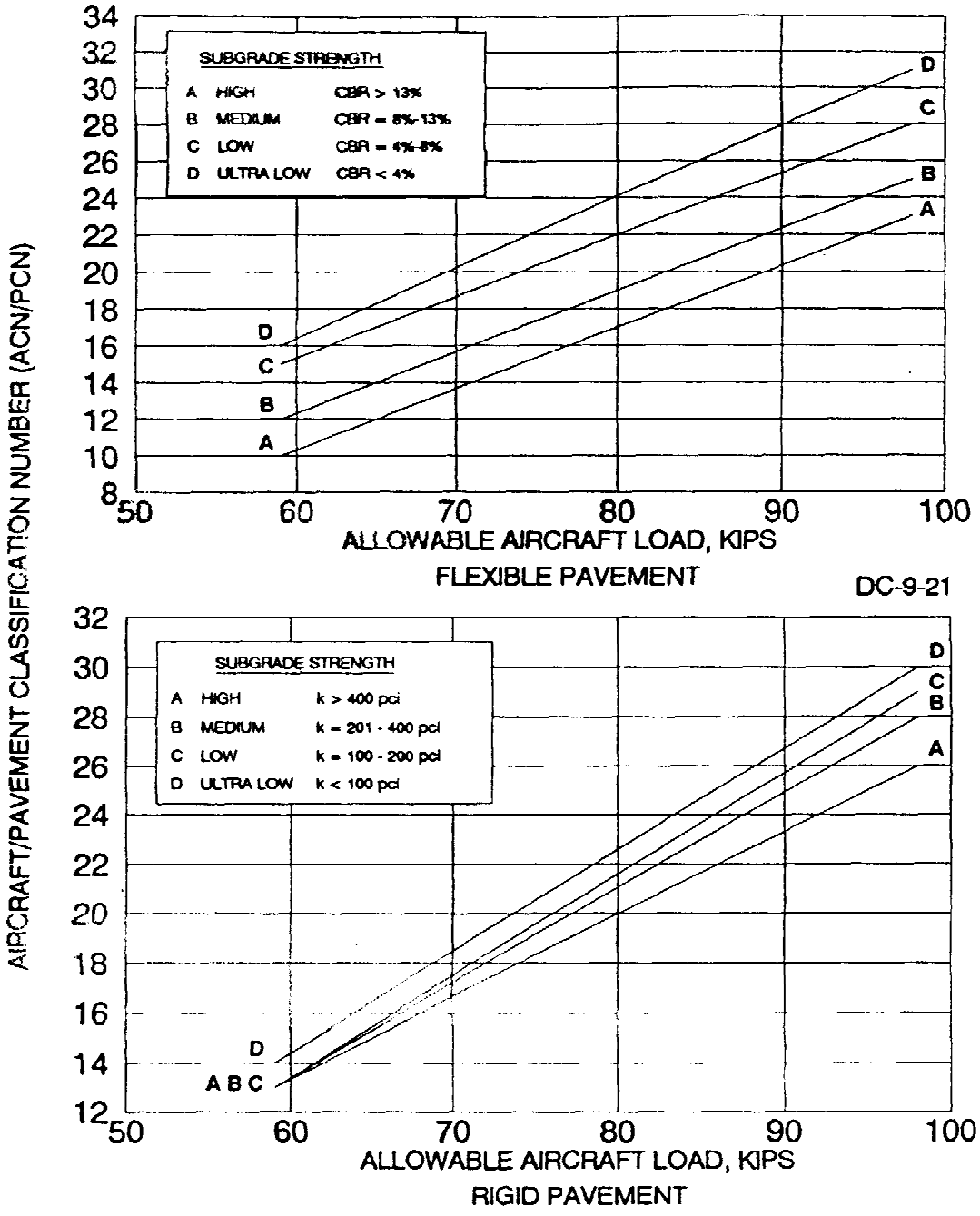


Figure A-412. McDonnell Douglas DC-9-21, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-7)

No. of Engines 2 Engine Rating 14,000 lb

Min. T/O Wt. 63.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 108.0 k-lb Max. T/O Wt. War-Time 108.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 89.2 k-lb Max. Ldg. Wt. 99.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,300 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
89	23	25	26	27	21	22	24	27
99	26	28	30	31	24	25	28	31
108	29	31	33	34	26	28	31	34

Figure A-413. McDonnell Douglas DC-9-32

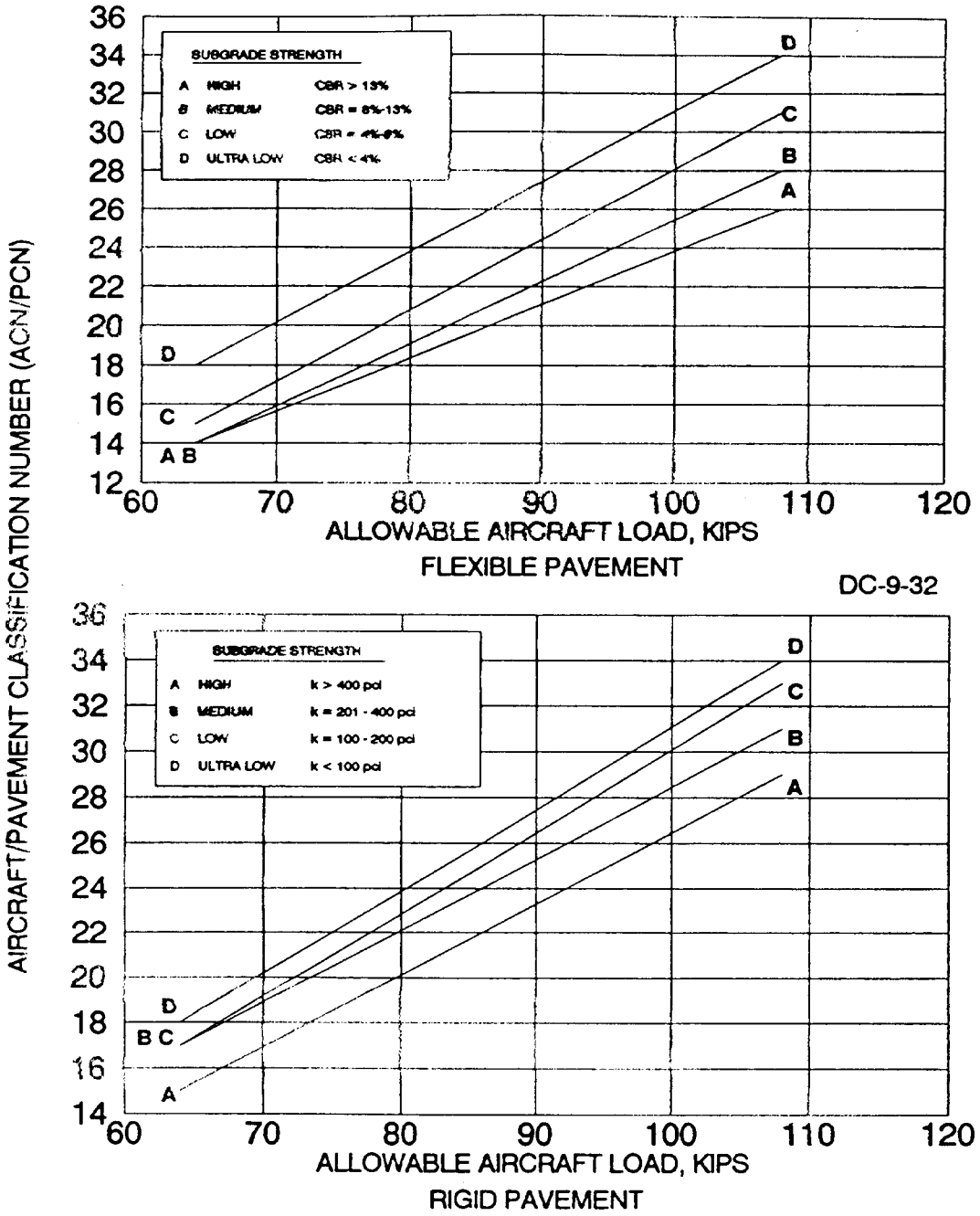


Figure A-414. McDonnell Douglas DC-9-32, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-7)

No. of Engines 2 Engine Rating 14,000 lb

Min. T/O Wt. 63.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 108.0 k-lb Max. T/O Wt. War-Time 108.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,600 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 92.2 k-lb Max. Ldg. Wt. 99.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
92	24	26	27	28	22	23	25	28
99	26	28	30	31	24	25	28	31
108	29	31	33	34	26	28	31	34

Figure A-415. McDonnell Douglas DC-9-33F

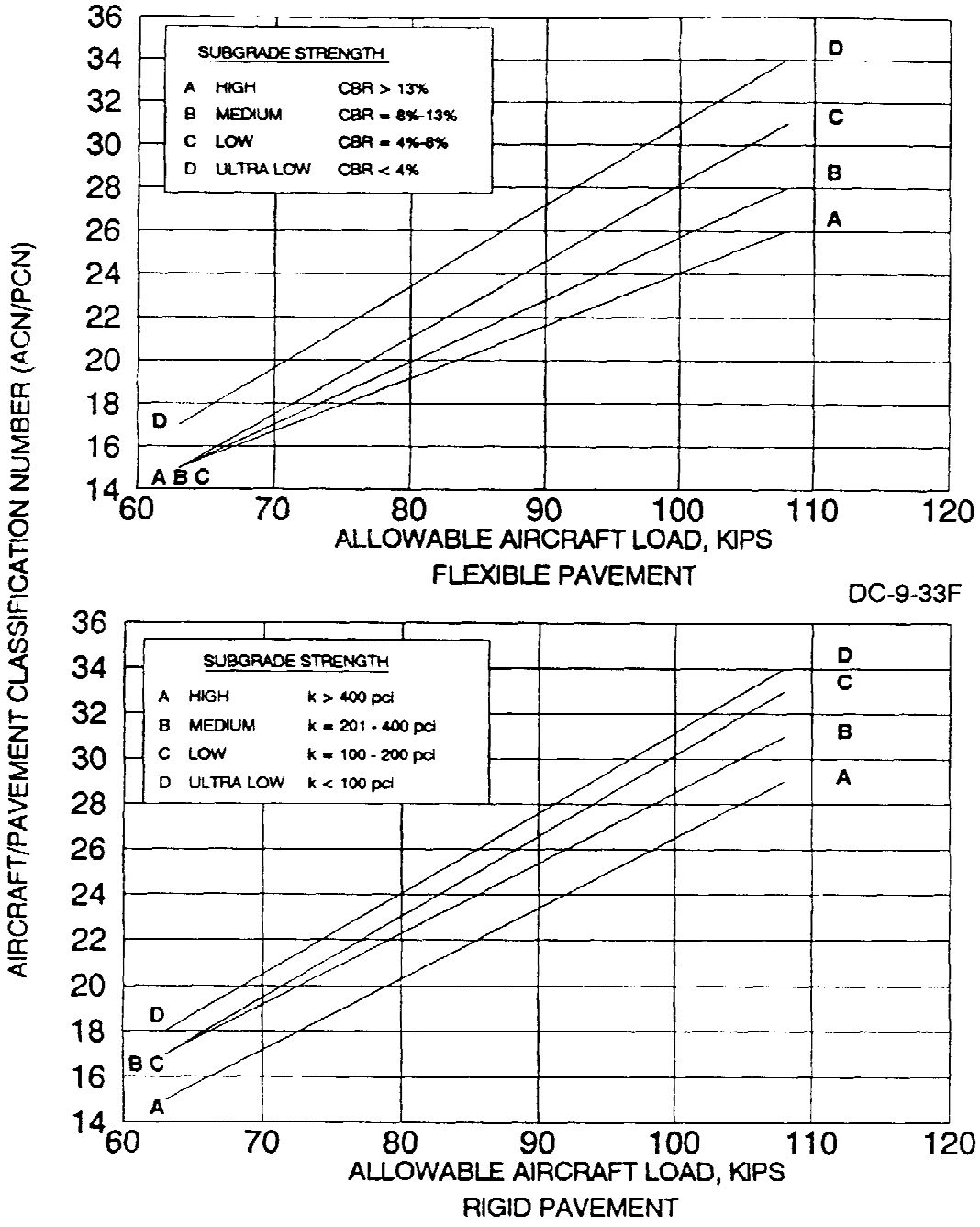


Figure A-416. McDonnell Douglas DC-9-33F, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-15)

No. of Engines 2 Engine Rating 15,500 lb

Min. T/O Wt. 68.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,100 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 114.0 k-lb Max. T/O Wt. War-Time 114.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 95.2 k-lb Max. Ldg. Wt. 102.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
95	25	27	28	29	22	24	27	30
102	27	29	30	31	24	25	29	32
114	32	34	35	37	28	30	33	37

Figure A-417. McDonnell Douglas DC-9-41

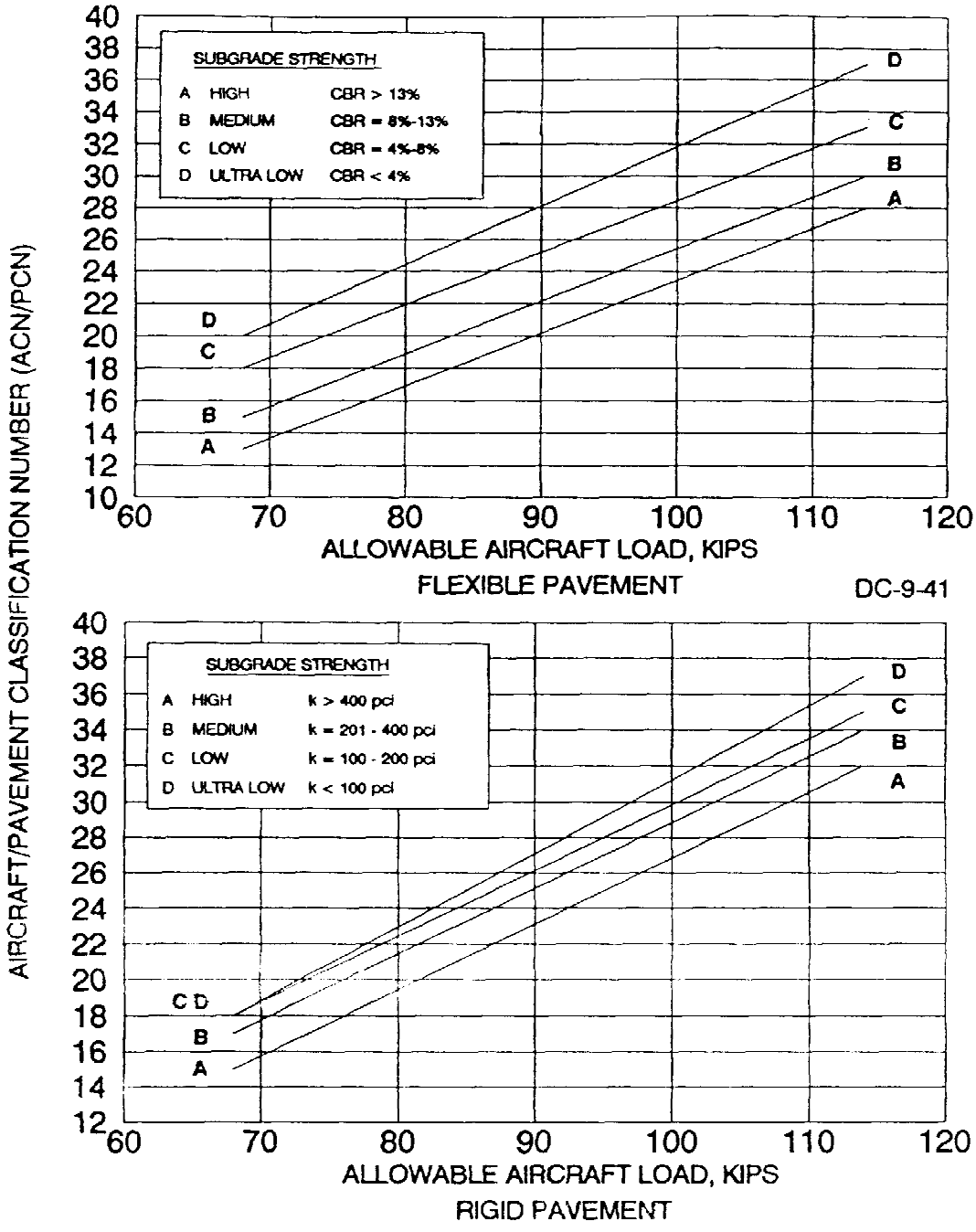


Figure A-418. McDonnell Douglas DC-9-41, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-17)

No. of Engines 2 Engine Rating 15,500 lb

Min. T/O Wt. 71.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. 2,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 121.0 k-lb Max. T/O Wt. War-Time 121.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 100.7 k-lb Max. Ldg. Wt. 110.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
101	27	29	30	31	24	25	29	32
110	30	32	33	34	27	28	32	35
121	35	37	39	40	31	32	36	39

Figure A-419. McDonnell Douglas DC-9-51

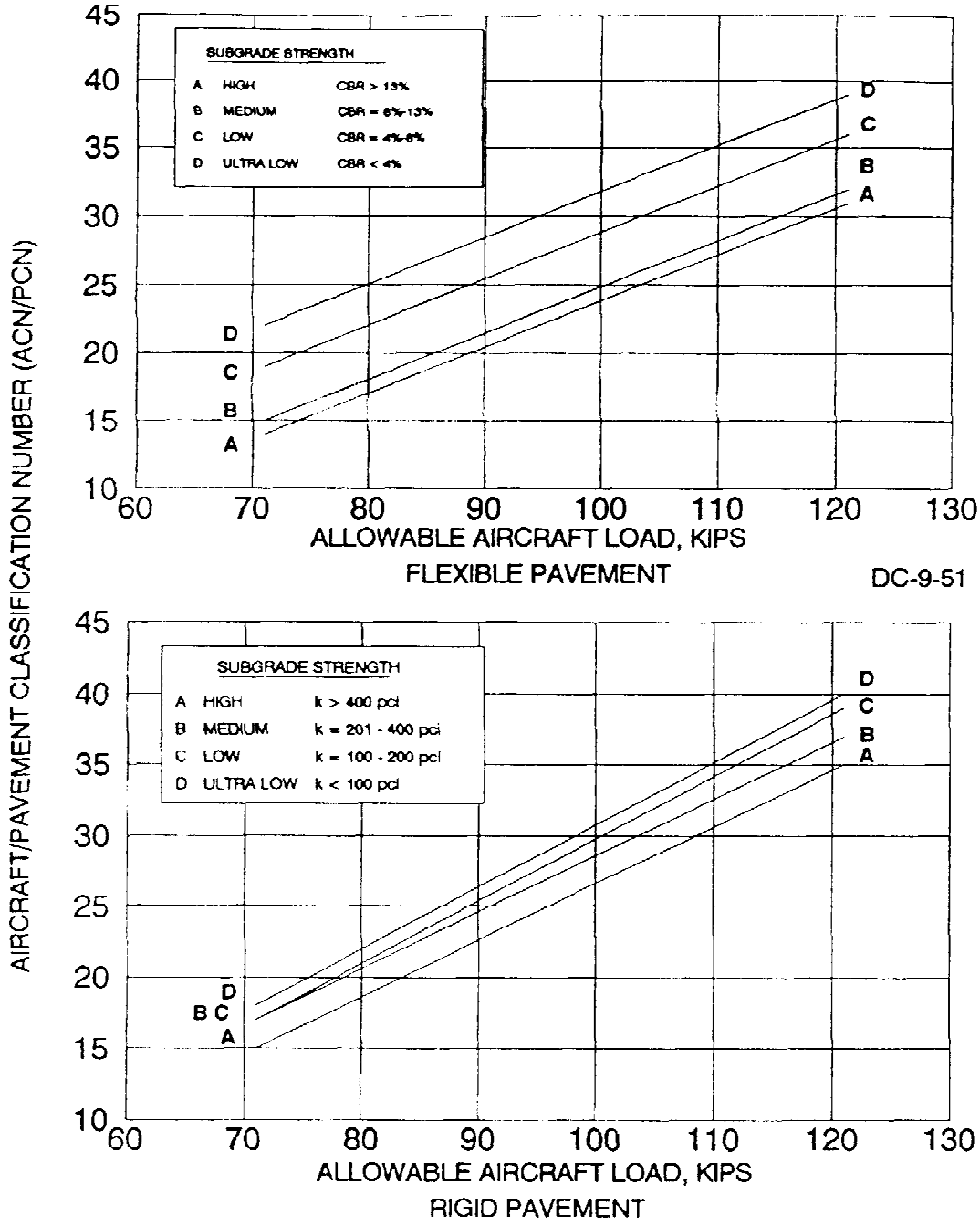


Figure A-420. McDonnell Douglas DC-9-51, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-209)

No. of Engines 2 Engine Rating 18,500 lb

Min. T/O Wt. 88.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 140.0 k-lb Max. T/O Wt. War-Time 140.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 121.5 k-lb Max. Ldg. Wt. 128.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,700 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
122	34	36	38	39	30	32	36	40
128	36	38	40	42	32	34	38	42
140	40	43	45	47	36	38	43	46

Figure A-421. McDonnell Douglas MD-81

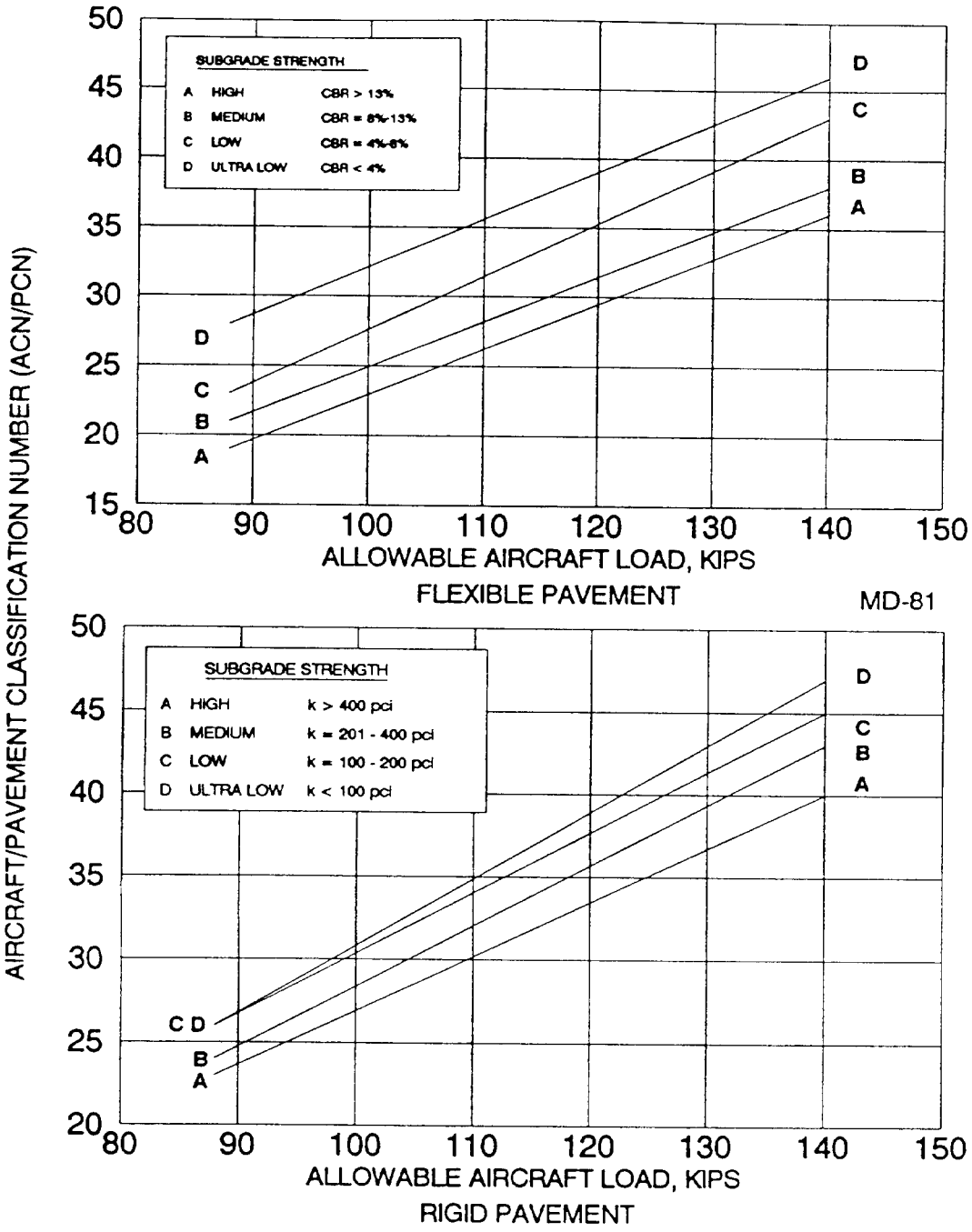


Figure A-422. McDonnell Douglas MD-81, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-217)

No. of Engines 2 Engine Rating 20,000 lb

Min. T/O Wt. 88.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 149.5 k-lb Max. T/O Wt. War-Time 149.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 125.5 k-lb Max. Ldg. Wt. 130.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
126	36	38	39	41	32	33	37	41
130	37	39	41	43	33	35	39	43
150	45	47	49	51	39	42	47	50

Figure A-423. McDonnell Douglas MD-82

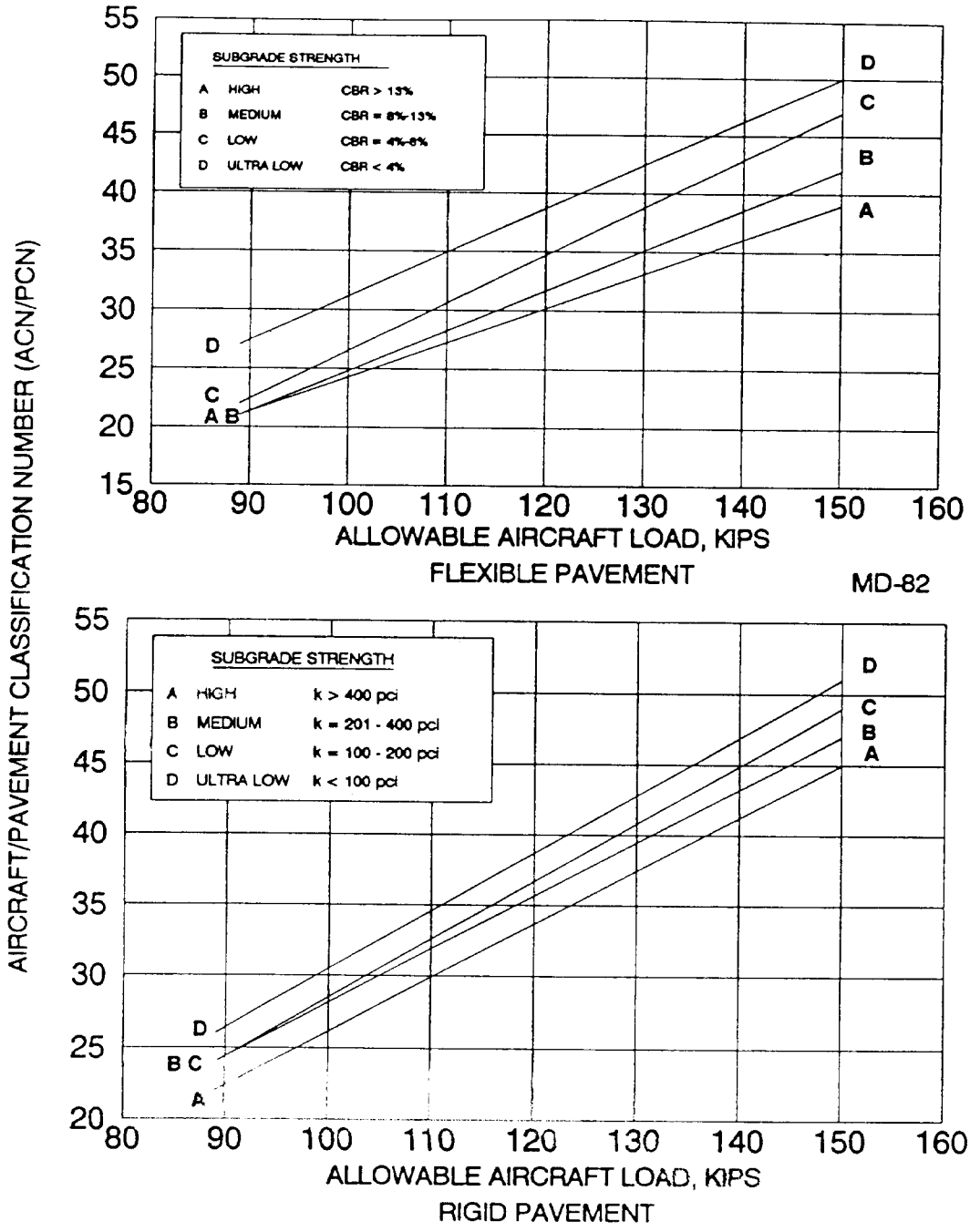


Figure A-424. McDonnell Douglas MD-82, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-219)

No. of Engines 2 Engine Rating 21,000 lb

Min. T/O Wt. 92.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 160.0 k-lb Max. T/O Wt. War-Time 160.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 126.2 k-lb Max. Ldg. Wt. 139.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,650 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
126	36	38	39	41	32	33	37	41
140	40	43	45	47	36	38	43	46
160	48	51	53	54	42	45	49	53

Figure A-425. McDonnell Douglas MD-83

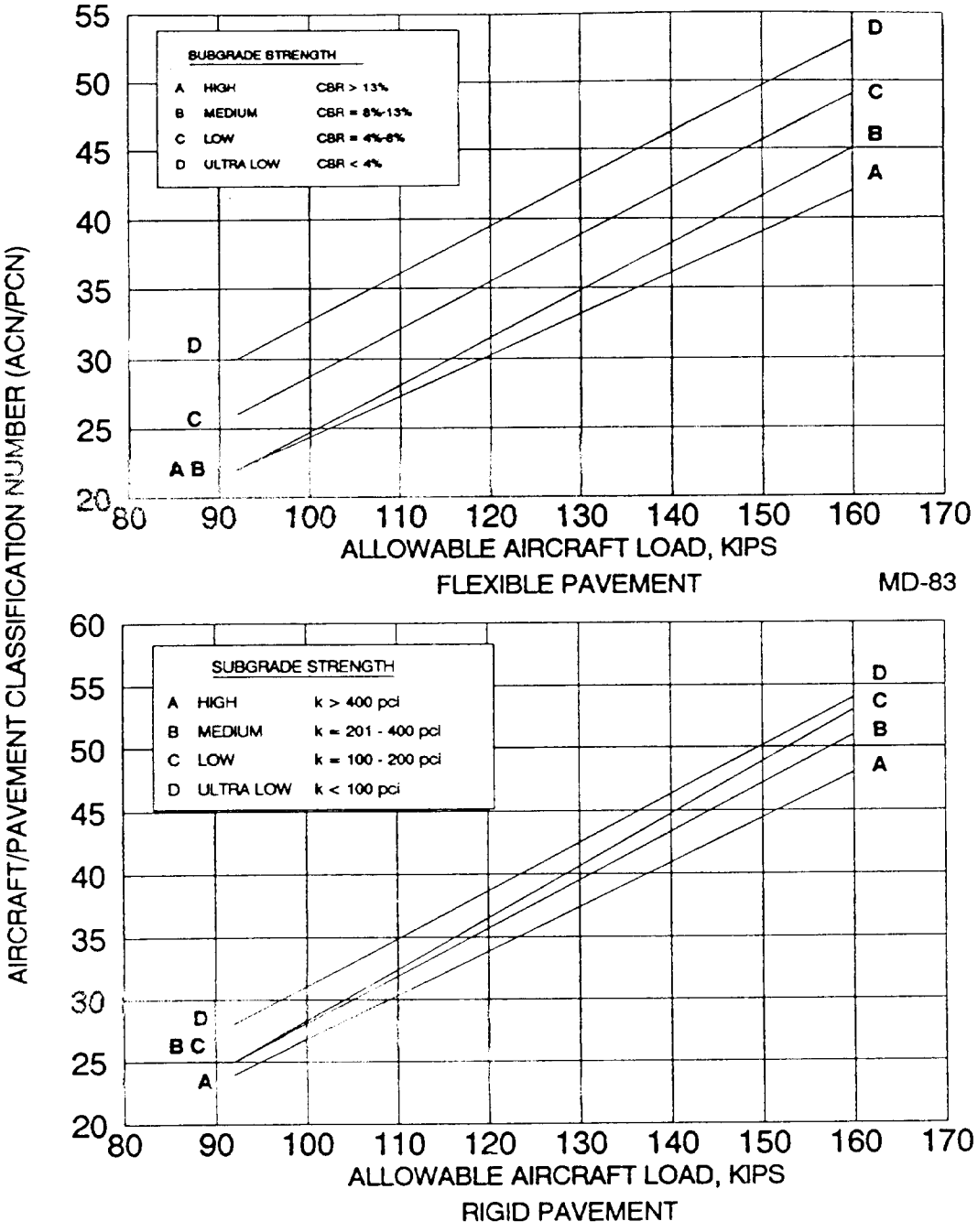


Figure A-426. McDonnell Douglas MD-83, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-217C)

No. of Engines 2 Engine Rating 20,000 lb

Min. T/O Wt. 87.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 149.5 k-lb Max. T/O Wt. War-Time 149.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 116.2 k-lb Max. Ldg. Wt. 130.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
116	32	34	36	37	29	30	34	38
130	37	39	41	43	33	35	39	43
150	45	47	49	51	39	42	47	50

Figure A-427. McDonnell Douglas MD-87

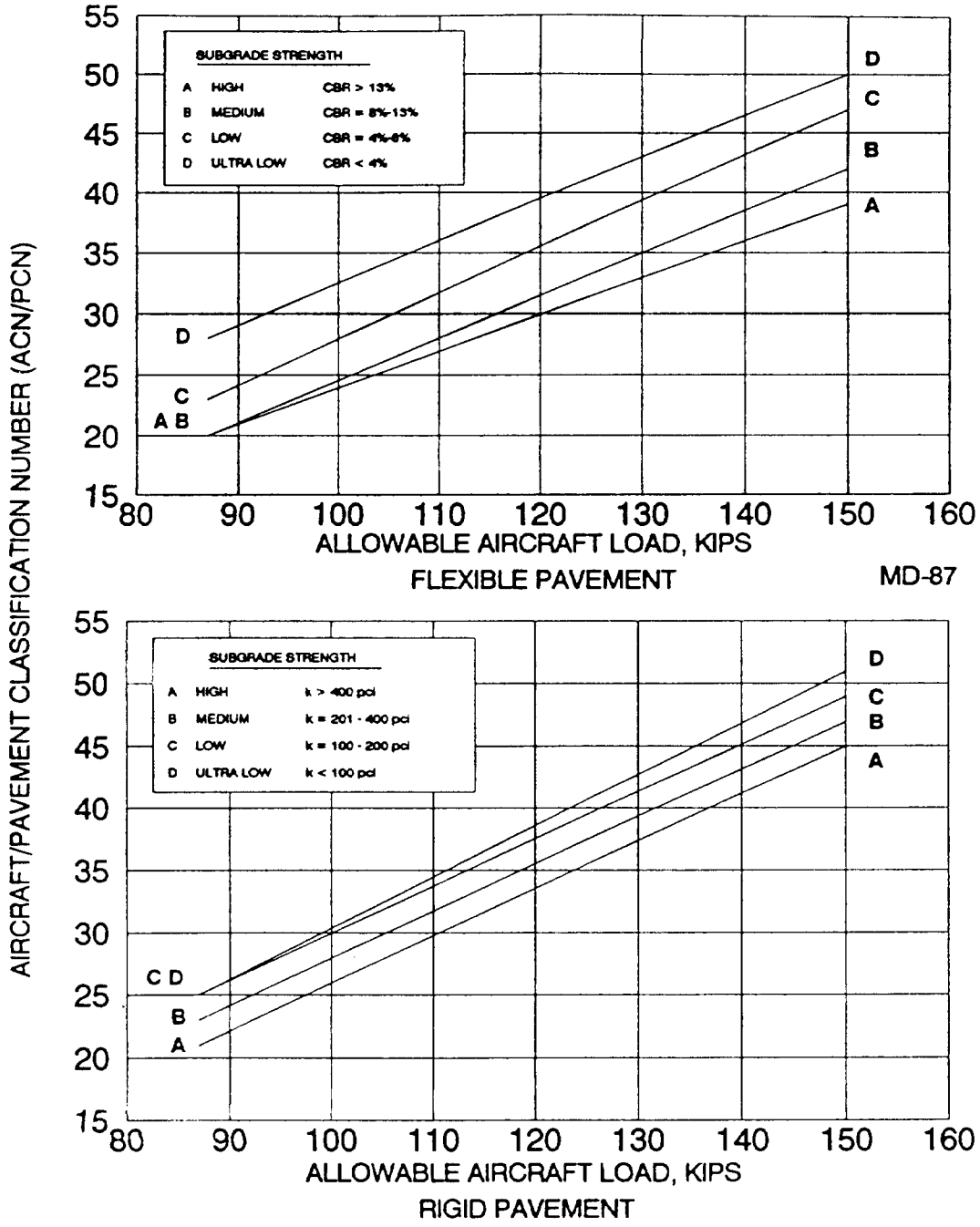


Figure A-428. McDonnell Douglas MD-87, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT8D-217A)

No. of Engines 2 Engine Rating 20,000 lb

Min. T/O Wt. 88.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 149.5 k-lb Max. T/O Wt. War-Time 149.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 125.5 k-lb Max. Ldg. Wt. 130.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
126	36	38	39	41	32	33	37	41
130	37	39	41	43	33	35	39	43
150	45	47	49	51	39	42	47	50

Figure A-429. McDonnell Douglas MD-88

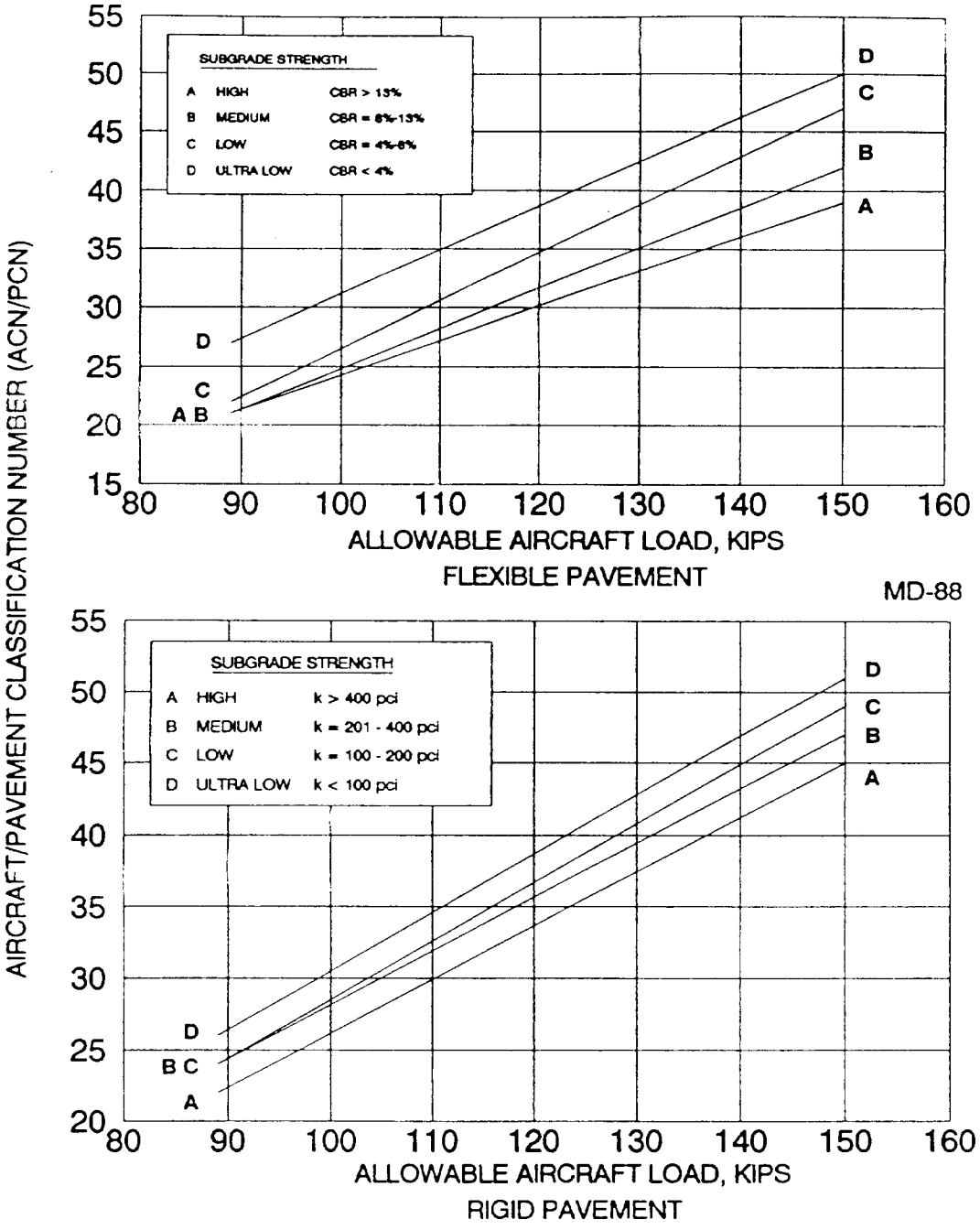


Figure A-430. McDonnell Douglas MD-88, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (CF6-6D1)

No. of Engines 3 Engine Rating 41,000 lb

Min. T/O Wt. 291.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 440.0 k-lb Max. T/O Wt. War-Time 455.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 351.0 k-lb Max. Ldg. Wt. 363.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,750 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
351	35	40	48	55	40	43	50	70
364	37	42	50	58	42	45	52	73
440	46	54	64	74	53	58	68	95
455	48	56	68	78	56	60	72	100

Figure A-431. McDonnell Douglas DC-10-10

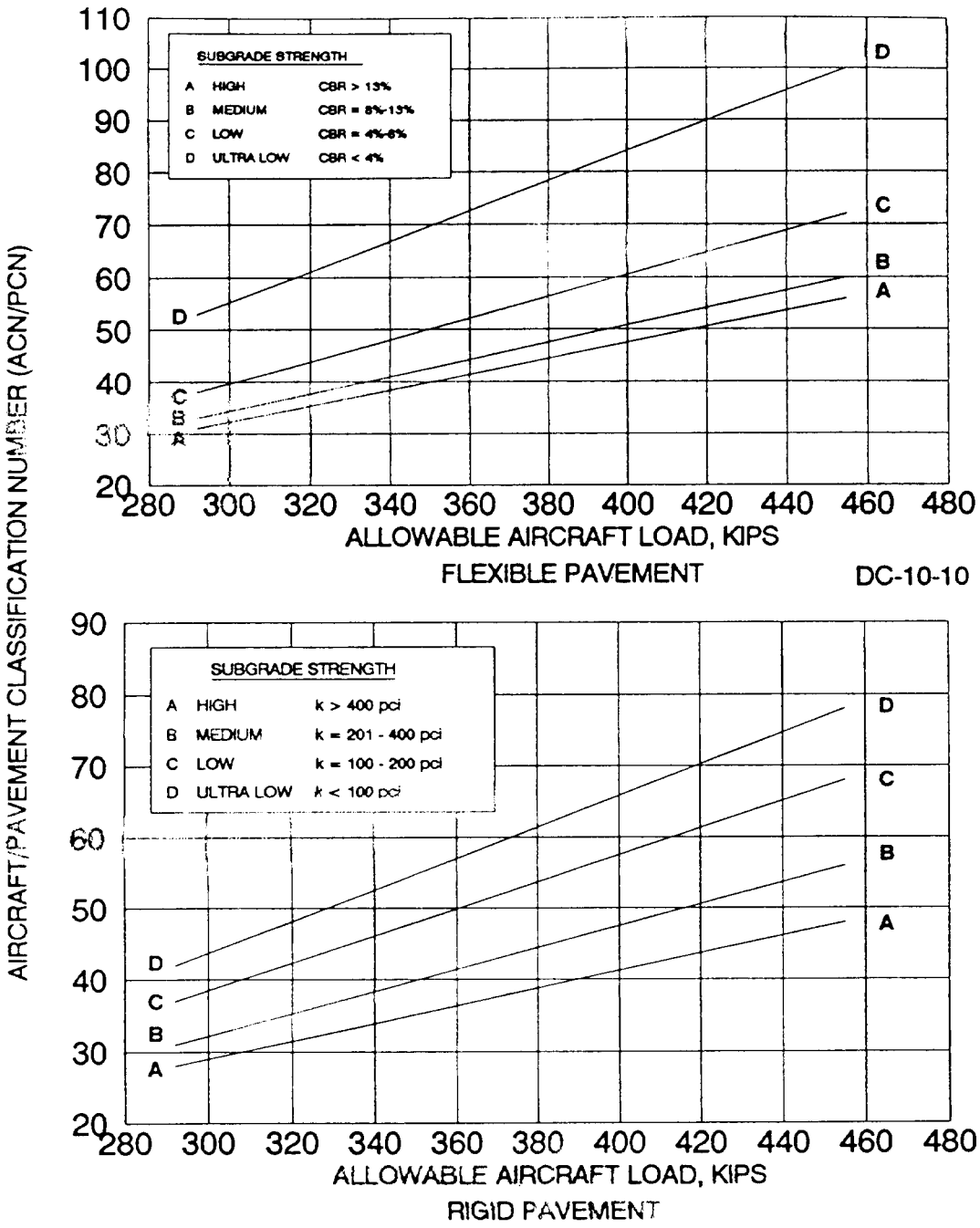


Figure A-432. McDonnell Douglas DC-10-10, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (CF6-50C1)

No. of Engines 3 Engine Rating 51,000 lb

Min. T/O Wt. 334.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 555.0 k-lb Max. T/O Wt. War-Time 572.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 413.0 k-lb Max. Ldg. Wt. 421.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,050 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
413	32	36	43	50	38	40	46	64
421	32	36	44	52	38	40	47	66
555	45	53	64	75	53	58	70	97
572	46	55	66	78	55	61	74	100

Figure A-433. McDonnell Douglas DC-10-30

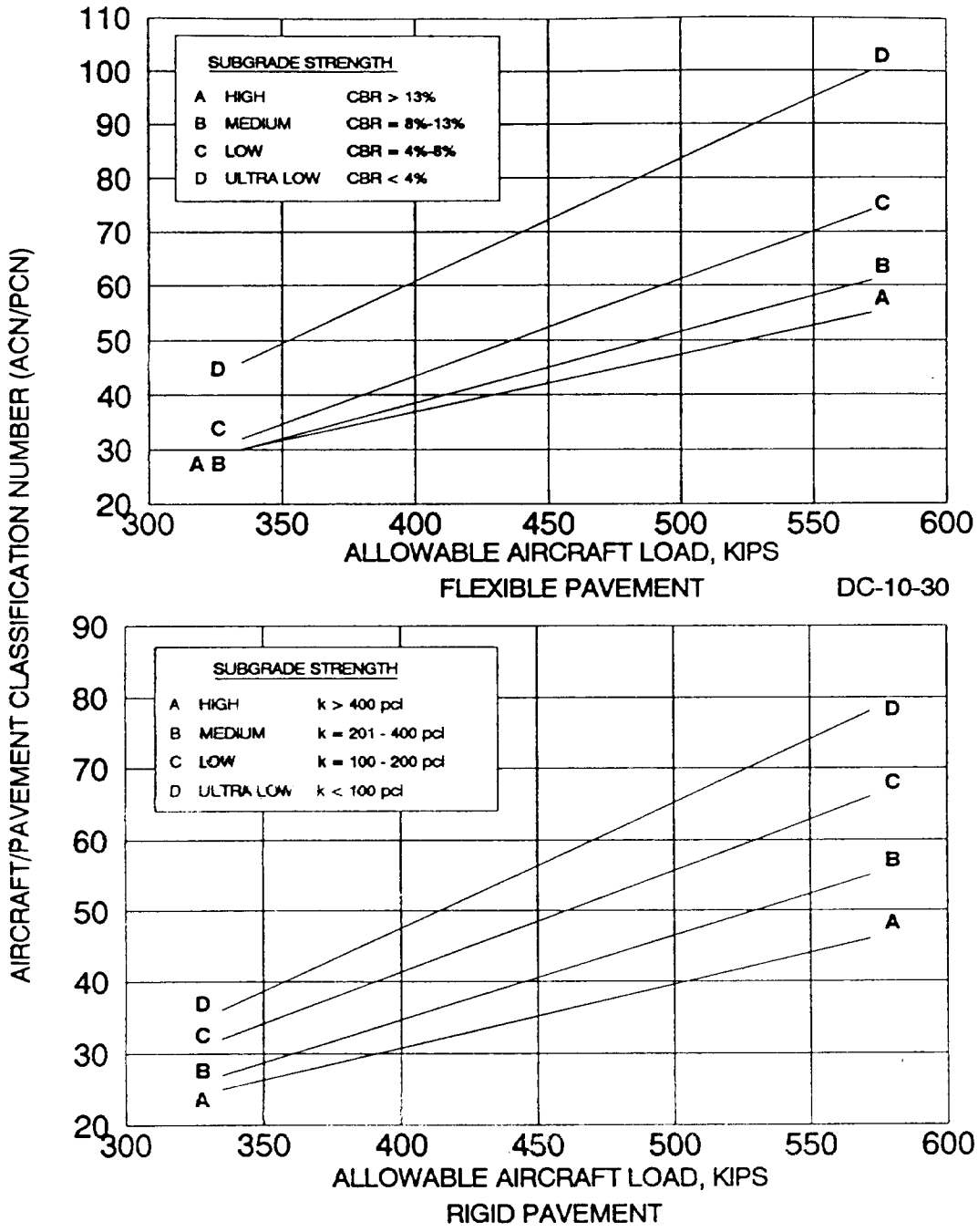


Figure A-434. McDonnell Douglas DC-10-30, ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-59A)

No. of Engines 3 Engine Rating 53,000 lb

Min. T/O Wt. 338.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 555.0 k-lb Max. T/O Wt. War-Time 572.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 413.0 k-lb Max. Ldg. Wt. 421.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
413	32	36	43	50	38	40	46	64
421	32	36	44	52	38	40	47	66
555	45	53	64	75	53	58	70	97
572	46	55	66	78	55	61	74	100

Figure A-435. McDonnell Douglas DC-10-40

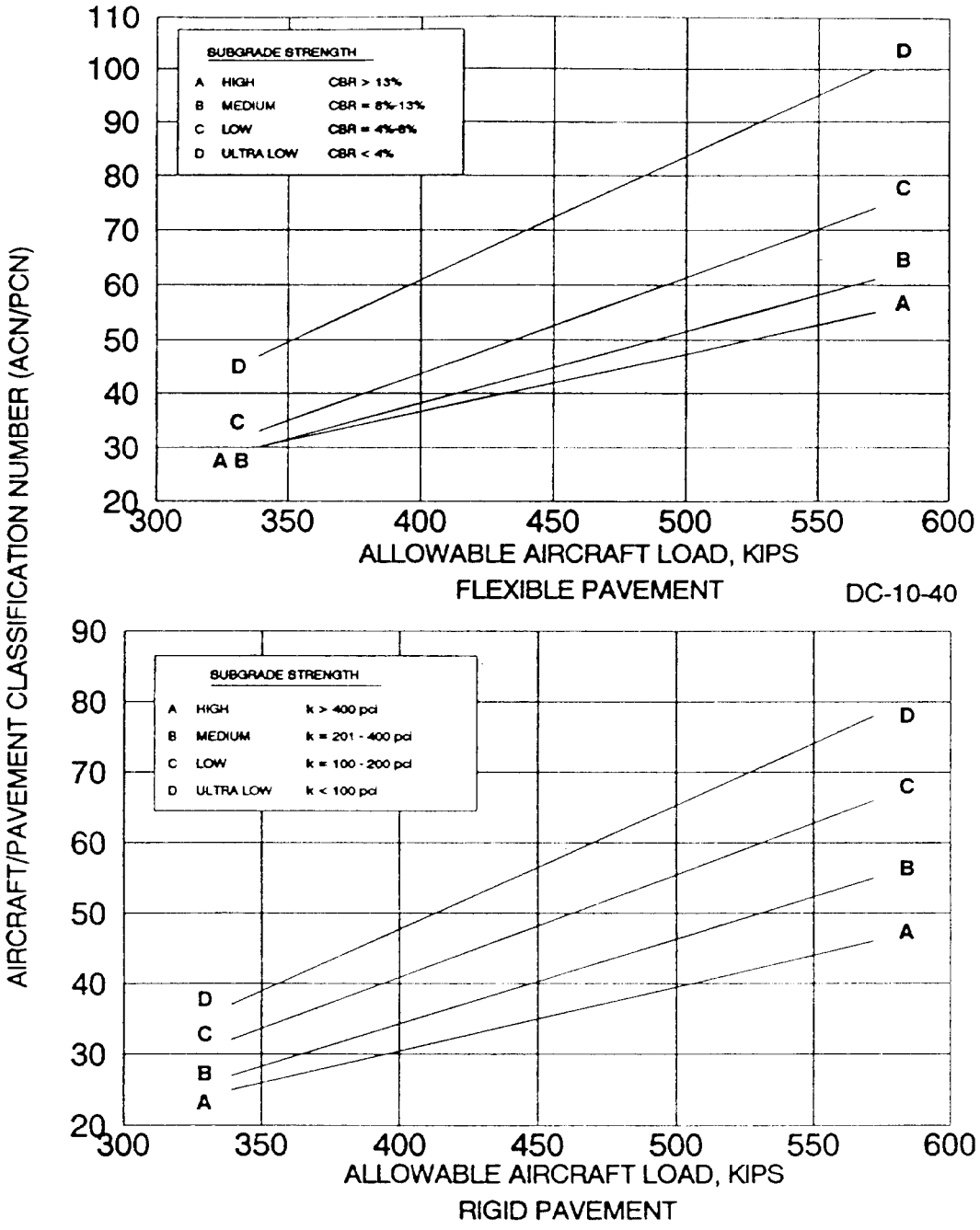


Figure A-436. McDonnell Douglas DC-10-40, ACN/PCN Curves

Aircraft Manufacturer Aerospatiale/Sud-Aviation

Aircraft Engine Manufacturer Rolls-Royce (Avon 533R)

No. of Engines 2 Engine Rating 12,600 lb

Min. T/O Wt. 72.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 110.2 k-lb Max. T/O Wt. War-Time 110.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 84.6 k-lb Max. Ldg. Wt. 105.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,650 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-437. Aerospatiale/Sud-Aviation SE-210, Caravelle

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Rolls-Royce (Spey-2MK506)

No. of Engines 2 Engine Rating 10,410 lb

Min. T/O Wt. 53.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,450 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 80.0 k-lb Max. T/O Wt. War-Time 80.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 52.5 k-lb Max. Ldg. Wt. 71.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,180 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,120 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
53	14	15	16	17	12	13	15	17
71	20	21	22	24	17	19	21	24
80	23	24	26	27	20	22	24	27

Figure A-438. B.A.C. One-Eleven Model 200

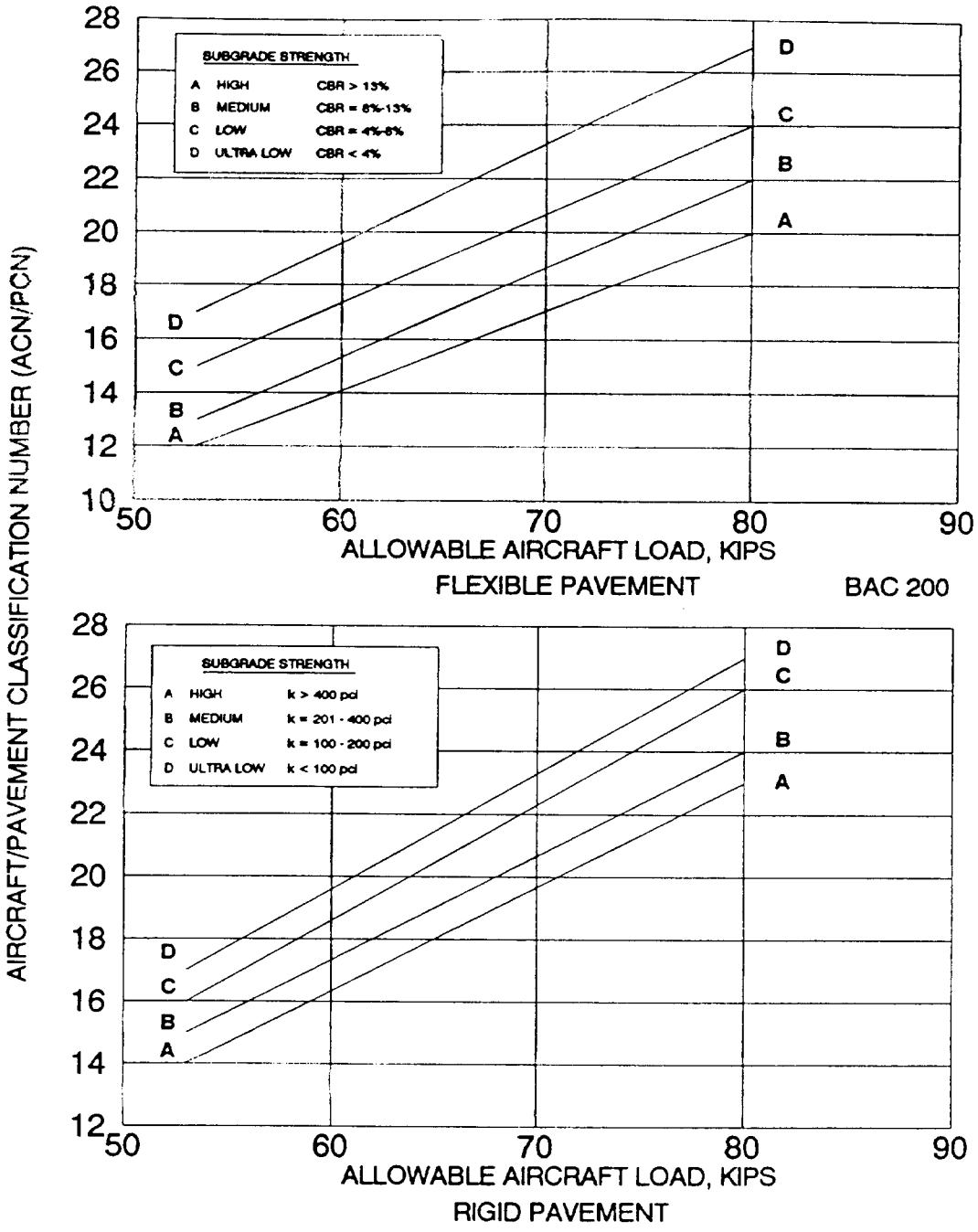


Figure A-439. B.A.C. One-Eleven Model 200, ACN/PCN Curves

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Rolls-Royce (Spey MK511)

No. of Engines 2 Engine Rating 11,400 lb

Min. T/O Wt. 57.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,350 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 89.5 k-lb Max. T/O Wt. War-Time 89.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 56.2 k-lb Max. Ldg. Wt. 79.0 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,730 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,240 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
56	17	18	19	20	13	14	16	18
79	24	26	27	28	21	22	24	26
90	28	30	31	32	24	26	28	30

Figure A-440. B.A.C. One-Eleven Model 400

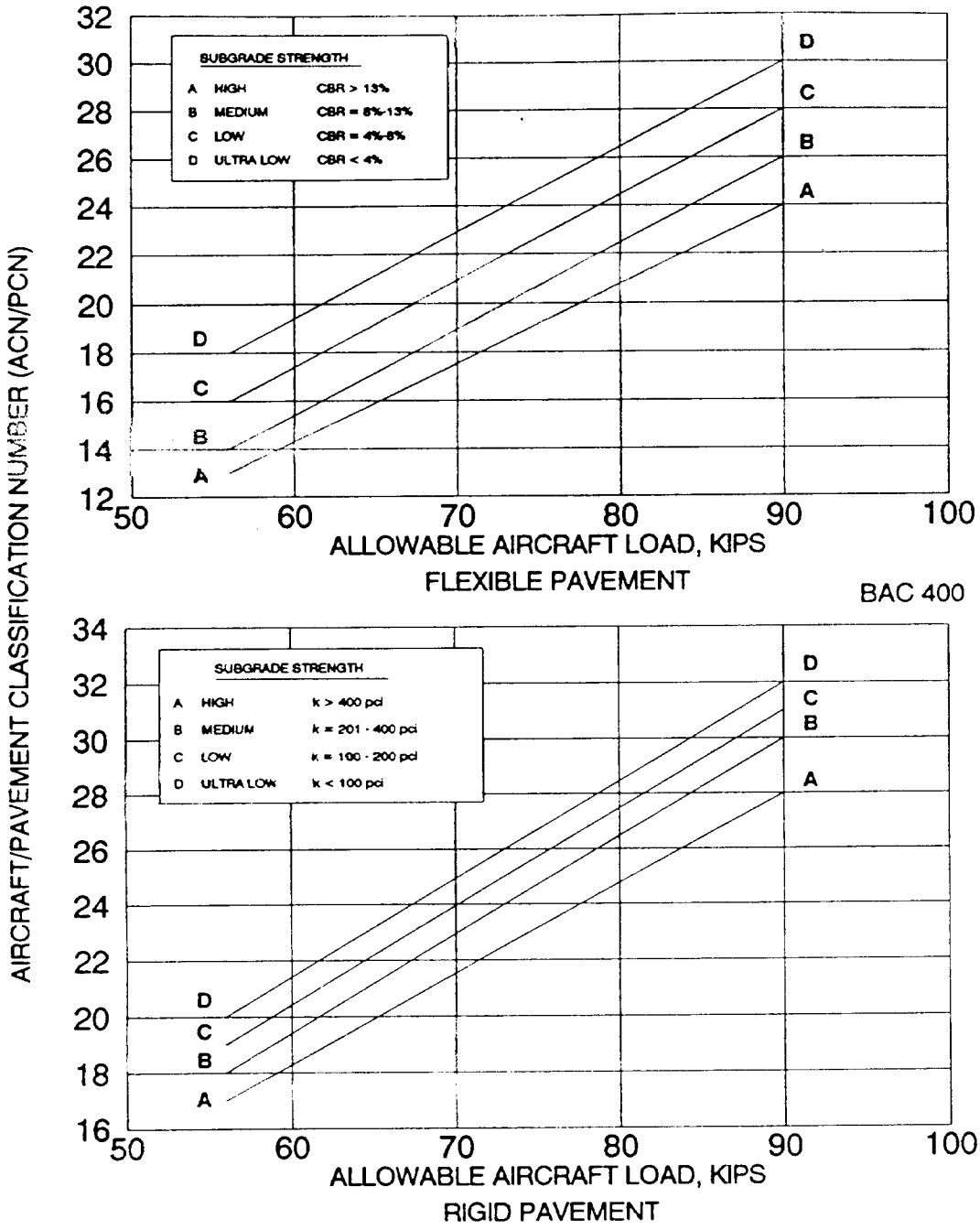


Figure A-441. B.A.C. One-Eleven Model 400, ACN/PCN Curves

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Rolls-Royce (Spey MK 512-14)

No. of Engines 2 Engine Rating 12,000 lb

Min. T/O Wt. 61.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. 3,300 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 104.5 k-lb Max. T/O Wt. War-Time 104.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,850 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 60.8 k-lb Max. Ldg. Wt. 87.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,900 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
61	18	19	20	21	15	16	18	20
87	27	29	30	31	24	25	28	30
105	33	35	36	38	29	31	34	36

Figure A-442. B.A.C. One-Eleven Model 500

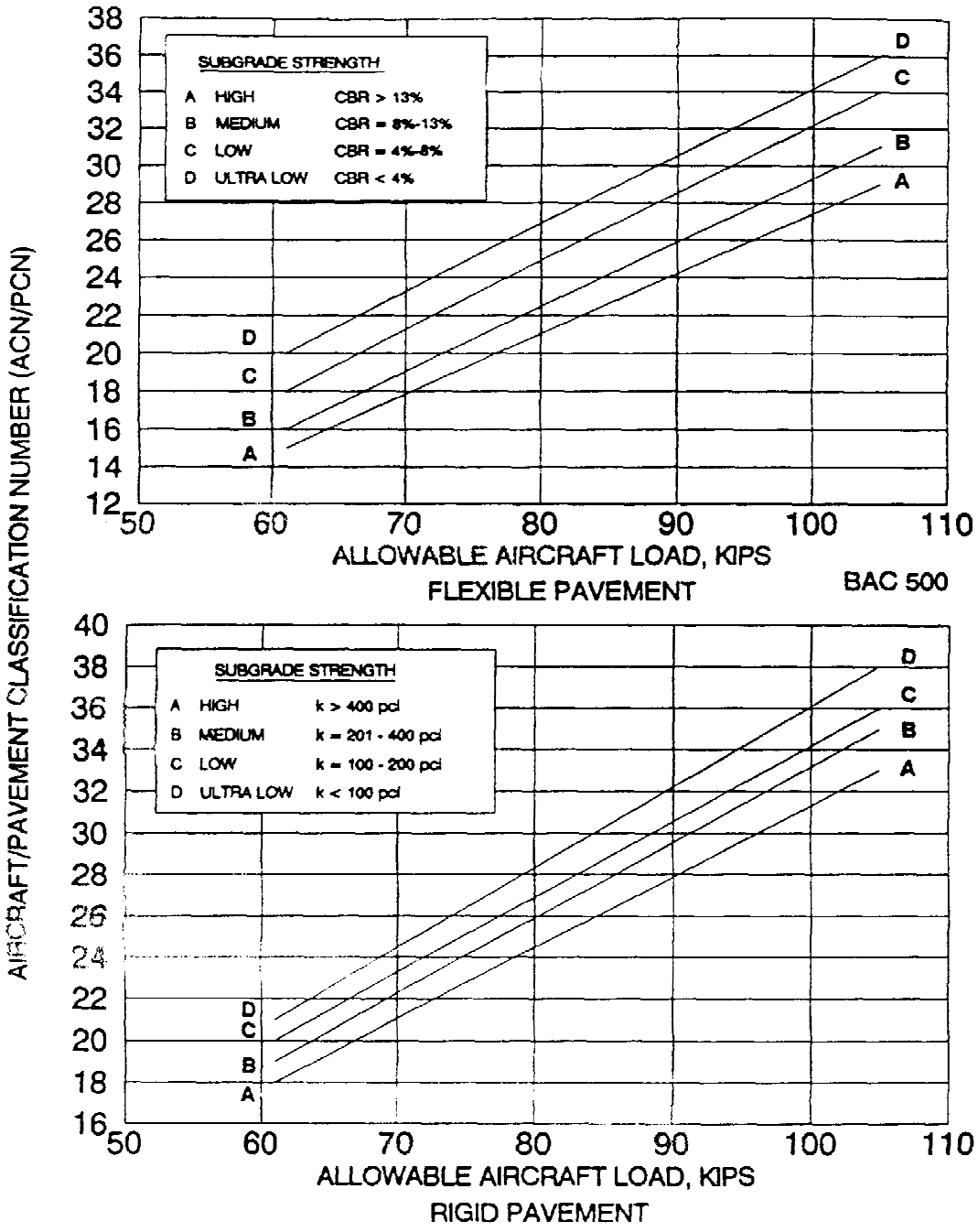


Figure A-443. B.A.C. One-Eleven Model 500, ACN/PCN Curves

Aircraft Manufacturer British Aircraft/Vickers

Aircraft Engine Manufacturer Rolls-Royce (Conway RCo. 42)

No. of Engines 4 Engine Rating 21,000 lb

Min. T/O Wt. 185.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 312.0 k-lb Max. T/O Wt. War-Time 312.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,280 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 200.3 k-lb Max. Ldg. Wt. 216.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,380 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
200	21	24	28	33	24	26	30	39
216	23	26	32	37	26	29	34	44
312	33	42	52	60	41	46	56	71

Figure A-444. B.A.C./Vickers VC-10, Model 1100

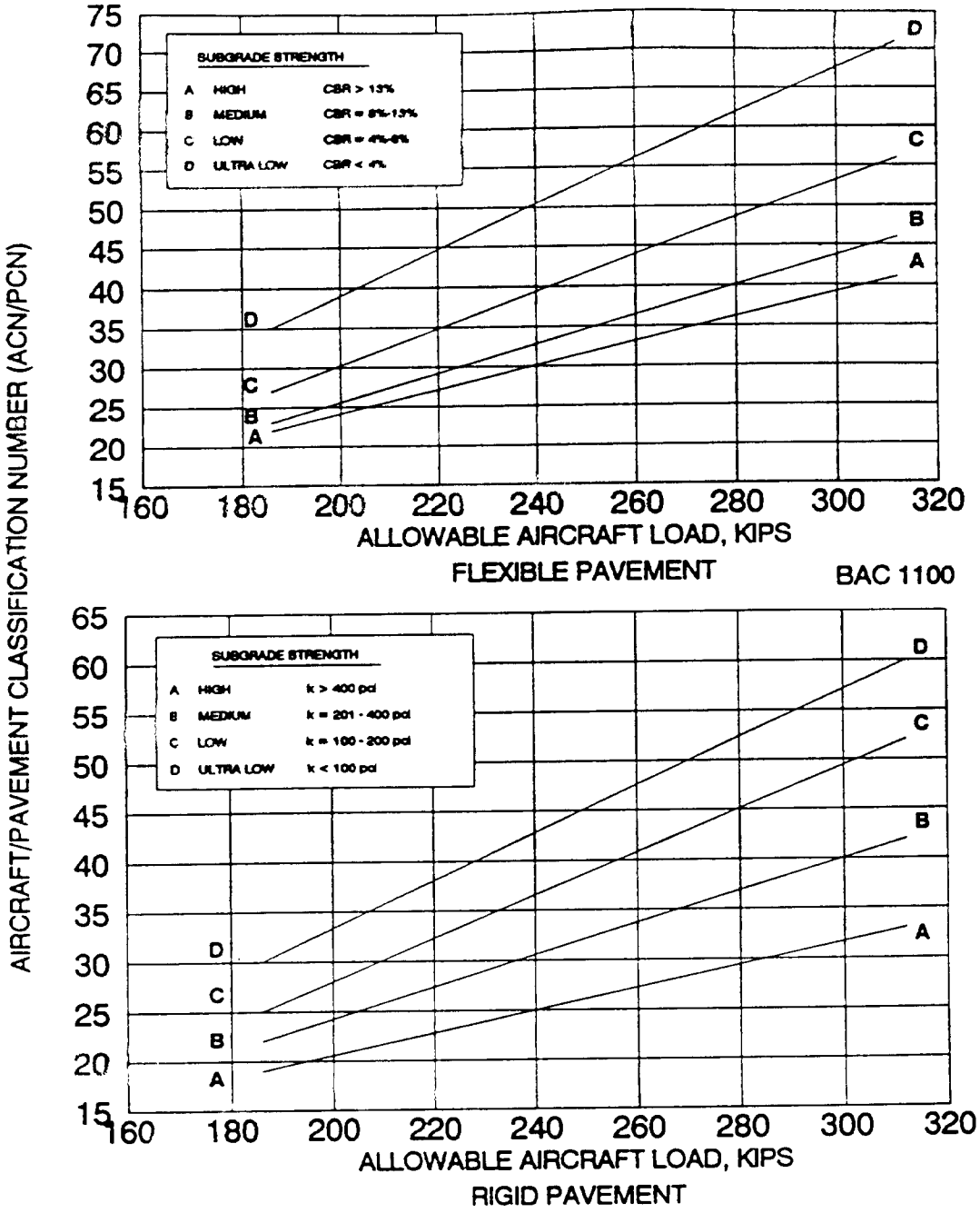


Figure A-445. B.A.C./Vickers VC-10 (Model 1100), ACN/PCN Curves

Aircraft Manufacturer British Aircraft/Vickers

Aircraft Engine Manufacturer Rolls-Royce (Conway RCo. 43)

No. of Engines 4 Engine Rating 22,500 lb

Min. T/O Wt. 196.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 335.0 k-lb Max. T/O Wt. War-Time 335.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 229.0 k-lb Max. Ldg. Wt. 237.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
229	25	29	34	40	28	31	38	48
237	26	30	36	42	29	32	39	50
335	38	46	56	65	44	50	61	77

Figure A-446. B.A.C./Vickers VC-l0, Model 1150

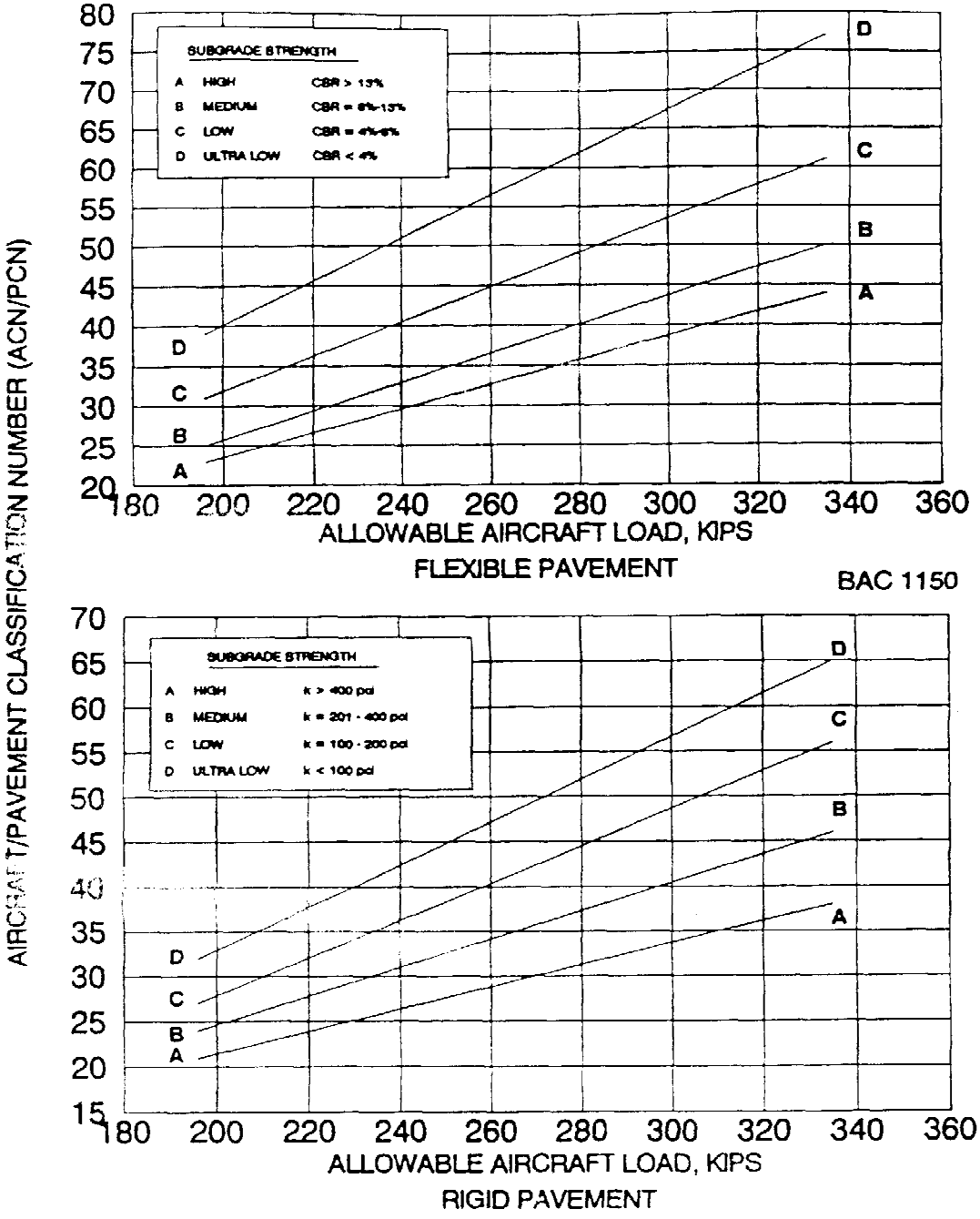


Figure A-447. BAC/Vickers VC-l0 (Model 1150), ACN/PCN Curves

Aircraft Manufacturer Ilyushin

Aircraft Engine Manufacturer Kuznetsov (NK-8-4)

No. of Engines 4 Engine Rating 23,150 lb

Min. T/O Wt. 200.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 357.2 k-lb Max. T/O Wt. War-Time 357.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,660 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 222.0 k-lb Max. Ldg. Wt. 231.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 9,190 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
222	28	31	35	39	28	30	34	42
232	30	33	37	41	29	31	36	45
357	47	54	62	70	48	52	61	76

Figure A-448. Ilyushin IL-62

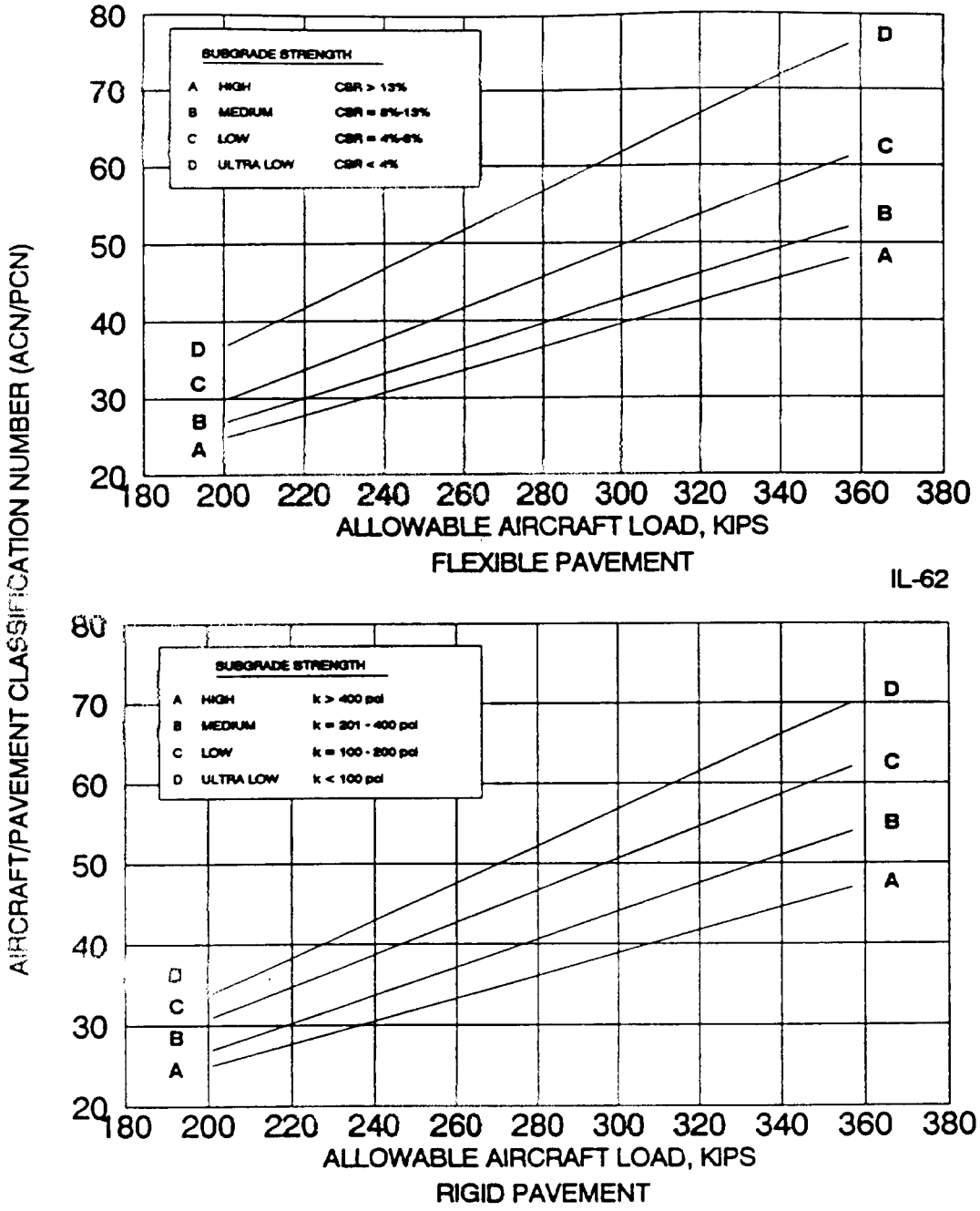


Figure A-449. Ilyushin IL-62, ACN/PCN Curves

Aircraft Manufacturer Airbus

Aircraft Engine Manufacturer General Electric (CF6-50C)

No. of Engines 2 Engine Rating 51,000 lb

Min. T/O Wt. 210.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. *Peace*-Time 313.1 k-lb Max. T/O Wt. War-Time 313.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 280.4 k-lb Max. Ldg. Wt. 295.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
280	32	38	46	52	34	39	47	60
295	34	41	49	56	37	42	51	65
313	37	44	52	60	40	45	55	70

Figure A-450. Airbus A300B2

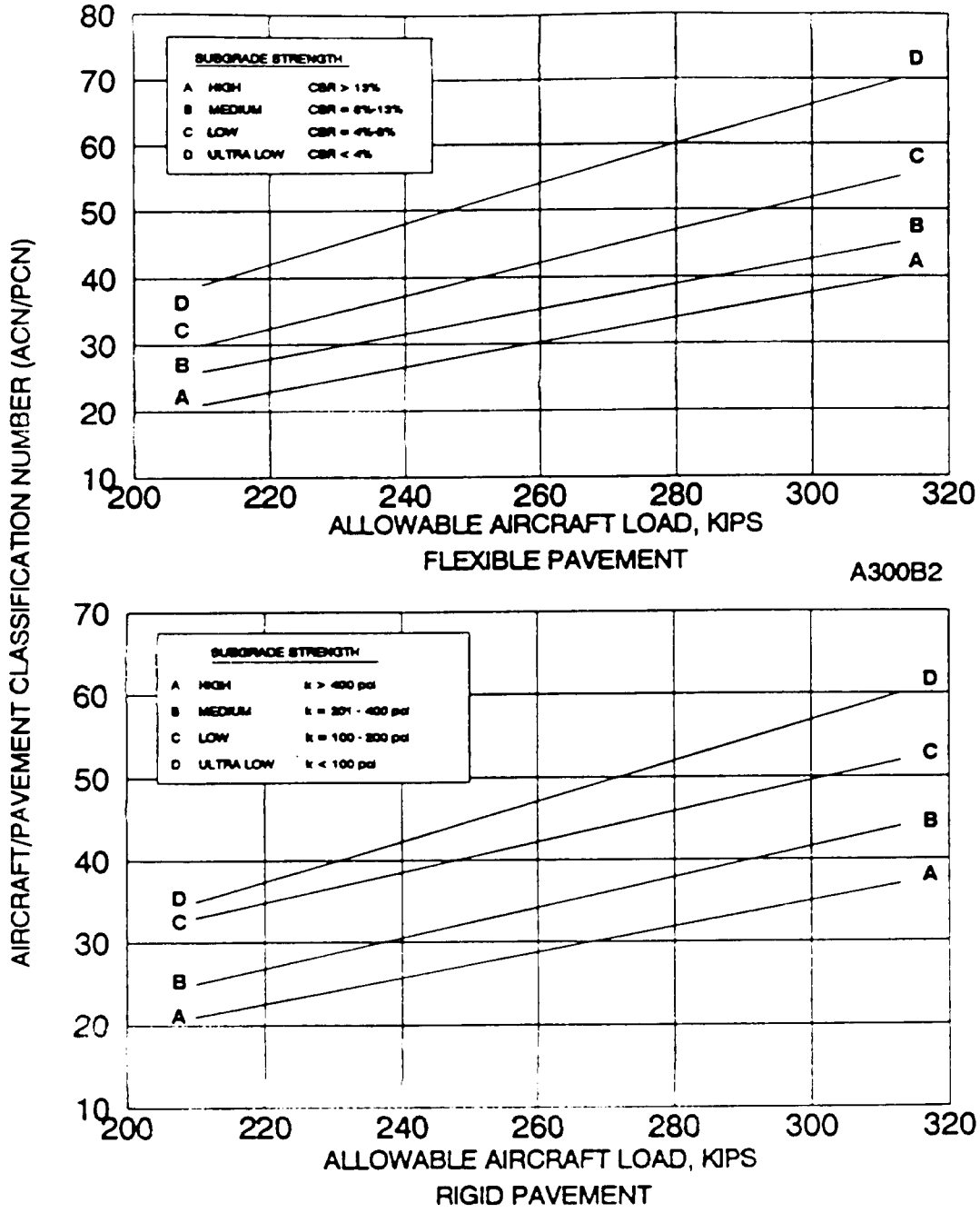


Figure A-451. Airbus A300B2, ACN/PCN Curves

Aircraft Manufacturer Airbus

Aircraft Engine Manufacturer General Electric (CF6-50C2)

No. of Engines 2 Engine Rating 52,500 lb

Min. T/O Wt. 222.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 363,8 k-lb Max. T/O Wt. War-Time 363,8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 282,6 k-lb Max. Ldg. Wt. 295,4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
283	34	40	47	54	36	40	48	62
295	36	42	50	57	38	42	50	65
364	47	56	65	73	49	54	66	84

Figure A-452. Airbus A300B4

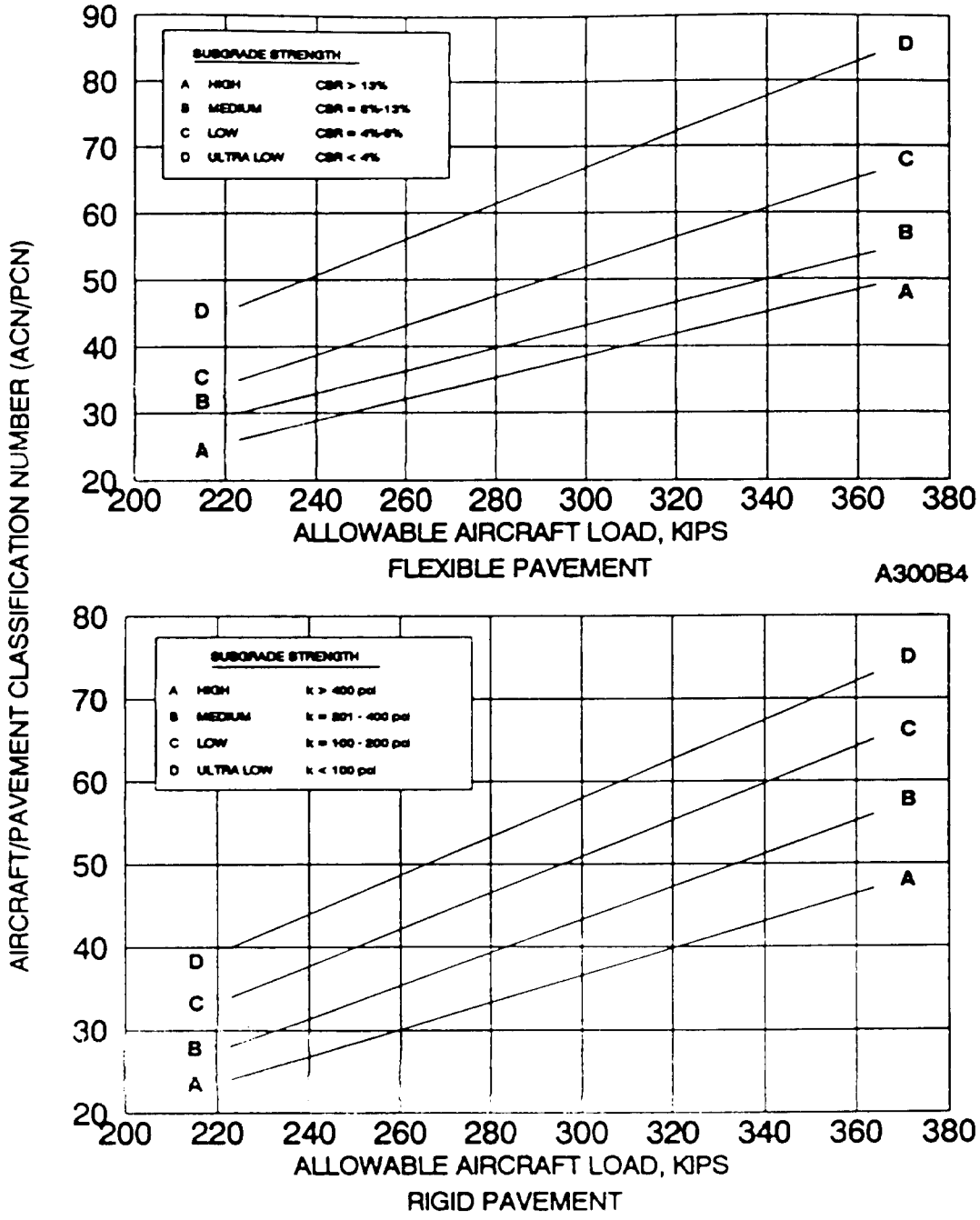


Figure A-453. Airbus A300B4, ACN/PCN Curves

Aircraft Manufacturer Airbus

Aircraft Engine Manufacturer Pratt and Whitney (PW4156)

No. of Engines 2 Engine Rating 56,000 lb

Min. T/O Wt. 219.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 363.8 k-lb Max. T/O Wt. War-Time 363.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,650 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 296.4 k-lb Max. Ldg. Wt. 304.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,040 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
296	36	42	49	55	39	44	51	62
304	37	43	51	57	41	46	53	64
364	47	56	65	73	52	58	66	80

Figure A-454. Airbus A300-600

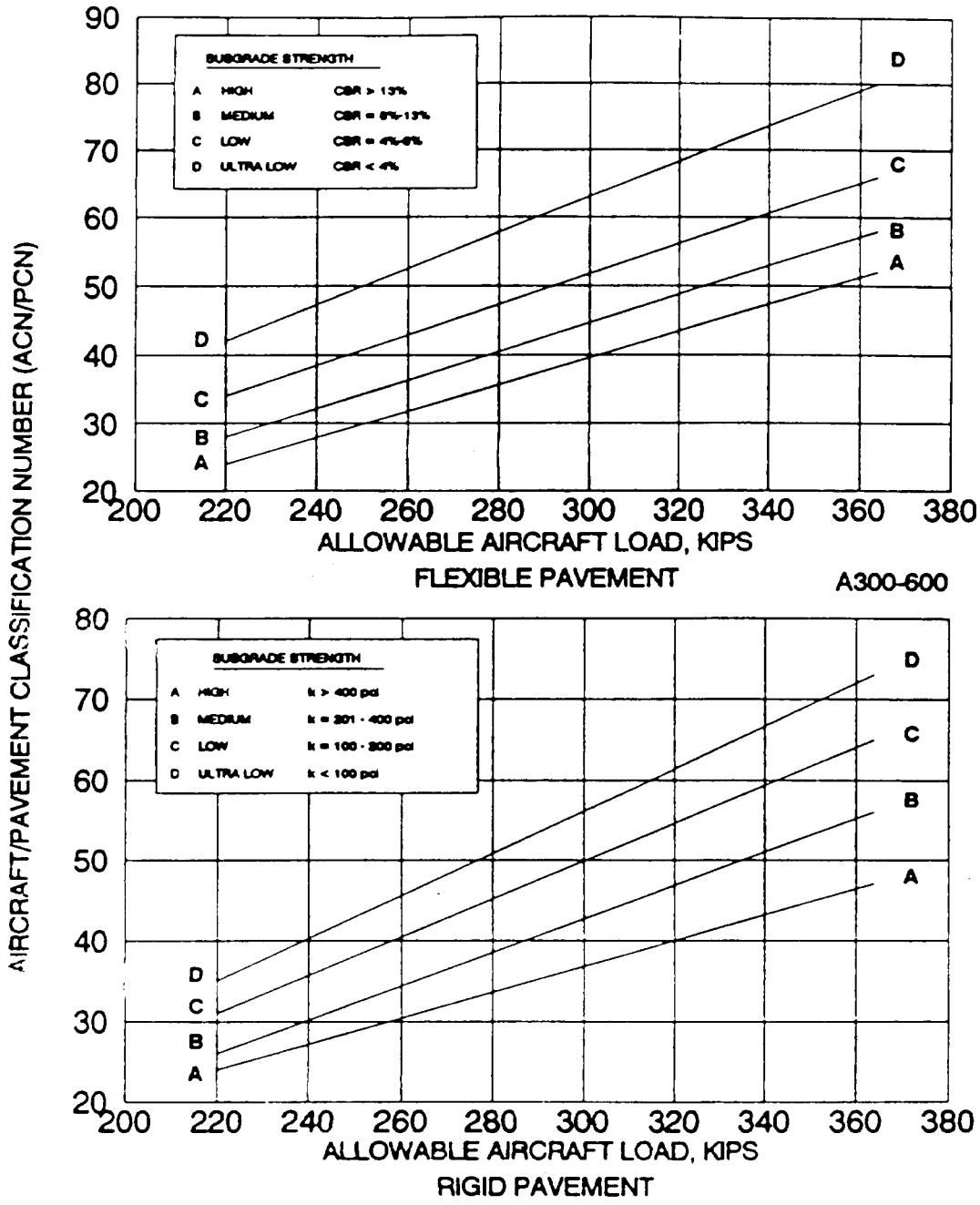


Figure A-455. Airbus A300-600, ACN/PCN Curves

Aircraft Manufacturer Airbus

Aircraft Engine Manufacturer Pratt and Whitney (PW4152)

No. of Engines 2 Engine Rating 52,000 lb

Min. T/O Wt. 198.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 346.1 k-lb Max. T/O Wt. War-Time 346.1 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 7,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 261.0 k-lb Max. Ldg. Wt. 273.4 k-lb

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,100 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
261	26	32	39	46	32	34	42	56
273	28	34	41	48	35	38	48	63
346	36	46	56	66	45	50	62	82

Figure A-456. Airbus A310-300

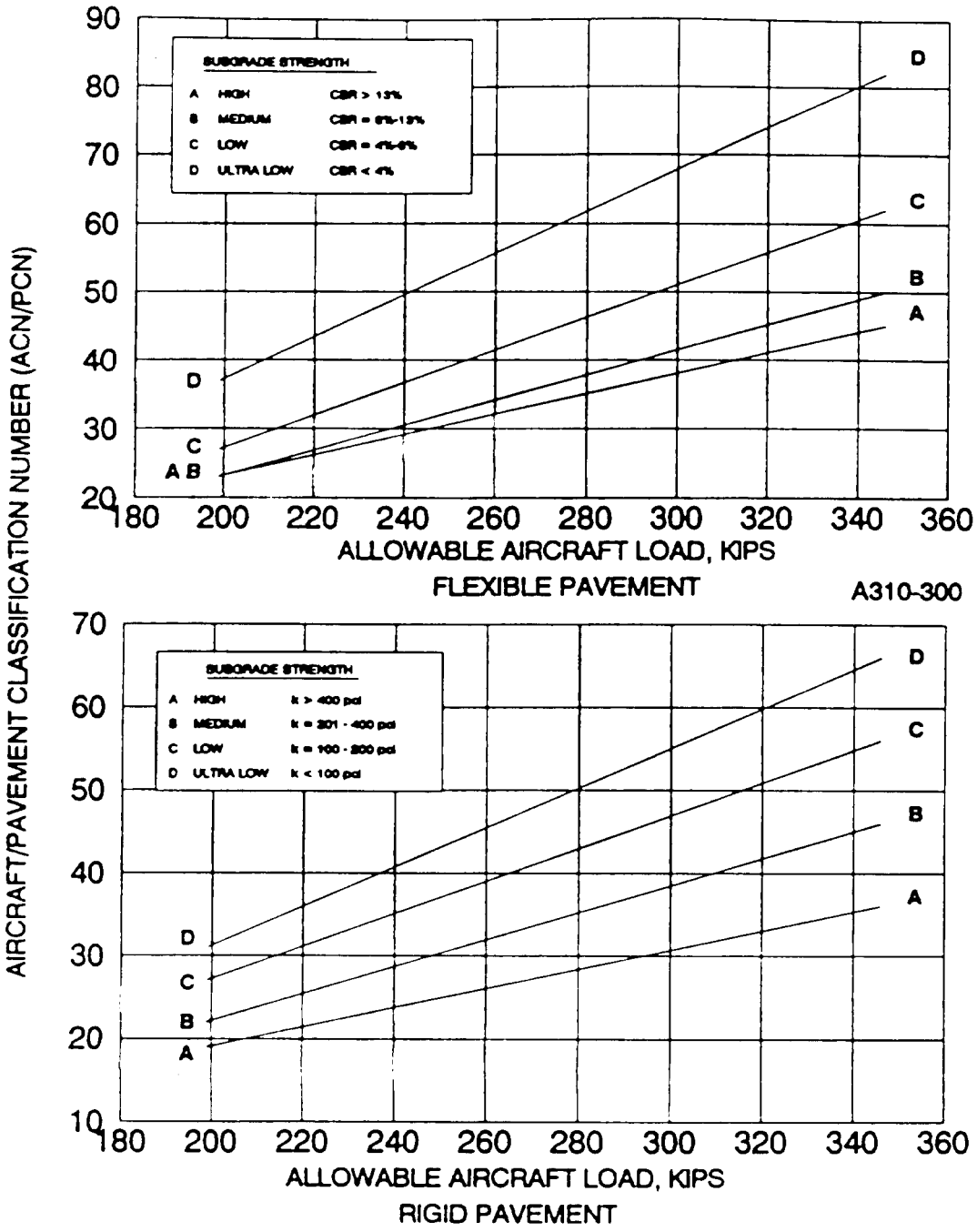


Figure A-457. Airbus A310-300, ACN/PCN Curves

Aircraft Manufacturer Airbus

Aircraft Engine Manufacturer CFM International (CFM56-5-A1)

No. of Engines 2 Engine Rating 25,000 lb

Min. T/O Wt. 97.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 158.7 k-lb Max. T/O Wt. War-Time 158.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,750 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 133.8 k-lb Max. Ldg. Wt. 138.9 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-458. Airbus A320

Aircraft Manufacturer British Aerospace and Aerospatiale (SNIAS)

Aircraft Engine Manufacturer Rolls-Royce/SNECMA (Olympus 593 MK 610)

No. of Engines 4 Engine Rating 38,000 lb

Min. T/O Wt. 209.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 5,900 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 408.0 k-lb Max. T/O Wt. War-Time 408.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,800 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 205.0 k-lb Max. Ldg. Wt. 245.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
205	26	29	33	38	27	29	33	41
245	33	37	43	48	34	37	43	52
408	61	71	82	91	65	72	81	98

Figure A-459. B.A.C./SNIAS Concorde

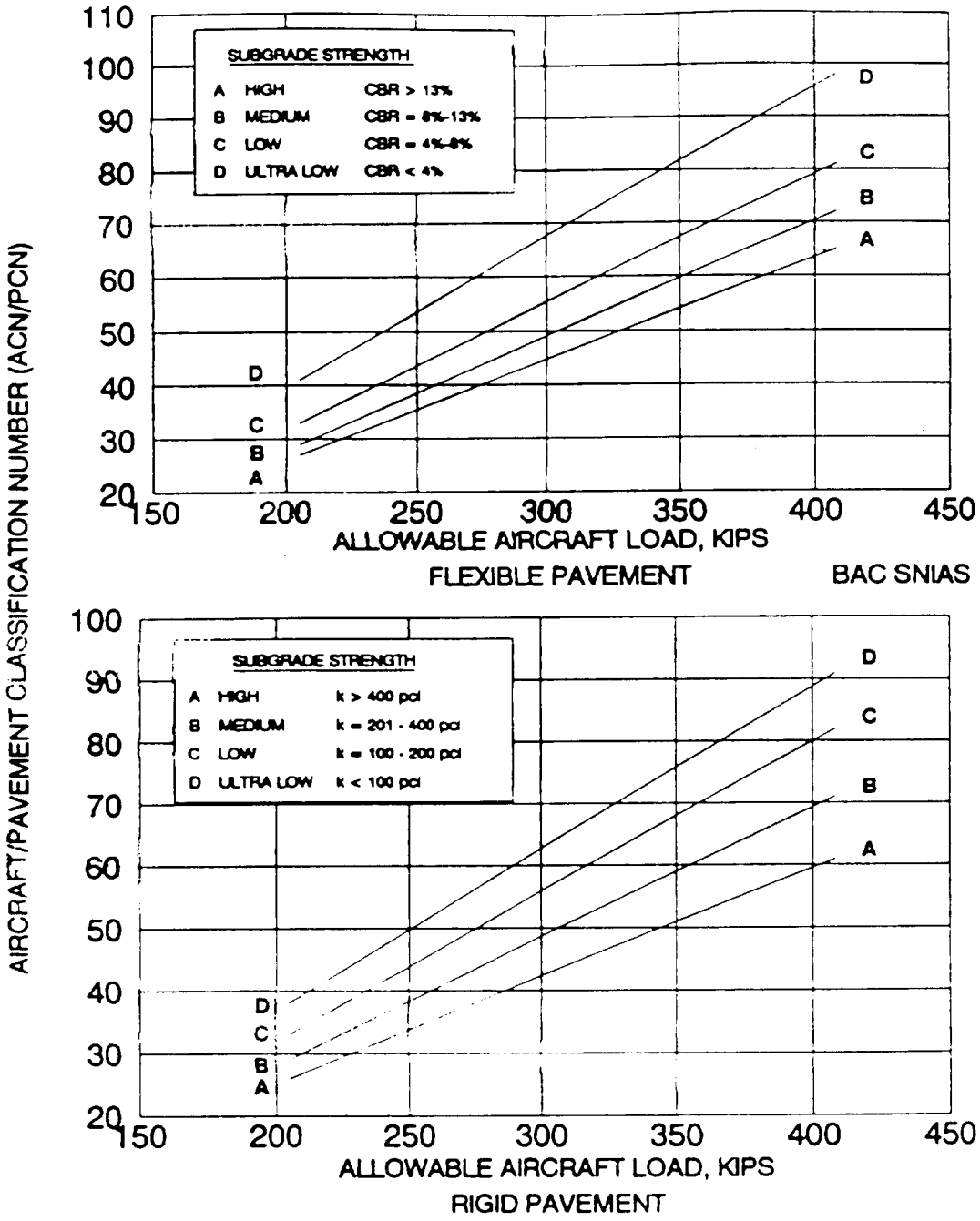


Figure A-460. B.A.C./SNIAS Concorde, ACN/PCN Curves

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Avco Lycoming (ALF 502R-5)

No. of Engines 4 Engine Rating 6,970 lb

Min. T/O Wt. 55.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 84.0 k-lb Max. T/O Wt. War-Time 84.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 70.5 k-lb Max. Ldg. Wt. 77.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-461. British Aerospace 146-Model 100

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Avco Lycoming (ALF 502R-5)

No. of Engines 4 Engine Rating 6,970 lb

Min. T/O Wt. 56.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 93.0 k-lb Max. T/O Wt. War-Time 93.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,950 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 75.5 k-lb Max. Ldg. Wt. 81.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,620 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-462. British Aerospace 146-Model 200

Aircraft Manufacturer British Aerospace

Aircraft Engine Manufacturer Avco Lycoming (ALF 502R-5)

No. of Engines 4 Engine Rating 6,970 lb

Min. T/O Wt. 60.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 93.0 k-lb Max. T/O Wt. War-Time 93.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,950 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 77.5 k-lb Max. Ldg. Wt. 83.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,030 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-463. British Aerospace 146-Model 300

Aircraft Manufacturer Aerospatiale (formerly manufactured by Sud-Aviation)

Aircraft Engine Manufacturer Turbomeca (Artouste IIIB)

No. of Engines 1 Engine Rating 870 SHP

Minimum Take-Off Weight 2.70 k-lb

Maximum Take-Off Weight Peace-Time 4.30 k-lb

Maximum Take-Off Weight War-Time 5.07 k-lb (With slung load)

Maximum Landing Weight 4.30 k-lb

Hover Ceiling (In Ground Effect) 9,675 ft (At 4.3 k-lb)

Hover Ceiling (Out of Ground Effect) 5,085 ft (At 4.3 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-464. Aerospatiale 315B, Lama

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Turmo IVC)

No. of Engines 2 Engine Rating 1575 SHP

Minimum Take-Off Weight 9.39 k-lb

Maximum Take-Off Weight Peace-Time 16.3 k-lb

Maximum Take-Off Weight War-Time 16.3 k-lb

Maximum Landing Weight 16.3 k-lb

Hover Ceiling (In Ground Effect) 7,545 ft

Hover Ceiling (Out of Ground Effect) 5,575 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-465. Aerospatiale 330J, Puma

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Makila IA)

No. of Engines 2 Engine Rating 1780 SHP

Minimum Take-Off Weight 10.7 k-lb

Maximum Take-Off Weight Peace-Time 18.4 k-lb

Maximum Take-Off Weight War-Time 20.6 k-lb
(With slung load)

Maximum Landing Weight 18.4 k-lb

Hover Ceiling (In Ground Effect) 8,900 ft
(At 18.4 k-lb)

Hover Ceiling (Out of Ground Effect) 6,890 ft
(At 18.4 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11	3	3	3	3	3	3	3	3
18	5	5	5	5	5	5	5	6
21	6	6	6	6	6	6	6	7

Figure A-466. Aerospatiale 332C, Super Puma

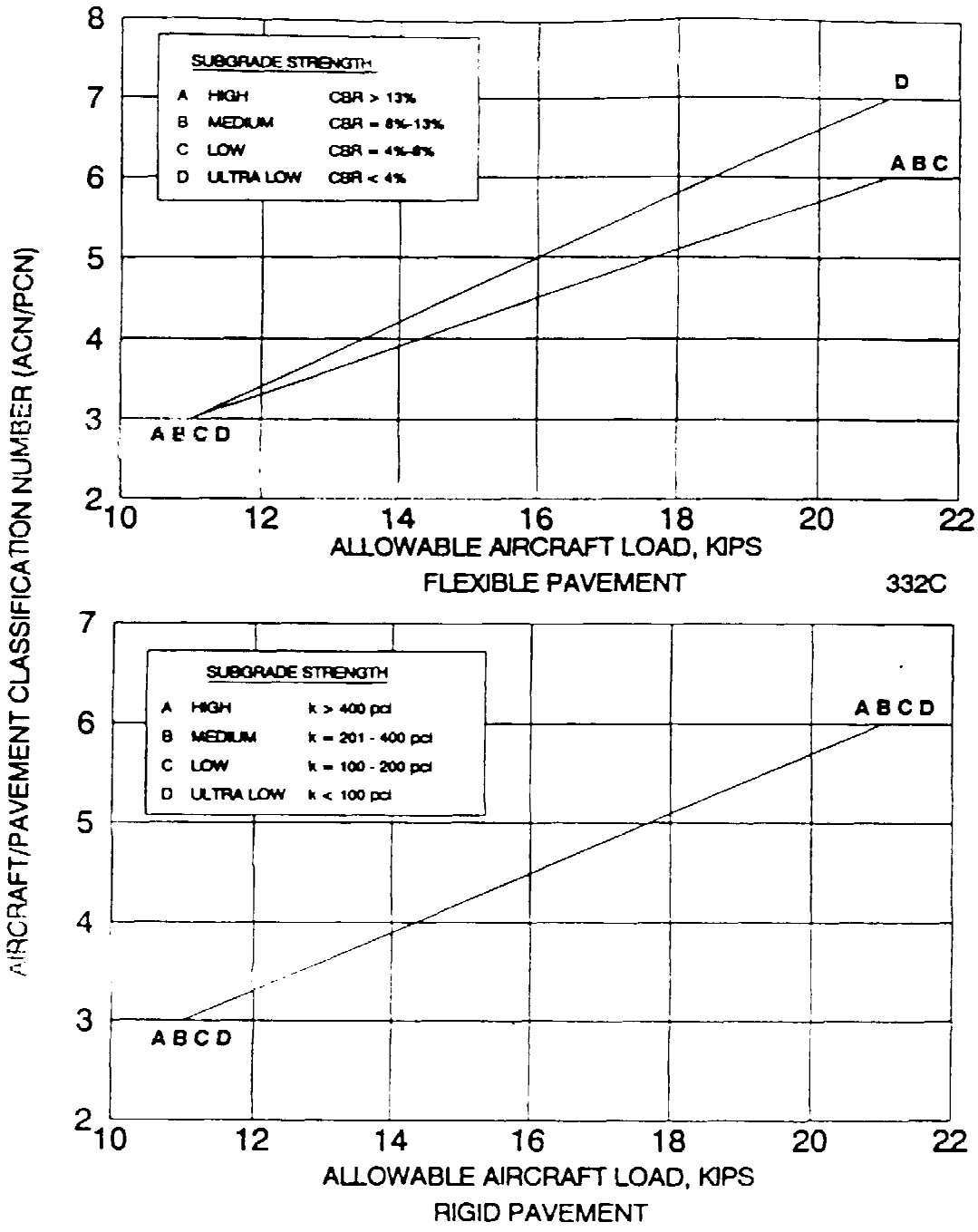


Figure A-467. Aerospatiale 332C, ACN/PCN Curves

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Makila IA)

No. of Engines 2 Engine Rating 1780 SHP

Minimum Take-Off Weight 11.2 k-lb

Maximum Take-Off Weight Peace-Time 18.4 k-lb

Maximum Take-Off Weight War-Time 20.6 k-lb
(With slung load)

Maximum Landing Weight 18.4 k-lb

Hover Ceiling (In Ground Effect) 8,900 ft
(At 18.4 k-lb)

Hover Ceiling (Out of Ground Effect) 6,890 ft
(At 18.4 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11	3	3	3	3	3	3	3	3
18	5	5	5	5	5	5	5	6
21	6	6	6	6	6	6	6	7

Figure A-468. Aerospatiale 332L, Super Puma

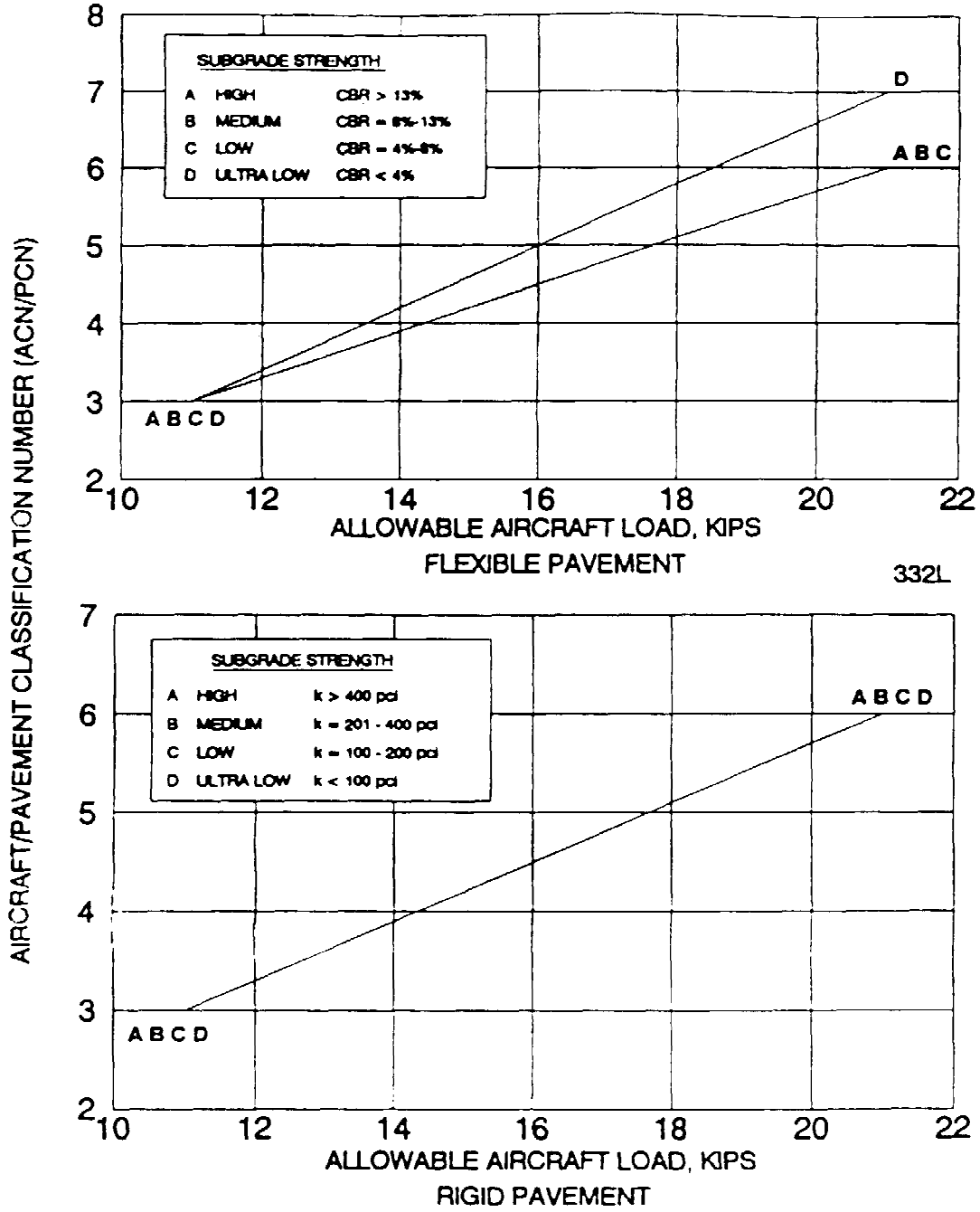


Figure A-469. Aerospatiale 332L, ACN/PCN Curves

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Astazou IIIA)

No. of Engines 1 Engine Rating 590 SHP

Minimum Take-Off Weight 2.72 k-lb

Maximum Take-Off Weight Peace-Time 3.97 k-lb

Maximum Take-Off Weight War-Time 3.97 k-lb

Maximum Landing Weight 3.97 k-lb

Hover Ceiling (In Ground Effect) 9,350 ft

Hover Ceiling (Out of Ground Effect) 6,560 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-470. Aerospatiale 341, Gazelle

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Arriel)

No. of Engines 1 Engine Rating 641 SHP

Minimum Take-Off Weight 2.95 k-lb

Maximum Take-Off Weight Peace-Time 4.3 k-lb

Maximum Take-Off Weight War-Time 4.63 k-lb
(With slung load)

Maximum Landing Weight 4.3 k-lb

Hover Ceiling (In Ground Effect) 9,675 ft
(At 4.3 k-lb)

Hover Ceiling (Out of Ground Effect) 7,380 ft
(At 4.3 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-471. Aerospatiale 350B, Astar

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-600A.2)

No. of Engines 1 Engine Rating 616 SHP

Minimum Take-Off Weight 2.96 k-lb

Maximum Take-Off Weight Peace-Time 4.3 k-lb

Maximum Take-Off Weight War-Time 4.63 k-lb
(With slung load)

Maximum Landing Weight 4.3 k-lb

Hover Ceiling (In Ground Effect) 8,200 ft
(At 4.3 k-lb)

Hover Ceiling (Out of Ground Effect) 5,900 ft
(At 4.3 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-472. Aerospatiale 350D, Astar

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Allison (250-C20F)

No. of Engines 2 Engine Rating 425 SHP

Minimum Take-Off Weight 3.41 k-lb

Maximum Take-Off Weight Peace-Time 4.63 k-lb

Maximum Take-Off Weight War-Time 4.63 k-lb

Maximum Landing Weight 4.63 k-lb

Hover Ceiling (In Ground Effect) 7,215 ft

Hover Ceiling (Out of Ground Effect) 4,920 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-473. Aerospatiale 355E, Twinstar

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Allison (250-C20F)

No. of Engines 2 Engine Rating 425 SHP

Minimum Take-Off Weight 3.51 k-lb

Maximum Take-Off Weight Peace-Time 5.07 k-lb

Maximum Take-Off Weight War-Time 5.51 k-lb
(With slung load)

Maximum Landing Weight 5.07 k-lb

Hover Ceiling (In Ground Effect) 6,725 ft
(At 5.07 k-lb)

Hover Ceiling (Out of Ground Effect) 7,700 ft
(At 5.07 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-474. Aerospatiale 355F, Twinstar

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Allison (250-C20F)

No. of Engines 2 Engine Rating 425 SHP

Minimum Take-Off Weight 3.54 k-lb

Maximum Take-Off Weight Peace-Time 5.29 k-lb

Maximum Take-Off Weight War-Time 5.51 k-lb
(With slung load)

Maximum Landing Weight 5.29 k-lb

Hover Ceiling (In Ground Effect) 7,700 ft
(At 5.29 k-lb)

Hover Ceiling (Out of Ground Effect) 5,475 ft
(At 5.29 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-4?5. Aerospatiale 355F1, Twinstar

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Astazou XVIIIA)

No. of Engines 1 Engine Rating 1050 SHP

Minimum Take-Off Weight 3.91 k-lb

Maximum Take-Off Weight Peace-Time 6.61 k-lb

Maximum Take-Off Weight War-Time 6.61 k-lb

Maximum Landing Weight 6.61 k-lb

Hover Ceiling (In Ground Effect) 8,000 ft

Hover Ceiling (Out of Ground Effect) 5,700 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
6,610 lb/73 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-476. Aerospatiale 360C, Dauphin

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Arriel)

No. of Engines 2 Engine Rating 680 SHP

Minimum Take-Off Weight 4.79 k-lb

Maximum Take-Off Weight Peace-Time 7.5 k-lb

Maximum Take-Off Weight War-Time 7.5 k-lb

Maximum Landing Weight 7.5 k-lb

Hover Ceiling (In Ground Effect) 11,710 ft

Hover Ceiling (Out of Ground Effect) 9,315 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,500 lb/73 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-477. Aerospatiale 365C, Dauphin 2

Aircraft Manufacturer Aerospatiale

Aircraft Engine Manufacturer Turbomeca (Arriel IC)

No. of Engines 2 Engine Rating 710 SHP

Minimum Take-Off Weight 5,34 k-lb

Maximum Take-Off Weight Peace-Time 8,82 k-lb

Maximum Take-Off Weight War-Time 8,82 k-lb

Maximum Landing Weight 8,82 k-lb

Hover Ceiling (In Ground Effect) 3,445 ft

Hover Ceiling (Out of Ground Effect) 3,445 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,820 lb/101 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-478. Aerospatiale 365N, Dauphin 2

Aircraft Manufacturer Agusta

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 2 Engine Rating 400 SHP

Minimum Take-Off Weight 3.56 k-lb

Maximum Take-Off Weight Peace-Time 5.78 k-lb

Maximum Take-Off Weight War-Time 5.78 k-lb

Maximum Landing Weight 5.78 k-lb

Hover Ceiling (In Ground Effect) 7,700 ft

Hover Ceiling (Out of Ground Effect) 6,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
5,780 lb/85 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-479. Agusta 109A

Aircraft Manufacturer Agusta

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 2 Engine Rating 420 SHP

Minimum Take-Off Weight 3.67 k-lb

Maximum Take-Off Weight Peace-Time 5.78 k-lb

Maximum Take-Off Weight War-Time 6.04 k-lb

Maximum Landing Weight 5.78 k-lb

Hover Ceiling (In Ground Effect) 7,700 ft (At 5.78 k-lb)

Hover Ceiling (Out of Ground Effect) 4,990 ft (At 5.78 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
6,040 lb/85 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-480. Agusta 109A MkII

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (TVO-435-25)

No. of Engines 1 Engine Rating 260 HP

Minimum Take-Off Weight 2.22 k-lb

Maximum Take-Off Weight Peace-Time 2.85 k-lb

Maximum Take-Off Weight War-Time 2.85 k-lb

Maximum Landing Weight 2.85 k-lb

Hover Ceiling (In Ground Effect) 18,000 ft

Hover Ceiling (Out of Ground Effect) 18,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-481. Bell 47G-3B (OH-13), Sioux

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (TVO-435-25)

No. of Engines 1 Engine Rating 270 HP

Minimum Take-Off Weight 2.35 k-lb

Maximum Take-Off Weight Peace-Time 2.95 k-lb

Maximum Take-Off Weight War-Time 2.95 k-lb

Maximum Landing Weight 2.95 k-lb

Hover Ceiling (In Ground Effect) 16,000 ft

Hover Ceiling (Out of Ground Effect) 10,500 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-482. Bell 47G-3B (TH-13T), Sioux

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (VO-435)

No. of Engines 1 Engine Rating 265 HP

Minimum Take-Off Weight 1.93 k-lb

Maximum Take-Off Weight Peace-Time 2.85 k-lb

Maximum Take-Off Weight War-Time 2.85 k-lb

Maximum Landing Weight 2.85 k-lb

Hover Ceiling (In Ground Effect) 5,900 ft

Hover Ceiling (Out of Ground Effect) 1,350 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-483. Bell 47G-5A

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 5.79 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 16,800 ft (At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 12,700 ft (At 9.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-484. Bell 204 (UH-lB), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 6.49 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,600 ft (At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 10,000 ft (At 9.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-485. Bell 204 (UH-1C), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 6.6 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft (At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 7,400 ft (At 9.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-486. Bell 204 (UH-lM), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 6.23 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 18,200 ft

Hover Ceiling (Out of Ground Effect) 14,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-487. Bell 205 (UH-lD), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 5.96 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 13,600 ft

Hover Ceiling (Out of Ground Effect) 1,100 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-488. Bell 205 (UH-lH), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 5.91 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft

Hover Ceiling (Out of Ground Effect) 6,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-489. Bell 205A-l

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (T63-A-700)

No. of Engines 1 Engine Rating 317 SHP

Minimum Take-Off Weight 2.31 k-lb

Maximum Take-Off Weight Peace-Time 3.0 k-lb

Maximum Take-Off Weight War-Time 3.0 k-lb

Maximum Landing Weight 3.0 k-lb

Hover Ceiling (In Ground Effect) 13,600 ft

Hover Ceiling (Out of Ground Effect) 8,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-490. Bell 206A (OH-58A), Kiowa

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (T63-A-720)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 2.43 k-lb

Maximum Take-Off Weight Peace-Time 3.2 k-lb

Maximum Take-Off Weight War-Time 3.2 k-lb

Maximum Landing Weight 3.2 k-lb

Hover Ceiling (In Ground Effect) 13,200 ft

Hover Ceiling (Out of Ground Effect) 9,700 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-491. Bell 206A (OH-58C), Kiowa

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (250-C20J)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 2.15 k-lb

Maximum Take-Off Weight Peace-Time 3.2 k-lb

Maximum Take-Off Weight War-Time 3.2 k-lb

Maximum Landing Weight 3.2 k-lb

Hover Ceiling (In Ground Effect) 12,800 ft

Hover Ceiling (Out of Ground Effect) 8,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-492. Bell 306B, Jet Ranger 3

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (250-C30P)

No. of Engines 1 Engine Rating 650 SHP

Minimum Take-Off Weight 2.75 k-lb

Maximum Take-Off Weight Peace-Time 4.15 k-lb

Maximum Take-Off Weight War-Time 4.15 k-lb

Maximum Landing Weight 4.15 k-lb

Hover Ceiling (In Ground Effect) 16,500 ft

Hover Ceiling (Out of Ground Effect) 5,400 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-493. Bell 306L-3, Long Ranger 3

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 6.62 k-lb

Maximum Take-Off Weight Peace-Time 9.41 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 9,900 ft (At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-494. Bell 209 (AH-1G), Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 6.95 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft (At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-495. Bell 209 [AH-lS (Production)], Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 7.05 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft (At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-496. Bell 209 [AH-lS (ECAS)], Upgun Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 7.07 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft (At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-497. Bell 209 [AH-1S (Modernized)], Mod. Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6T-3B)

No. of Engines 2 Engine Rating 1800 SHP

Minimum Take-Off Weight 6.88 k-lb

Maximum Take-Off Weight Peace-Time 11.2 k-lb

Maximum Take-Off Weight War-Time 11.2 k-lb

Maximum Landing Weight 11.2 k-lb

Hover Ceiling (In Ground Effect) 11,000 ft

Hover Ceiling (Out of Ground Effect) 4,900 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-498. Bell 212 (UH-lN), Twin Huey

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6T-3B)

No. of Engines 2 Engine Rating 1800 SHP

Minimum Take-Off Weight 6.88 k-lb

Maximum Take-Off Weight Peace-Time 11.2 k-lb

Maximum Take-Off Weight War-Time 11.2 k-lb

Maximum Landing Weight 11.2 k-lb

Hover Ceiling (In Ground Effect) 11,000 ft

Hover Ceiling (Out of Ground Effect) 4,900 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-499. Bell 212

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T5508D)

No. of Engines 1 Engine Rating 2930 SHP

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 13.8 k-lb

Maximum Take-Off Weight War-Time 16.0 k-lb (External loading)

Maximum Landing Weight 13.8 k-lb

Hover Ceiling (In Ground Effect) 15,000 ft (At 13.8 k-lb)

Hover Ceiling (Out of Ground Effect) 10,500 ft (At 13.8 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-500. Bell 214B, Big Lifter

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer General Electric (CT7-2A)

No. of Engines 2 Engine Rating 1625 SHP

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 17.5 k-lb

Maximum Take-Off Weight War-Time 17.5 k-lb

Maximum Landing Weight 17.5 k-lb

Hover Ceiling (In Ground Effect) 6,400 ft

Hover Ceiling (Out of Ground Effect) 1,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-501. Bell 214ST, Super Transport

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-650C-2)

No. of Engines 2 Engine Rating 675 SHP

Minimum Take-Off Weight 5.37 k-lb

Maximum Take-Off Weight Peace-Time 7.85 k-lb

Maximum Take-Off Weight War-Time 7.85 k-lb

Maximum Landing Weight 7.85 k-lb

Hover Ceiling (In Ground Effect) 4,200 ft

Hover Ceiling (Out of Ground Effect) 4,600 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,850 lb/75 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-502. Bell 222

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-750C-1)

No. of Engines 2 Engine Rating 684 SHP

Minimum Take-Off Weight 5.41 k-lb

Maximum Take-Off Weight Peace-Time 8.25 k-lb

Maximum Take-Off Weight War-Time 8.25 k-lb

Maximum Landing Weight 8.25 k-lb

Hover Ceiling (In Ground Effect) 7,100 ft

Hover Ceiling (Out of Ground Effect) 6,400 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,250 lb/75 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-503. Bell 222B

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-750C-1)

No. of Engines 2 Engine Rating 684 SHP

Minimum Take-Off Weight 5.49 k-lb

Maximum Take-Off Weight Peace-Time 8.25 k-lb

Maximum Take-Off Weight War-Time 8.25 k-lb

Maximum Landing Weight 8.25 k-lb

Hover Ceiling (In Ground Effect) 7,100 ft

Hover Ceiling (Out of Ground Effect) 6,400 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-504. Bell 222UT, Utility Twin

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (250-C30R)

No. of Engines 1 Engine Rating 650 SHP

Minimum Take-Off Weight 3.36 k-lb

Maximum Take-Off Weight Peace-Time 4.5 k-lb

Maximum Take-Off Weight War-Time 4.5 k-lb

Maximum Landing Weight 4.5 k-lb

Hover Ceiling (In Ground Effect) 12,000 ft

Hover Ceiling (Out of Ground Effect) 11,200 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-505. Bell 406 AHIP (OH-58D), Kiowa

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6T-3B-1)

No. of Engines 2 Engine Rating 1800 SHP

Minimum Take-Off Weight 7.24 k-lb

Maximum Take-Off Weight Peace-Time 11.9 k-lb

Maximum Take-Off Weight War-Time 11.9 k-lb

Maximum Landing Weight 11.9 k-lb

Hover Ceiling (In Ground Effect) 9,200 ft

Hover Ceiling (Out of Ground Effect) 9,200 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-506. Bell 412

Aircraft Manufacturer Bell and Boeing Helicopter Co.

Aircraft Engine Manufacturer Allison (T406-AD-400)

No. of Engines 2 Engine Rating 6150 SHP

Minimum Take-Off Weight 32.8 k-lb

Maximum Take-Off Weight Peace-Time 55.0 k-lb (Normal STOL)

Maximum Take-Off Weight War-Time 60.5 k-lb (Self Deployment STOL)

Maximum Landing Weight †

Hover Ceiling (In Ground Effect) 17,000 ft (At 55.0 k-lb)

Hover Ceiling (Out of Ground Effect) 15,000 ft (At 55.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-507. Bell/Boeing 301 (V-22), Osprey

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer General Electric (CT58-140)

No. of Engines 2 Engine Rating 1400 SHP

Minimum Take-Off Weight 13.0 k-lb

Maximum Take-Off Weight Peace-Time 20.0 k-lb

Maximum Take-Off Weight War-Time 22.0 k-lb
(With external load)

Maximum Landing Weight 20.0 k-lb

Hover Ceiling (In Ground Effect) 11,500 ft
(At 22.0 k-lb)

Hover Ceiling (Out of Ground Effect) 8,800 ft
(At 22.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
13	2	2	2	2	3	3	3	3
20	3	3	3	3	3	3	3	4
22	4	4	4	4	4	4	4	5

Figure A-508. Boeing 107-II

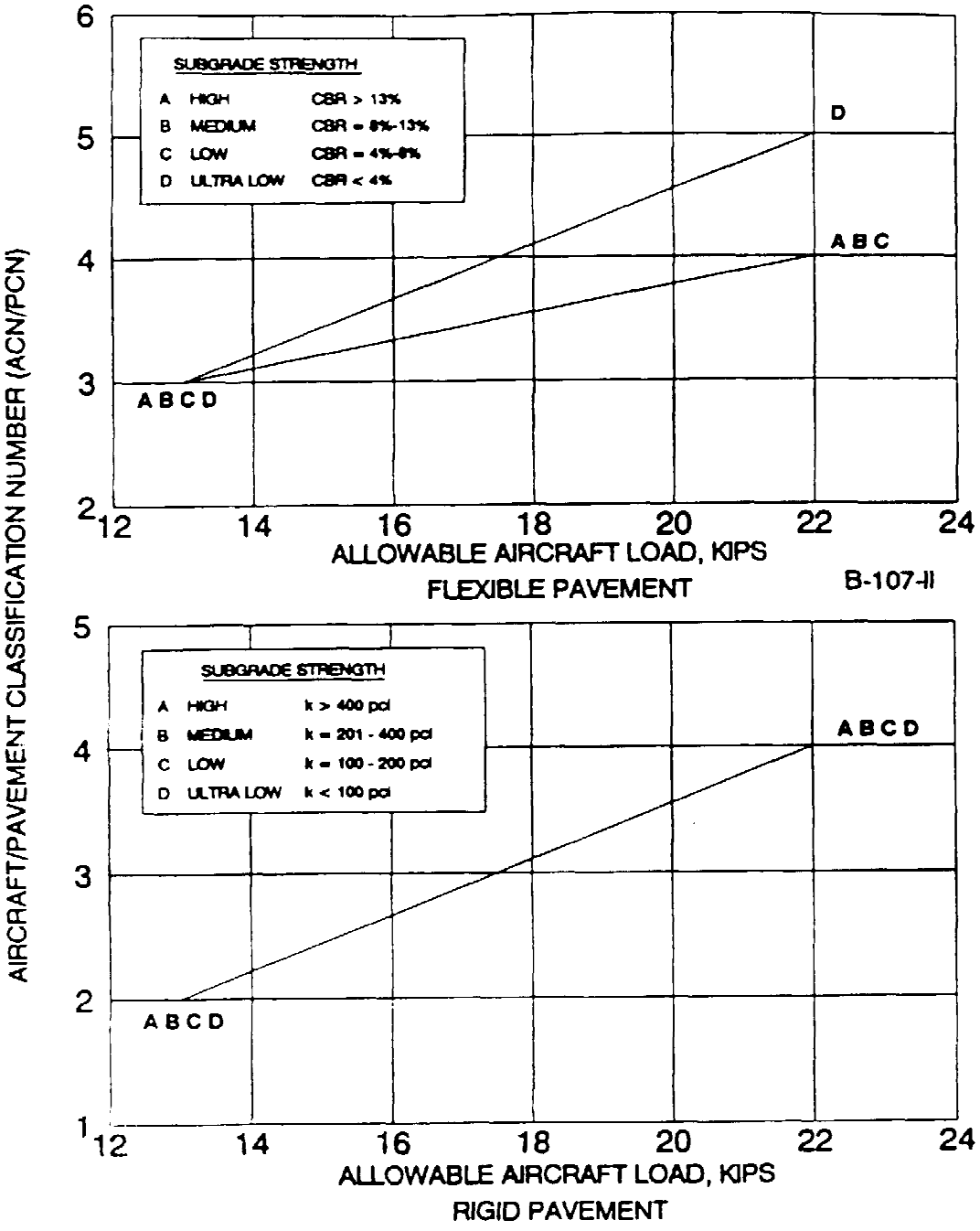


Figure A-509. Boeing 107-II, ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Lycoming (T55-L-7C)

No. of Engines 2 Engine Rating 2850 SHP

Minimum Take-Off Weight 21.0 k-lb

Maximum Take-Off Weight Peace-Time 33.0 k-lb

Maximum Take-Off Weight War-Time 40.0 k-lb

Maximum Landing Weight 40.0 k-lb

Hover Ceiling (In Ground Effect) 14,200 ft (At 33.0 k-lb)

Hover Ceiling (Out of Ground Effect) 10,650 ft (At 33.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
21	3	3	4	4	1	2	3	4
33	6	6	7	7	4	5	6	7
40	8	8	9	9	6	7	8	9

Figure A-510. Boeing 114 (CH-47B), Chinook

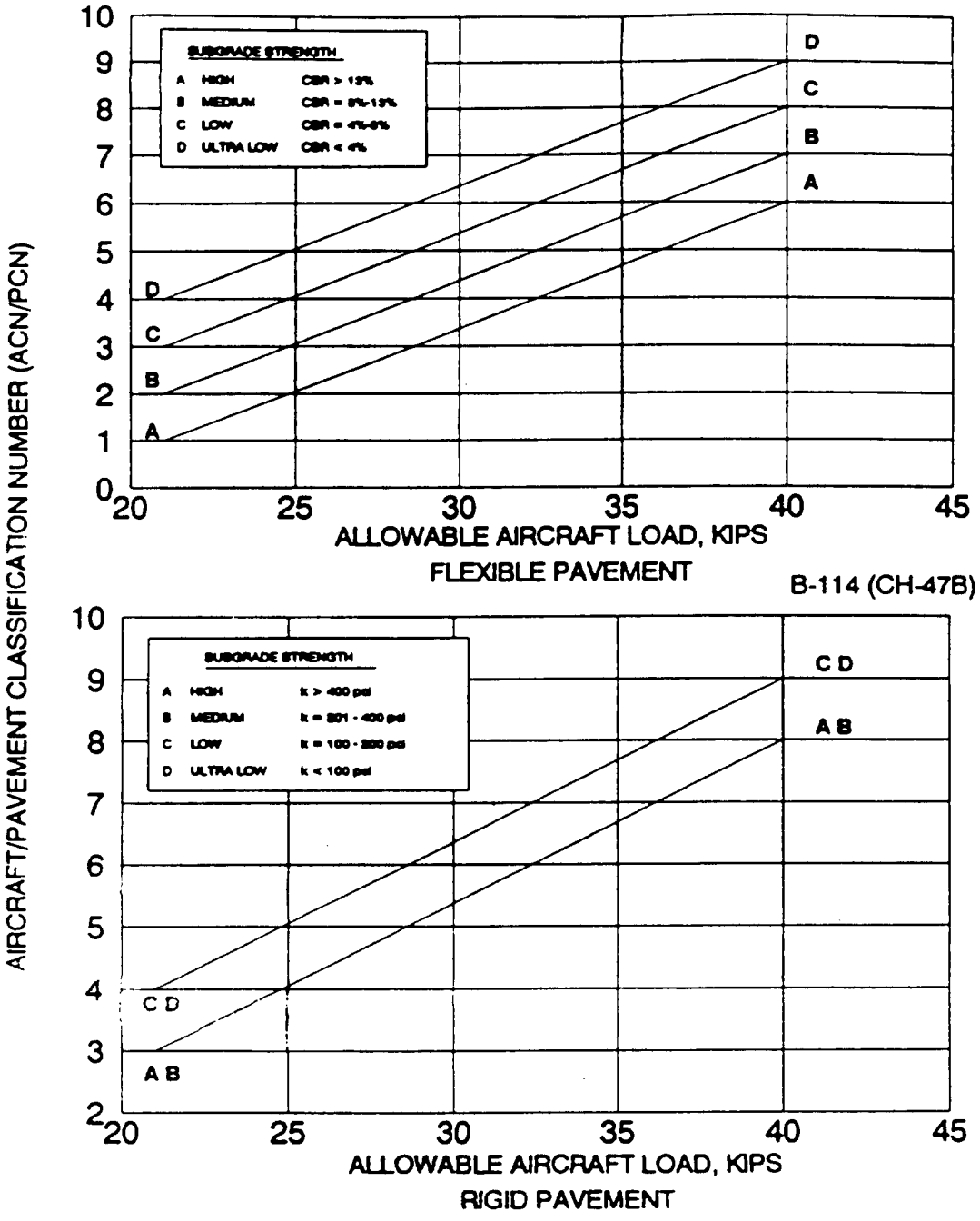


Figure A-511. Boeing 114 (CH-47B), ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Lycoming (T55-L-11A)

No. of Engines 2 Engine Rating 3750 SHP

Minimum Take-Off Weight 22.0 k-lb

Maximum Take-Off Weight Peace-Time 33.0 k-lb

Maximum Take-Off Weight War-Time 46.0 k-lb

Maximum Landing Weight 46.0 k-lb

Hover Ceiling (In Ground Effect) 14,200 ft (At 33.0 k-lb)

Hover Ceiling (Out of Ground Effect) 10,650 ft (At 33.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
22	3	3	4	4	1	2	3	4
33	6	6	7	7	4	5	6	7
46	9	10	10	11	7	8	9	11

Figure A-512. Boeing 114 (CH-47C), Chinook

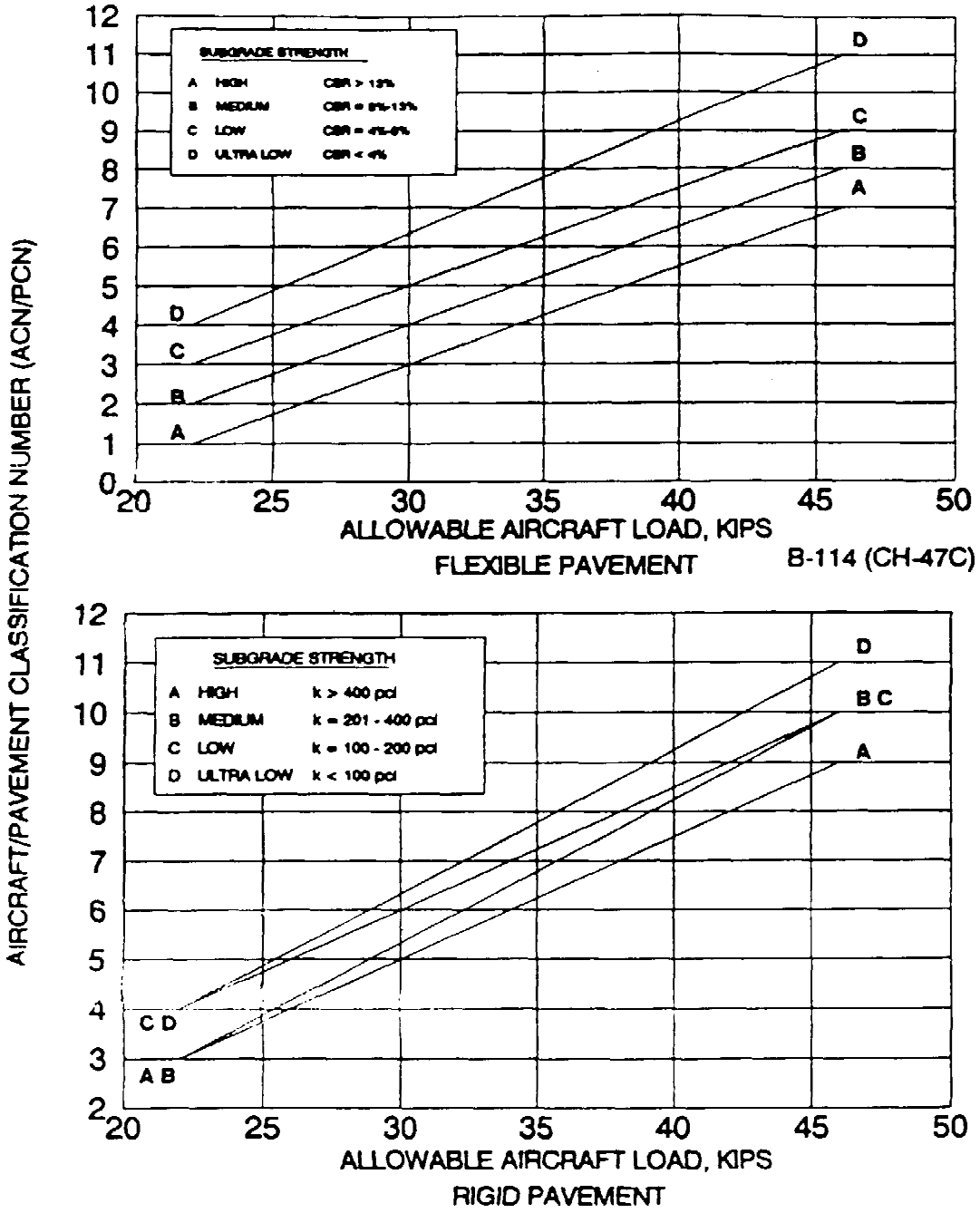


Figure A-513. Boeing 114 (CH-47C), ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T55-L-712)

No. of Engines 2 Engine Rating 3750 SHP

Minimum Take-Off Weight 32.0 k-lb

Maximum Take-Off Weight Peace-Time 50.0 k-lb

Maximum Take-Off Weight War-Time 50.0 k-lb

Maximum Landing Weight 50.0 k-lb

Hover Ceiling (In Ground Effect) 8,200 ft

Hover Ceiling (Out of Ground Effect) 4,950 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
32	6	6	7	7	4	5	6	7
50	10	11	11	12	8	9	10	12

Figure A-514. Boeing 114 (CH-47D), Chinook

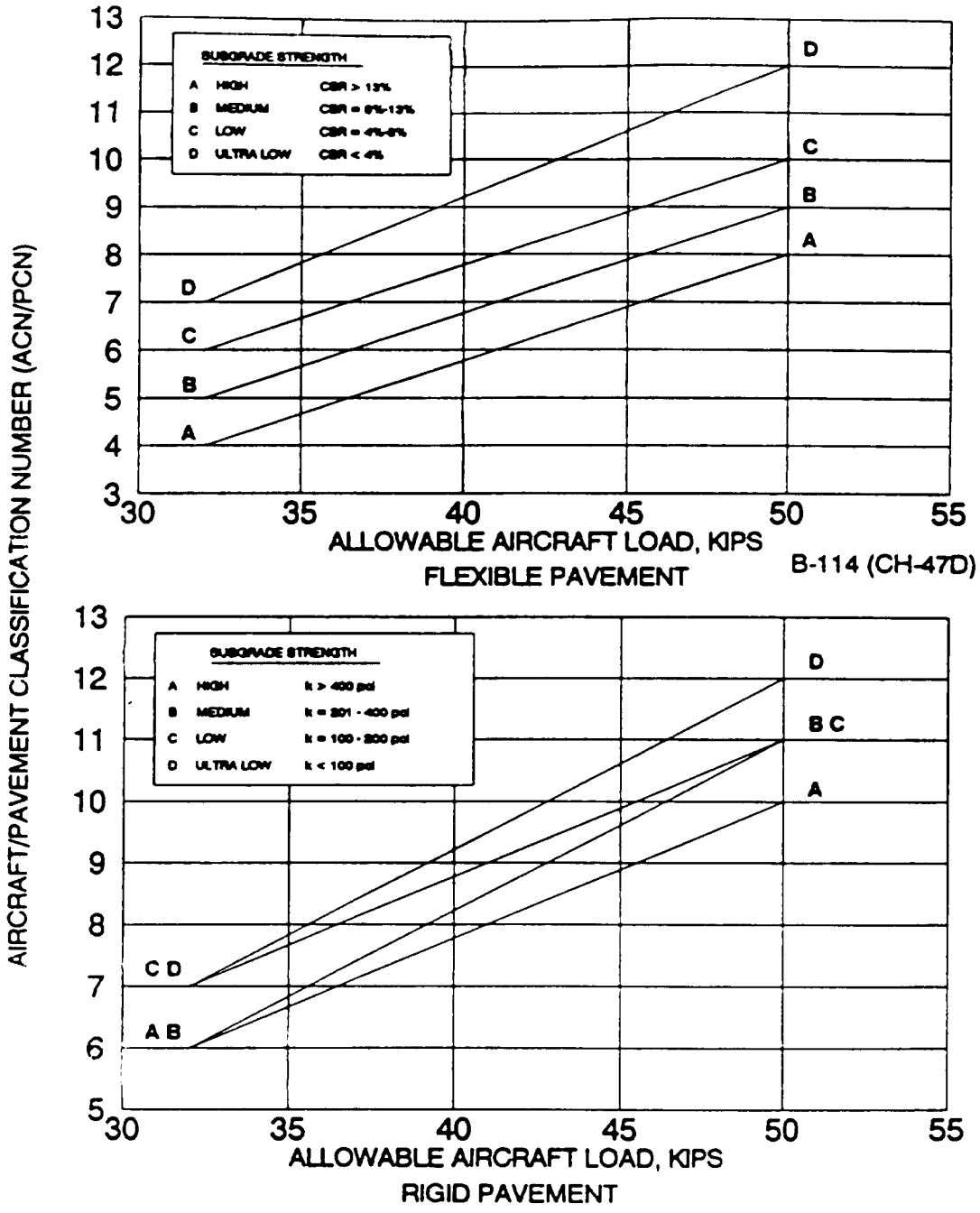


Figure A-515. Boeing 114 (CH-47D), ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Avco Lycoming (AL 5512)

No. of Engines 2 Engine Rating 4075 SHP

Minimum Take-Off Weight 31.2 k-lb

Maximum Take-Off Weight Peace-Time 48.5 k-lb

Maximum Take-Off Weight War-Time 51.0 k-lb
(With external load)

Maximum Landing Weight 48.5 k-lb

Hover Ceiling (In Ground Effect) 8,500 ft
(At 48.5 k-lb)

Hover Ceiling (Out of Ground Effect) 2,700 ft
(At 48.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
31	6	6	7	7	4	5	6	7
49	10	11	11	12	8	9	10	12
51	10	11	11	12	8	9	10	12

Figure A-516. Boeing 234 LR

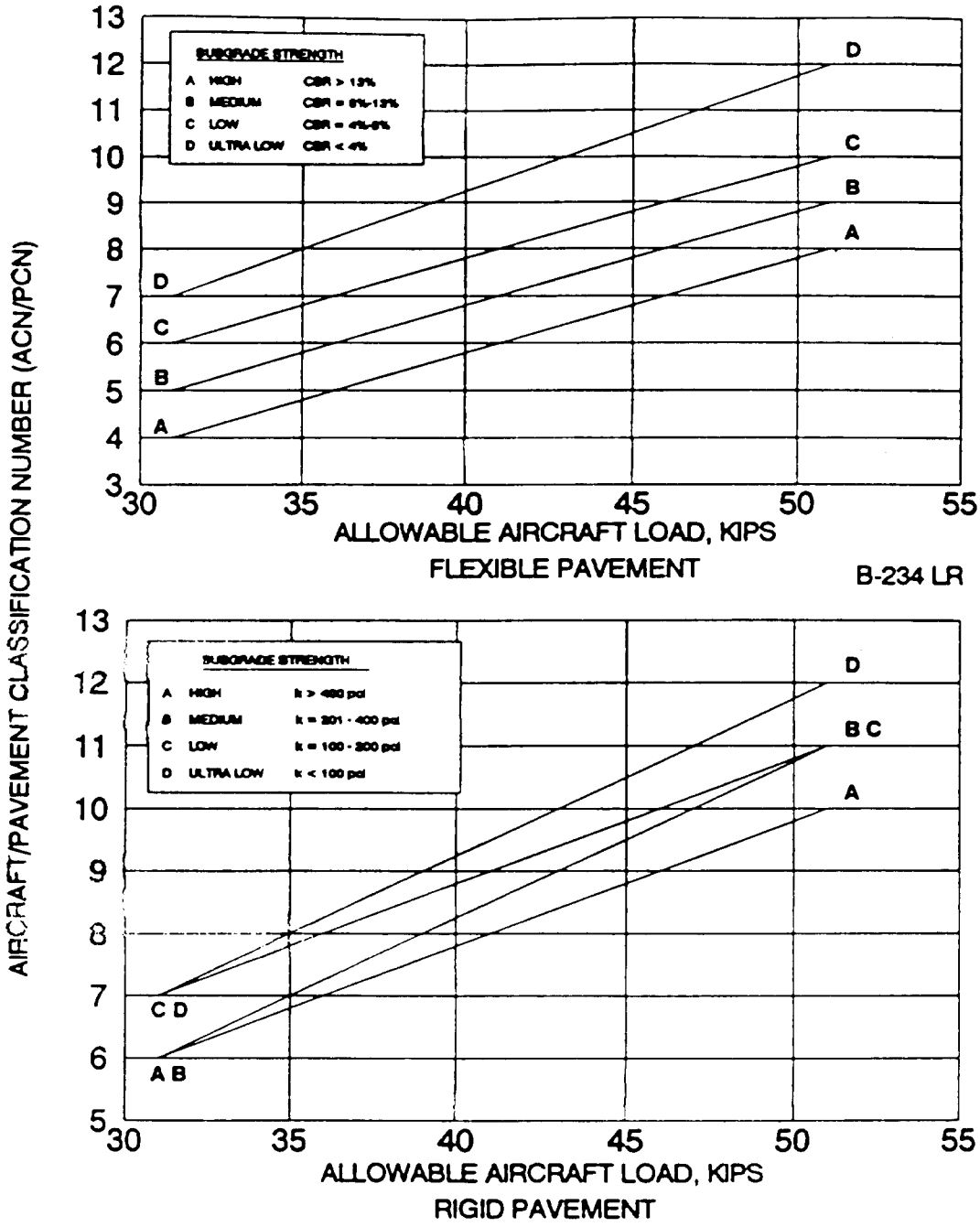


Figure A-517. Boeing 234 LR, ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Avco Lycoming (AL 5512)

No. of Engines 2 Engine Rating 4075 SHP

Minimum Take-Off Weight 33.2 k-lb

Maximum Take-Off Weight Peace-Time 48.5 k-lb

Maximum Take-Off Weight War-Time 51.0 k-lb
(With external load)

Maximum Landing Weight 48.5 k-lb

Hover Ceiling (In Ground Effect) 8,500 ft
(At 48.5 k-lb)

Hover Ceiling (Out of Ground Effect) 2,700 ft
(At 48.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
33	6	6	7	7	4	5	6	7
49	10	11	11	12	8	9	10	12
51	10	11	11	12	8	9	10	12

Figure A-518. Boeing 234 ER

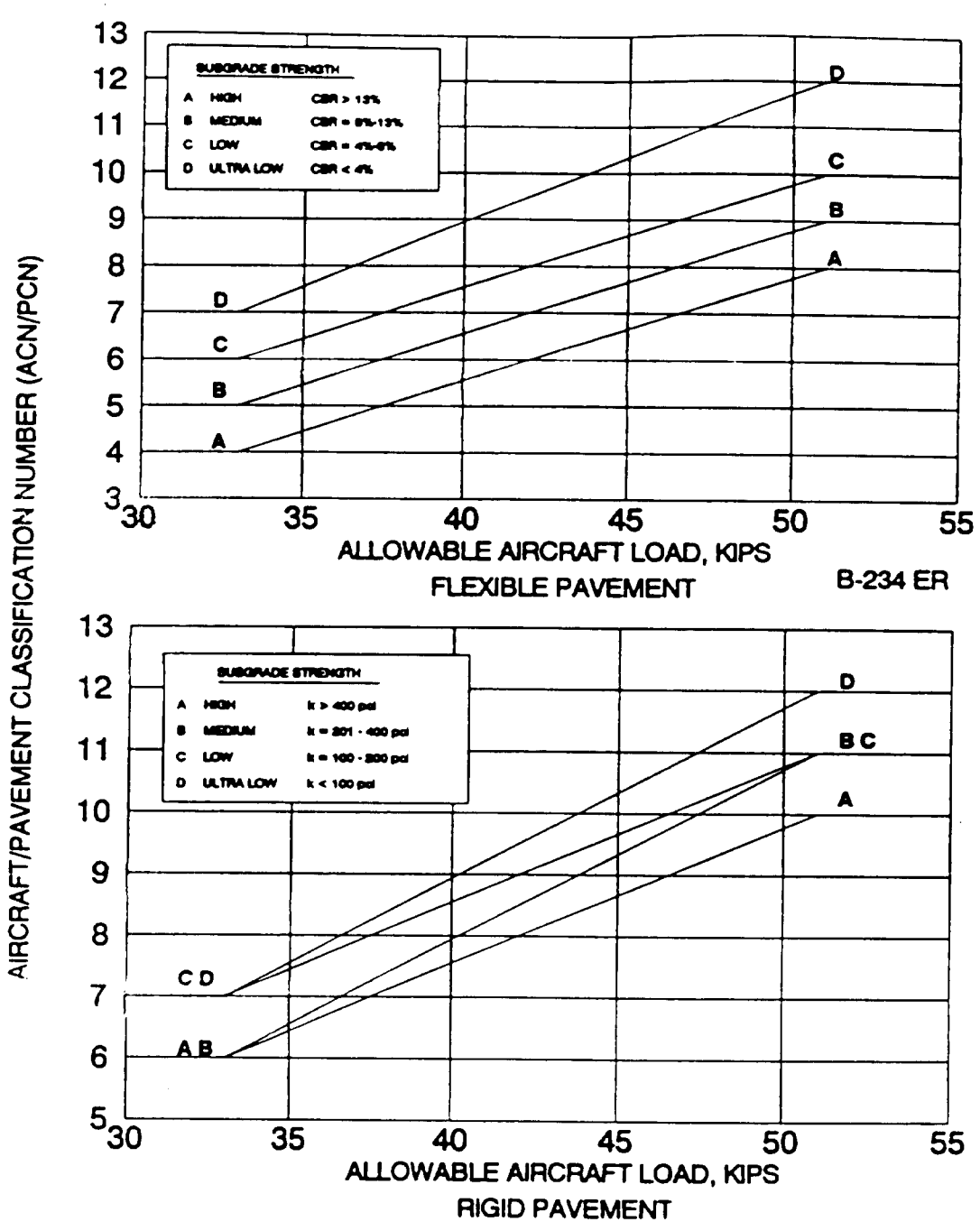


Figure A-519. Boeing 234 ER, ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Avco Lycoming (AL 5512)

No. of Engines 2 Engine Rating 4075 SHP

Minimum Take-Off Weight 29.1 k-lb

Maximum Take-Off Weight Peace-Time 48.5 k-lb

Maximum Take-Off Weight War-Time 51.0 k-lb
(With external load)

Maximum Landing Weight 48.5 k-lb

Hover Ceiling (In Ground Effect) 8,500 ft
(At 48.5 k-lb)

Hover Ceiling (Out of Ground Effect) 2,700 ft
(At 48.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
29	5	5	6	6	3	4	5	6
49	10	11	11	12	8	9	10	12
51	10	11	11	12	8	9	10	12

Figure A-520. Boeing 234 MLR

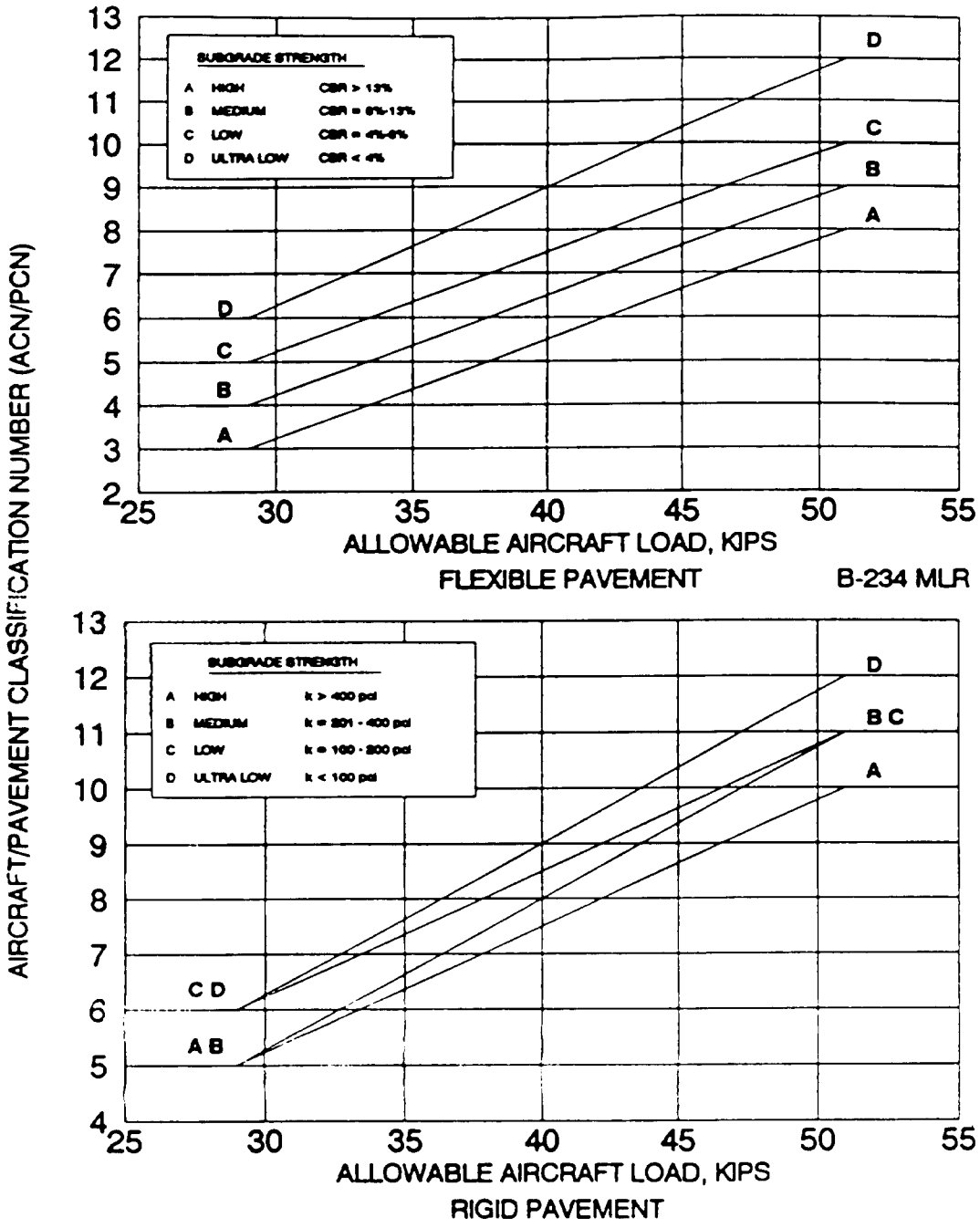


Figure A-521. Boeing 234 MLR, ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Avco Lycoming (AL 5512)

No. of Engines 2 Engine Rating 4075 SHP

Minimum Take-Off Weight 24.2 k-lb

Maximum Take-Off Weight Peace-Time 42.0 k-lb

Maximum Take-Off Weight War-Time 51.0 k-lb (With external load)

Maximum Landing Weight 42.0 k-lb

Hover Ceiling (In Ground Effect) 13,400 ft (At 42.0 k-lb)

Hover Ceiling (Out of Ground Effect) 11,500 ft (At 42.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
24	4	4	5	5	2	3	4	5
42	8	9	9	10	6	7	8	10
51	10	11	11	12	8	9	10	12

Figure A-522. Boeing 234 UT

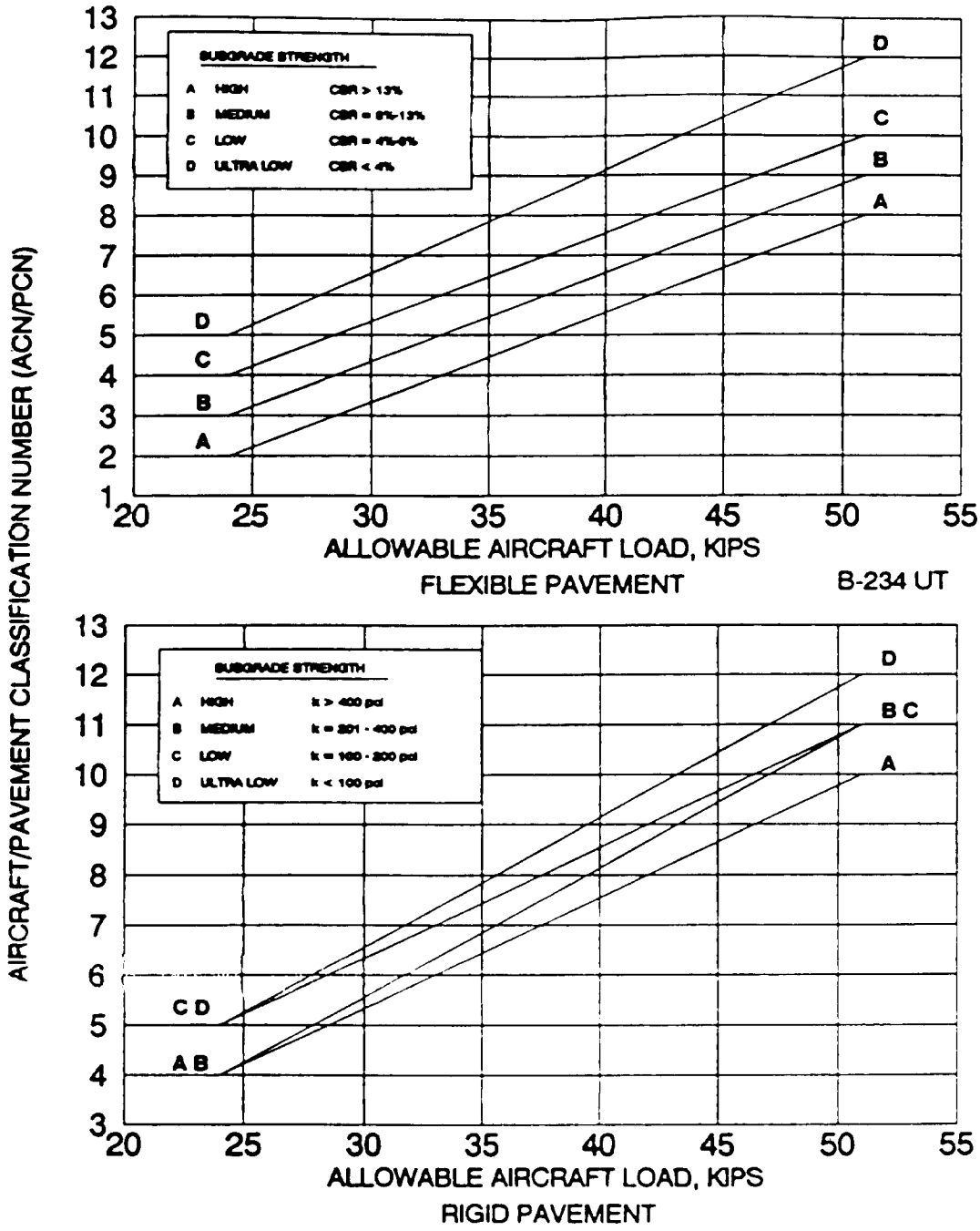


Figure A-523. Boeing 234 UT, ACN/PCN Curves

Aircraft Manufacturer Boeing Helicopter

Aircraft Engine Manufacturer Lycoming/Textron

No. of Engines 2 Engine Rating 4230 SHP

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 30.5 k-lb

Maximum Take-Off Weight War-Time †

Maximum Landing Weight †

Hover Ceiling (In Ground Effect) †

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-524. Boeing 360

Aircraft Manufacturer E. H. Industries

Aircraft Engine Manufacturer General Electric (CT7-6)

No. of Engines 3 Engine Rating 1920 SHP

Minimum Take-Off Weight 22.4 k-lb

Maximum Take-Off Weight Peace-Time 31.5 k-lb

Maximum Take-Off Weight War-Time 31.5 k-lb

Maximum Landing Weight 31.5 k-lb

Hover Ceiling (In Ground Effect) 8,300 ft

Hover Ceiling (Out of Ground Effect) 3,600 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-525. E.H. Industries EH 101

Aircraft Manufacturer Enstrom Helicopter Corp.

Aircraft Engine Manufacturer Avco Lycoming (HIO-360-F1AD)

No. of Engines 1 Engine Rating 205 HP

Minimum Take-Off Weight 1.97 k-lb

Maximum Take-Off Weight Peace-Time 2.35 k-lb

Maximum Take-Off Weight War-Time 2.35 k-lb

Maximum Landing Weight 2.35 k-lb

Hover Ceiling (In Ground Effect) 8,800 ft

Hover Ceiling (Out of Ground Effect) 4,100 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-526. Enstrom F28C-2, Shark

Aircraft Manufacturer Enstrom Helicopter Corp.

Aircraft Engine Manufacturer Avco Lycoming (HIO-360-F1AD)

No. of Engines 1 Engine Rating 225 HP

Minimum Take-Off Weight 1.97 k-lb

Maximum Take-Off Weight Peace-Time 2.6 k-lb

Maximum Take-Off Weight War-Time 2.6 k-lb

Maximum Landing Weight 2.6 k-lb

Hover Ceiling (In Ground Effect) 6,800 ft

Hover Ceiling (Out of Ground Effect) 0 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-527. Enstrom F28F, Falcon

Aircraft Manufacturer Enstrom Helicopter Corp.

Aircraft Engine Manufacturer Avco Lycoming (HIO-360-F1AD)

No. of Engines 1 Engine Rating 205 HP

Minimum Take-Off Weight 1.97 k-lb

Maximum Take-Off Weight Peace-Time 2.35 k-lb

Maximum Take-Off Weight War-Time 2.35 k-lb

Maximum Landing Weight 2.35 k-lb

Hover Ceiling (In Ground Effect) 8,800 ft

Hover Ceiling (Out of Ground Effect) 4,100 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-528. Enstrom 280C, Shark

Aircraft Manufacturer Enstrom Helicopter Corp.

Aircraft Engine Manufacturer Avco Lycoming (HIO-360-F1AD)

No. of Engines 1 Engine Rating 225 HP

Minimum Take-Off Weight 1.97 k-lb

Maximum Take-Off Weight Peace-Time 2.6 k-lb

Maximum Take-Off Weight War-Time 2.6 k-lb

Maximum Landing Weight 2.6 k-lb

Hover Ceiling (In Ground Effect) 6,800 ft

Hover Ceiling (Out of Ground Effect) 0 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-529. Enstrom 280F, Shark

Aircraft Manufacturer Enstrom Helicopter Corp.

Aircraft Engine Manufacturer Avco Lycoming (HIO-360-F1AD)

No. of Engines 1 Engine Rating 225 HP

Minimum Take-Off Weight 1.97 k-lb

Maximum Take-Off Weight Peace-Time 2.6 k-lb

Maximum Take-Off Weight War-Time 2.6 k-lb

Maximum Landing Weight 2.6 k-lb

Hover Ceiling (In Ground Effect) 7,800 ft

Hover Ceiling (Out of Ground Effect) 0 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-530. Enstrom 280FX, Shark

Aircraft Manufacturer Hynes Helicopter

Aircraft Engine Manufacturer Avco Lycoming (IVO-360-A1A)

No. of Engines 1 Engine Rating 180 HP

Minimum Take-Off Weight 1.25 k-lb

Maximum Take-Off Weight Peace-Time 1.67 k-lb

Maximum Take-Off Weight War-Time 1.67 k-lb

Maximum Landing Weight 1.67 k-lb

Hover Ceiling (In Ground Effect) 6,700 ft

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-531. Hynes H-2/with skid landing gear

Aircraft Manufacturer Hynes Helicopter

Aircraft Engine Manufacturer Avco Lycoming (IVO-360-A1A)

No. of Engines 1 Engine Rating 180 HP

Minimum Take-Off Weight 1.25 k-lb

Maximum Take-Off Weight Peace-Time 1.67 k-lb

Maximum Take-Off Weight War-Time 1.67 k-lb

Maximum Landing Weight 1.67 k-lb

Hover Ceiling (In Ground Effect) 6,700 ft

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
1,670 lb/30 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-532. Hynes H-2/with wheel landing gear

Aircraft Manufacturer Hynes Helicopter

Aircraft Engine Manufacturer Avco Lycoming (IVO-540-B1A)

No. of Engines 1 Engine Rating 305 HP

Minimum Take-Off Weight 2.05 k-lb

Maximum Take-Off Weight Peace-Time 2.9 k-lb

Maximum Take-Off Weight War-Time 2.9 k-lb

Maximum Landing Weight 2.9 k-lb

Hover Ceiling (In Ground Effect) 4,080 ft

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-533. Hynes H-5/with skid landing gear

Aircraft Manufacturer Hynes Helicopter

Aircraft Engine Manufacturer Avco Lycoming (IVO-540-B1A)

No. of Engines 1 Engine Rating 305 HP

Minimum Take-Off Weight 2.05 k-lb

Maximum Take-Off Weight Peace-Time 2.9 k-lb

Maximum Take-Off Weight War-Time 2.9 k-lb

Maximum Landing Weight 2.9 k-lb

Hover Ceiling (In Ground Effect) 4,080 ft

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
2,900 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-534. Hynes H-5/with wheel landing gear

Aircraft Manufacturer Messerschmitt-Bolkow-Blohm

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 2 Engine Rating 420 SHP

Minimum Take-Off Weight 3.26 k-lb

Maximum Take-Off Weight Peace-Time 5.29 k-lb

Maximum Take-Off Weight War-Time 5.51 k-lb

Maximum Landing Weight 5.51 k-lb

Hover Ceiling (In Ground Effect) 8,400 ft (At 5.29 k-lb)

Hover Ceiling (Out of Ground Effect) 5,200 ft (At 5.29 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-535. MBB BO 105 CB

Aircraft Manufacturer Messerschmitt-Bolkow-Blohm

Aircraft Engine Manufacturer Allison (250-C28C)

No. of Engines 2 Engine Rating 550 SHP

Minimum Take-Off Weight 3.43 k-lb

Maximum Take-Off Weight Peace-Time 5.73 k-lb

Maximum Take-Off Weight War-Time 5.73 k-lb

Maximum Landing Weight 5.73 k-lb

Hover Ceiling (In Ground Effect) 11,500 ft

Hover Ceiling (Out of Ground Effect) 8,370 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-536. MBB BO 105 CBS

Aircraft Manufacturer Messerschmitt-Bolkow-Blohm/Kawasaki

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-650B-1)

No. of Engines 2 Engine Rating 592 SHP

Minimum Take-Off Weight 3.74 k-lb

Maximum Take-Off Weight Peace-Time 7.06 k-lb

Maximum Take-Off Weight War-Time 7.06 k-lb

Maximum Landing Weight 7.06 k-lb

Hover Ceiling (In Ground Effect) 5,000 ft

Hover Ceiling (Out of Ground Effect) 0 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-537. HEB BO 105 LS

Aircraft Manufacturer Messerschmitt-Bolkow-Blohm/Kawasaki

Aircraft Engine Manufacturer Avco Lycoming (LTS 101-650B-1)

No. of Engines 2 Engine Rating 592 SHP

Minimum Take-Off Weight 3.74 k-lb

Maximum Take-Off Weight Peace-Time 7.06 k-lb

Maximum Take-Off Weight War-Time 7.06 k-lb

Maximum Landing Weight 7.06 k-lb

Hover Ceiling (In Ground Effect) 5,000 ft

Hover Ceiling (Out of Ground Effect) 0 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-538. MBB/Kawasaki BK 117

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer General Electric (T700-GE-701)

No. of Engines 2 Engine Rating 1694 SHP

Minimum Take-Off Weight 11.8 k-lb

Maximum Take-Off Weight Peace-Time 14.4 k-lb

Maximum Take-Off Weight War-Time 21.0 k-lb

Maximum Landing Weight 21.0 k-lb

Hover Ceiling (In Ground Effect) 15,000 ft (At 14.4 k-lb)

Hover Ceiling (Out of Ground Effect) 11,500 ft (At 14.4 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
12	4	4	4	4	3	4	4	4
14	4	4	4	4	3	4	4	4
21	6	6	6	6	6	6	7	7

Figure A-539. McDonnell Douglas 77 (AH-64A), Apache

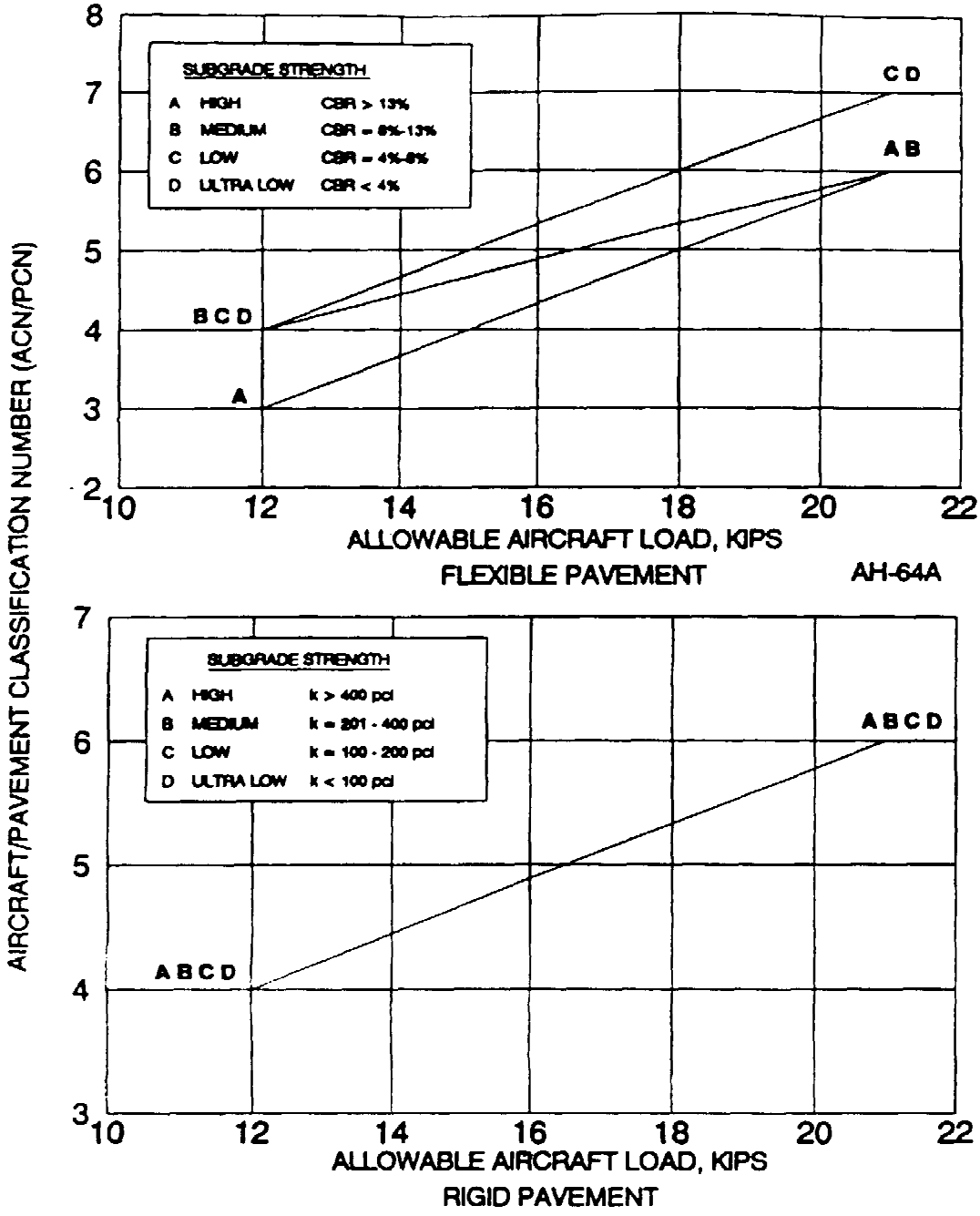


Figure A-540. McDonnell Douglas 77 (AH-64A), ACN/PCN Curves

Aircraft Manufacturer McDonnell Douglas (formerly manufactured by Hughes Aircraft)

Aircraft Engine Manufacturer Allison (T63-A-5A)

No. of Engines 1 Engine Rating 317 SHP

Minimum Take-Off Weight 1.69 k-lb

Maximum Take-Off Weight Peace-Time 2.4 k-lb

Maximum Take-Off Weight War-Time 2.7 k-lb

Maximum Landing Weight 2.4 k-lb

Hover Ceiling (In Ground Effect) 11,800 ft (At 2.4 k-lb)

Hover Ceiling (Out of Ground Effect) 7,300 ft (At 2.4 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-541. McDonnell Douglas 500 (OH-6A), Cayuse

Aircraft Manufacturer McDonnell Douglas (formerly manufactured by Hughes Aircraft)

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 1.61 k-lb

Maximum Take-Off Weight Peace-Time 3.0 k-lb

Maximum Take-Off Weight War-Time 3.0 k-lb

Maximum Landing Weight 3.0 k-lb

Hover Ceiling (In Ground Effect) 9,000 ft

Hover Ceiling (Out of Ground Effect) 7,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-542. McDonnell Douglas 500D

Aircraft Manufacturer McDonnell Douglas

Aircraft Engine Manufacturer Allison (250-C30)

No. of Engines 1 Engine Rating 650 SHP

Minimum Take-Off Weight 1.85 k-lb

Maximum Take-Off Weight Peace-Time 3.1 k-lb

Maximum Take-Off Weight War-Time 3.75 k-lb
(With external load)

Maximum Landing Weight 3.1 k-lb

Hover Ceiling (In Ground Effect) 14,200 ft
(At 3.1 k-lb)

Hover Ceiling (Out of Ground Effect) 12,000 ft
(At 3.1 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-543. McDonnell Douglas 530F

Aircraft Manufacturer Robinson Helicopter Co.

Aircraft Engine Manufacturer Avco Lycoming (O-320-B2C)

No. of Engines 1 Engine Rating 160 SHP

Minimum Take-Off Weight 1.0 k-lb

Maximum Take-Off Weight Peace-Time 1.37 k-lb

Maximum Take-Off Weight War-Time 1.37 k-lb

Maximum Landing Weight 1.37 k-lb

Hover Ceiling (In Ground Effect) 7,000 ft

Hover Ceiling (Out of Ground Effect) 5,200 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-544. Robinson R22

Aircraft Manufacturer Rogerson Hiller Corp.

Aircraft Engine Manufacturer Allison (250-C18)

No. of Engines 1 Engine Rating 317 SHP

Minimum Take-Off Weight 1.9 k-lb

Maximum Take-Off Weight Peace-Time 2.75 k-lb

Maximum Take-Off Weight War-Time 2.75 k-lb

Maximum Landing Weight 2.75 k-lb

Hover Ceiling (In Ground Effect) 13,400 ft

Hover Ceiling (Out of Ground Effect) 8,400 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-545. Rogerson Hiller RH-1100

Aircraft Manufacturer Rogerson Hiller Corp.

Aircraft Engine Manufacturer Avco Lycoming (VO-540-C2A)

No. of Engines 1 Engine Rating 340 HP

Minimum Take-Off Weight 2.02 k-lb

Maximum Take-Off Weight Peace-Time 3.1 k-lb

Maximum Take-Off Weight War-Time 3.1 k-lb

Maximum Landing Weight 3.1 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft

Hover Ceiling (Out of Ground Effect) 6,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-546. Rogerson Hiller UH-12E

Aircraft Manufacturer Rogerson Hiller Corp.

Aircraft Engine Manufacturer Avco Lycoming (VO-540-C2A)

No. of Engines 1 Engine Rating 340 HP

Minimum Take-Off Weight 2.09 k-lb

Maximum Take-Off Weight Peace-Time 3.1 k-lb

Maximum Take-Off Weight War-Time 3.1 k-lb

Maximum Landing Weight 3.1 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft

Hover Ceiling (Out of Ground Effect) 6,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-547. Rogerson Hiller UH-12E4

Aircraft Manufacturer Rogerson Hiller Corp.

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 1 Engine Rating 420 HP

Minimum Take-Off Weight 1.92 k-lb

Maximum Take-Off Weight Peace-Time 3.1 k-lb

Maximum Take-Off Weight War-Time 3.1 k-lb

Maximum Landing Weight 3.1 k-lb

Hover Ceiling (In Ground Effect) 12,000 ft

Hover Ceiling (Out of Ground Effect) 7,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-548. Rogerson Hiller UH-l2ET

Aircraft Manufacturer Rogerson Hiller Corp.

Aircraft Engine Manufacturer Allison (250-C20B)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 1.92 k-lb

Maximum Take-Off Weight Peace-Time 3.1 k-lb

Maximum Take-Off Weight War-Time 3.1 k-lb

Maximum Landing Weight 3.1 k-lb

Hover Ceiling (In Ground Effect) 12,000 ft

Hover Ceiling (Out of Ground Effect) 7,000 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-549. Rogerson Hiller UH-12E4T

Aircraft Manufacturer Schweizer Aircraft (formerly manufactured by Hughes Aircraft)

Aircraft Engine Manufacturer Lycoming (HIO-360-B1A)

No. of Engines 1 Engine Rating 180 HP

Minimum Take-Off Weight 1.27 k-lb

Maximum Take-Off Weight Peace-Time 1.67 k-lb

Maximum Take-Off Weight War-Time 1.85 k-lb

Maximum Landing Weight 1.67 k-lb

Hover Ceiling (In Ground Effect) 5,500 ft (At 1.67 k-lb)

Hover Ceiling (Out of Ground Effect) 3,750 ft (At 1.67 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-550. Schweizer 269A (TH-55A), Osage

Aircraft Manufacturer Schweizer Aircraft (formerly manufactured by Hughes Aircraft)

Aircraft Engine Manufacturer Lycoming (HIO-360-D1A)

No. of Engines 1 Engine Rating 210 HP

Minimum Take-Off Weight 1.4 k-lb

Maximum Take-Off Weight Peace-Time 2.05 k-lb

Maximum Take-Off Weight War-Time 2.05 k-lb

Maximum Landing Weight 2.05 k-lb

Hover Ceiling (In Ground Effect) 5,800 ft

Hover Ceiling (Out of Ground Effect) 2,200 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-551. Schweizer 300C

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer Wright (R-1820-84B/D)

No. of Engines 1 Engine Rating 1525 HP

Minimum Take-Off Weight 8.6 k-lb

Maximum Take-Off Weight Peace-Time 13.0 k-lb

Maximum Take-Off Weight War-Time 14.0 k-lb

Maximum Landing Weight 13.0 k-lb

Hover Ceiling (In Ground Effect) 4,900 ft (At 13.0 k-lb)

Hover Ceiling (Out of Ground Effect) 2,400 ft (At 13.0 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	2	2	2	2
13	3	3	3	3	3	3	3	4
14	3	3	3	3	3	3	3	4

Figure A-552. Sikorsky S-58T

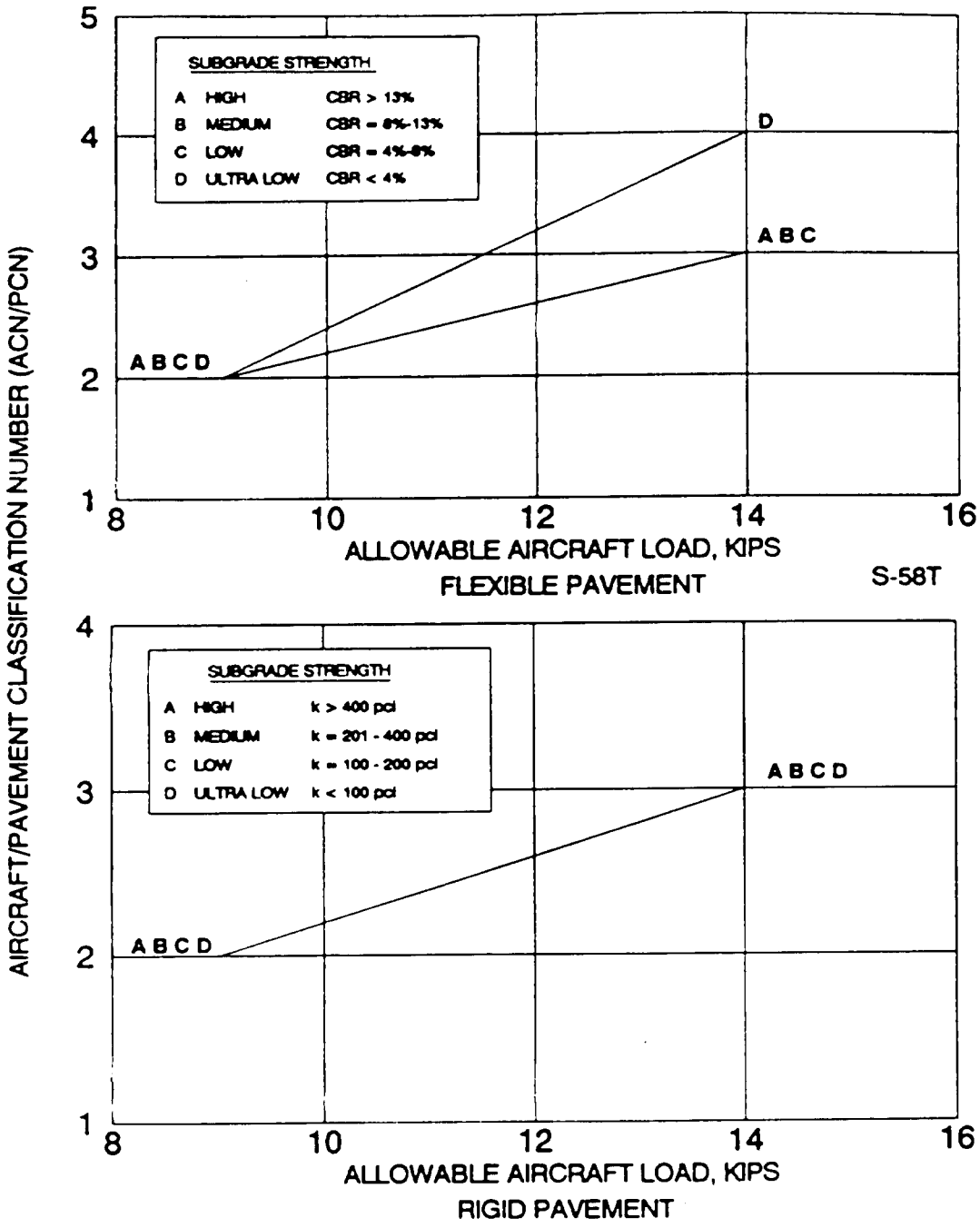


Figure A-553. Sikorsky S-58T, ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (CT58-140-1)

No. of Engines 2 Engine Rating 1500 SHP

Minimum Take-Off Weight 14.1 k-lb

Maximum Take-Off Weight Peace-Time 20.5 k-lb

Maximum Take-Off Weight War-Time 22.0 k-lb
(With external load)

Maximum Landing Weight 20.5 k-lb

Hover Ceiling (In Ground Effect) 8,700 ft
(At 20.5 k-lb)

Hover Ceiling (Out of Ground Effect) 3,800 ft
(At 20.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	3	3	3	3	2	2	2	3
21	4	4	4	4	2	3	4	5
22	5	5	5	5	2	3	4	5

Figure A-554. Sikorsky S-61N

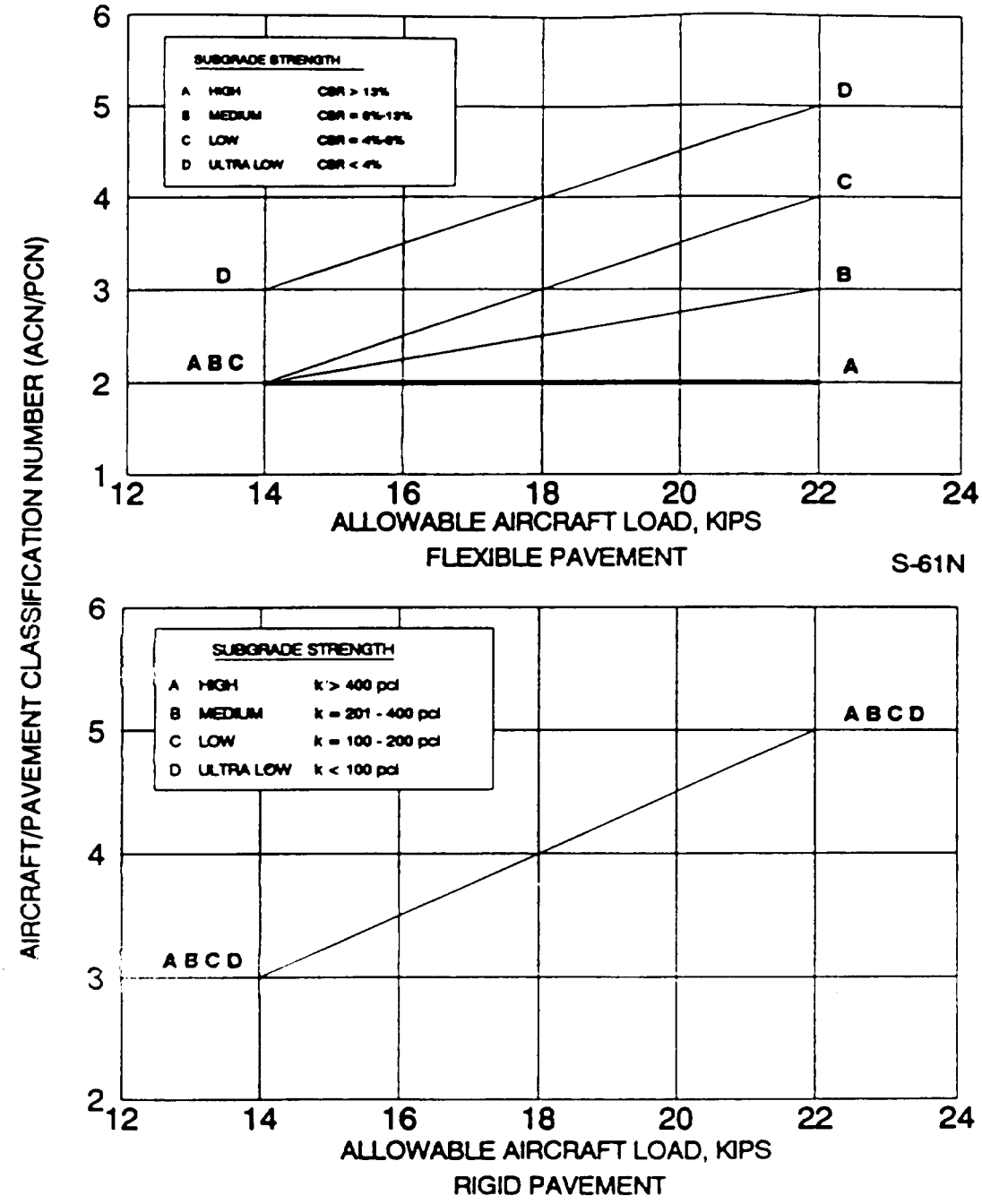


Figure A-555. Sikorsky S-61N, ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (CT58-110-1)

No. of Engines 1 Engine Rating 1250 SHP

Minimum Take-Off Weight 6.05 k-lb

Maximum Take-Off Weight Peace-Time 7.9 k-lb

Maximum Take-Off Weight War-Time 8.0 k-lb
(With sling load)

Maximum Landing Weight 7.9 k-lb

Hover Ceiling (In Ground Effect) 14,100 ft
(At 7.9 k-lb)

Hover Ceiling (Out of Ground Effect) 4,600 ft
(At 7.9 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,000 lb/70 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-556. Sikorsky S-62

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer Pratt and Whitney (T73-P-1)

No. of Engines 2 Engine Rating 4500 SHP

Minimum Take-Off Weight 22.0 k-lb

Maximum Take-Off Weight Peace-Time 42.0 k-lb

Maximum Take-Off Weight War-Time 42.0 k-lb

Maximum Landing Weight 42.0 k-lb

Hover Ceiling (In Ground Effect) 10,600 ft

Hover Ceiling (Out of Ground Effect) 6,900 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
22	6	6	6	7	4	5	6	7
42	12	12	12	12	11	12	13	14

Figure A-557. Sikorsky S-64 (CH-54A), Tarhe

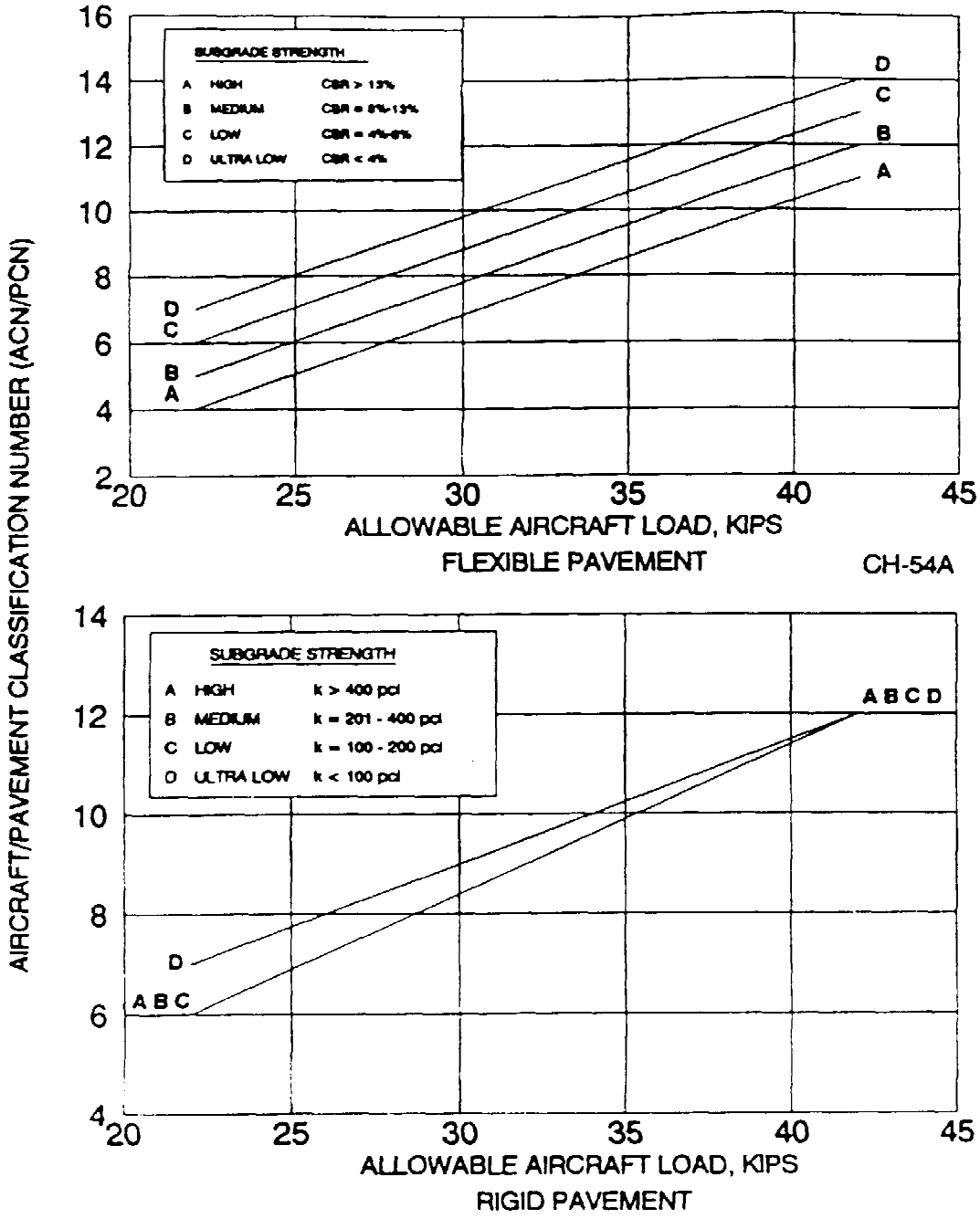


Figure A-558. Sikorsky S-64 (CH-54A), ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (T64-GE-7)

No. of Engines 2 Engine Rating 3925 SHP

Minimum Take-Off Weight 26.7 k-lb

Maximum Take-Off Weight Peace-Time 38.4 k-lb

Maximum Take-Off Weight War-Time 42.0 k-lb

Maximum Landing Weight 42.0 k-lb

Hover Ceiling (In Ground Effect) 11,700 ft (At 38.4 k-lb)

Hover Ceiling (Out of Ground Effect) 4,300 ft (At 38.4 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
27	5	5	5	6	3	4	5	6
38	7	7	8	8	5	6	7	9
42	8	8	9	9	6	7	8	10

Figure A-559. Sikorsky S-65A (CH-53C and HH-53C), Super Jolly

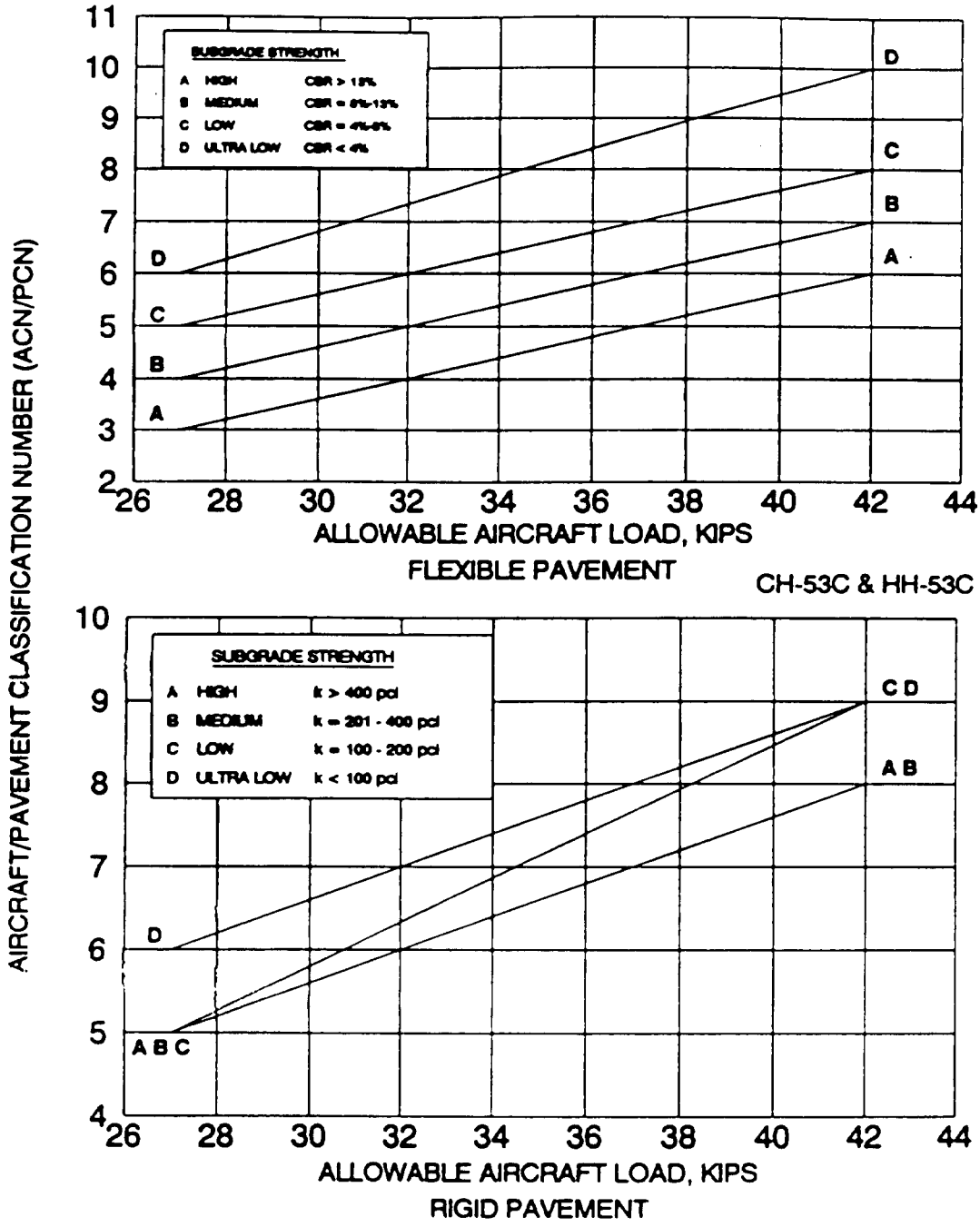


Figure A-560. Sikorsky S-65A (CH-53C and HH-53C), ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (T700-GE-700)

No. of Engines 2 Engine Rating 1560 SHP

Minimum Take-Off Weight 13.7 k-lb

Maximum Take-Off Weight Peace-Time 20.4 k-lb

Maximum Take-Off Weight War-Time 22.0 k-lb

Maximum Landing Weight 22.0 k-lb

Hover Ceiling (In Ground Effect) †

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	4	4	4	4	4	4	4	4
20	6	6	6	6	6	6	6	6
22	7	7	7	7	7	7	7	7

Figure A-561. Sikorsky S-70 (HH-60A), Night Hawk

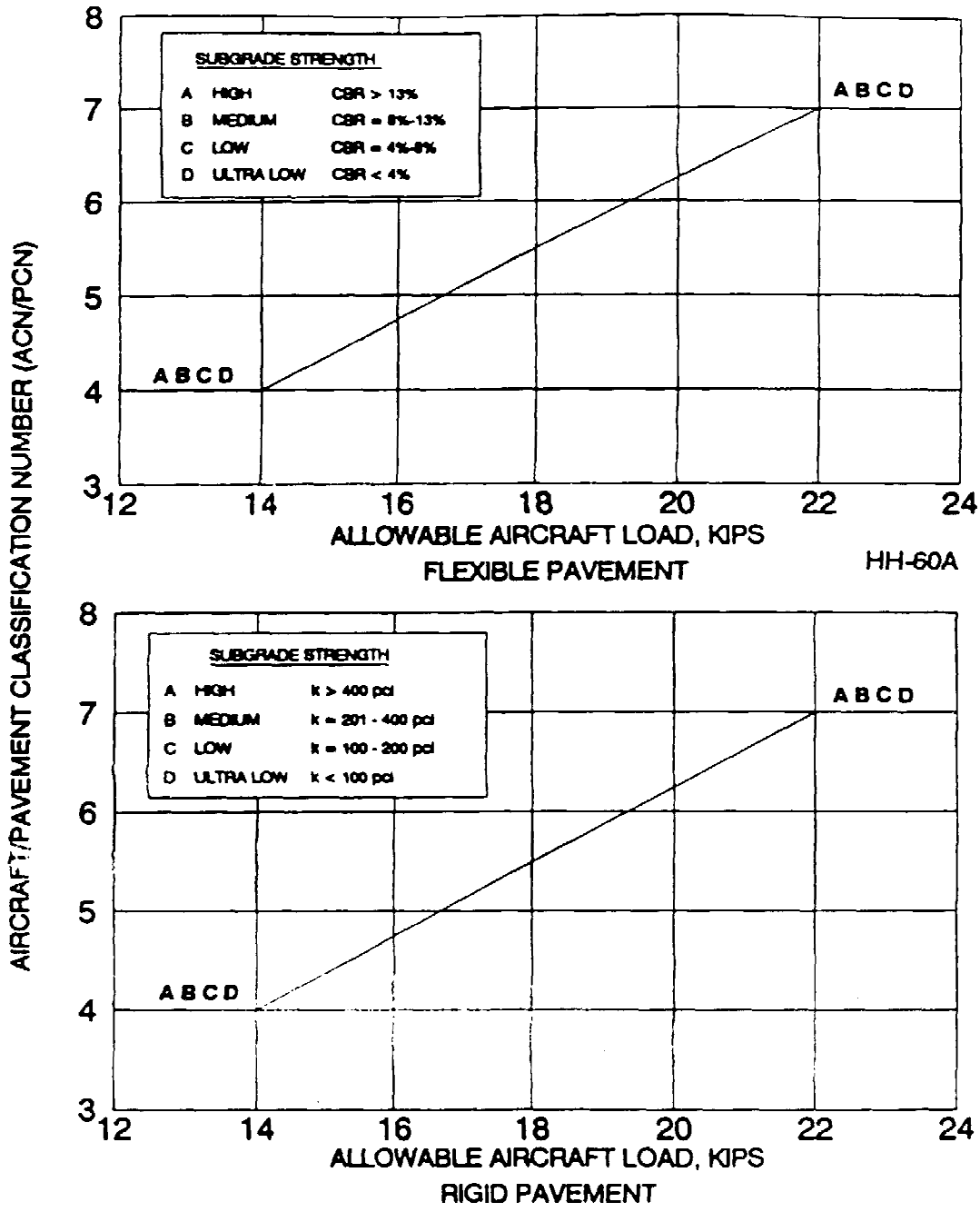


Figure A-562. Sikorsky S-70 (HH-60A), ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (T700-GE-700)

No. of Engines 2 Engine Rating 1560 SHP

Minimum Take-Off Weight 11.7 k-lb

Maximum Take-Off Weight Peace-Time 16.3 k-lb

Maximum Take-Off Weight War-Time 20.25 k-lb

Maximum Landing Weight 20.25 k-lb

Hover Ceiling (In Ground Effect) 9,500 ft (At 16.3 k-lb)

Hover Ceiling (Out of Ground Effect) 5,600 ft (At 16.3 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
12	3	3	3	3	3	3	3	3
16	5	5	5	5	5	5	5	5
20	6	6	6	6	6	6	6	6

Figure A-563. Sikorsky S-70 (UH-60A), Black Hawk

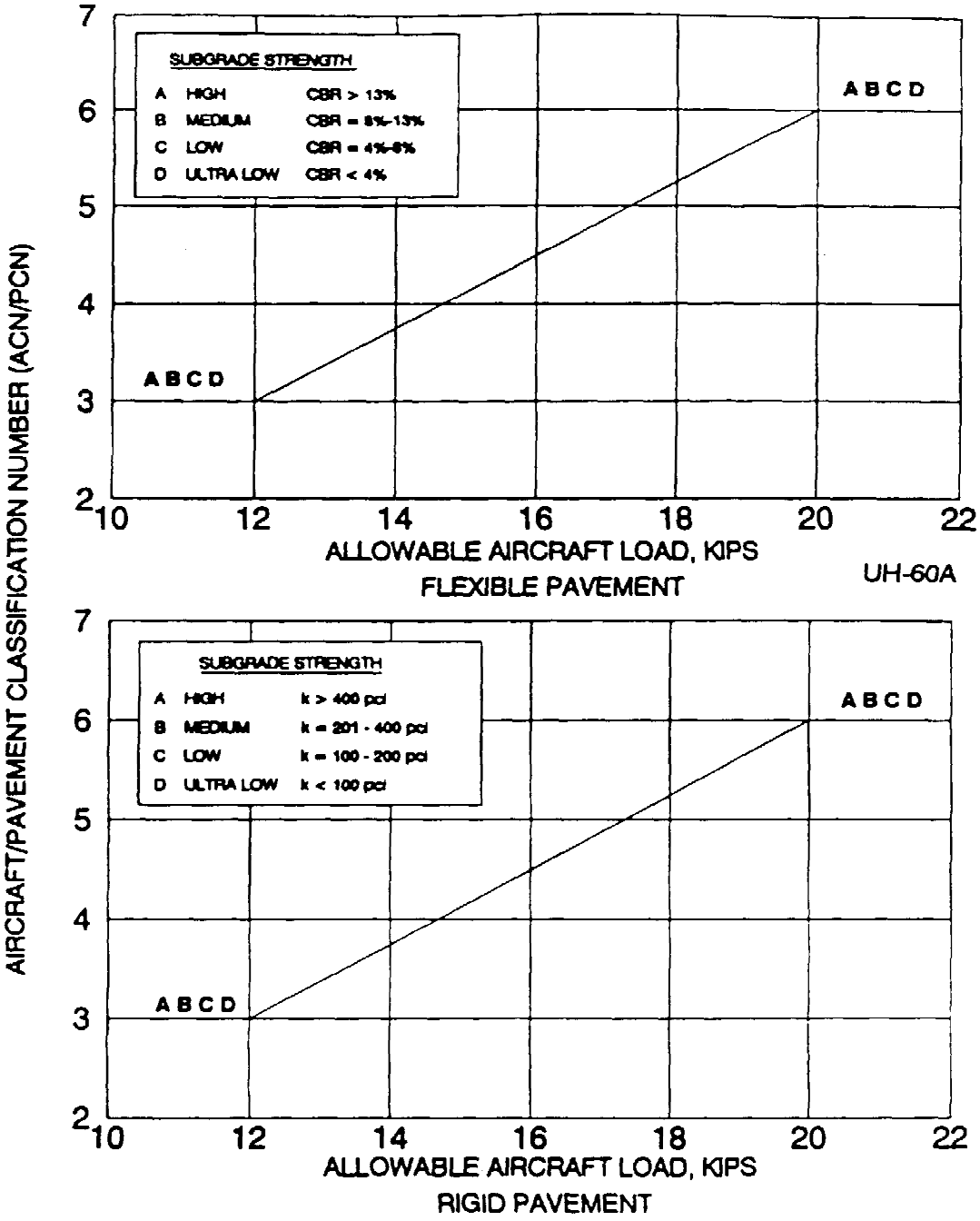


Figure A-564. Sikorsky S-70 (UH-60A), ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer General Electric (CT7-2D)

No. of Engines 2 Engine Rating 1723 SHP

Minimum Take-Off Weight 11.2 k-lb

Maximum Take-Off Weight Peace-Time 16.3 k-lb

Maximum Take-Off Weight War-Time 20.25 k-lb

Maximum Landing Weight 20.25 k-lb

Hover Ceiling (In Ground Effect) †

Hover Ceiling (Out of Ground Effect) 3,950 ft (At 20.25 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11	3	3	3	3	3	3	3	3
16	5	5	5	5	5	5	5	5
20	6	6	6	6	6	6	6	6

Figure A-565. Sikorsky S-70C

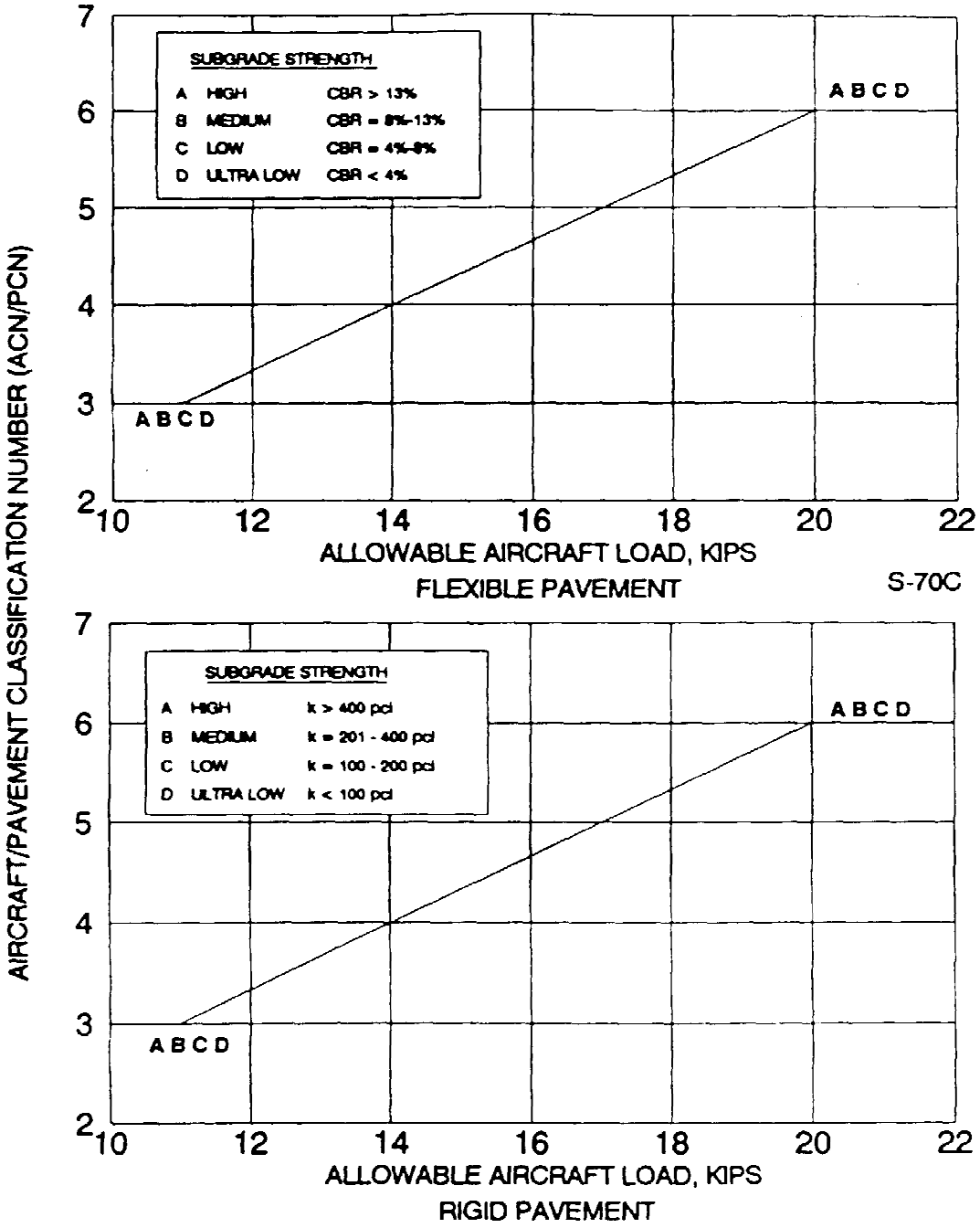


Figure A-566. Sikorsky S-70C, ACN/PCN Curves

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer Allison (250-C30S)

No. of Engines 2 **Engine Rating** 650 SHP

Minimum Take-Off Weight 6.5 k-lb

Maximum Take-Off Weight Peace-Time 10.3 k-lb

Maximum Take-Off Weight War-Time 10.3 k-lb

Maximum Landing Weight 10.3 k-lb

Hover Ceiling (In Ground Effect) 6,200 ft

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,300 lb/165 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-567. Sikorsky S-76A

Aircraft Manufacturer Sikorsky Aircraft

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6B-36)

No. of Engines 2 Engine Rating 960 SHP

Minimum Take-Off Weight 7.4 k-lb

Maximum Take-Off Weight Peace-Time 11.4 k-lb

Maximum Take-Off Weight War-Time 11.4 k-lb

Maximum Landing Weight 11.4 k-lb

Hover Ceiling (In Ground Effect) 8,300 ft

Hover Ceiling (Out of Ground Effect) 5,400 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,400 lb/165 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-568. Sikorsky S-76B

Aircraft Manufacturer Westland PLC

Aircraft Engine Manufacturer Rolls-Royce (Gem 60-3)

No. of Engines 2 Engine Rating 1260 SHP

Minimum Take-Off Weight 9.3 k-lb

Maximum Take-Off Weight Peace-Time 12.8 k-lb

Maximum Take-Off Weight War-Time 12.8 k-lb

Maximum Landing Weight 12.8 k-lb

Hover Ceiling (In Ground Effect) 5,800 ft

Hover Ceiling (Out of Ground Effect) 2,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
13	3	3	3	4	4	4	4	4

Figure A-569. Westland 30-100-60

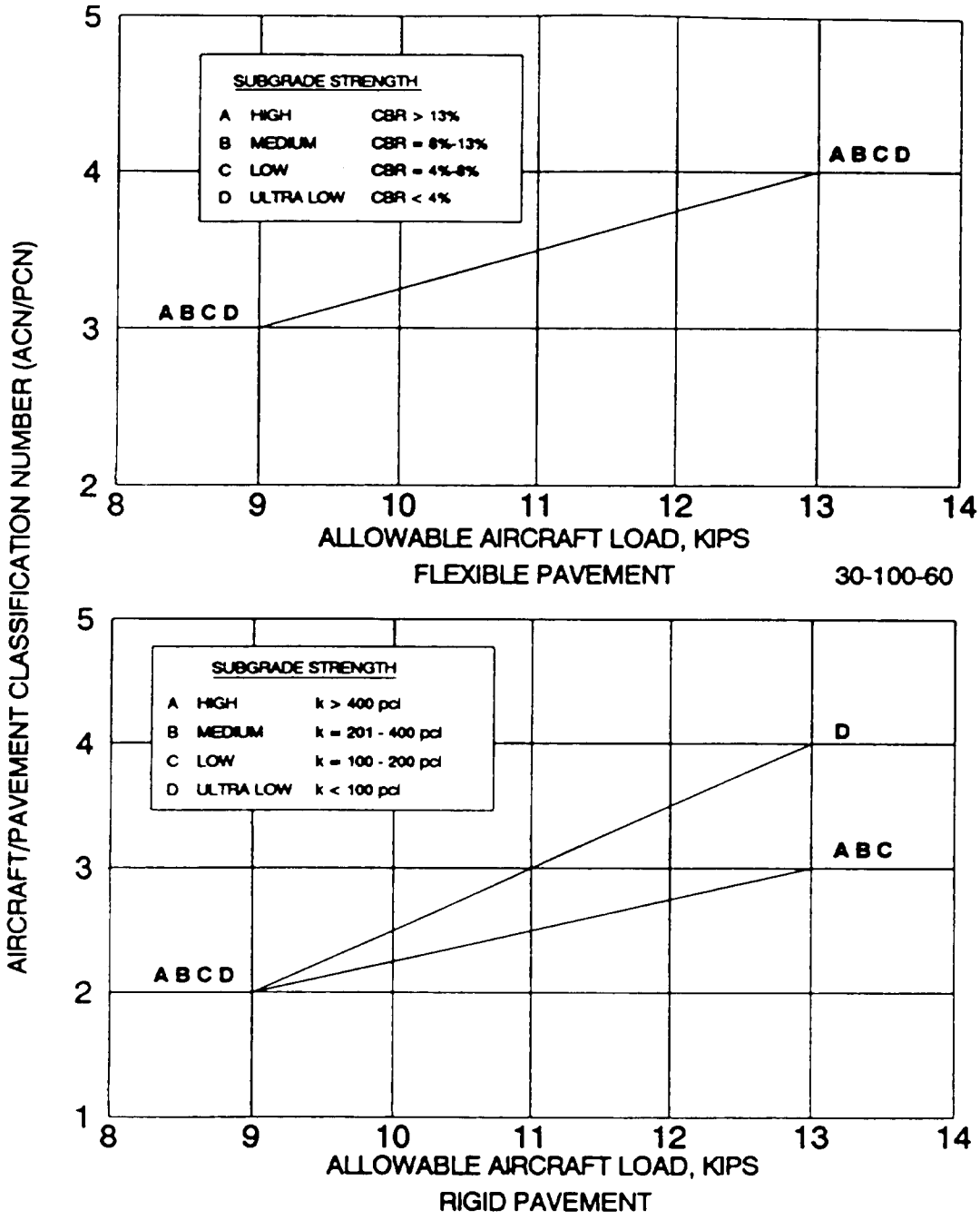


Figure A-570. Westland 30-100-60, ACN/PCN Curves

Aircraft Manufacturer Westland PLC

Aircraft Engine Manufacturer General Electric (CT7-2B)

No. of Engines 2 Engine Rating 1712 SHP

Minimum Take-Off Weight 8.5 k-lb

Maximum Take-Off Weight Peace-Time 12.8 k-lb

Maximum Take-Off Weight War-Time 12.8 k-lb

Maximum Landing Weight 12.8 k-lb

Hover Ceiling (In Ground Effect) 6,600 ft

Hover Ceiling (Out of Ground Effect) 2,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
13	3	3	3	4	4	4	4	4

Figure A-571. Westland 30-200

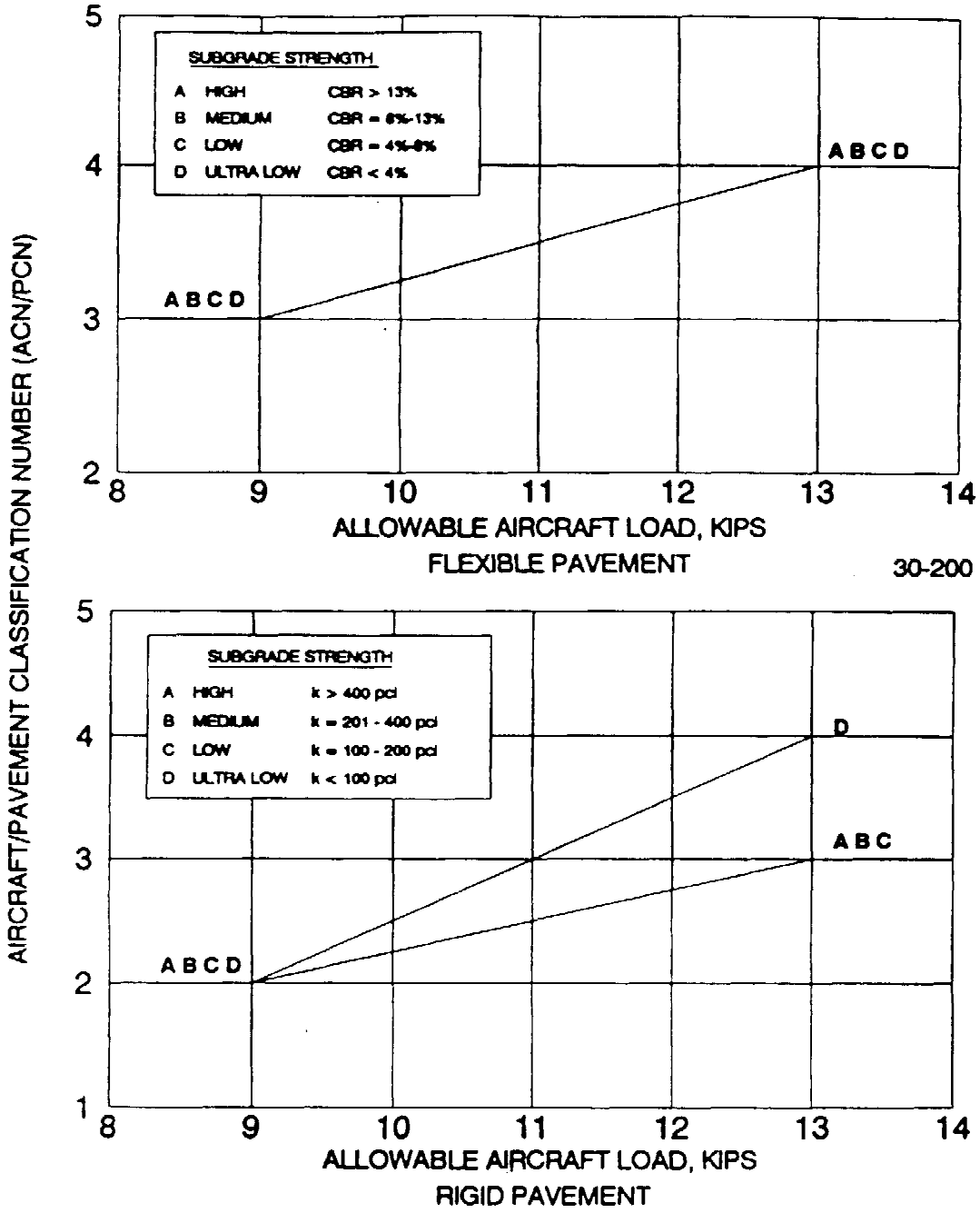


Figure A-572. Westland 30-200, ACN/PCN Curves

Aircraft Manufacturer Westland PLC

Aircraft Engine Manufacturer General Electric (CT7-2B) or Rolls-Royce Turbomeca (RTM 322)

No. of Engines 2 Engine Rating 1712 SHP (GE) or 2100 SHP (Rolls-Royce)

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 16.0 k-lb

Maximum Take-Off Weight War-Time 16.0 k-lb

Maximum Landing Weight 16.0 k-lb

Hover Ceiling (In Ground Effect) 6,300 ft

Hover Ceiling (Out of Ground Effect) 4,200 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-573. Westland 30-300

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT PARKING APRONS

B-1. This appendix presents parking apron data for US Army, US Air Force, and selected civil and commercial fixed-wing and rotary-wing aircraft. The data should be beneficial to planners and civil engineers in the layout and design of airfield and heliport systems. Parking apron data include aircraft dimensions, separation distances, taxilane widths, and parking plans. Jet blast clearance distances are also presented for applicable fixed-wing aircraft.

B-2. Parking data are arranged in table format for various military, civil, and commercial fixed-wing aircraft (tables B-1 to B-3) and supported by figures B-i to B-3. Military and commercial rotary-wing aircraft parking data are presented in table B-4 and figures B-4 through B-11.

B-3. Tactical/fighter aircraft are parked at a 45 degree angle as shown in figures B-1 and B-2. This is the most economical parking method for achieving the clearance needed to dissipate temperatures and velocities of jet blast to levels that will not endanger aircraft personnel. According to AFM 86-2, safe distance is defined as the minimum clearance needed to the rear of a jet engine operating at military power to dissipate the temperature (100 F) and velocity (35 miles per hour) of jet blast that will not endanger aircraft personnel.

B-4. Tactical/fighter aircraft will be parked in rows and spaced according to the dimensions given in table B-l. The safe distance values for various aircraft are based on information provided by Air Logistic Center managers and aircraft manufacturers. Safe distance is measured from the rear of the aircraft. Jet blast relationships used to determine aircraft safe distances are presented in Appendix E. Table B-l also presents parking plans for aircraft with a safe distance greater than 125 feet (fig B-1) and with a safe distance equal to or less than 125 feet (fig B-2). Corresponding separation distances A, B, C, and D for each aircraft are presented in table B-i and these distances are defined on figures B-l and B-2.

B-5. Military bomber, cargo, and special duty aircraft will be parked and spaced according to the dimensions given in table B-2. Parking separation distances for civil and commercial aircraft are given in table B-3. A typical parking apron for military, civil, and commercial aircraft is shown on figure B-3.

B-6. The following correspondence between column symbols and actual parking apron separation dimensions is employed in tables B-2 and B-3. An entry of "†" indicates data are not available.

Symbol	Dimension
A	Clear distance between nose of parked aircraft and wingtip clearance of moving aircraft taxiing on peripheral or through (length of apron) taxilanes.
B	Clear distance between rear of parked aircraft, without regard to jet/prop blast, and wingtip clearance of moving aircraft taxiing on peripheral or through (length of apron) taxilanes.
C	Taxi clear distance between parked aircraft without regard to jet/prop blast; i.e., Wingspan + A + B.
D	Clearance needed to the rear of parked aircraft, with engines operating at takeoff power, to dissipate either 100[deg] F temperatures or 35 miles per hour velocities.
E	Clear distance between wingtips of parked aircraft and moving aircraft taxiing in lanes between parked aircraft.
F	Clear distance between wingtips of parked (stationary) aircraft.

B-7. The parking separation distance (columns A, B, E, and F of tables B-2 and B-3) are US Air Force apron criteria presented in AFM 86-2. The jet/prop blast data presented in column D of tables B-2 and B-3 are based on information provided by Air Logistic Center managers and aircraft manufactures. The values in column D indicate the magnitude of jet blast which can occur to the rear of aircraft. Temperature and velocity jet blast levels are taken from fighter aircraft criteria presented in AFM 86-2. The criteria states that a minimum clearance is needed to the rear of an engine to dissipate either the temperature (100° F) or velocity (35 miles per hour) of jet blast that will not endanger aircraft personnel. Jet blast clearance criteria is not defined for non-fighter aircraft; however, from values shown in column D, the designer should be aware that certain aircraft produce jet blast of large magnitudes. Jet blast relationships are presented in Appendix E.

B-8. Commercial and military rotary-wing aircraft will be parked and spaced according to the parking plans given in table B-4. Military aircraft designation; if applicable, is identified within parenthesis following the commercial designation.

B-9. Helicopter parking plans are based on US Army criteria presented in TM 5-803-4. Parking plans for the UH-l (figs B-4 and B-5), UH-60 (figs B-6 and B-7), CH-47 (figs B-8 and B-9), and CH-54 (figs B-10 and B-ll) were used as standards to categorize each aircraft in table B-4. Categorization of each helicopter was based according to main rotor diameter limits set by the standard aircraft (UH-1, UH-60, CH-47, and CH-54). Either type 1 or type 2 parking plans can be used to satisfy helicopter parking apron design and planning.

Table B-1. Tactical/Fighter Aircraft Parked at 45° Angle-Aircraft Dimensions, Parking Plan, and Separation Distances.

Aircraft	Aircraft Wingspan feet	Aircraft Length feet	Safe Distance feet	Parking Plan Fig. No.	A feet	B feet	C feet	D feet
A-7D	38.7	46.1	1,500	B-1	1,060	90	45	69
A-7K	38.7	48.7	1,500	B-1	1,060	90	45	69
A-10A	57.5	53.3	160	B-1	115	98	47	96
A-37B	38.3	31.8	25	B-2	--	90	31	69
F-4C	38.6	58.3	100	B-2	--	90	51	69
F-4D/E	38.4	63.0	100	B-2	--	90	51	69
F-5E	26.7	48.2	200	B-1	145	90	40	52
F-5F	26.7	51.7	200	B-1	145	90	40	52
F-15A/B/C/D/E	42.8	63.8	525	B-1	375	90	54	75
F-16A/B	32.8	49.5	525	B-1	375	90	40	61

(Continued)

Table B-1. (Concluded).

Aircraft	Aircraft Wingspan feet	Aircraft Length feet	Safe Distance feet	Parking Plan Fig. No.	A feet	B feet	C feet	D feet
F-16C/D	32.8	49.5	870	B-1	615	90	40	61
F-100	38.8	57.6	110	B-2	--	90	48	69
F-101B	39.7	66.9	175	B-1	125	90	55	71
F-104G	21.9	54.8	195	B-1	140	90	43	46
F-105D	34.9	67.5	185	B-1	135	90	54	64
F-105F/G	34.9	69.9	185	B-1	135	90	54	64
F-106A/B	38.3	70.8	190	B-1	135	90	56	69
F-111A/E	63.0	75.5	215	B-1	155	103	60	104
F-111D	63.0	75.5	350	B-1	250	103	60	104
F-111F	63.0	75.5	765	B-1	540	103	60	104
EF-111A	63.0	75.5	215	B-1	155	103	60	104
FB-111A	70.0	75.7	350	B-1	250	110	64	114
OA-37B	38.3	31.8	25	B-2	--	90	31	69
RF-4C	38.4	63.0	100	B-2	--	90	51	69

Table B-2. Military Fixed-Wing Aircraft Parking Separation Distances.

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
B-1B	136.7	151.1	50	50	237	980	30	20
B-52G	185.0	161.9	50	50	285	80	30	20
B-52H	185.0	160.4	50	50	285	320	30	20
C-5A/B	222.7	247.8	50	50	323	1,100	30	20
C-7A	95.6	72.6	30	30	156	†	20	10
C-9A	93.3	119.3	30	30	153	380	20	10
C-12A/C/D/F	54.5	43.8	30	30	115	†	20	10
C-12J	54.5	57.8	30	30	115	†	20	10
C-17A	170.0	174.0	50	50	270	†	30	20
C-20A/B	77.8	83.1	30	30	138	†	20	10
C-21A	39.5	48.7	30	30	100	150	20	10
C-22B	108.0	133.2	30	30	168	430	20	10
C-23A	74.8	58.0	30	30	135	†	20	10
C-130B/E/H	132.6	99.5	50	50	233	1,000	30	20
AC-130A	132.6	97.8	50	50	233	1,000	30	20
AC-130H/U	132.6	99.5	50	50	233	1,000	30	20
C-135B	130.8	134.4	50	50	231	320	30	20
KC-135R	130.8	136.2	50	50	231	580	30	20
C-137B	130.8	144.5	50	50	231	320	30	20

(Continued)

Table B-2. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
C-137C	145.8	152.9	50	50	246	320	30	20
C-140A/B	54.5	60.5	30	30	115	190	20	10
C-141A	160.0	145.0	50	50	260	390	30	20
C-141B	160.0	168.3	50	50	260	390	30	20
KC-10A	165.3	181.6	50	50	265	1,560	30	20
VC-25A	195.7	231.3	50	50	296	620	30	20
E-3A/B/C	145.8	152.9	50	50	246	400	30	20
E-4A/B	195.7	231.3	50	50	296	1,200	30	20
EC-18B	145.8	152.4	50	50	246	320	30	20
EC-130E/H	132.6	99.5	50	50	233	1,000	30	20
MC-130E/H	132.6	99.5	50	50	233	1,000	30	20
WC-130E/H	132.6	108.1	50	50	233	1,000	30	20
EC-135A/G/L	130.8	136.2	50	50	231	160	30	20
EC-135C/J/Y	130.8	136.2	50	50	231	320	30	20
EC-135E	130.8	141.5	50	50	231	320	30	20
RC-135M/S/W	130.8	140.0	50	50	231	320	30	20
RC-135U	130.8	140.5	50	50	231	320	30	20
RC-135V	130.8	140.5	50	50	231	320	30	20
WC-135B	130.8	134.5	50	50	231	320	30	20
O-2A/B	38.0	29.2	30	30	98	†	20	10

(Continued)

Table B-2. (Concluded).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
OV-1B/D	48.0	43.9	30	30	108	15	20	10
OV-1C	42.0	41.1	30	30	102	15	20	10
OV-10A	41.6	40.0	30	30	102	†	20	10
RC-12D/G/ H/K	54.5	43.8	30	30	115	†	20	10
U-21J	54.5	43.8	30	30	115	†	20	10
RU-21A/H	50.9	35.5	30	30	111	†	20	10
U-21A/D/G	45.9	35.5	30	30	106	†	20	10
SR-71A	107.4	55.6	30	30	167	†	20	10
TR-1A	103.0	63.0	30	30	163	†	20	10
U-2B/C	80.0	49.6	30	30	140	†	20	10
U-8F	45.9	33.3	30	30	106	†	20	10
U-10A	39.0	30.3	30	30	99	†	20	10
U-21F	45.9	39.9	30	30	106	†	20	10
UV-18	65.0	51.8	30	30	125	†	20	10

Table B-3. Civil and Commercial Fixed-Wing Aircraft Parking Separation Distances.

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Bellanca 7	33.4	22.7	30	30	93	†	20	10
Cessna 120/140	32.8	21.0	30	30	93	†	20	10
Cessna 170	36.0	25.0	30	30	96	†	20	10
Cessna 180/185	36.2	25.8	30	30	96	†	20	10
Cessna 190/195	36.2	27.1	30	30	96	†	20	10
Helio H-250/ H-295	39.0	31.5	30	30	99	†	20	10
Helio HST-550	41.0	39.6	30	30	101	†	20	10
Piper PA-12/ -14/-15	35.5	22.5	30	30	96	†	20	10
Piper PA-18	35.3	22.4	30	30	95	†	20	10
Piper PA-20	29.3	20.4	30	30	89	†	20	10
Silvaire 8	35.0	20.0	30	30	95	†	20	10
Taylorcraft F-21	36.0	22.2	30	30	96	†	20	10
Univair 108	33.9	25.2	30	30	94	†	20	10
Bede Aircraft BD-4	25.5	21.9	30	30	86	†	20	10
Cessna 150	32.8	23.0	30	30	93	†	20	10
Cessna 172	35.8	26.9	30	30	96	†	20	10
Cessna 177	35.5	27.0	30	30	96	†	20	10
Cessna 182	35.8	28.1	30	30	96	†	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Cessna 206	35.8	28.0	30	30	96	†	20	10
Cessna 207	35.8	31.8	30	30	96	†	20	10
Cessna 210	36.8	28.3	30	30	97	†	20	10
Piper PA-22	29.3	20.3	30	30	89	†	20	10
Aerostar 415	30.0	20.6	30	30	90	†	20	10
Aerostar M-20	35.0	23.6	30	30	95	†	20	10
Aerostar M-22	35.0	27.0	30	30	95	†	20	10
Beechcraft 23	32.8	25.0	30	30	93	†	20	10
Beechcraft V-35B	33.5	26.4	30	30	94	†	20	10
Beechcraft F-33	32.8	25.5	30	30	93	†	20	10
Beechcraft F-33A	32.8	25.5	30	30	93	†	20	10
Ballanca 260/300	24.2	23.5	30	30	84	†	20	10
Grumman AA-1	24.5	19.3	30	30	85	†	20	10
Navion G-1	34.8	27.5	30	30	95	†	20	10
Piper PA-24	36.0	24.8	30	30	96	†	20	10
Piper PA-28-180	30.0	23.5	30	30	90	†	20	10
Piper PA-28-200	30.0	24.2	30	30	90	†	20	10
Piper PA-32	32.8	27.8	30	30	93	†	20	10
Rockwell Int. 112	35.0	27.2	30	30	95	†	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Aerostar 600/601	34.3	34.8	30	30	94	†	20	10
Beechcraft B-55	37.8	27.0	30	30	98	†	20	10
Beechcraft E-55	37.8	29.0	30	30	98	†	20	10
Beechcraft A-60	39.3	33.8	30	30	99	†	20	10
Cessna 310	37.5	29.6	30	30	98	†	20	10
Cessna 401/402/ 421	39.8	33.8	30	30	100	†	20	10
Piper PA-23-160	37.2	27.4	30	30	97	†	20	10
Piper PA-23-250	37.9	27.6	30	30	97	†	20	10
Piper PA-30	36.0	25.2	30	30	96	†	20	10
Piper PA-31	40.7	32.7	30	30	101	†	20	10
Cessna 336/337	38.2	29.8	30	30	98	†	20	10
Rockwell Int. 500	49.5	35.1	30	30	110	†	20	10
Rockwell Int. 560/680	49.1	36.6	30	30	109	†	20	10
Beechcraft 18	49.7	35.3	30	30	110	†	20	10
Beechcraft Turbo 18	46.0	37.4	30	30	106	†	20	10
Beechcraft Volpar Turboliner	46.0	44.3	30	30	106	†	20	10
Beechcraft A-65	45.9	35.5	30	30	106	†	20	10
Beechcraft B-80	50.3	35.5	30	30	110	†	20	10
Beechcraft A-90	50.3	36.5	30	30	110	†	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Beechcraft A-100	45.9	39.9	30	30	106	†	20	10
Beechcraft 99A	45.9	44.6	30	30	106	†	20	10
Swearingen Merlin IIB	45.9	40.1	30	30	106	†	20	10
Swearingen Merlin III	46.3	42.2	30	30	106	†	20	10
Swearingen Merlin IV	46.3	59.4	30	30	106	†	20	10
Swearingen Metro	46.3	59.4	30	30	106	†	20	10
DeHavilland Canada DHC-6	65.0	51.8	30	30	125	†	20	10
Hawker Siddeley Dove	57.0	39.3	30	30	117	†	20	10
Mitsubishi MU-2	39.2	39.5	30	30	99	†	20	10
Short Brothers SC.7	64.9	40.1	30	30	125	†	20	10
Short Brothers SC.7-3M	64.9	40.1	30	30	125	†	20	10
Short Brothers 330	74.7	58.0	30	30	135	†	20	10
Short Brothers 330-200	74.7	58.0	30	30	135	†	20	10
Short Brothers 360	74.8	70.8	30	30	135	†	20	10
Convair 240	91.8	74.7	30	30	152	†	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Convair 340	105.3	79.2	30	30	165	†	20	10
Convair 440	105.3	81.5	30	30	165	†	20	10
Convair 580	105.3	81.5	30	30	165	†	20	10
Convair 600	91.8	74.7	30	30	152	†	20	10
Convair 640	105.3	81.5	30	30	165	†	20	10
Douglas DC-3	95.0	64.5	30	30	155	†	20	10
Fairchild F-27	95.2	77.2	30	30	155	†	20	10
Fairchild FH-227	95.2	83.7	30	30	155	†	20	10
Grumman Gulfstream I	78.3	63.8	30	30	138	†	20	10
Martin 404	93.3	74.6	30	30	153	†	20	10
Aerospatiale Nord 262	71.8	63.3	30	30	132	†	20	10
Hawker Siddeley Heron	71.5	48.5	30	30	132	†	20	10
Hawker Siddeley HS-748	98.5	67.0	30	30	159	†	20	10
Nihon/N.A.M.C. YS-11A	105.0	86.3	30	30	165	†	20	10
Douglas DC-4	117.5	93.9	50	50	218	†	30	20
Douglas DC-6	117.5	105.6	50	50	218	†	30	20
Douglas DC-7	127.5	112.3	50	50	228	†	30	20
Lockheed L-188	99.0	104.6	30	30	159	†	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Lockheed L-382 (L-100-20)	132.6	106.1	50	50	233	1,000	30	20
Lockheed L-382 (L-100-30)	132.6	112.8	50	50	233	1,000	30	20
Lockheed 749A	123.0	95.2	50	50	223	†	30	20
Lockheed 1049	123.0	113.6	50	50	223	†	30	20
Lockheed 1649A	150.0	116.2	50	50	250	†	30	20
B.A.C./Vickers 745	93.8	81.8	30	30	154	†	20	10
B.A.C./Vickers 810	93.8	85.7	30	30	154	†	20	10
Cessna Citation	43.8	44.1	30	30	104	†	20	10
Gates Learjet 24	35.6	43.3	30	30	96	100	20	10
Gates Learjet 25	35.6	47.6	30	30	96	100	20	10
Gates Learjet 35/36	38.1	48.7	30	30	98	160	20	10
Grumman Gulfstream II	68.8	79.9	30	30	129	320	20	10
Lockheed 1329	54.4	60.4	30	30	115	190	20	10
Rockwell Int. NA-265-40	44.4	43.8	30	30	104	190	20	10
Rockwell Int. NA-265-60	44.4	48.3	30	30	104	190	20	10
Rockwell Int. NA-265-75A	44.5	47.2	30	30	105	140	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Avions Marcel Dassault Mystere 20	53.5	56.3	30	30	114	140	20	10
Fokker F-28	77.3	80.6	30	30	137	†	20	10
Hamburger-Flugzeubau HFB-320	47.5	54.5	30	30	108	100	20	10
Hawker Siddeley HS-125	47.0	47.4	30	30	107	†	20	10
Israel Aircraft 1121	43.3	50.4	30	30	103	100	20	10
Israel Aircraft 1123	43.3	52.3	30	30	103	†	20	10
Boeing 707-120B	130.8	145.1	50	50	231	550	30	20
Boeing 707-320/-420	142.4	152.9	50	50	242	820	30	20
Boeing 707-320B,C	145.8	152.9	50	50	246	550	30	20
Boeing 720	130.8	136.2	50	50	231	530	30	20
Boeing 720B	130.8	136.8	50	50	231	500	30	20
Boeing 727-100	108.0	133.2	30	30	168	420	20	10
Boeing 727-100C	108.0	133.2	30	30	168	420	20	10
Boeing 727-200	108.0	153.2	30	30	168	420	20	10
Boeing 737-100	93.0	94.0	30	30	153	380	20	10
Boeing 737-200	93.0	100.2	30	30	153	400	20	10
Boeing 737-300	94.8	109.6	30	30	155	600	20	10
Boeing 737-400	94.8	119.6	30	30	155	600	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Boeing 747-100B/ -200B,C/-300 Pass	195.7	231.8	50	50	296	1,200	30	20
Boeing 747-200C/ -200F Cargo	195.7	231.8	50	50	296	1,200	30	20
Boeing 747-400	211.0	231.8	50	50	311	1,560	30	20
Boeing 747SP	195.7	184.8	50	50	296	1,230	30	20
Boeing 757-200	124.8	155.3	50	50	225	1,600	30	20
Boeing 767-200/ -200ER with PW-JT9D-7R4E Engines	156.1	159.2	50	50	256	1,300	30	20
Boeing 767-300 with PW-JT9D-7R4E Engines	156.1	180.3	50	50	256	1,300	30	20
Boeing 767-200ER with GE-CF6-80A2 Engines	156.1	159.2	50	50	256	1,200	30	20
Boeing 767-300 with GE-CF6-80A2 Engines	156.1	180.3	50	50	256	1,200	30	20
Boeing 767-300ER	156.1	180.3	50	50	256	1,650	30	20
General Dynamics/ Convair 880	120.0	129.3	50	50	220	120	30	20
General Dynamics/ Convair 990	120.0	139.8	50	50	220	50	30	20
Lockheed L-1011-1	155.3	177.7	50	50	255	1,300	30	20
Lockheed L-1011-100	155.3	177.7	50	50	255	1,300	30	20
Lockheed L-1011-200	155.3	177.7	50	50	255	1,450	30	20
Lockheed L-1011-500	155.3	164.2	50	50	255	1,450	30	20

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Lockheed L-1011-500 Ex. Wg.	164.3	164.2	50	50	264	1,450	30	20
McDonnell Douglas DC-8-43/-55/-55F	142.4	150.7	50	50	242	480	30	20
McDonnell Douglas DC-8-61/-61F	142.4	187.4	50	50	242	480	30	20
McDonnell Douglas DC-8-62/-62F	148.4	157.5	50	50	248	480	30	20
McDonnell Douglas DC-8-63/-63F	148.4	187.4	50	50	248	480	30	20
McDonnell Douglas DC-8-71/-71F	142.4	187.4	50	50	242	750	30	20
McDonnell Douglas DC-8-72/-72F	148.4	157.5	50	50	248	750	30	20
McDonnell Douglas DC-8-73/-73F	148.4	187.4	50	50	248	750	30	20
McDonnell Douglas DC-9-15/-15F	89.4	104.4	30	30	149	600	20	10
McDonnell Douglas DC-9-21	93.3	104.4	30	30	153	600	20	10
McDonnell Douglas DC-9-32/-33F	93.3	119.3	30	30	153	600	20	10
McDonnell Douglas DC-9-41	93.3	125.6	30	30	153	600	20	10
McDonnell Douglas DC-9-51	93.3	133.6	30	30	153	600	20	10
McDonnell Douglas MD-81/-82/-83	107.8	147	30	30	168	800	20	10

(Continued)

Table B-3. (Continued).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
McDonnell Douglas MD-87	107.8	130.4	30	30	168	800	20	10
McDonnell Douglas MD-88	107.8	147.8	30	30	168	800	20	10
McDonnell Douglas DC-10-10	155.3	182.3	50	50	255	1,200	30	20
McDonnell Douglas DC-10-30	165.3	181.6	50	50	265	1,400	30	20
McDonnell Douglas DC-10-40	165.3	182.3	50	50	265	1,600	30	20
Aerospatiale/Sud-Aviation SE-210	112.5	105.0	50	50	213	†	30	20
B.A.C. One-Eleven Model 200	88.5	93.5	30	30	149	†	20	10
B.A.C. One-Eleven Model 400	88.5	93.5	30	30	149	240	20	10
B.A.C. One-Eleven Model 500	93.5	107.3	30	30	154	360	20	10
B.A.C./Vickers VC-10-1100	146.2	158.8	50	50	246	†	30	20
B.A.C./Vickers VC-10-1150	146.2	171.7	50	50	246	†	30	20
Ilyushin IL-62	141.8	174.3	50	50	242	†	30	20
Airbus A300B2	147.1	175.5	50	50	247	†	30	20
Airbus A300B4	147.1	175.5	50	50	247	†	30	20
Airbus A300-600	147.1	177.5	50	50	247	†	30	20

(Continued)

Table B-3.(Concluded).

Aircraft	Wingspan feet	Length feet	A feet	B feet	C feet	D feet	E feet	F feet
Airbus A310-300	144.1	153.2	50	50	244	†	30	20
Airbus A320	111.3	123.3	50	50	211	†	30	20
B.A.C./SNIAS Concorde	83.8	205.4	30	30	144	580	20	10
British Aerospace 146-100	86.4	85.8	30	30	146	†	20	10
British Aerospace 146-200	86.4	93.7	30	30	146	†	20	10
British Aerospace 146-300	86.4	104.2	30	30	146	†	20	10

Table B-4. Rotary-Wing Aircraft Parking Plans.

Aircraft	Main Rotor Diameter feet	Aircraft Length feet	Parking Plan Type 1 Fig. No.	Parking Plan Type 2 Fig. No.
Aerospatiale 315B	36.2	42.4	B-4	B-5
Aerospatiale 330J	49.5	59.8	B-6	B-7
Aerospatiale 332C/L	51.2	61.4	B-6	B-7
Aerospatiale 341	34.5	39.3	B-4	B-5
Aerospatiale 350B/D	35.1	42.6	B-4	B-5
Aerospatiale 355E/F/F1	35.1	42.6	B-4	B-5
Aerospatiale 360C	37.7	43.3	B-4	B-5
Aerospatiale 365C	38.3	43.7	B-4	B-5
Aerospatiale 365N	39.1	44.2	B-4	B-5
Agusta 109A and 109A MKII	25.6	42.8	B-4	B-5
Bell 47G-3B (OH-13 & TH-13T)	37.1	43.3	B-4	B-5
Bell 47G-5A	37.1	43.6	B-4	B-5
Bell 204 (UH-1B/C/M)	44.0	53.0	B-4	B-5
Bell 205 (UH-1D/H)	48.0	57.1	B-4	B-5
Bell 205A-1	48.0	57.1	B-4	B-5
Bell 206A (OH-58A/C)	35.4	41.0	B-4	B-5
Bell 206B	33.3	39.2	B-4	B-5
Bell 206L-3	37.0	42.5	B-4	B-5
Bell 209 (AH-1G)	44.0	52.9	B-4	B-5

(Continued)

Table B-4. (Continued).

Aircraft	Main Rotor Diameter feet	Aircraft Length feet	Parking Plan Type 1 Fig. No.	Parking Plan Type 2 Fig. No.
Bell 209 (AH-1S PROD.)	44.0	53.0	B-4	B-5
Bell 209 (AH-1S ECAS)	44.0	53.1	B-4	B-5
Bell 209 (AH-1S MOD.)	44.0	53.1	B-4	B-5
Bell 212 (UH-1N)	48.0	53.3	B-4	B-5
Bell 212	48.0	53.3	B-4	B-5
Bell 214B	50.0	60.4	B-6	B-7
Bell 214ST	52.0	62.2	B-6	B-7
Bell 222	39.8	47.5	B-4	B-5
Bell 222B	42.0	50.3	B-4	B-5
Bell 222UT	42.0	50.3	B-4	B-5
Bell 406 AHIP (OH-58D)	35.0	42.2	B-4	B-5
Bell 412	46.0	56.2	B-4	B-5
Boeing 107-II	50.0	83.3	B-8	B-9
Boeing 114 (CH-47B/C/D)	60.0	99.0	B-8	B-9
Boeing 234 LR/ER/UT/MLR	60.0	99.0	B-8	B-9
Boeing 360	49.7	83.3	B-8	B-9
E.H. Industries 101	61.0	75.3	B-10	B-11
Enstrom 280C, 280F, 280FX, F28C-2, F28F	32.0	29.3	B-4	B-5
Hynes H-2/with skid gear	23.8	28.0	B-4	B-5

(Continued)

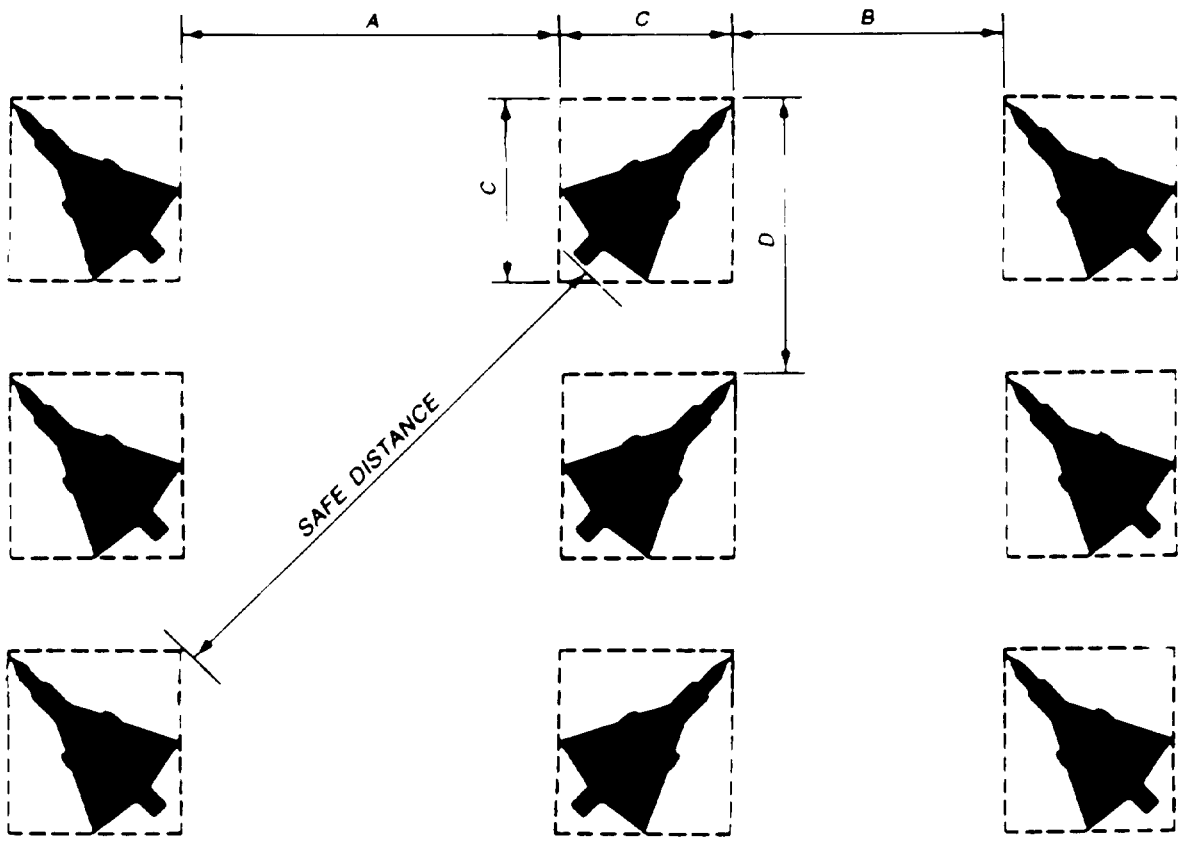
Table B-4. (Continued).

Aircraft	Main Rotor Diameter feet	Aircraft Length feet	Parking Plan Type 1 Fig. No.	Parking Plan Type 2 Fig. No.
Hynes H-2/with wheel gear	23.8	28.0	B-4	B-5
Hynes H-5/with skid gear	28.5	32.9	B-4	B-5
Hynes H-5/with wheel gear	28.5	32.9	B-4	B-5
MBB BO 105 CB/CBS/LS	32.3	38.9	B-4	B-5
MBB/Kawasaki BK 117	36.1	42.7	B-4	B-5
McDonnell Douglas 77 (AH-64A)	48.0	58.3	B-6	B-7
McDonnell Douglas 500 (OH-6A)	26.3	30.3	B-4	B-5
McDonnell Douglas 500D	26.4	30.8	B-4	B-5
McDonnell Douglas 530F	27.4	32.1	B-4	B-5
Robinson R22	25.2	28.8	B-4	B-5
Rogerson Hiller RH-1100	35.4	39.8	B-4	B-5
Rogerson Hiller UH-12E/ E4/ET/E4T	35.4	40.8	B-4	B-5
Schweizer 269A (TH-55A)	27.4	28.3	B-4	B-5
Schweizer 300C	26.8	30.8	B-4	B-5
Sikorsky S-58T	56.0	65.8	B-8	B-9
Sikorsky S-61N	62.0	72.8	B-10	B-11
Sikorsky S-62	53.0	62.3	B-6	B-7
Sikorsky S-64 (CH-54A)	72.0	88.5	B-10	B-11

(Continued)

Table B-4. (Concluded).

Aircraft	Main Rotor Diameter feet	Aircraft Length feet	Parking Plan Type 1 Fig. No.	Parking Plan Type 2 Fig. No.
Sikorsky S-65A (CH-53C & HH-53C)	72.3	88.3	B-10	B-11
Sikorsky S-70 (HH-60A & UH-60A)	53.7	64.8	B-6	B-7
Sikorsky S-70C	53.7	64.8	B-6	B-7
Sikorsky S-76A/B	44.0	52.5	B-4	B-5
Westland 30-100-60	43.7	52.1	B-4	B-5
Westland 30-200	43.7	52.1	B-4	B-5
Westland 30-300	42.5	52.1	B-4	B-5



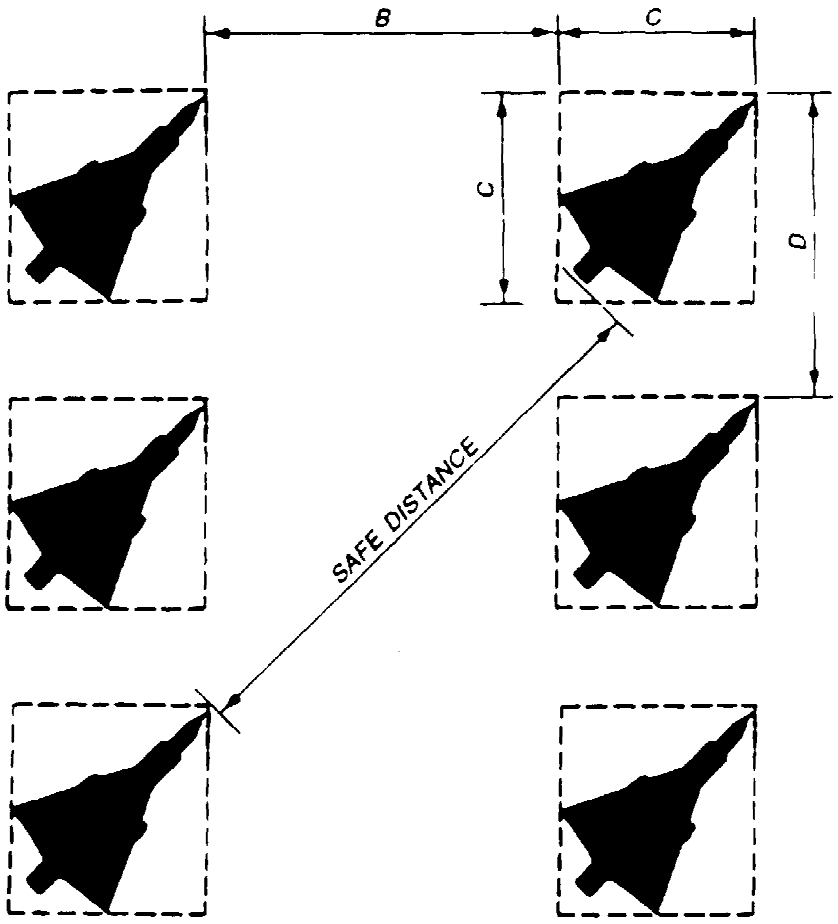
A = SAFE DISTANCE (0.707)

B = 90 FEET OR WINGSPAN OF AIRCRAFT + 40 FEET
(WHICHEVER IS GREATER)

C = BLOCK DIMENSION OF AIRCRAFT

D = 1.414 (WINGSPAN + 10 FEET)

Figure B-1. Parking Plan for Aircraft with Safe Distance Greater Than 125 Feet



B = 90 FEET OR WINGSPAN OF AIRCRAFT + 40 FEET
(WHICHEVER IS GREATER)

C = BLOCK DIMENSION OF AIRCRAFT

D = 1.414 (WINGSPAN + 10 FEET)

Figure B-2. Parking Plan for Aircraft with Safe Distance Equal To or Less Than 125 Feet

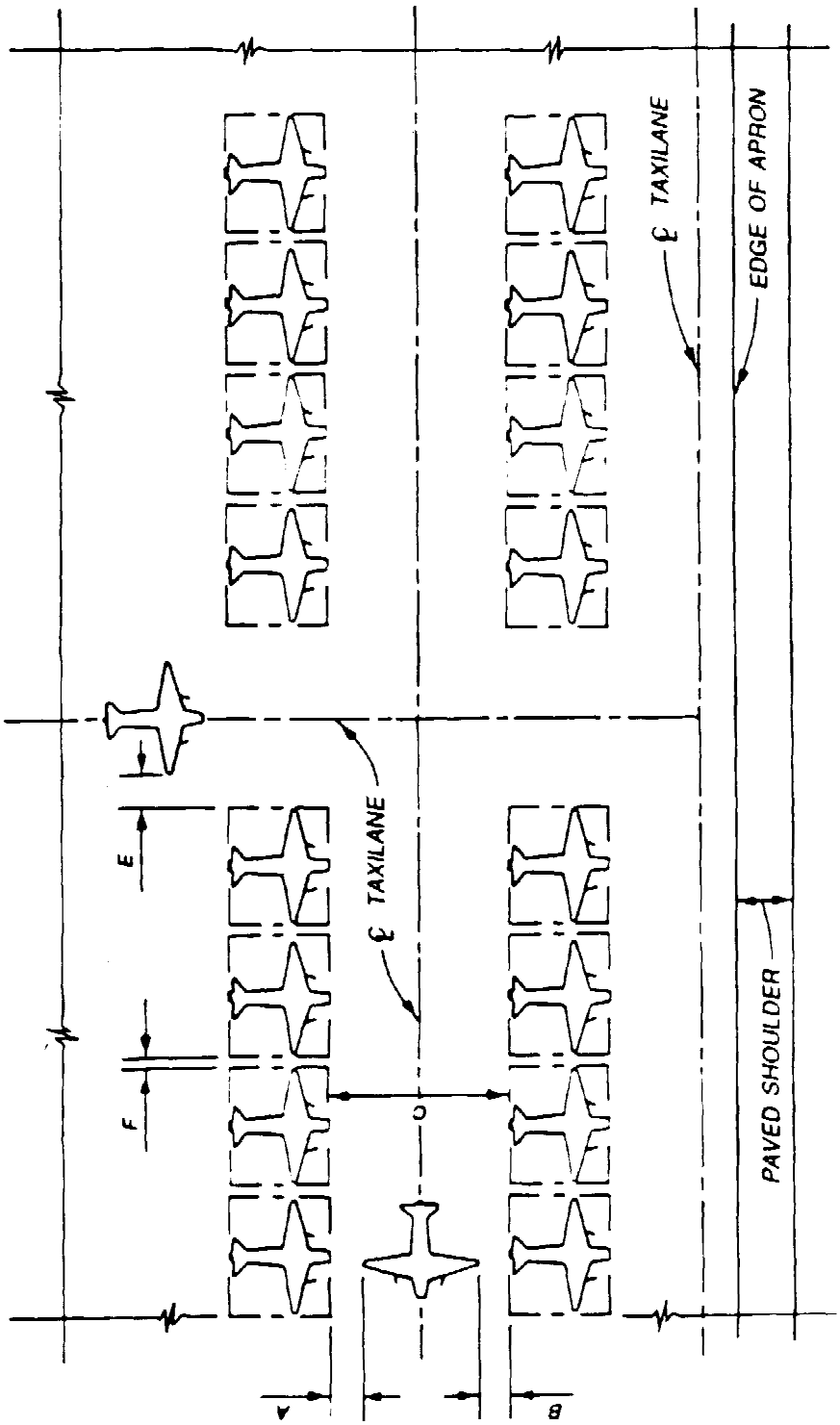


Figure B-3. Fixed-Wing Aircraft Parking Plan

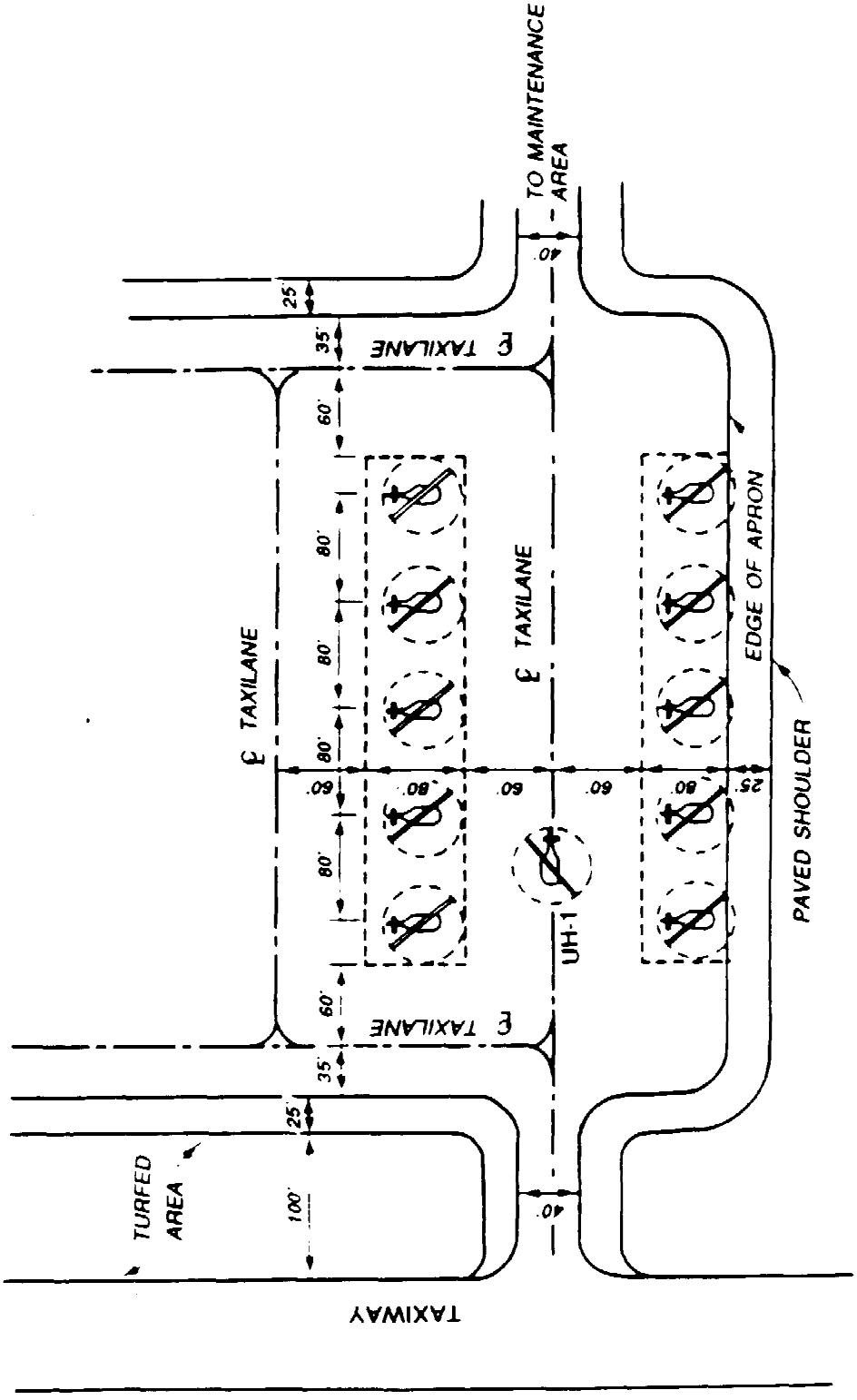


Figure B-4. UH-1 Parking Plan, Type 1 (Single Lane)

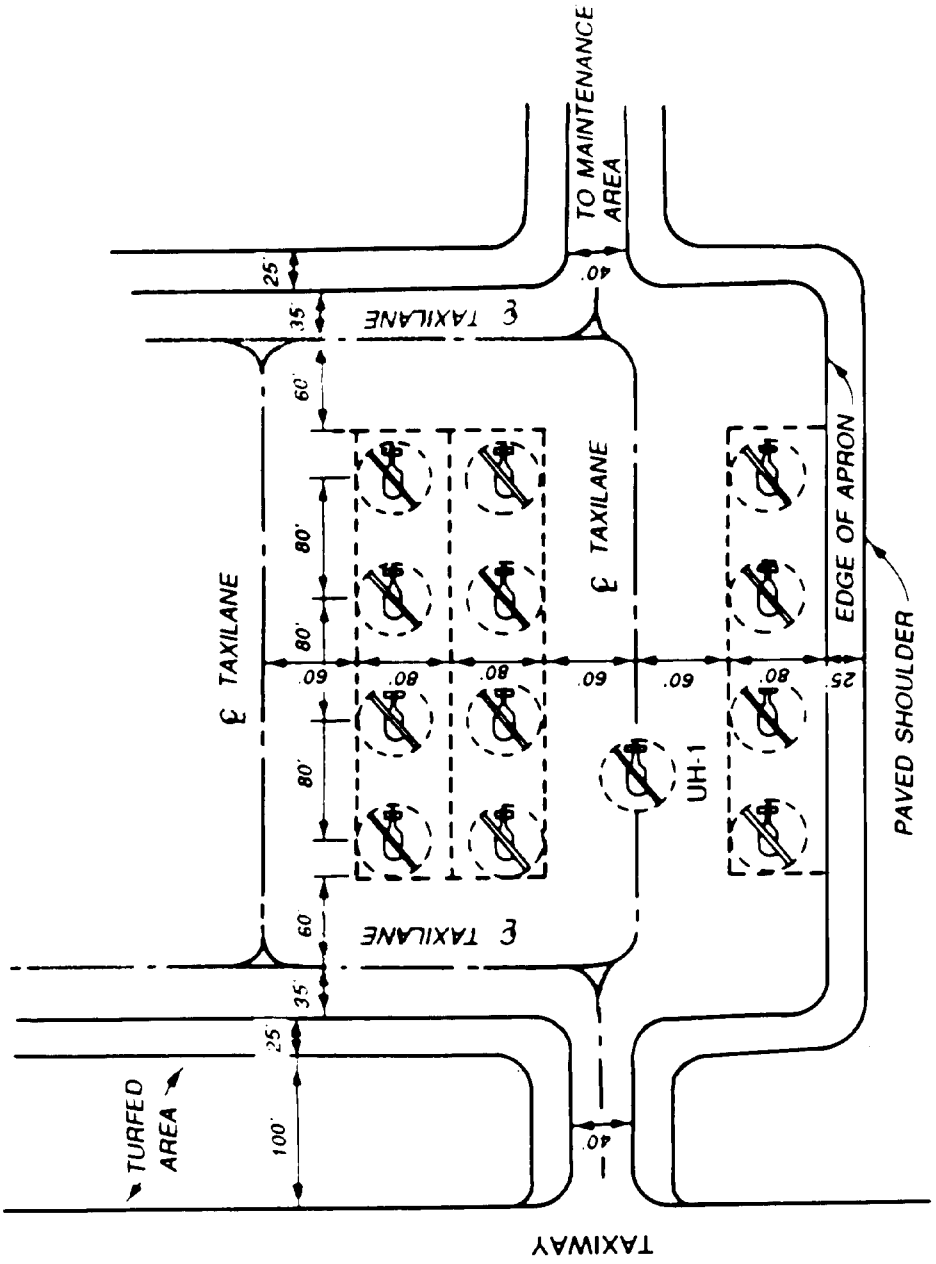


Figure B-5. UH-1 Parking Plan, Type 2 (Double Parallel)

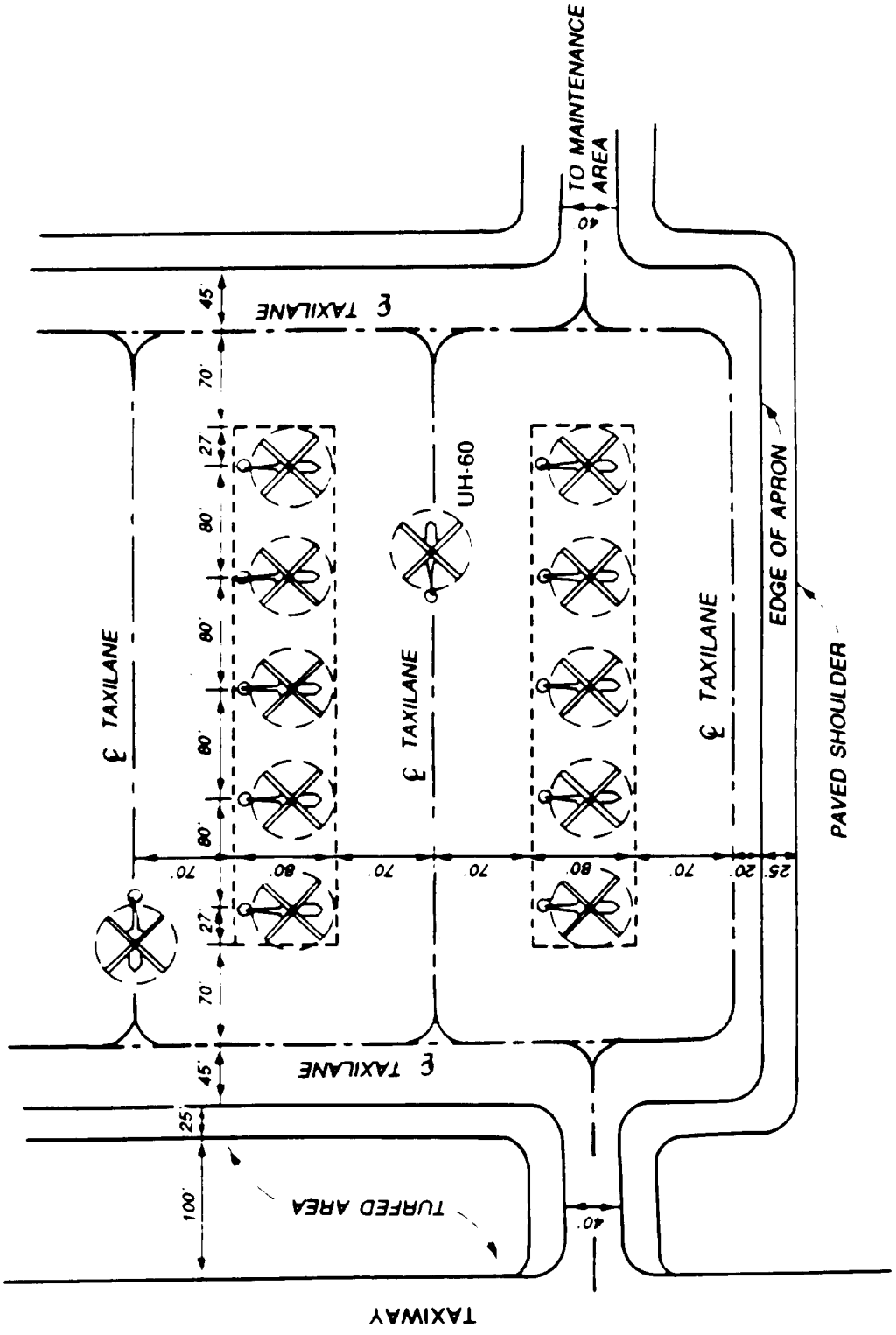


Figure B-6. UH-60 Parking Plan, Type 1 (Single Lane)

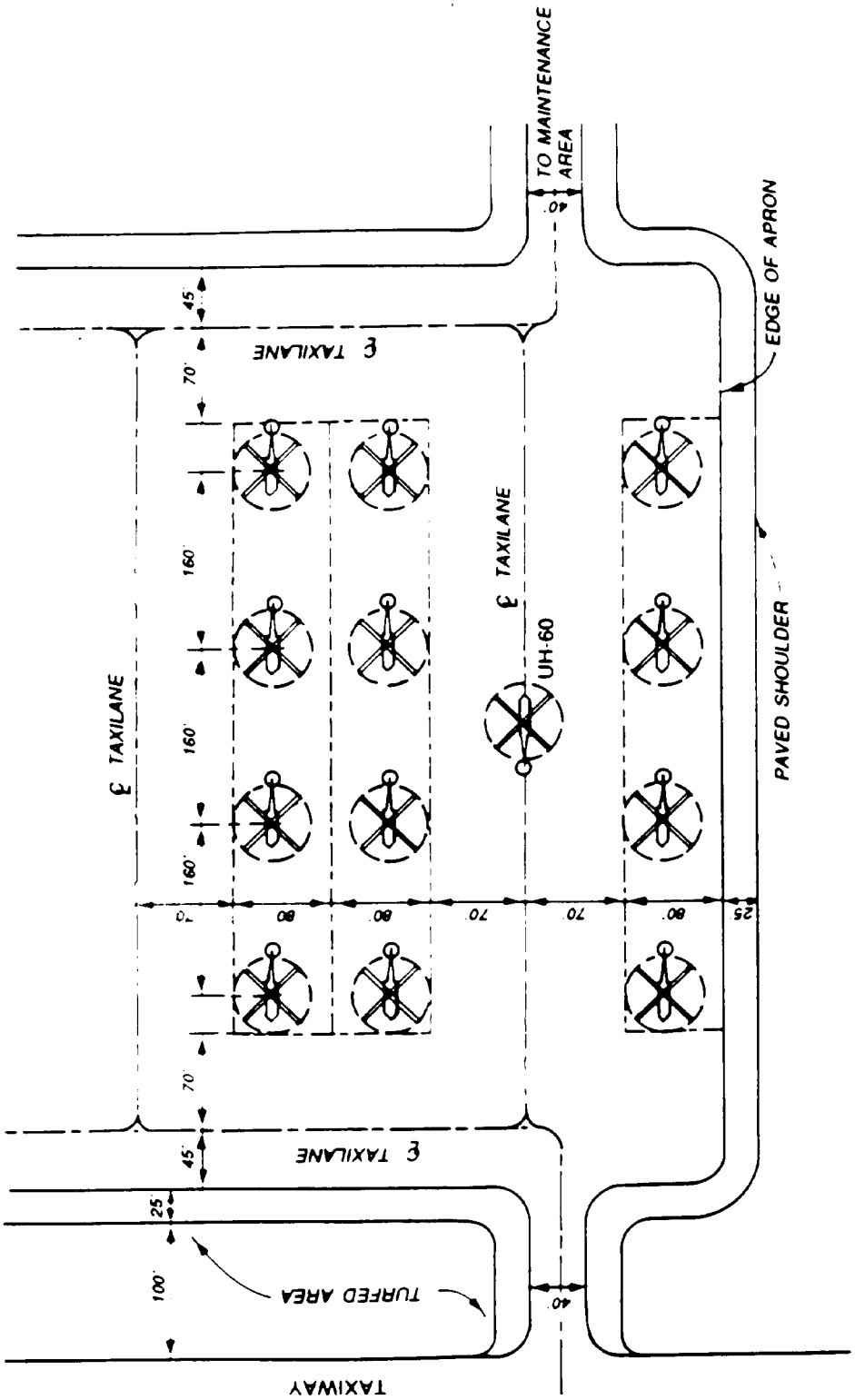


Figure B-7. UH-60 Parking Plan, Type 2 (Double Parallel)

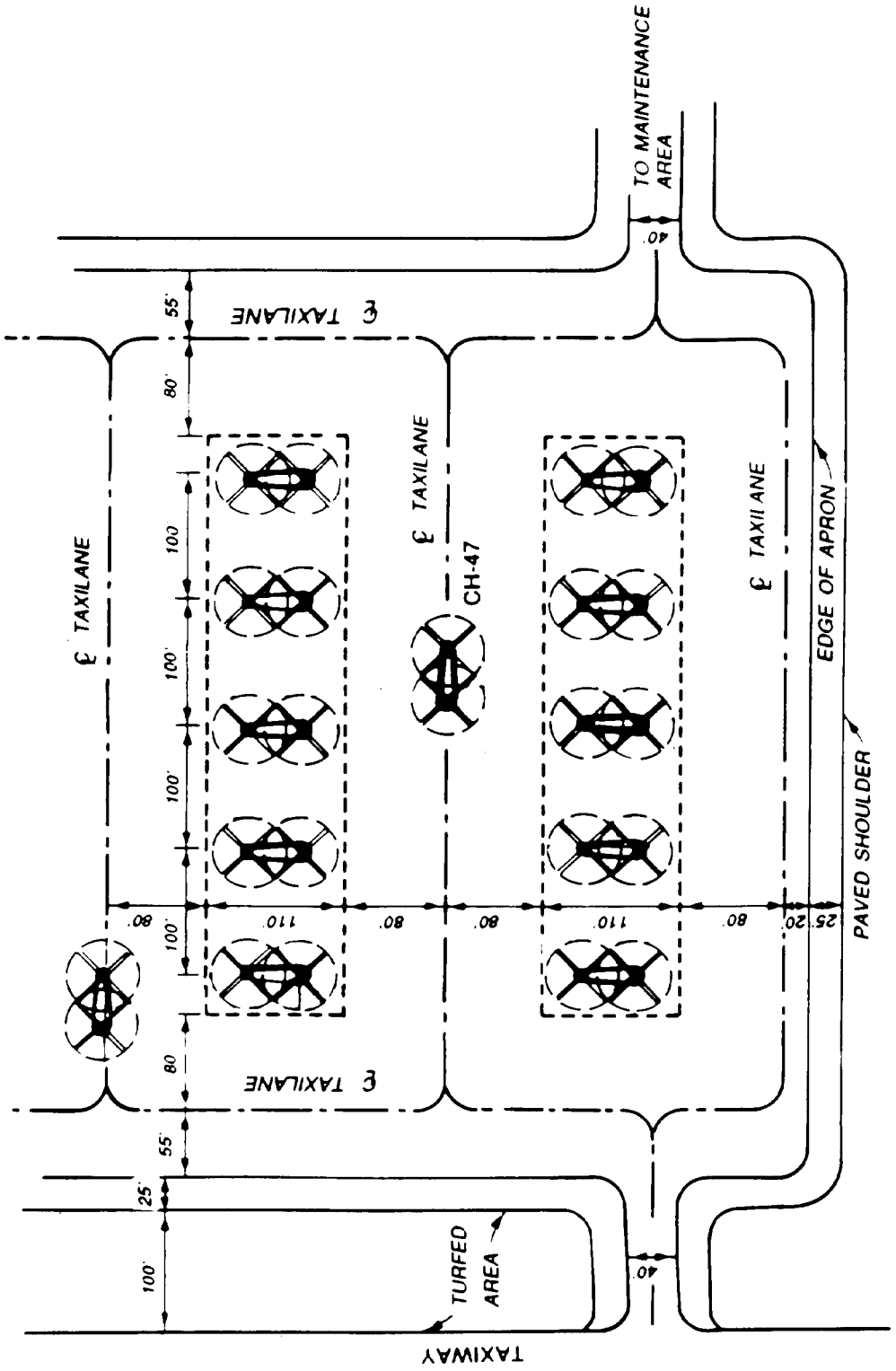


Figure B-8. CH-47 Parking Plan, Type 1 (Single Lane)

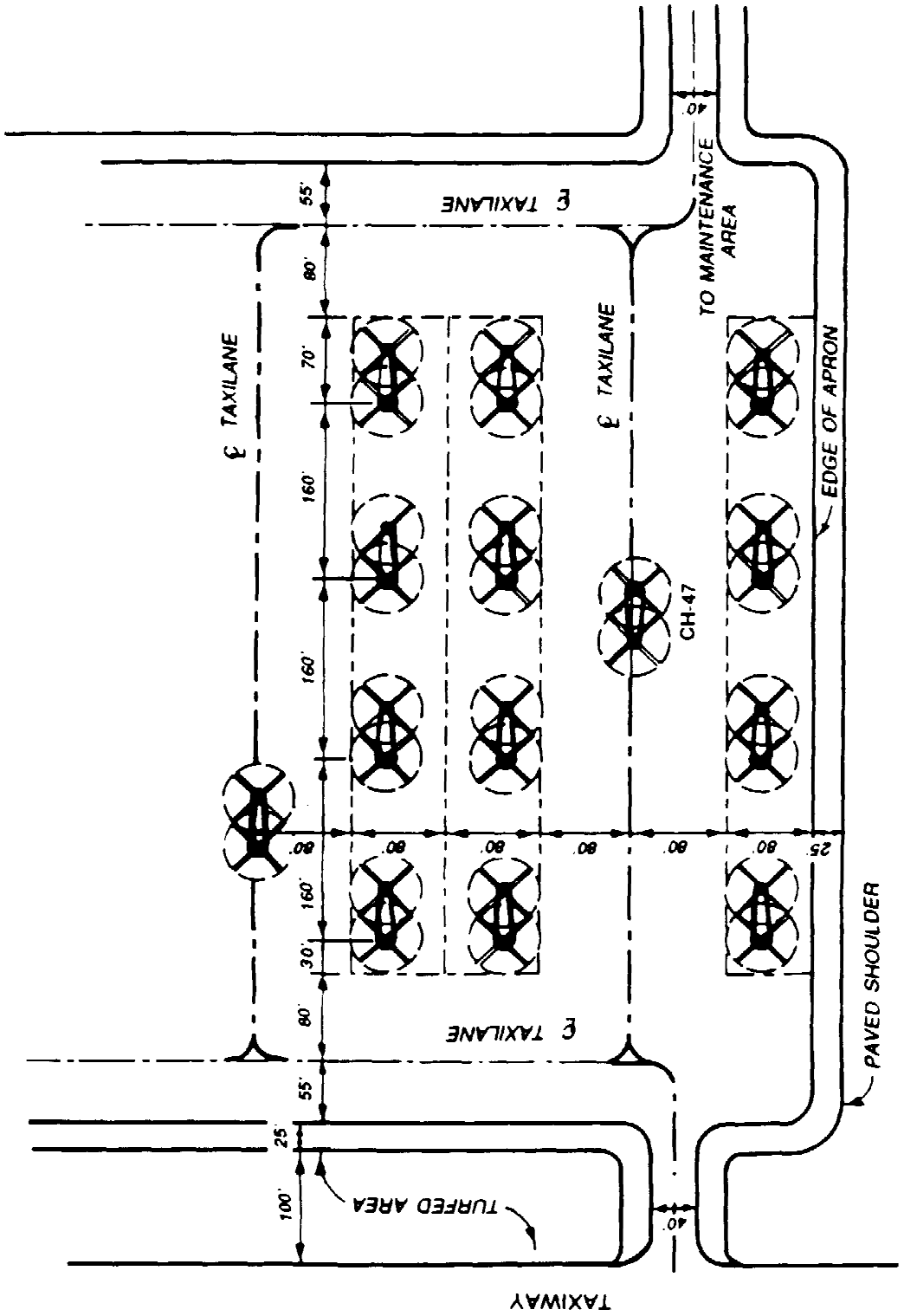


Figure B-9. CH-47 Parking Plan, Type 2 (Double Parallel)

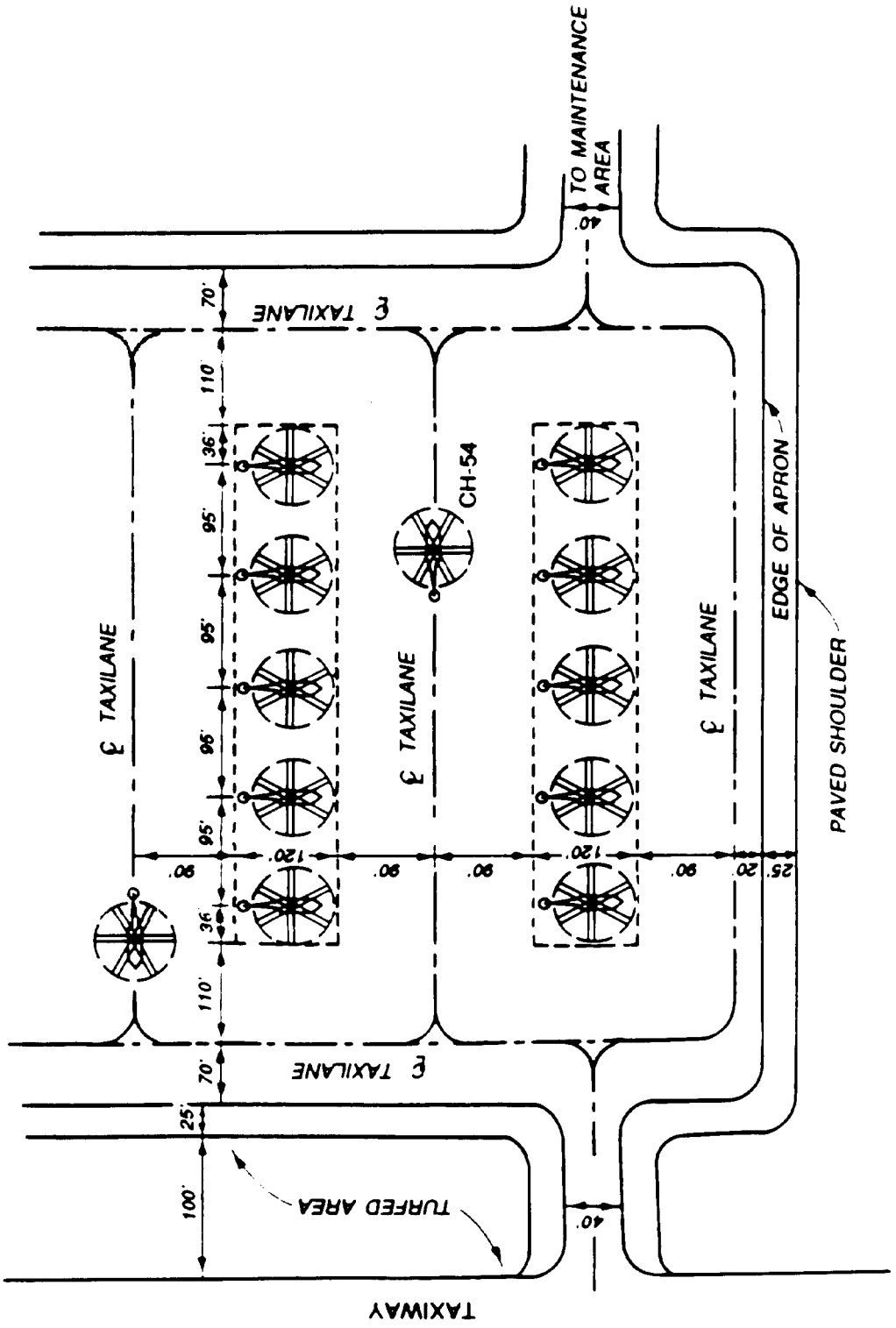


Figure B-10. CH-54 Parking Plan, Type 1 (Single Lane)

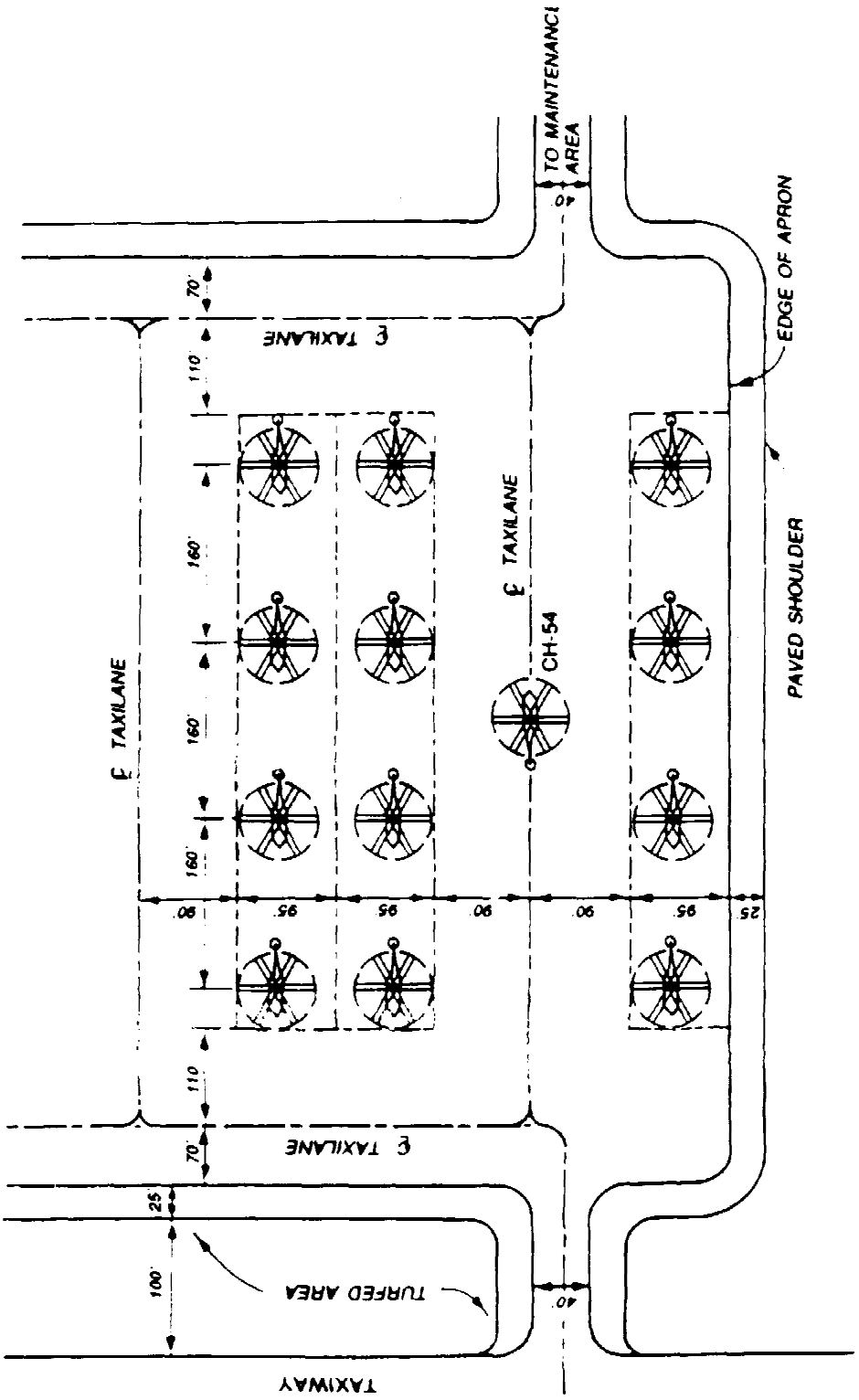


Figure B-11. CH-54 Parking Plan, Type 2 (Double Parallel)

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT GEOMETRY

C-1. This appendix presents US Army, US Air Force, and selected civil and commercial aircraft geometries and tire pressures required by civil engineers in the layout, design, or evaluation of airfield and heliport pavement systems.

C-2. The data are arranged in figure format for various military, civil, and commercial fixed-wing aircraft (figs C-1 to C-110). Military and commercial rotary-wing aircraft data are presented in figures C-111 to C-168.

C-3. Fixed-wing aircraft are grouped by military (figs C-1 to C-52) and civil and commercial (figs C-53 to C-l10). Military aircraft are further subgrouped as follows:

a. Bomber Aircraft.

Figure	Aircraft
C-1	B-1B
C-2	B-52
C-3	FB-111A

b. Cargo/Transport Aircraft.

Figure	Aircraft
C-4	C-5
C-5	C-7A
C-6	C-9A
C-7	C-12
C-8	C-17A
C-9	C-20A/B
C-10	C-21A
C-11	C-22B
C-12	C-23A
C-13	C-130
C-14	G-135B and KC-135R
C-15	C-137
C-16	C-140A/B
C-17	C-141
C-18	KC-lOA
C-19	VC-25A

c. Special-Duty Aircraft.

Figure	Aircraft
C-20	E-3A/B/C
C-21	E-4A/B
C-22	EC-18B
C-23	EC-130E/H, MC-130E/H, and WC-130E/H
C-24	EC-135, RC-135, and WC-135
C-25	EP-111A
C-26	O-2A/B
C-27	OA-37B
C-28	OV-1
C-29	OV-1OA
C-30	RC-12D/C/H/K and U-21J
C-31	RF-4C
C-32	RU-21A/H and U-21A/D/G
C-33	SR-71A
C-34	TR-1 and U-2
C-35	U-8F
C-36	U-10A
C-37	U-21F
C-38	UV-18

d. Tactical Aircraft.

Figure	Aircraft
C-39	A-7
C-40	A-lOA
C-41	A-37B
C-42	AC-130
C-43	F-4
C-44	F-5
C-45	F-15
C-46	F-16
C-47	F-100
C-48	F-101B
C-49	F-104C
C-50	F-105
C-51	F-106A/B
C-52	F- lllA/D/E/F

C-4. Civil and commercial aircraft are subgrouped as follows:

a. Eight Thousand Pounds or Less, Piston and Turboprop.

(1) Single engine, high wing, tailwheel (fig C-53).

(2) Single engine, high wing, tricycle gear (fig C-54).

(3) Single engine, low wing, tricycle gear (fig C-55).

(4) Twin engine, low or mid wing, tricycle gear (fig C-56).

(5) Twin engine, high wing, tricycle gear (figs C-57 and C-58).

b. More Than 8,000 to 12,500 Pounds, Piston and Turboprop.

Figure	Aircraft
C-59	Beechcraft Model 18
C-60	Beechcraft Queen Air
C-61	Beechcraft King Air
C-62	Beechcraft 99A
C-63	Swearingen Merlin II and III
C-64	Swearingen Merlin IV and Metro
C-65	DeHavilland Canada DHC-6
C-66	Hawker Siddeley Dove
C-67	Mitsubishi MU-2
C-68	Short Brothers Variants (Model SC.7)

c. More Than 12,500 Pounds, Piston and Turboprop.

Figure	Aircraft
C-68	Short Brothers Variants (Model SC.7-3M, 330, 360)
C-69	Convair-Liner
C-70	Douglas DG-3
C-71	Fairchild F-27 and FH-227
C-72	Grumman Gulfstream I
C-73	Martin 404
C-74	Aerospatiale Nord 262
C-75	Hawker Siddeley Heron
C-76	Hawker Siddeley HS-748
C-77	Nihon/N.A.M.C. YS-llA
C-78	Douglas DG-4/6/7
C-79	Lockheed L-188
C-80	Lockheed L-382
C-8l	Lockheed Constellation and Super Constellation
C-82	B.A.C./Vickers Viscount

d. Sixty Thousand Pounds or Less, Turbojet and Turbofan.

Figure	Aircraft
C-B3	Cessna Citation
C-84	Gates Learjet
C-85	Grumman Gulfstream II
C-86	Lockheed 1329
C-B7	Rockwell International NA-265
C-88	Avions Marcel Dassault Mystere 20
C-89	Fokker F-2B
C-90	Hamburger-Flugzeugbau HFB-320
C-91	Hawker Siddeley HS-125
C-92	Israel Aircraft Commodore Jet

e. More Than 60,000 Pounds, Turbojet and Turbofan.

Figure	Aircraft
C-93	Boeing 707 and 720
C-94	Boeing 727
C-95	Boeing 737
C-96	Boeing 747
C-97	Boeing 757
C-98	Boeing 767
C-99	General Dynamics/Convair 880 and 990
C-100	Lockheed L-l0ll
C-101	McDonnell Douglas DC-B
G-102	McDonnell Douglas DC-9 and MD-80
G-103	McDonnell Douglas DC-l0
C-104	Aerospatiale/Sud-Aviation SE-210
C-l05	B.A.C. One-Eleven
C-106	B.A.C./Vickers VC-10
C-107	Ilyushin IL-62
C-108	Airbus Industries A300, A310, A320
C-109	B.A.C./SNIAS Concorde
C-110	British Aerospace 146

C-5. The following correspondence between symbols and actual dimensions is employed in figures C-l to C-lb. An entry of "†" indicates data are not available. Dimensions are in feet unless otherwise stated.

Symbol	Dimension
A	Wingspan
B	Length overall
C	Height overall Wheelbase
E	Nose to centerline of main gear
F	Wheel track (tread)
G	Centerline of fuselage to centerline of inboard engine
H	Centerline of fuselage to centerline of outboard engine
J	Outside of main gear to wingtip
K	Vertical clearance of inboard engine or propeller at maximum weight
L	Vertical clearance of outboard engine or propeller at maximum weight
M	Centerline of fuselage to approximate pivot point based on maximum nosewheel steering angle or locked wheels
N	Vertical clearance of wingtip at maximum weight
P	Height of exhaust of jet engine on centerline of fuselage (three-engine jet aircraft only)

C-6. Rotary-wing aircraft are grouped and presented in alphabetical order by aircraft manufacturer (figs C-111 to C-168). Military aircraft designation; if applicable, is identified within parenthesis of the figure title. Military and commercial aircraft are presented as follows:

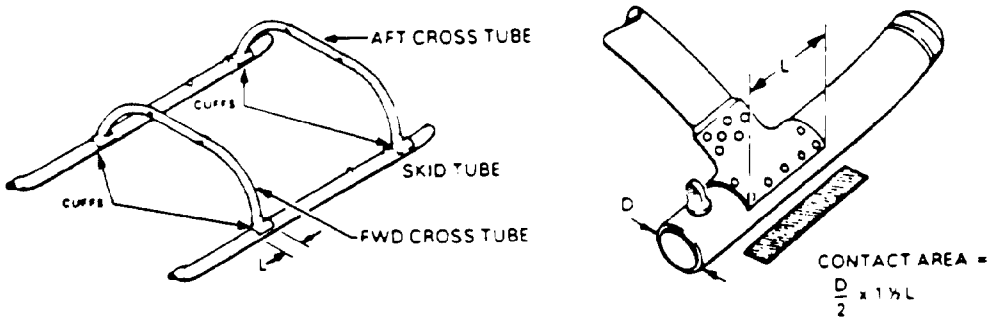
Figure	Aircraft
C-111	Aerospatiale 315B
C-112	Aerospatiale 3303
C-113	Aerospatiale 332C/L
C-114	Aerospatiale 341
C-115	Aerospatiale 350B/D
C-116	Aerospatiale 355E/F/F1
C-117	Aerospatiale 360C
C-118	Aerospatiale 365C
C-119	Aerospatiale 365N
C-120	Agusta 109A and 109A MkII
C-121	Bell 47G-3B (OH-13 and TH-13T)
C-122	Bell 47G-5A
C-123	Bell 204 (UH-1B/C/M)
C-124	Bell 205 (UH-1D/H)
C-125	Bell 205A-l
C-126	Bell 206A (OH-58A/C)
C-127	Bell 206B
C-128	Bell 206L-3
C-129	Bell 209 (AH-1G), [AH-1S(Production)], [AH-1S (ECAS)], [AH-1S(Modernized)]
C-130	Bell 212 (UH-1N)
C-131	Bell 212
C-132	Bell 214B
C-133	Bell 214ST
C-134	Bell 22Z and 222B
C-135	Bell 222UT
C-136	Bell 406 Al-UP (OH-58D)
C-l37	Bell 412
C-138	Bell/Boeing 301 (V-22)
C-139	Boeing 107-II
C-140	Boeing 114 (CH-47B/C/D)
C-141	Boeing 234 LR/ER/UT/MLR
C-142	Boeing 360

Figure	Aircraft
C-143	E.H. Industries EH 101
C-144	Enstrom 280C, F2BC-2, 280F, 2BOFX and F2BF
C-145	Hynes H-2/with skid landing gear
G-146	Hynes H-2/with wheel landing gear
C-147	Hynes H-S/with skid landing gear
C-148	Hynes H-S/with wheel landing gear
C-149	MBB BO 105 GB/CBS/IS
C-150	MBB/Kawasaki BK 117
C-151	McDonnell Douglas 77 (AH-64A)
C-152	McDonnell Douglas 500 (OH-6A)
C-153	McDonnell Douglas 500D
C-154	McDonnell Douglas 530F
C-155	Robinson R22
C-156	Rogerson Hiller RH-ll00
C-157	Rogerson Hiller UH-12E/E4/ET/E4T
C-15B	Schweizer 269A (TH-55A)
C-159	Schweizer 300C
C-160	Sikorsky S-5BT
C-161	Sikorsky S-61N
C-162	Sikorsky S-62
G-163	Sikorsky S-64 (CH-54A)
C-164	Sikorsky S-65A (CH-53C and HH-53C)
C-165	Sikorsky S-70 (HH-60A and UH-60A)
C-166	Sikorsky S-70C
C-167	Sikorsky S-76A/B
C-168	Westland 30-100-60, 30-200 and 30-300

C-7. The following correspondence between symbols and actual dimensions is employed in figures C-111 to C-168. An entry of “†” indicates data are not available. Dimensions are in feet unless otherwise stated.

Symbol	Dimension
A	Overall width; also, main rotor diameter
B	Overall length. The distance from the tip of the main or forward rotor to the tip of the tail rotor or fin with rotors at their maximum extension
C	Overall height
D	Wheelbase. Distance between front and rear axles for wheel equipped helicopters. Distance between front and rear attachment points for skid equipped helicopters
Dl	Skid length
E	Tread. Distance between tire or skid centers
F	Distance from center of rear wheel to tip of the tail rotor or fin for wheel equipped helicopter. Distance from rear of skid to tip of the tail rotor or fin for skid equipped helicopter
G	Distance from front fuselage to tip of the tail rotor or fin
H	Tail rotor diameter
J	Height to top of rotor head

C-8. The following information and figure are provided to clarify the computation of contact area for skid equipped helicopters. The contact area is computed for the strengthened “cross tube” attachment point or cuff.



MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
220	210	136.7	151.1	33.6	56.5	†	14.5	†	†	†	4.3	4.3	17.3	8.0

Figure C-1. B-1B (Rockwell International)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR*	NOSE GEAR**													
G	305	265	185 0	161 9	40.7	49 8	92 0	8 3	34.2	60 0	86 2	6 3	4 7	39 0	5 5
H	305	265	185 0	160 4	40.7	49 8	92 0	8 3	34.2	60.0	86.2	6 3	4 7	39.0	5 5

* MAIN GEAR IS AFT GEAR

** NOSE GEAR IS FORWARD GEAR

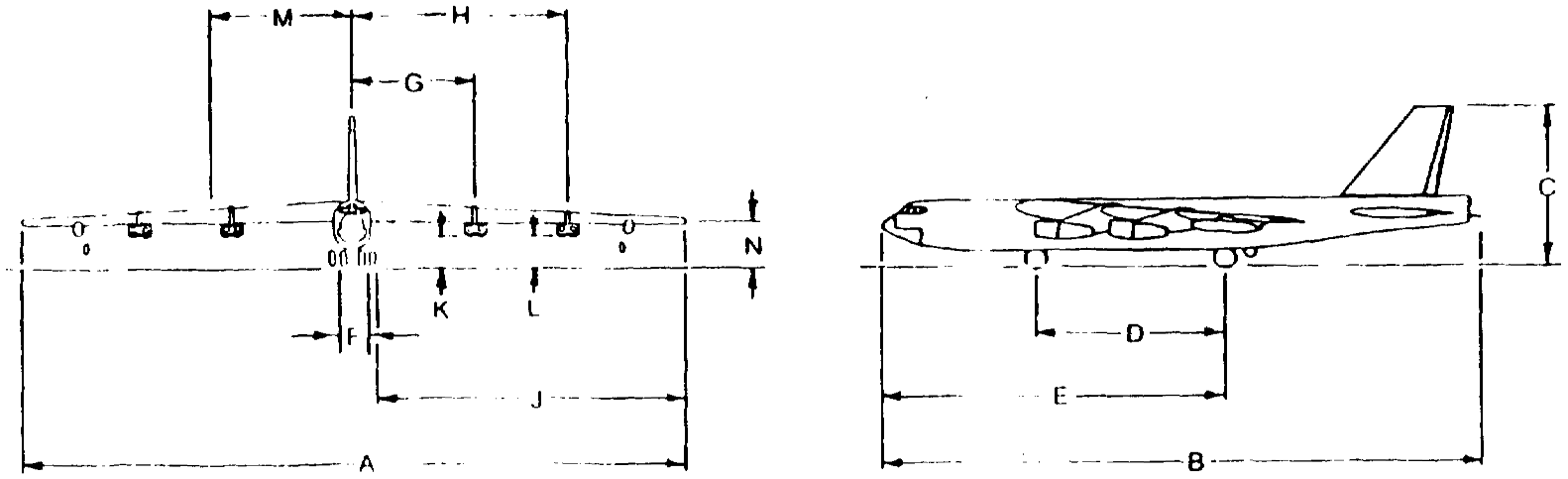
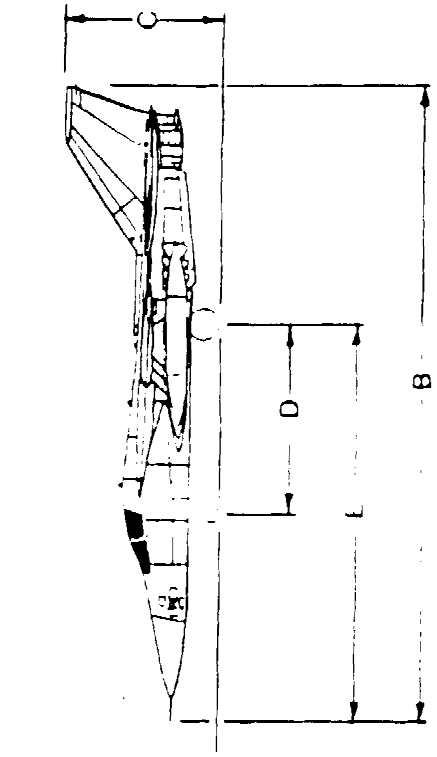


Figure C-2. B-52, Stratofortress (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
215	315	70.0	75.7	17.4	24.0	48.2	10.0	†	29.4	†	28.7	7.8



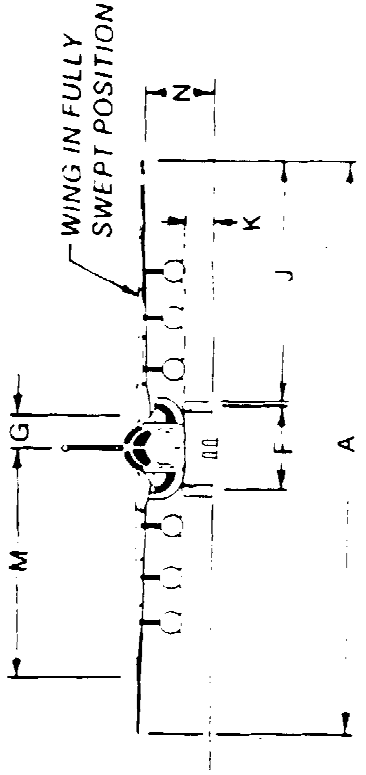


Figure C-3. FB-111A (General Dynamics)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
A	90	110	222 7	247 8	65 1	81 7	116 9	36 0	39 7	61 9	92 7	10 8	7 9	46 0	13 6
B	90	110	222 7	247 8	65 1	81 7	†	36 0	†	†	†	†	†	46 0	†

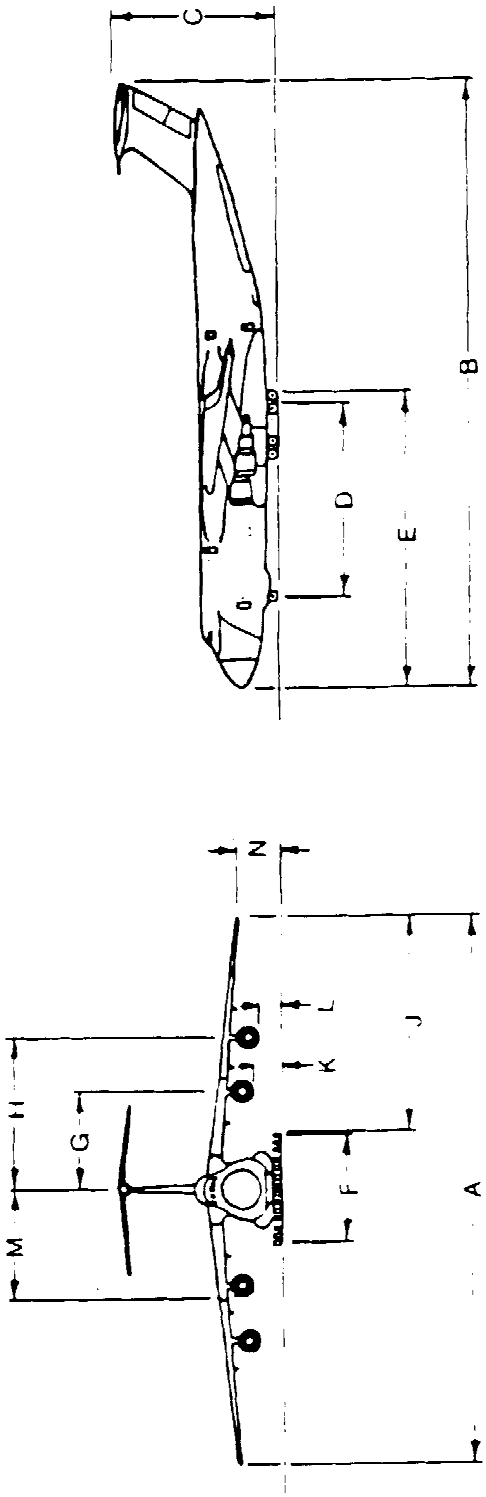


Figure 4. C-5, Galaxy (Lockheed)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
40	40	95.6	72.6	31.8	25.7	27.0	23.1	11.8	37.2	1.8	11.6	12.8

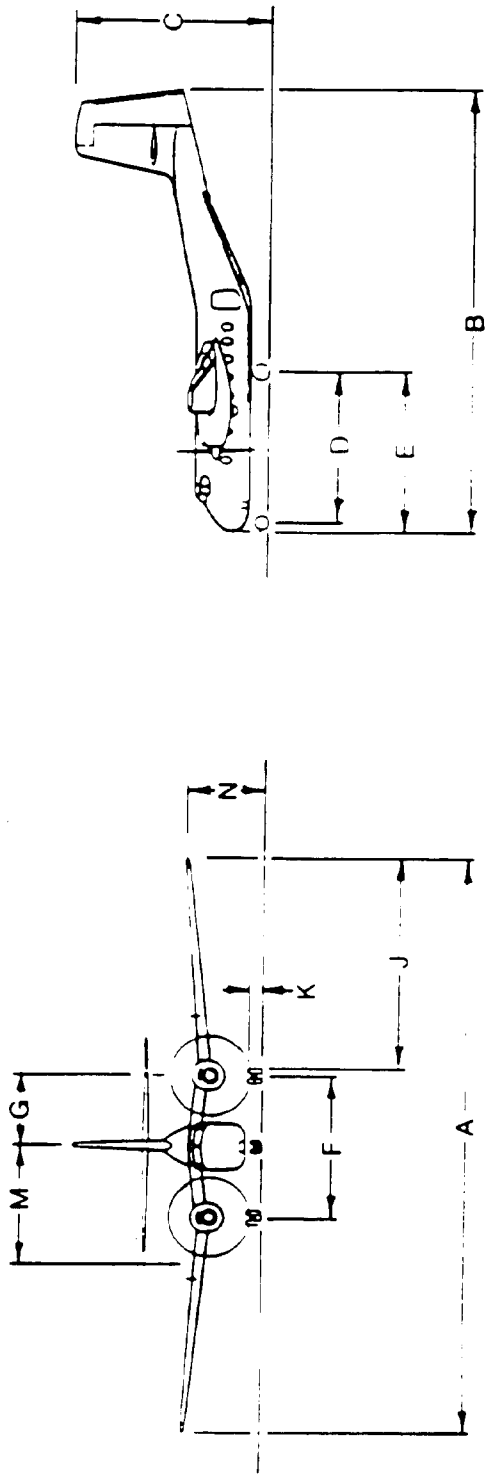


Figure C-5. C-7A, Caribou (De Havilland Canada)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
148	135	93 3	119 3	27 5	53 2	60 8	16 4	8 9	36 9	6 4	18 1	7 3

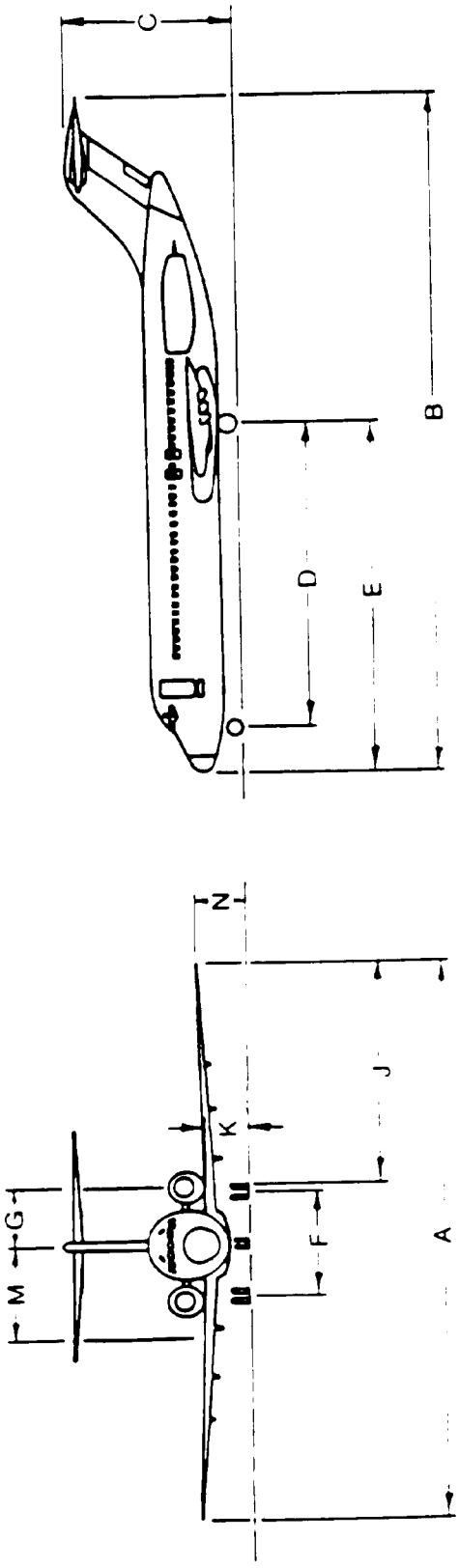


Figure C-6. C-9A, Nightingale (McDonnell Douglas)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
A, C, D, F	96	60	54 5	43.8	15 0	15 0	16 6	17 2	8.6	18.7	1 2	12 7	6.4
J	95	60	54 5	57.8	15 0	23 8	†	17 2	8 6	18 7	1 2	14 5	†

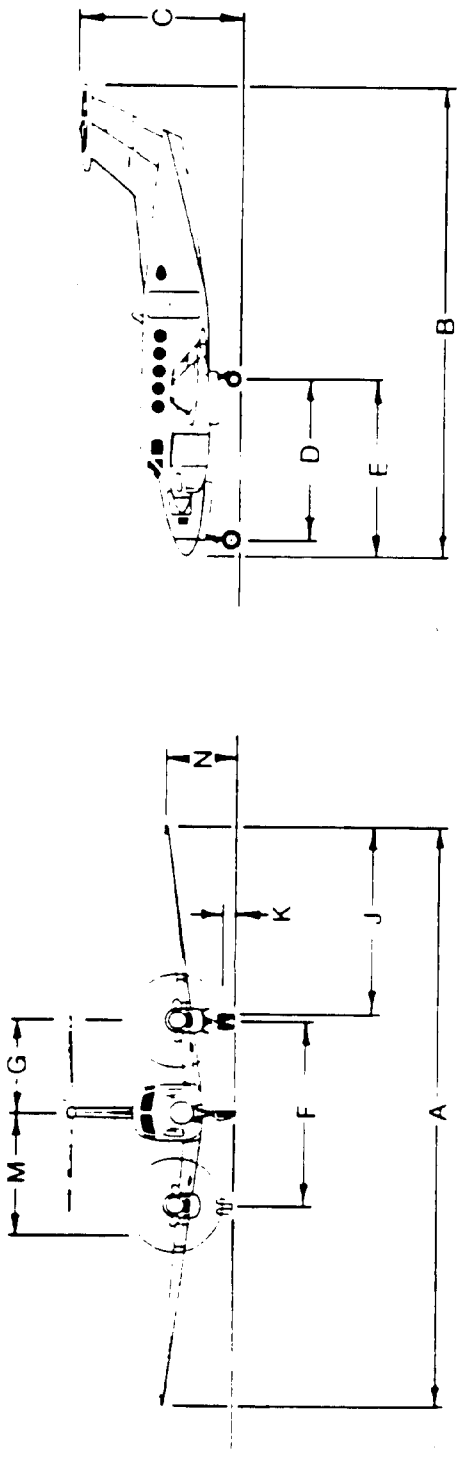


Figure C-7. C-12, Huron (Beech)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
138	155	170.0	174.0	55.1	61.8	†	25.0	†	†	†	†	†	†	†

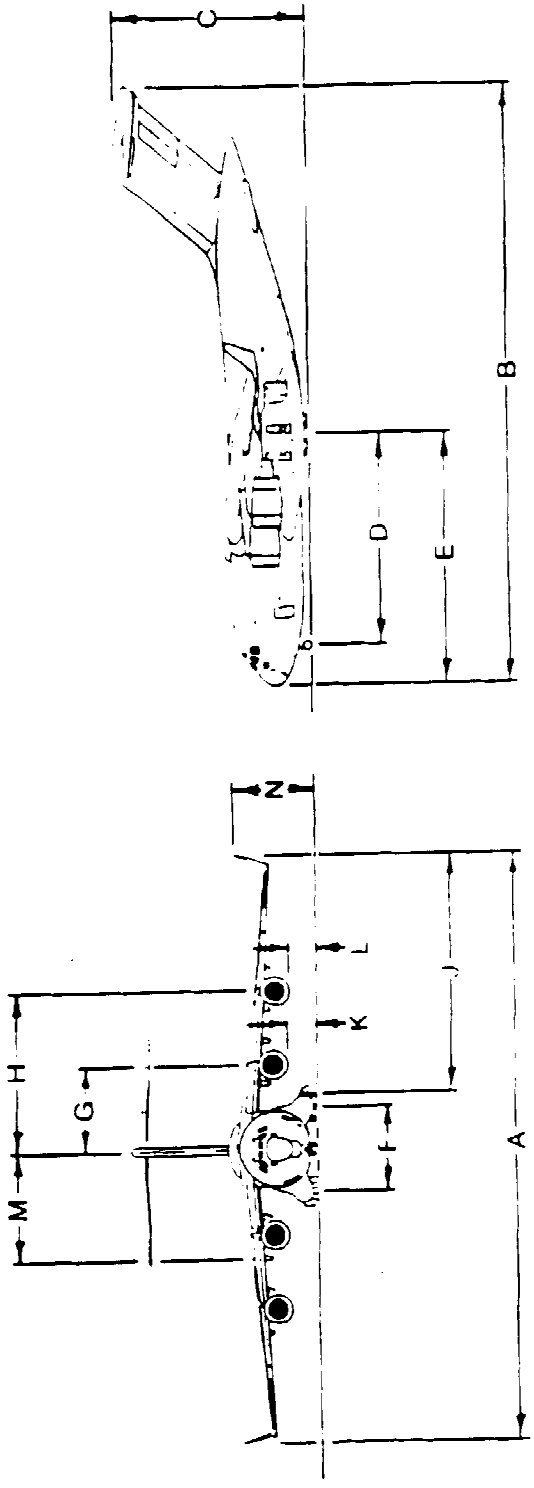


Figure C-8. C-17A (McDonnell Douglas)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
175	115	77 8	83 1	24 4	35 2	†	13 7	†	†	†	37 0	†

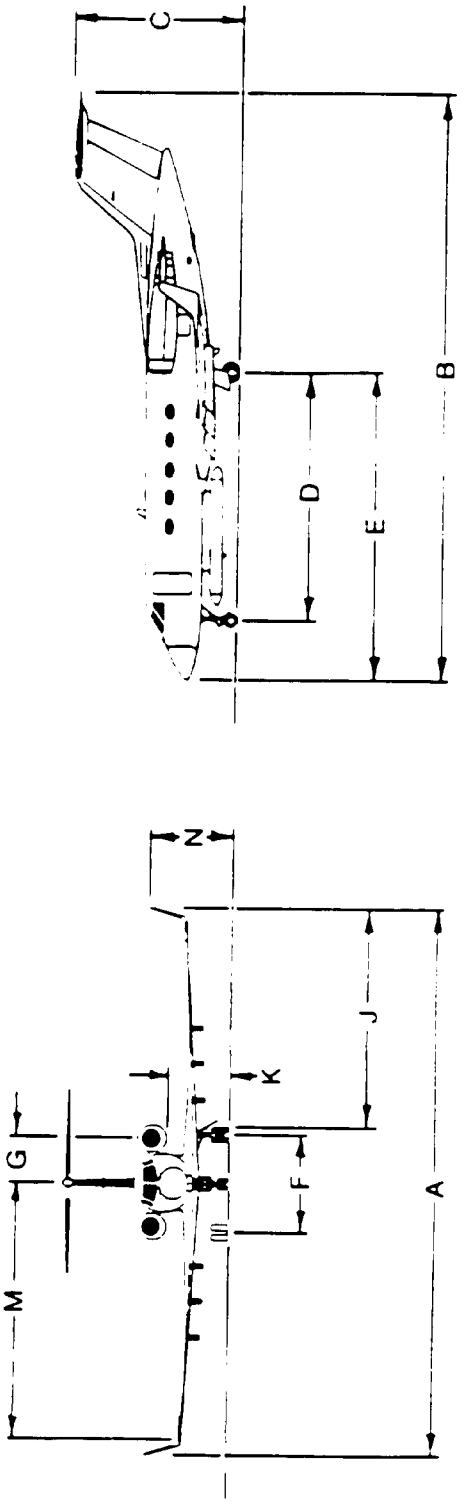


Figure C-9. C-20A/B, G3 (Gulfstream Aerospace)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
171	114	39.5	48.7	12.3	20.2	†	8.3	†	15.6	†	20.0	†

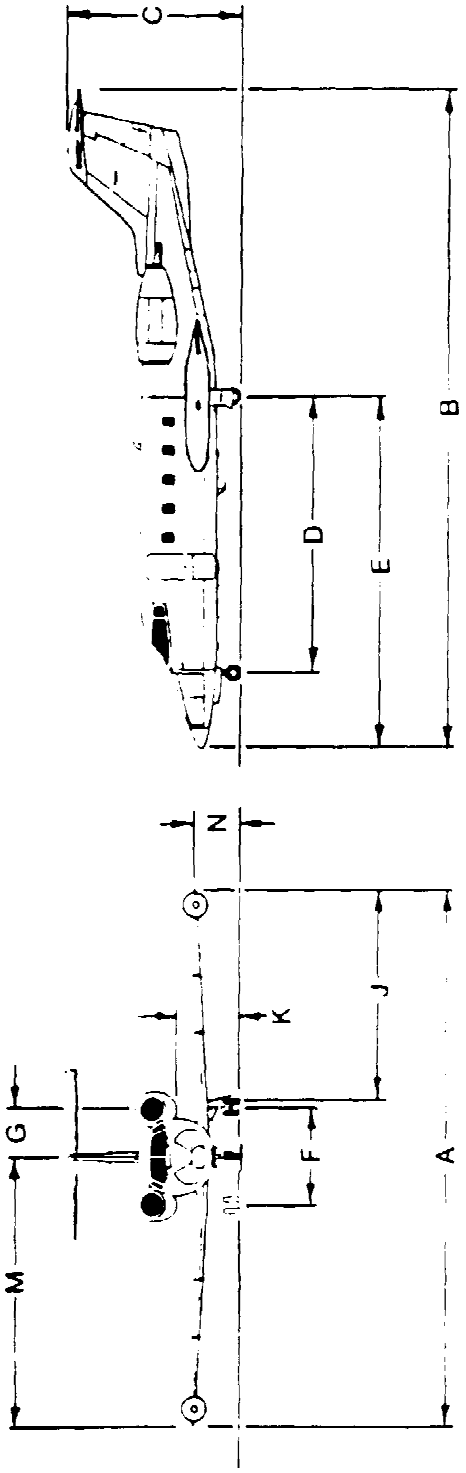
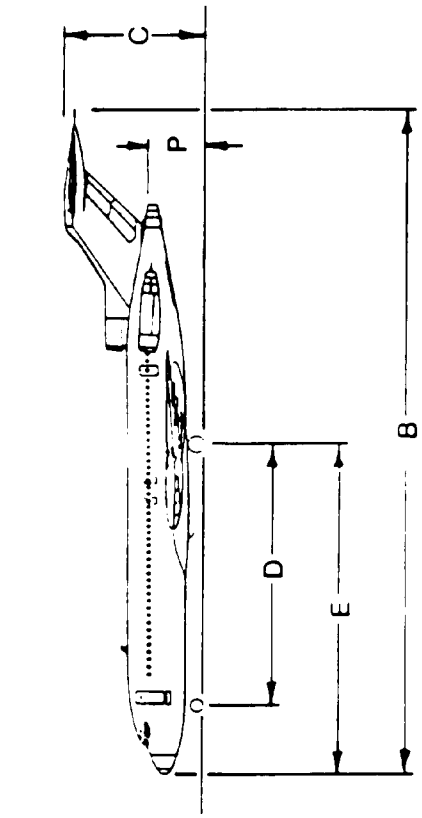


Figure C-10. C-21A (Gates Learjet)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	P
MAIN GEAR	NOSE GEAR												
174	105	108.0	133.2	34.0	53.3	68.3	18.8	9.3	42.5	10.3	14.3	5.7	12.0



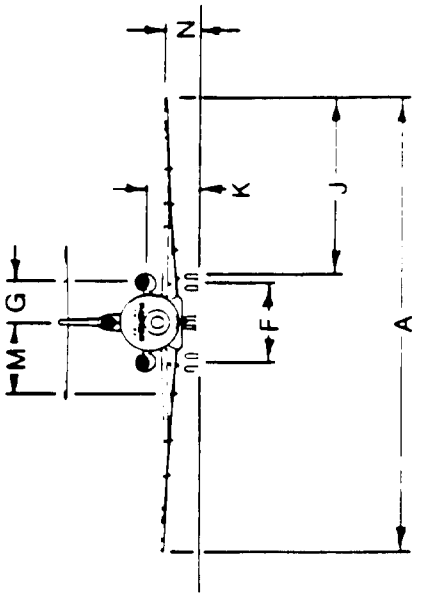


Figure C-11. C-22B (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
79	55	74.8	58.0	16.3	20.2	28.8	13.9	10.3	30.0	6.0	21.0	12.6

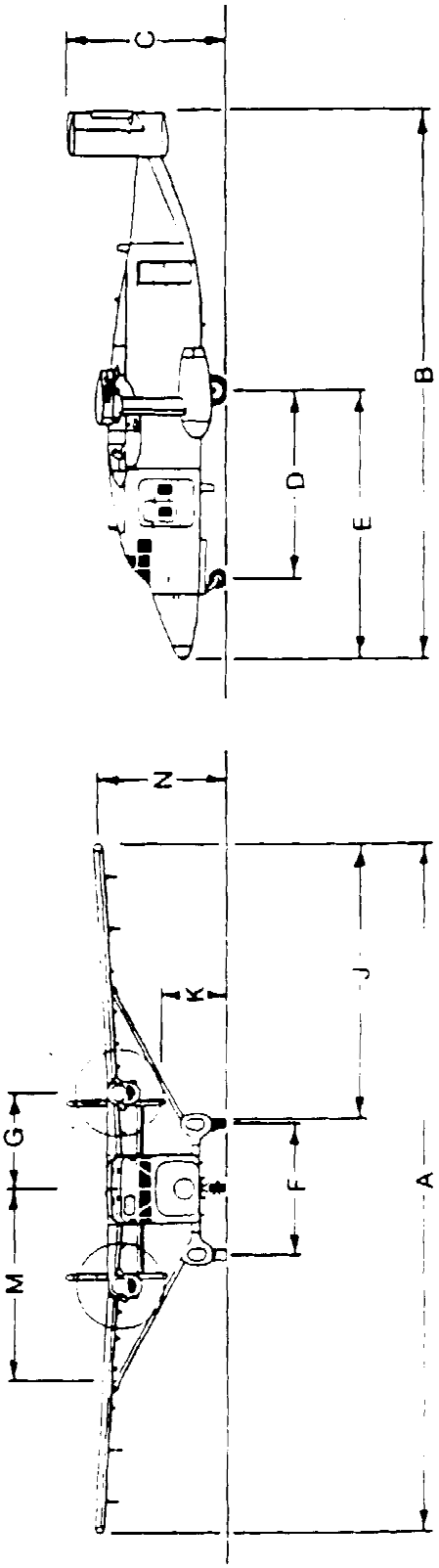


Figure C-12. C-23A, Sherpa (Short Brothers)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
B	119	60	132.6	99.5	38.4	31.8	43.6	14.3	16.3	33.3	60.0	5.8	6.6	18.0	15.0
E	119	60	132.6	99.5	38.3	31.8	43.6	14.3	16.3	33.3	60.0	6.0	6.7	18.0	15.3
H	119	60	132.6	99.5	38.3	31.8	43.6	14.3	16.3	33.3	60.0	6.0	6.7	18.0	15.3

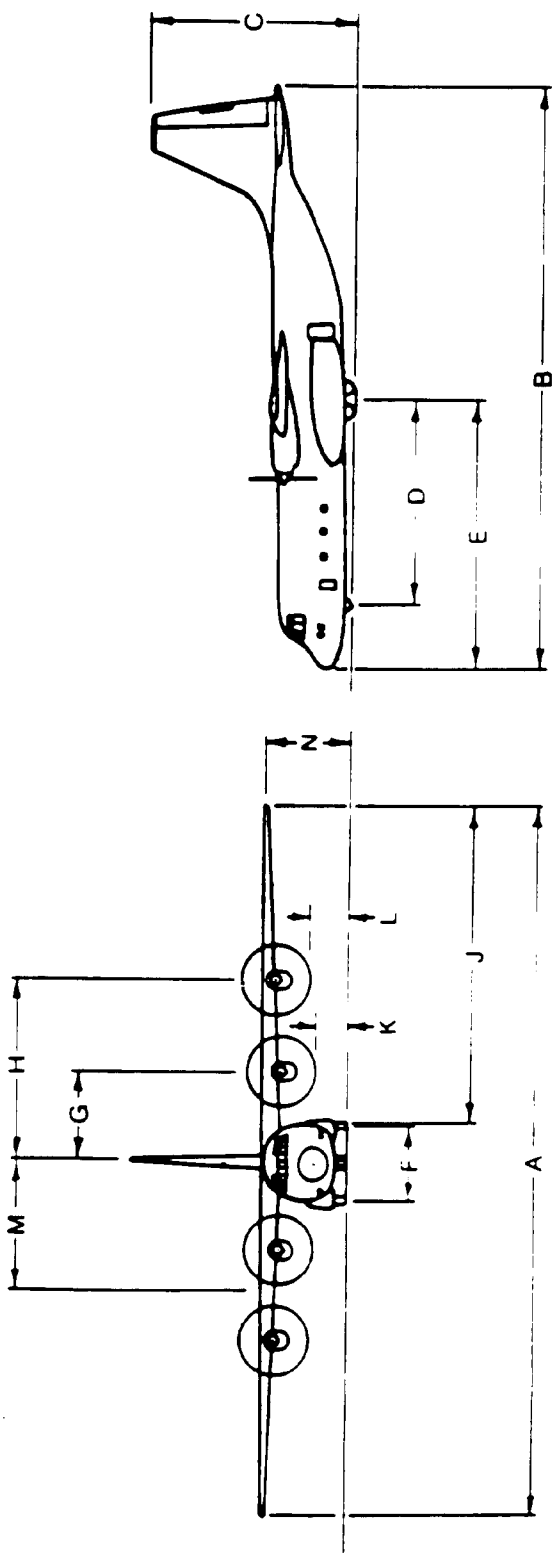


Figure C-13. C-130, Hercules (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
C-135B	160	135	130 8	134 4	41 7	45 7	63 1	22 1	27 2	46 1	52 9	2 3	4 2	45 7	13 0
KC-135R	170	135	130 8	136 2	41 7	45 7	63 1	22 1	26 7	45 7	52 9	1 8	3 8	45 7	13 1

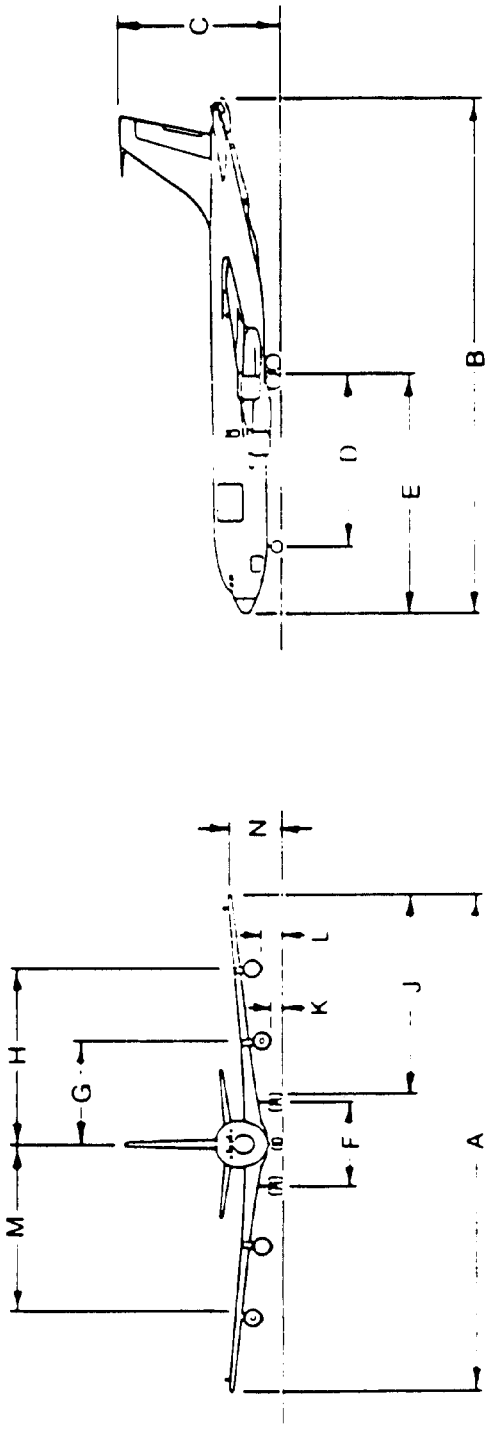


Figure C-14. C-135B, Stratolifter and KC-135R, Stratotanker (Boeing)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
B	144	88	130.8	144.5	41.3	52.3	69.8	22.1	27.2	46.1	52.3	2.3	4.2	45.7	11.6
C	190	114	145.8	152.9	41.8	59.0	76.4	22.1	32.5	51.4	59.8	2.8	4.6	45.7	12.1

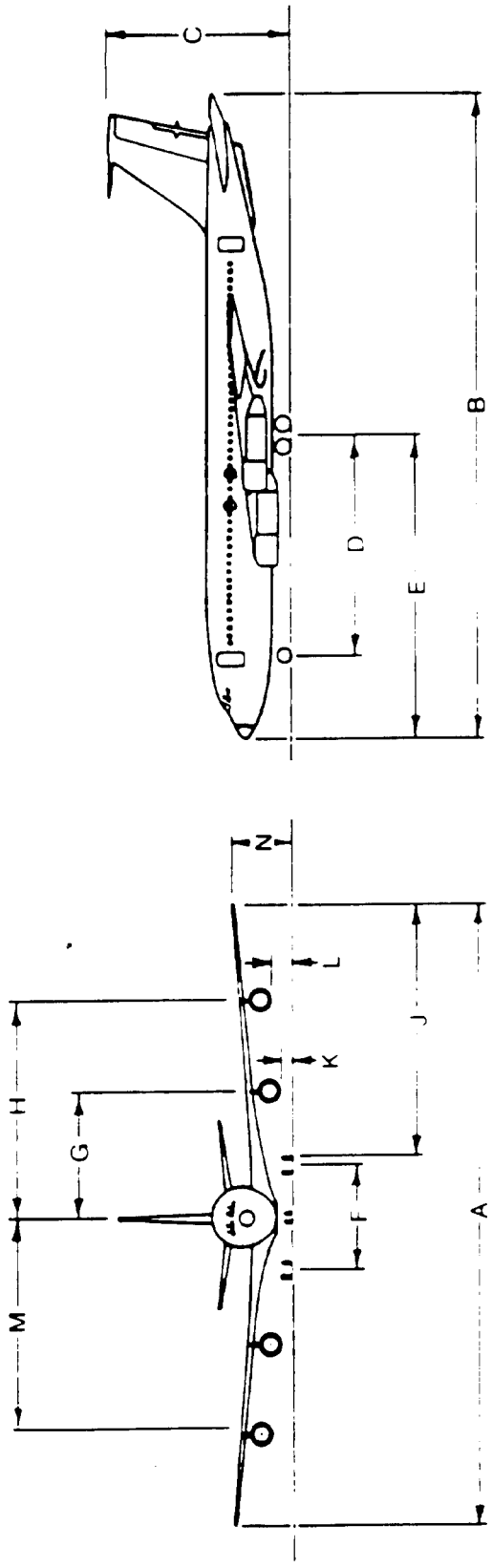


Figure C-15. C-137 (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
220	180	54.5	60.5	20.5	20.7	34.9	12.3	5.6	7.9	19.3	5.2	5.2	10.0	4.4

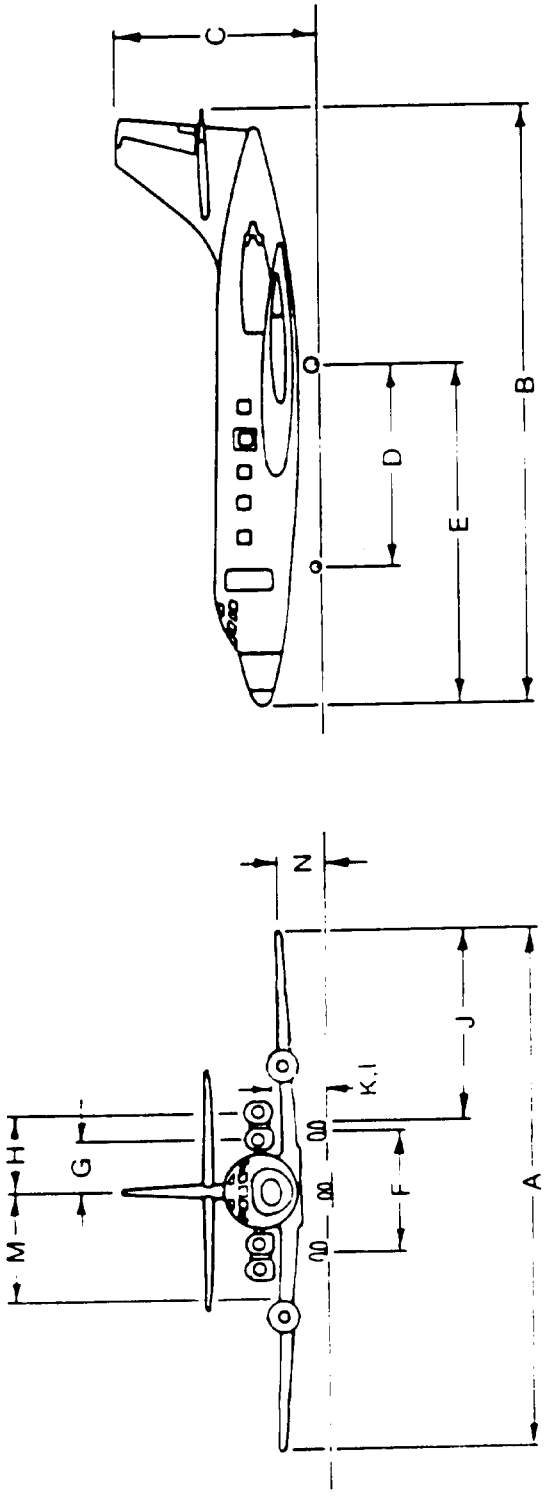


Figure C-16. C-140A/B, Jetstar (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
A	180	200	160.0	145.0	39.3	53.0	60.6	17.5	23.8	38.3	70.0	3.9	3.3	38.3	6.0
B	200	180	160.0	168.3	39.3	66.3	85.5	17.5	23.8	38.3	69.2	†	†	38.3	11.1

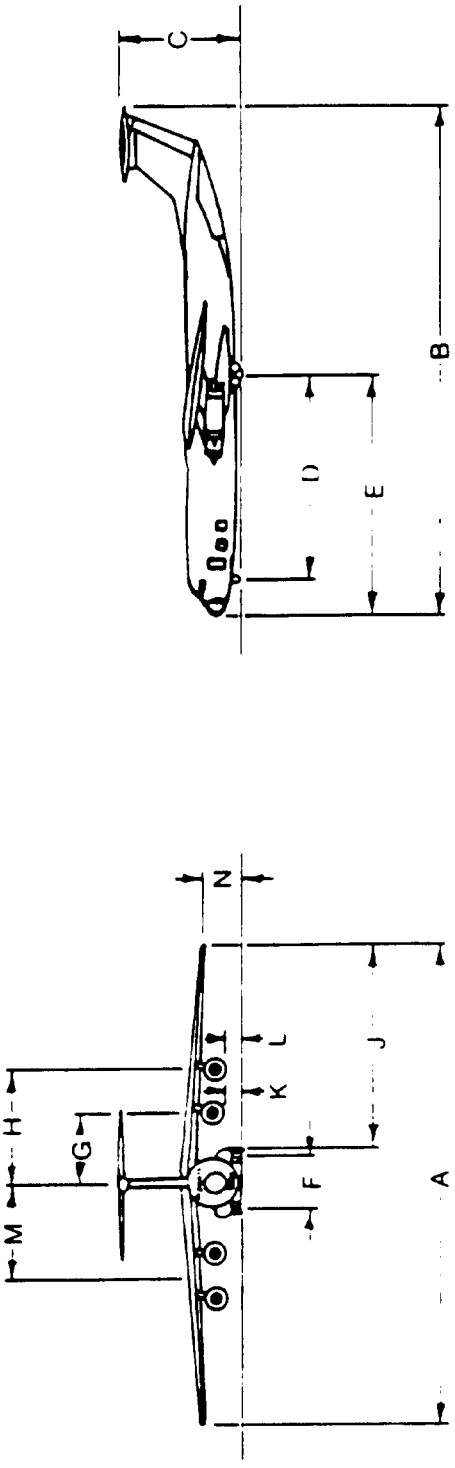


Figure C-17. C-141, Starlifter (Lockheed)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	P
MAIN GEAR	NOSE GEAR												
205	190	165.3	181.6	57.8	72.3	100.3	35.0	27.6	62.1	2.9	42.7	14.5	29.5

NOTE TIRE PRESSURE OF CENTERLINE TWIN TIRES IN MAIN GEAR VICINITY IS 175 PSI

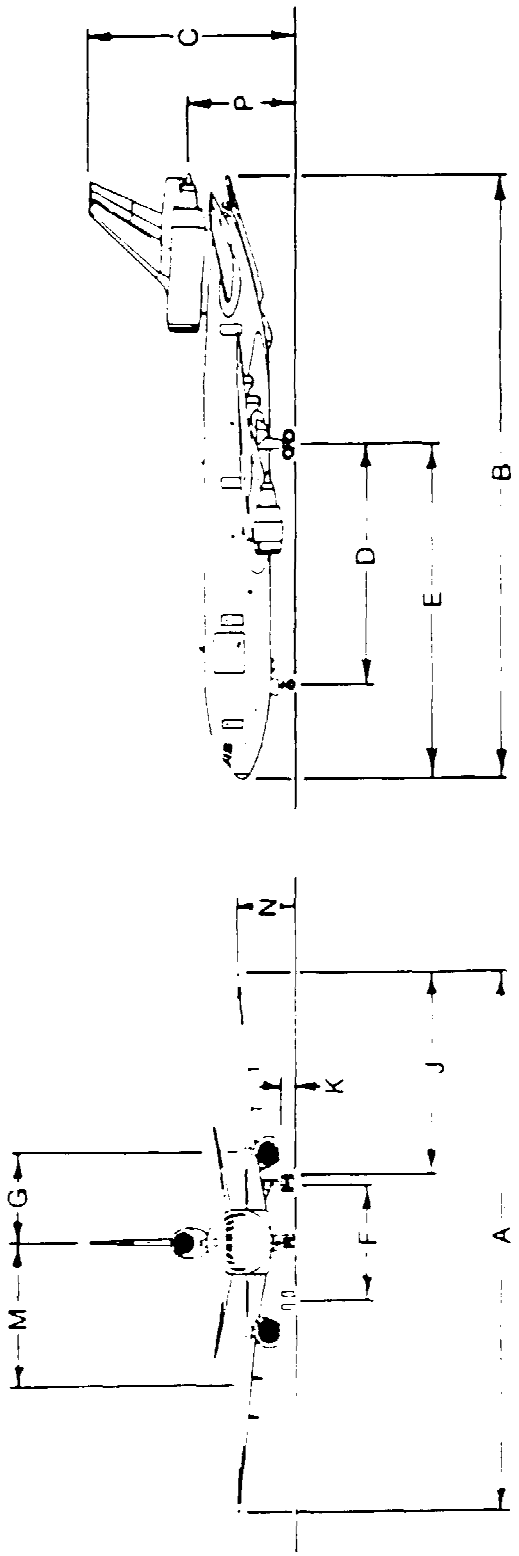


Figure C-18. KC-10A, Extender (McDonnell Douglas)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
208	218	195.7	231.3	63.4	84.0	109.4	36.1	39.2	69.5	77.3	2.8	5.5	40.0	17.6

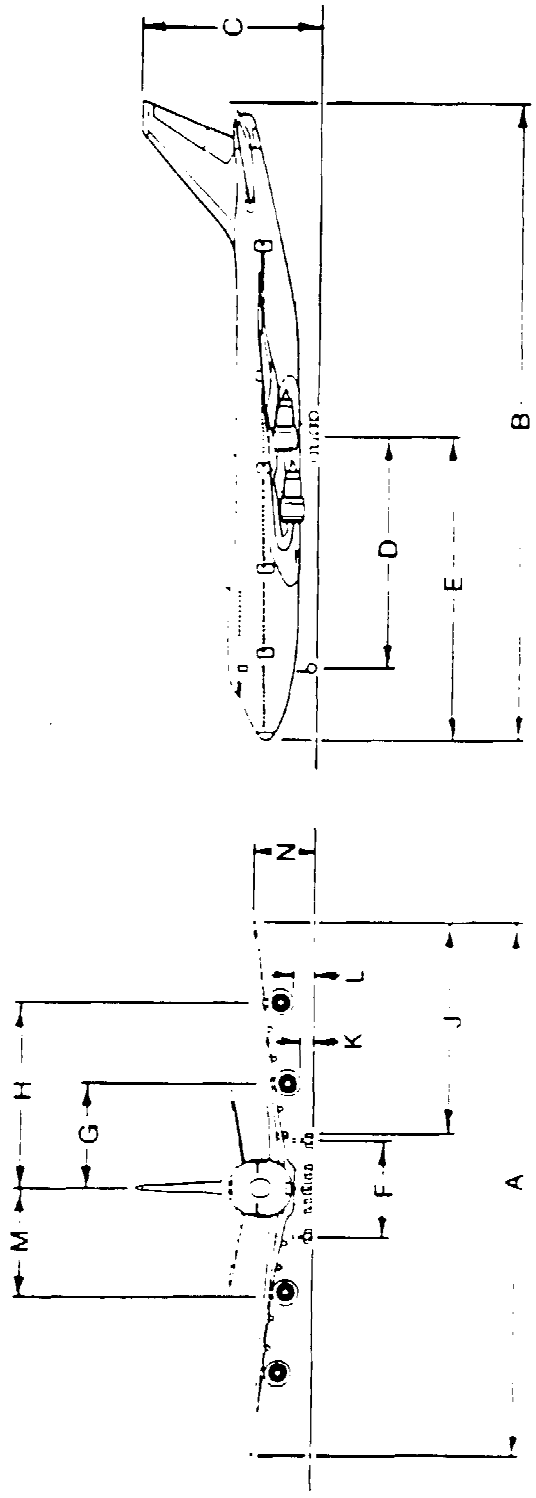


Figure C-19. VC-25A, Air Force One (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
200	119	145.8	152.9	41.8	59.0	76.4	22.1	33.0	52.0	59.8	2.8	4.6	45.6	12.3

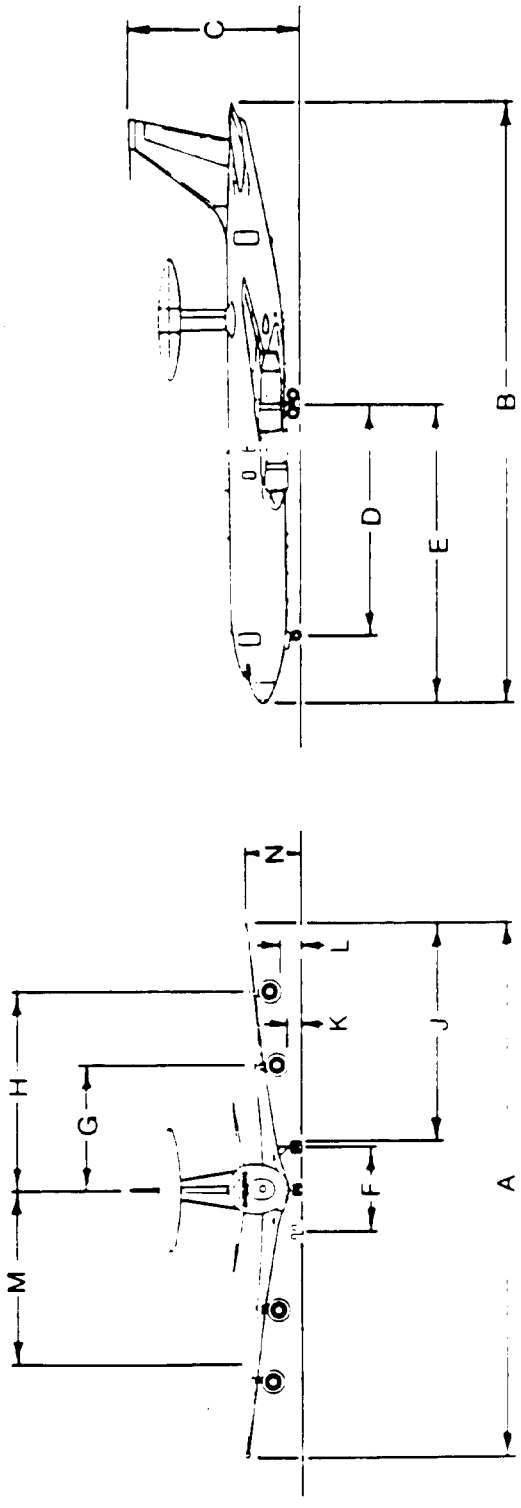


Figure C-20. E-3A/B/C, Sentry AWACS (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
203	203	195.7	231.3	63.4	84.0	109.4	36.2	39.2	69.5	77.3	28	5.5	29.8	17.6

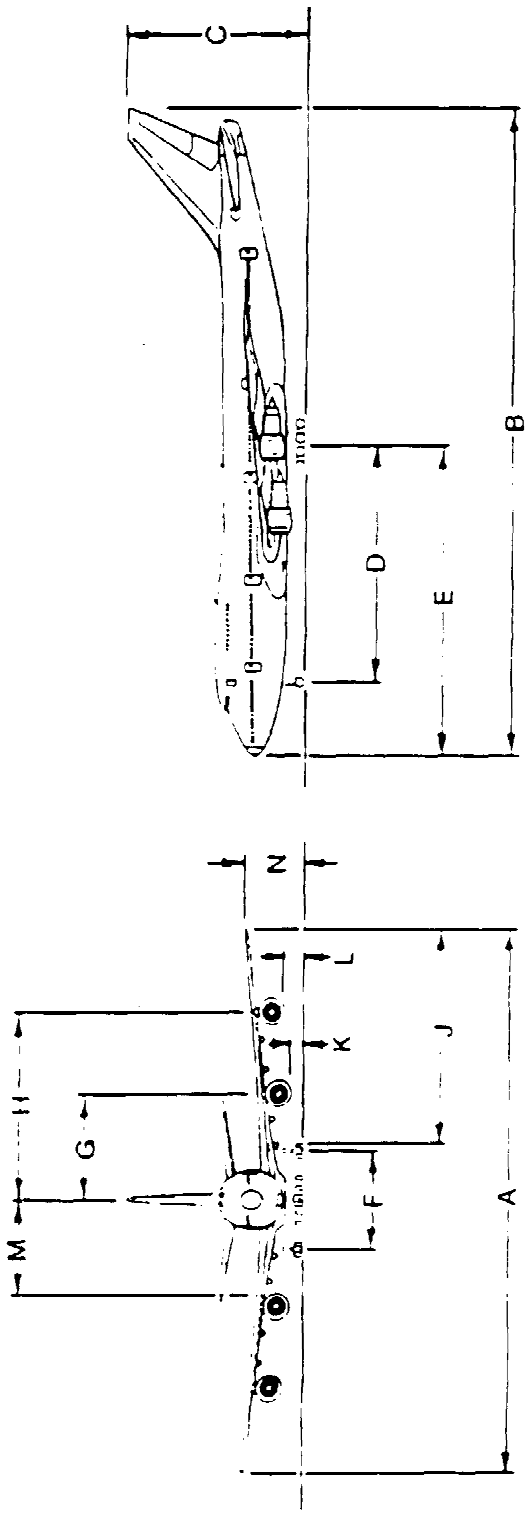


Figure C-21. E-4A/B, NEACP (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
194	114	145.8	152.4	42.5	59.0	83.3	22.1	33.0	52.0	59.8	2.8	4.6	34.5	12.1

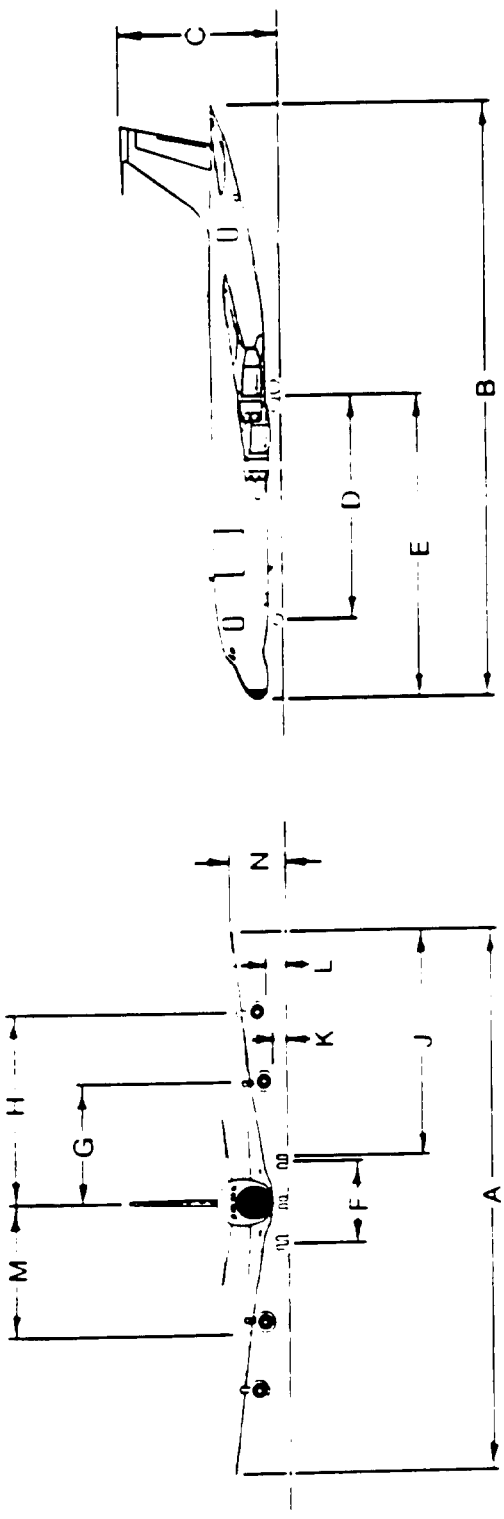


Figure C-22. EC-18B, ARIA (Boeing)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
EC-130E/H	119	60	132.6	99.5	39.2	31.8	43.6	14.3	16.3	33.3	60.0	6.0	6.7	18.0	15.3
MC-130E/H WC-130E H	119	60	132.6	99.5*	39.2	31.8	43.6	14.3	16.3	33.3	60.0	6.0	6.7	18.0	15.3

* DIMENSION 'B' IS 108.1 FEET FOR MC-130E/H

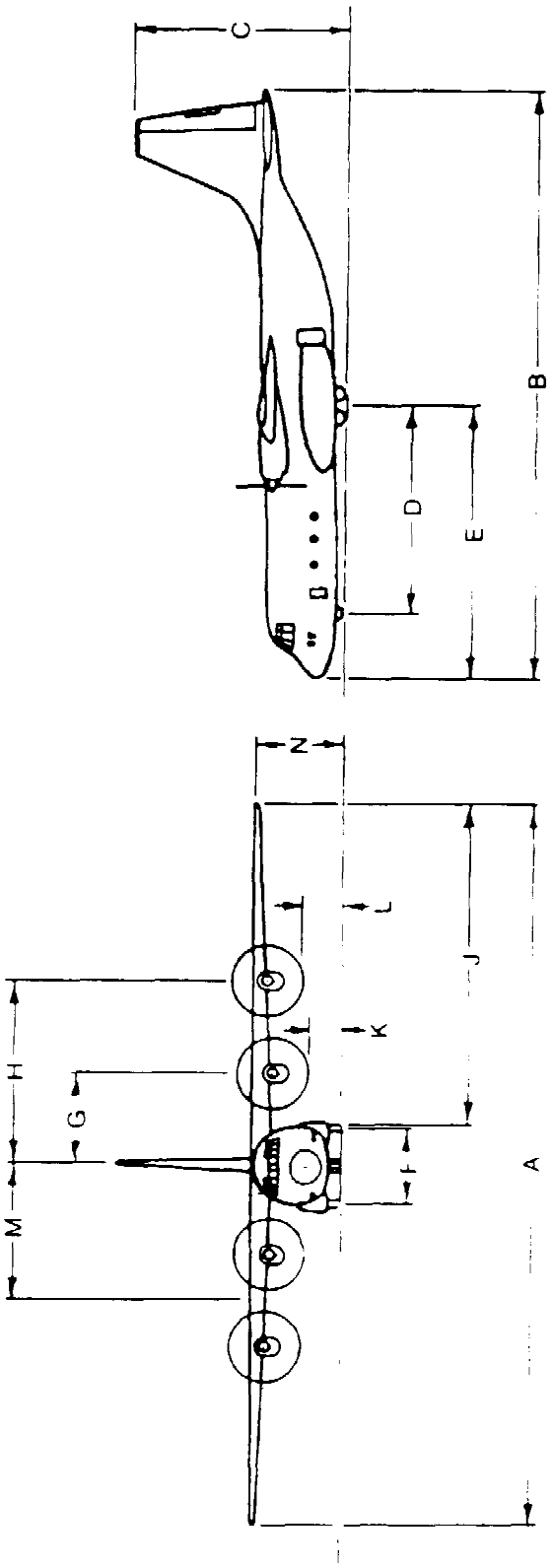


Figure C-23. EC-130E/H, MC-130E/H, and WC-130E/H, Hercules (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
EC-135A/G/H/K/L/P	160	135	130 8	136 2	41 7	45 7	63 1	22 1	27 2	46 1	52 9	2 6*	4.7*	45 7	13 0
EC-135C/J/Y	160	135	130 8	136 2	41 7	45 7	63 1	22 1	27.2	46 1	52 9	2.0**	4.1**	45 7	13 0
EC-135E	160	135	130 8	141 5	41 7	45 7	68 3	22 1	27 2	46 1	52 9	2 2	4 3	45.7	13 0
RC-135M/S/W	160	135	130 8	140 0	41 7	45 7	69 1	22 1	27 2	46 1	52 9	2 2	4.3	45.7	13 0
RC-135U	160	135	130 8	140 5	41.7	45.7	63 1	22 1	27 2	46 1	52 9	2 0	4 1	45.7	13 0
RC-135V	160	135	130.8	140 5	41 7	45 7	63 1	22.1	27.2	46.1	52.9	2.0	4.1	45.7	13 0
WC-135B	160	135	130.8	134.5	41.7	45.7	63 1	22.1	27.2	46.1	52.9	2.2	4.3	45.7	13.0

* THE DIMENSIONS "K" AND "L" FOR EC 135H/K/P ARE 2 2 AND 4 3 FT. RESPECTIVELY

** THE DIMENSIONS "K" AND "L" FOR EC 135Y ARE 2 2 AND 4 3 FT. RESPECTIVELY

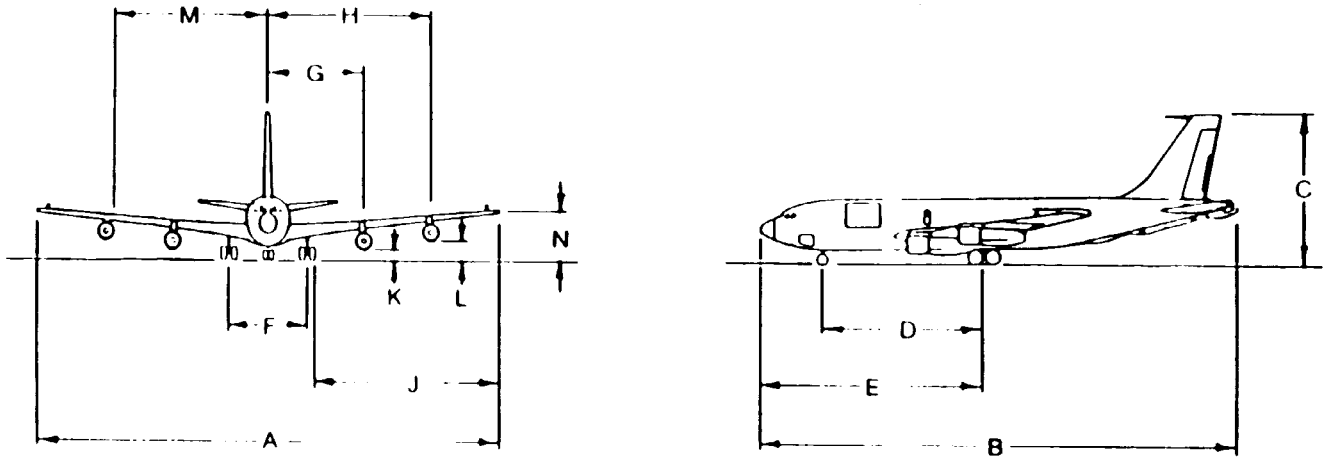


Figure C-24. EC-135, RC-135, and WC-135 (Boeing)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
180	280	63 0	75 5	20 0	24 0	48 2	10 0	†	25 9	†	28 7	8 3

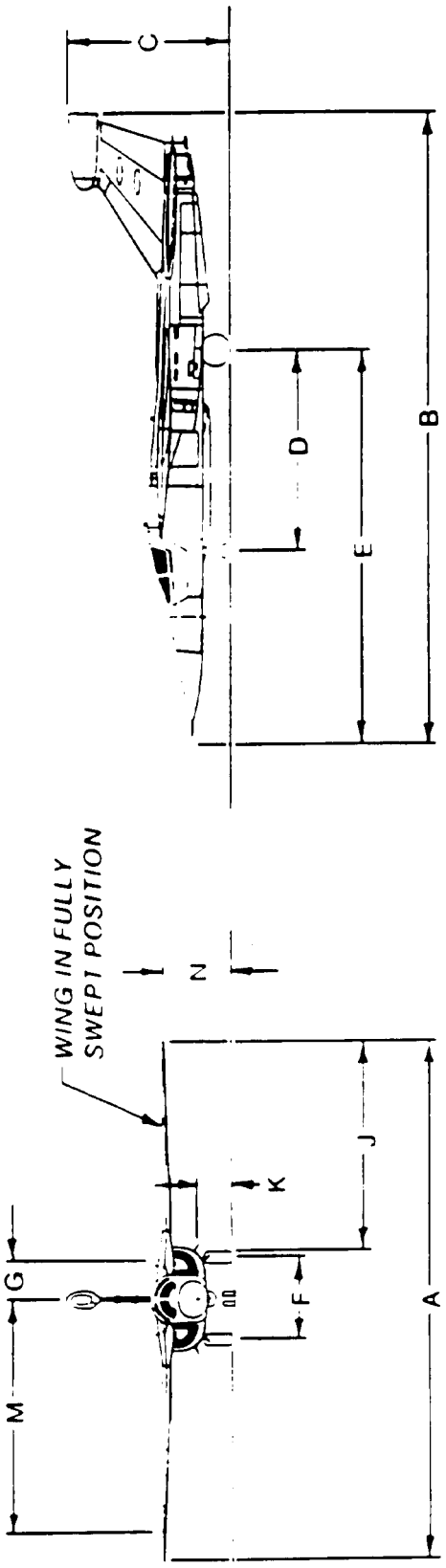
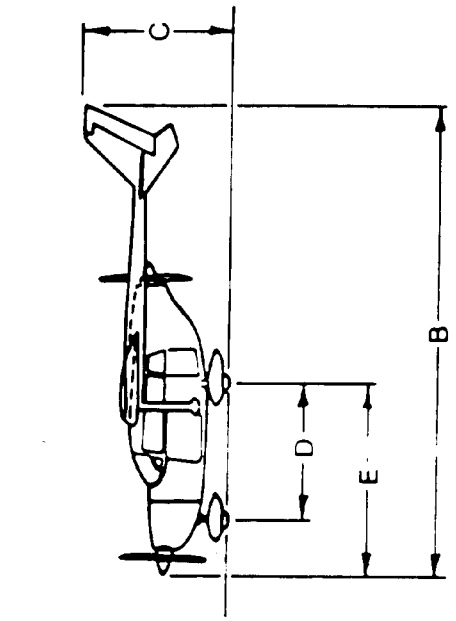


Figure C-25. EF-111A, Raven (General Dynamics/Grumman)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
45	45	38 0	29 2	9.4	7 8	†	8.2	0 0	†	0.8	†	†



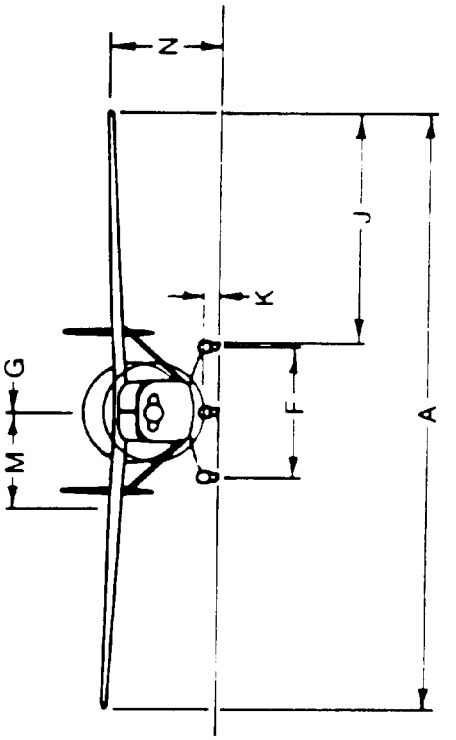


Figure C-26. O-2A/B (Cessna)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
125	60	38.3	31.8	9.5	7.8	†	13.7	†	12.0	†	†	3.3

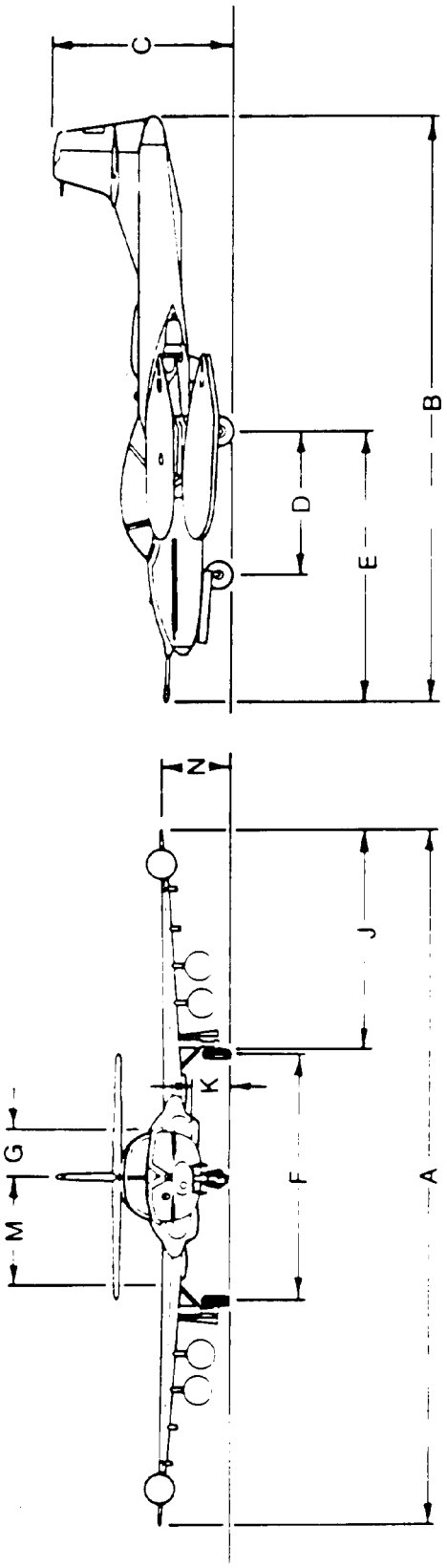


Figure C-27. OA-37B, Dragonfly (Cessna)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
B, D	90	65	48.0	43.9	12.7	11.7	17.5	9.2	9.3	22.0	3.2	†	7.3
C	90	65	42.0	41.1*	12.7	11.7	15.5*	9.2	9.3	19.0	3.2	†	6.9

* DIMENSIONS ARE MEASURED FROM NOSE OF AIRCRAFT

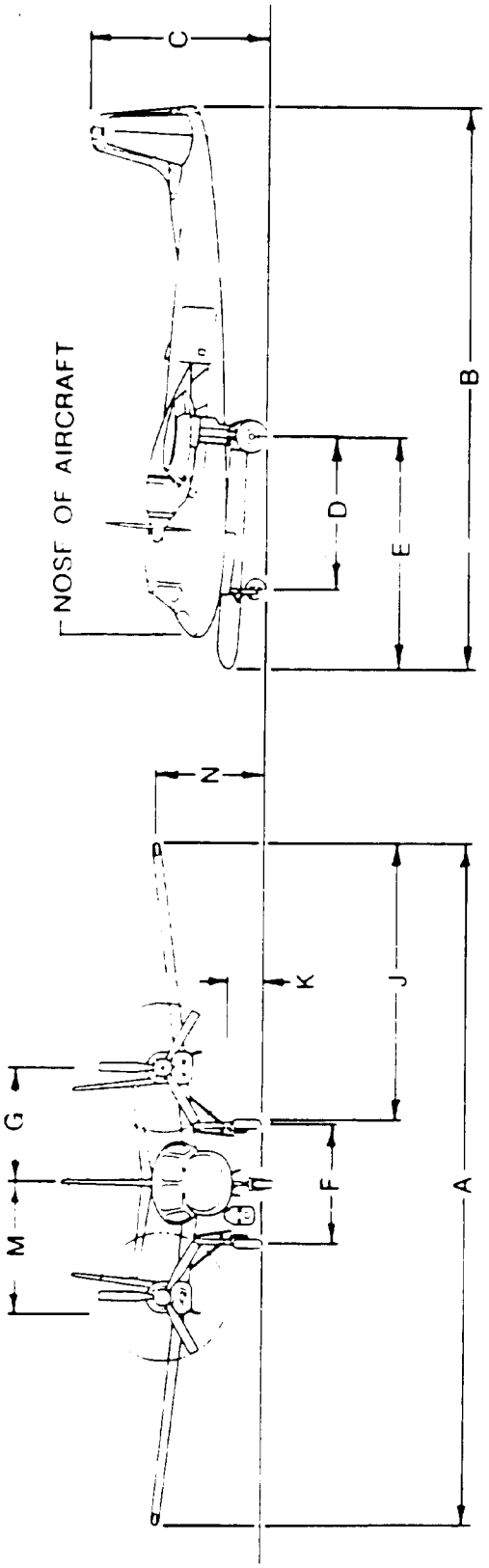


Figure C-28. OV-1, Mohawk (Grumman)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
65	80	40.0	41.6	15.2	11.7	17.9	14.8	7.3	12.3	2.0	†	†

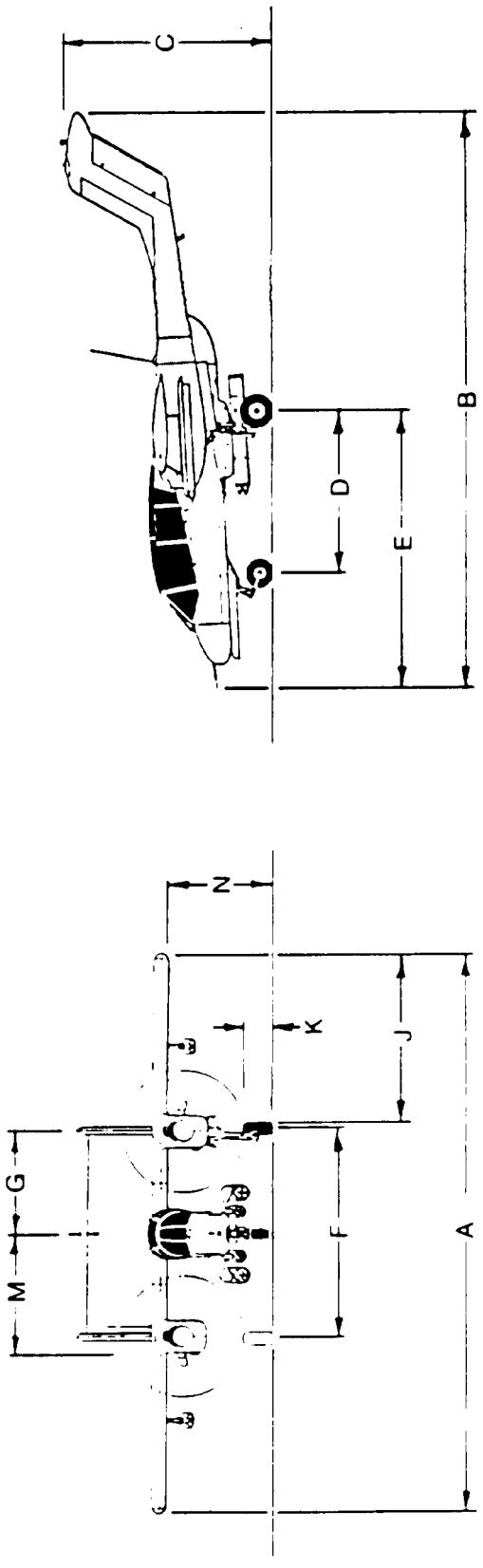


Figure C-29. OV-10A, Bronco (Rockwell International)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
96	60	54.5	43.8	15.0	15.0	†	17.2	8.6	†	1.2	12.7	†

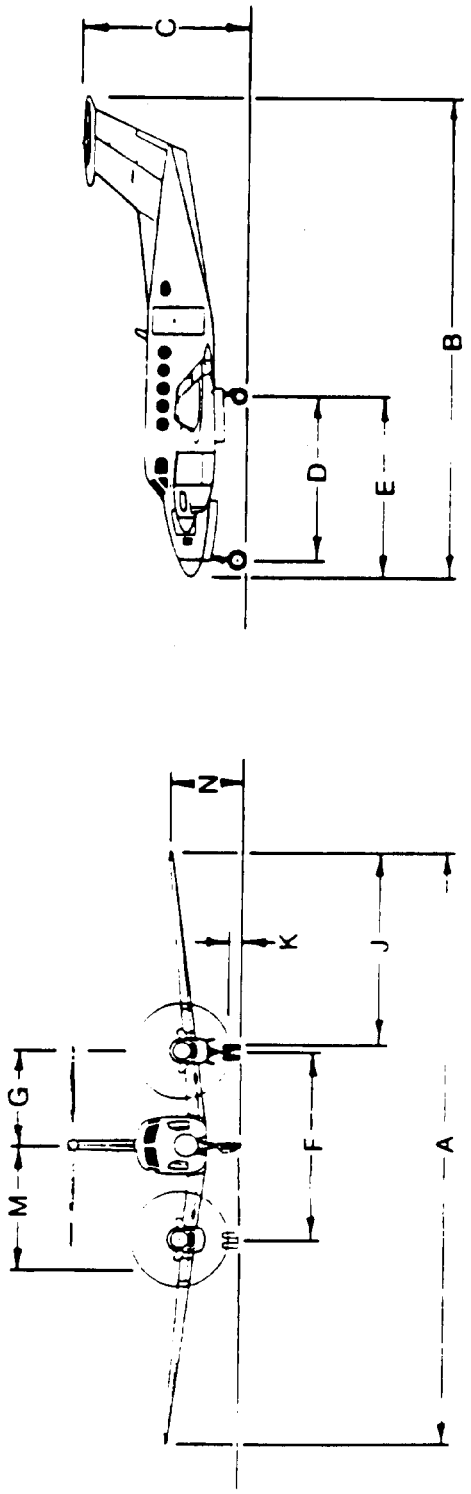


Figure C-30. RC-12D/G/H/K and U-21J (Beech)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
265	215	38.4	63.0	16.4	23.3	†	17.9	†	10.0	†	8.9	†

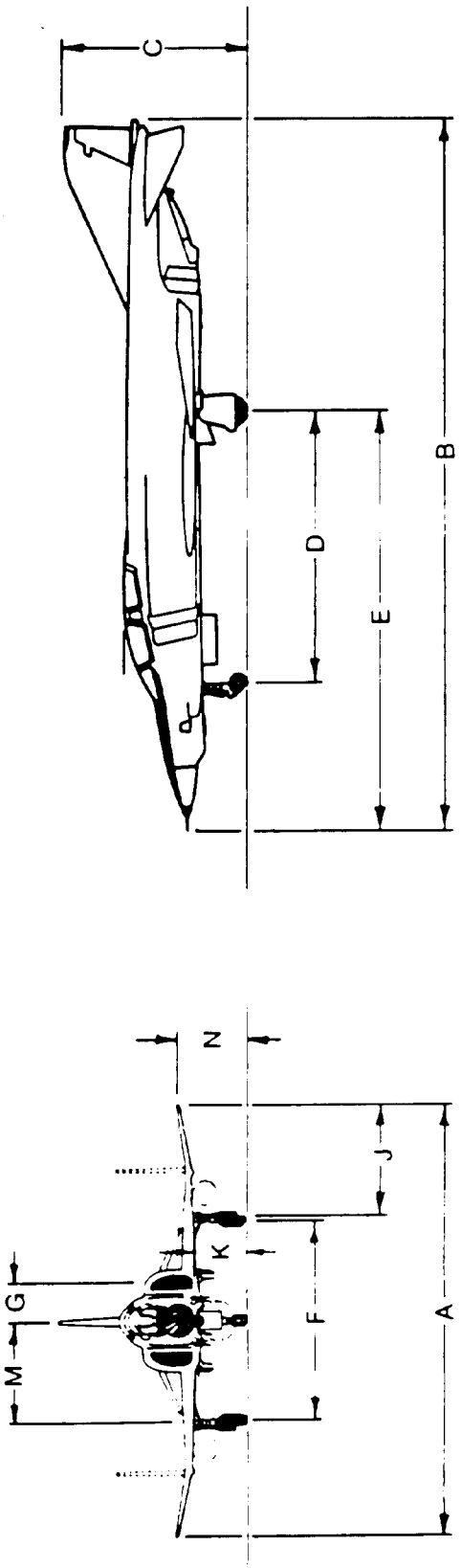


Figure C-31. RF-4C, Phantom II (McDonnell Douglas)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
RU-21A/H	55	55	50.9	35.5	14.2	12.3	13.8	12.8	6.5	18.8	1.0	†	†
U-21A/D/G	55	55	45.9	35.5	14.2	12.3	13.8	12.8	6.5	16.3	1.0	†	6.3

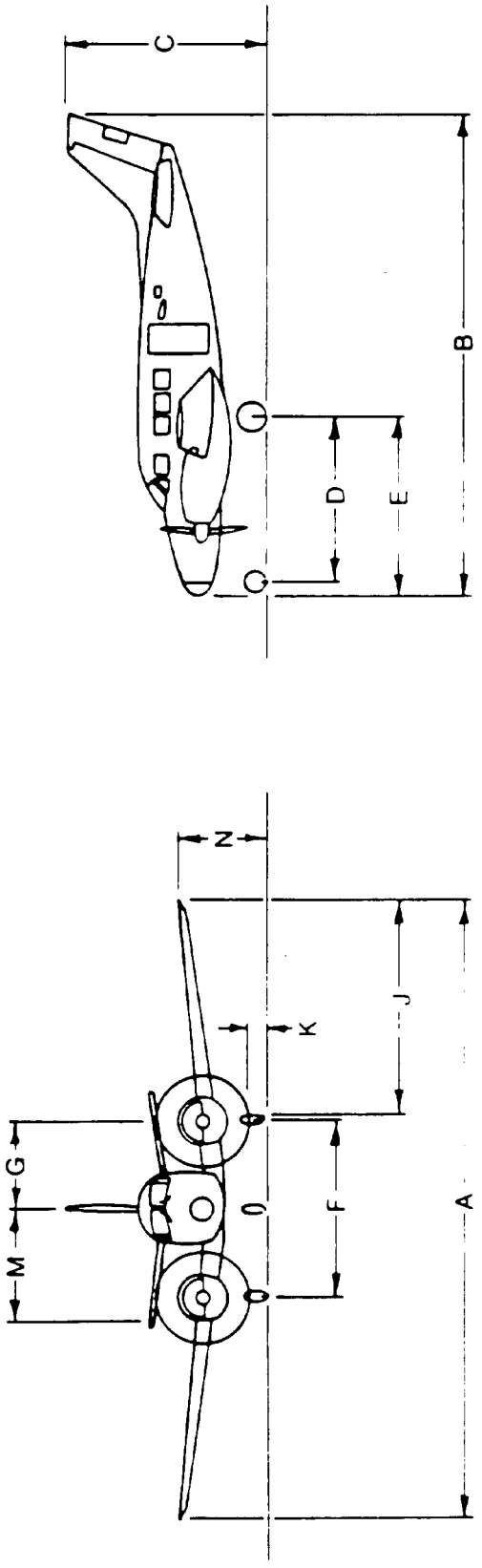


Figure C-32. RU-21A/H and U-21A/D/G (Beech)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
415	†	55.6	107.4	18.5	37.9	†	16.7	†	†	†	†	†

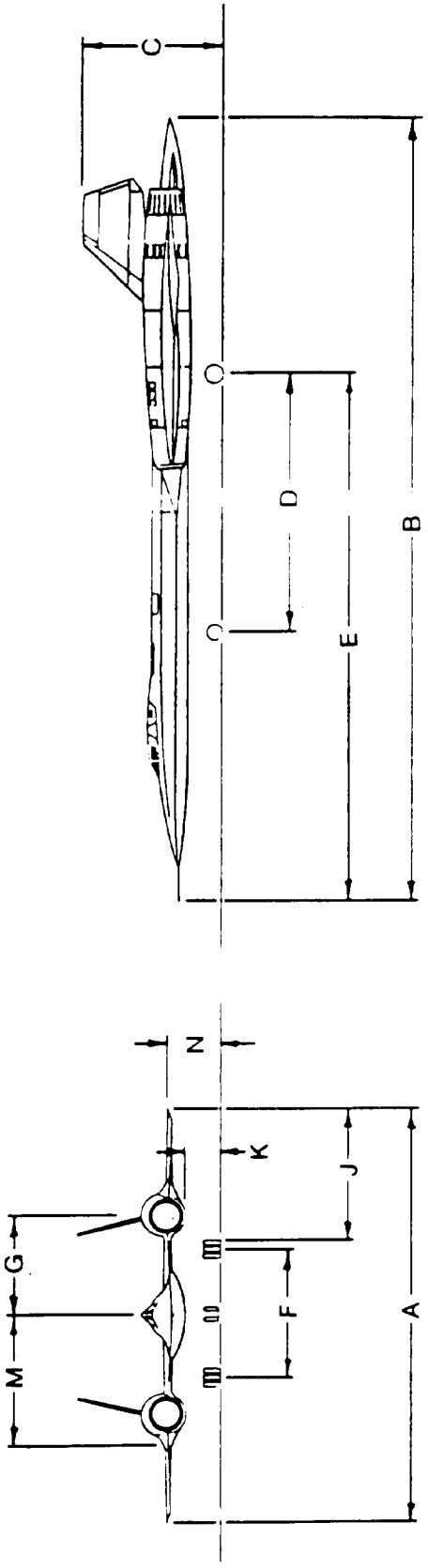


Figure C-33. SR-71A, Blackbird (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	FORWARD GEAR	AFT AND WING GEAR											
TR-1A	300	SOLID	103.0	63.0	16.0	†	†	†	0.0	†	†	†	†
U-2B/C	†	SOLID	80.0	49.6	13.0	20.0	†	†	0.0	†	†	†	†

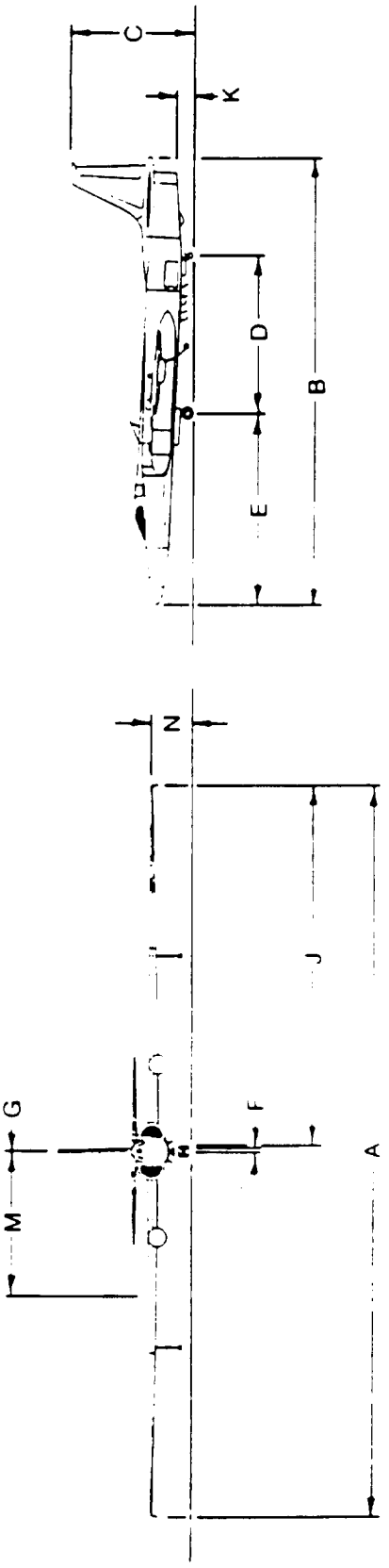


Figure C-34. TR-1 and U-2 (Lockheed)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
47	36	45.9	33.3	14.2	12.3	†	12.8	†	†	0.9	†	†

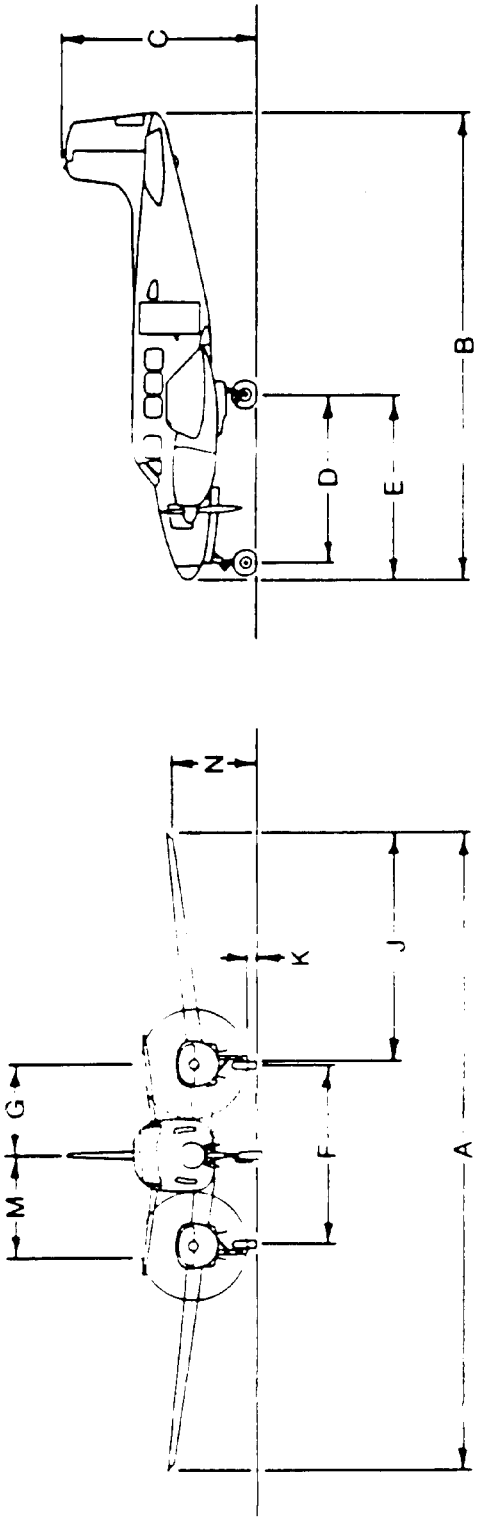
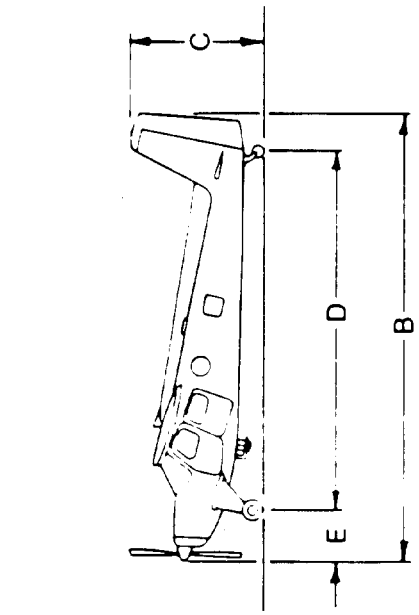


Figure C-35. U-8F, Seminole (Beech)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
28	40	39 0	30 3	8 8	23 8	5 0	9 0	0 0	13 6	1.7	4.5	9.8



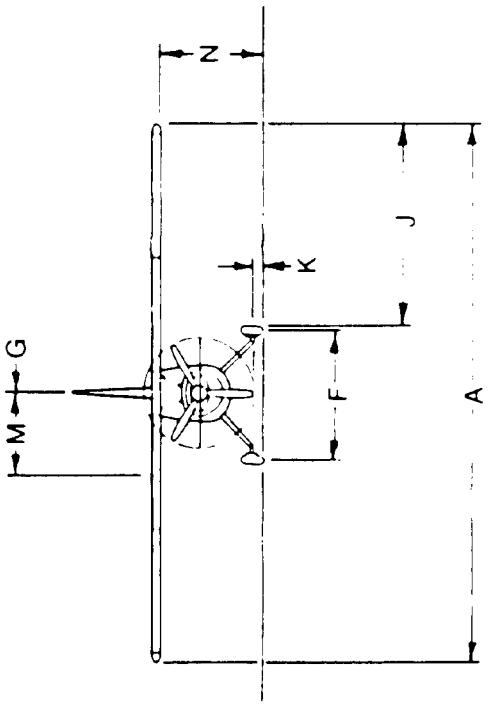


Figure C-36. U-10A, Helio-Courier (Helio)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
103	57	45.9	39.9	15.4	14.9	†	13.0	6.5	†	1.1	†	†

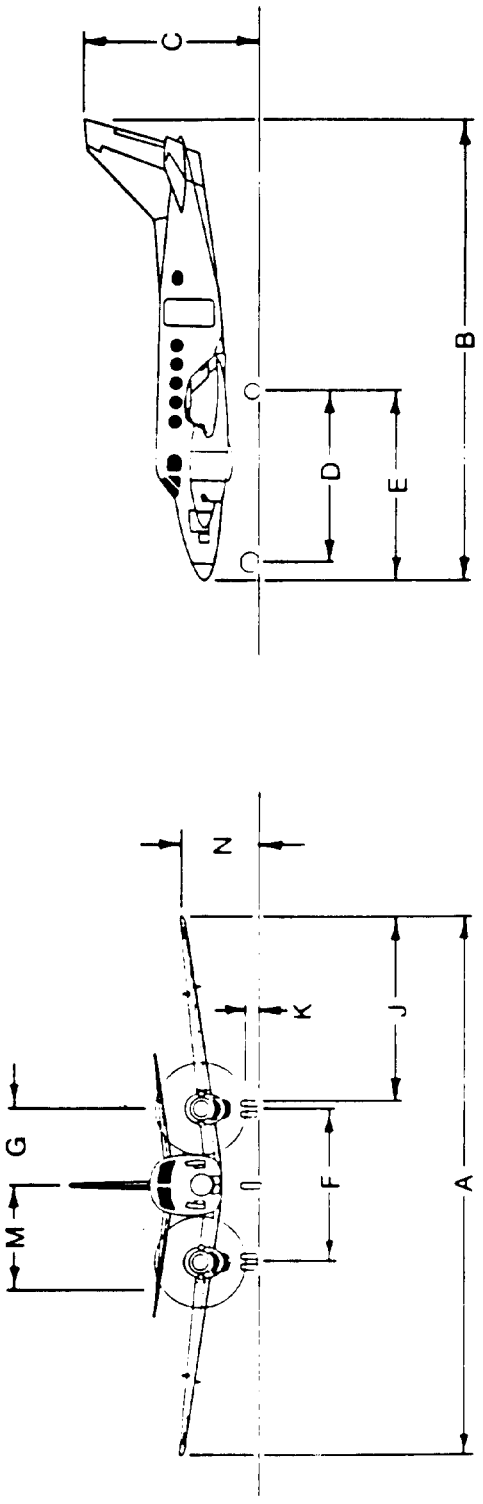


Figure C-37. U-21F (Beech)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
38	33	65.0	51.8	19.5	14.9	21.2	12.2	9.2	19.8	5.0	10.1	10.2

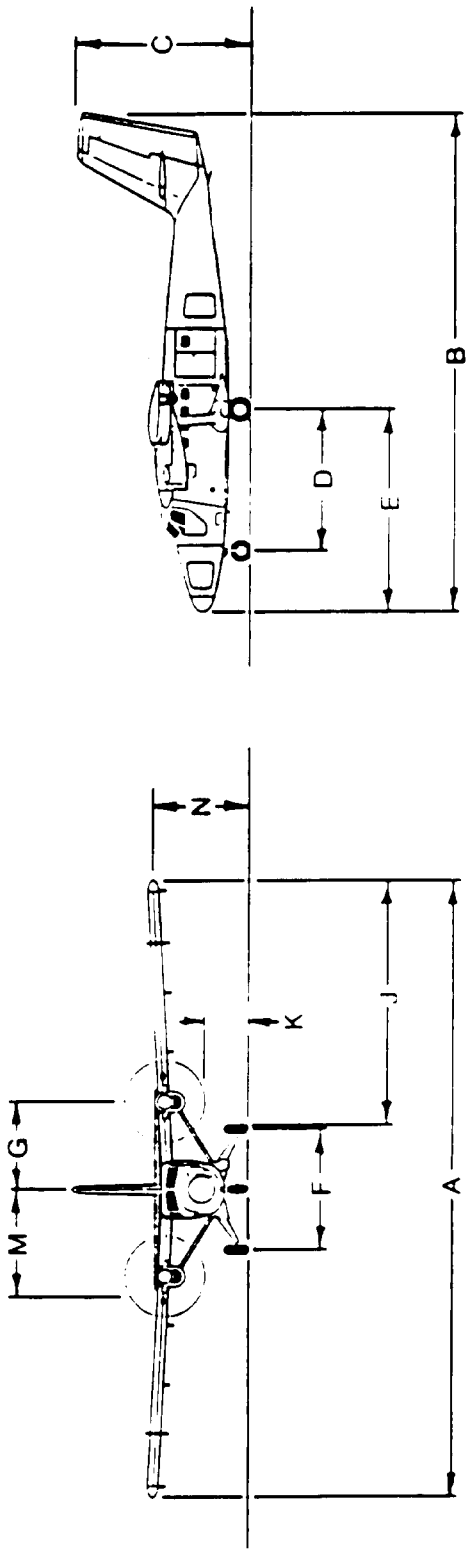


Figure C-38. UV-18, Twin Otter (De Havilland Canada)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
D	300	100	38.7	46.1	16.1	15.7	25.7	9.5	0.0	14.6	3.0	4.8	5.8
K	300	100	38.7	48.7	16.3	15.7	25.7	9.5	0.0	14.6	3.0	4.8	5.8

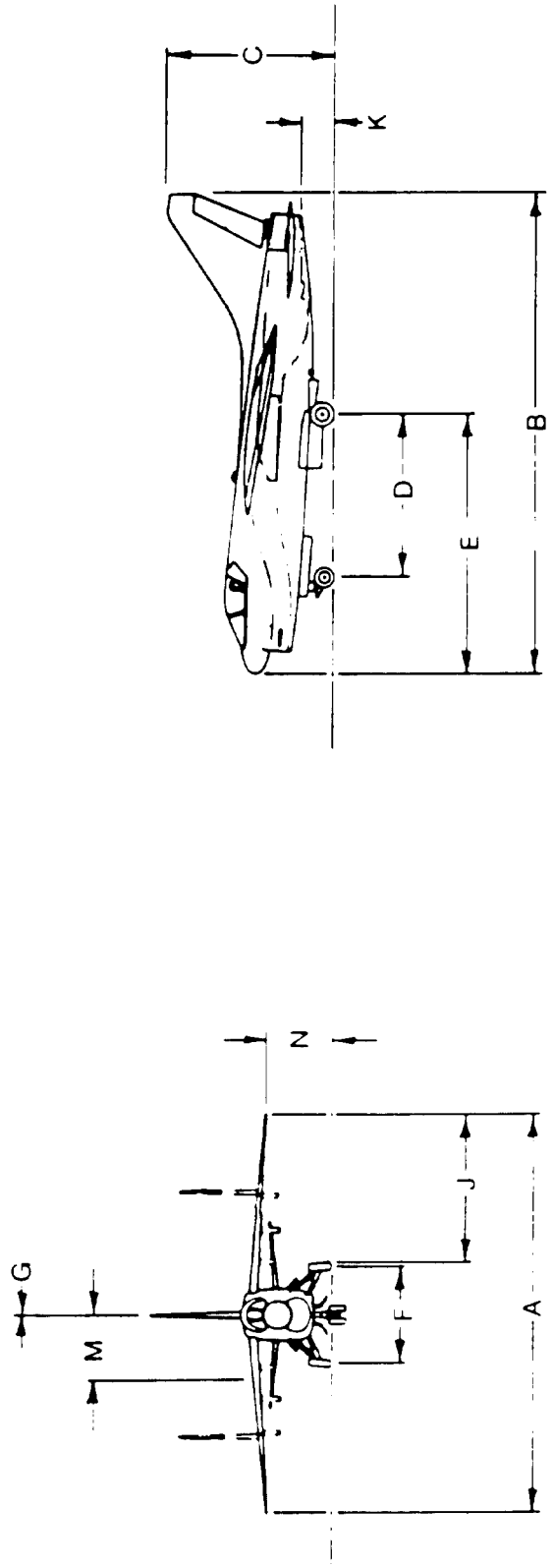


Figure C-39. A-7, Corsair II (LTV)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
190	145	57 5	53 3	14 7	17 7	27.4	17 2	†	19 7	†	23 0	9 1

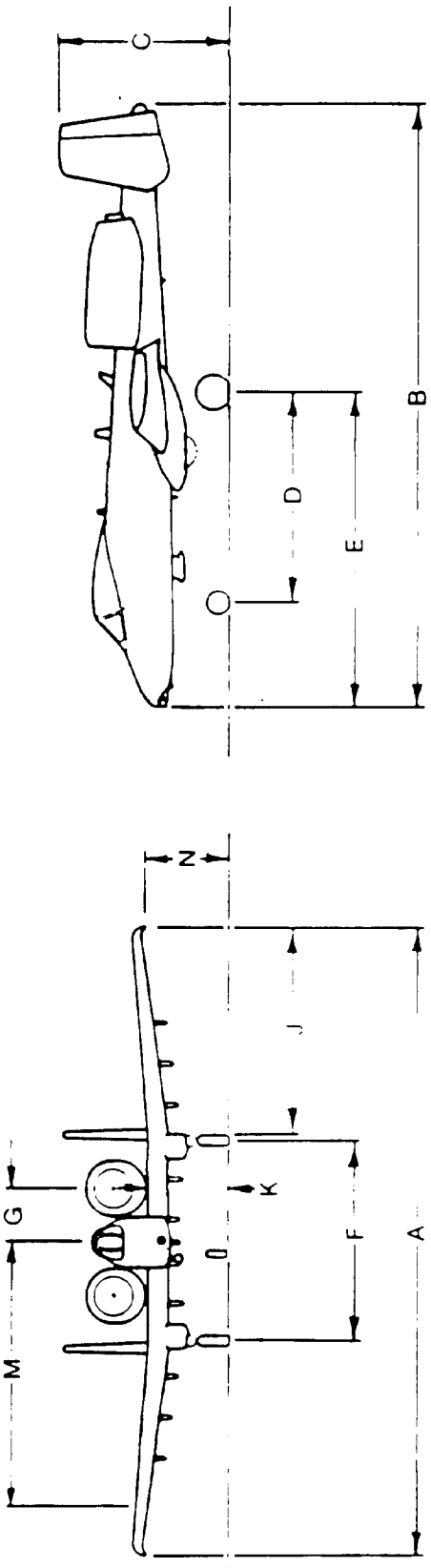


Figure C-40. A-10A, Thunderbolt II (Fairchild)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
100	37	383	318	95	78	†	137	†	120	†	†	33

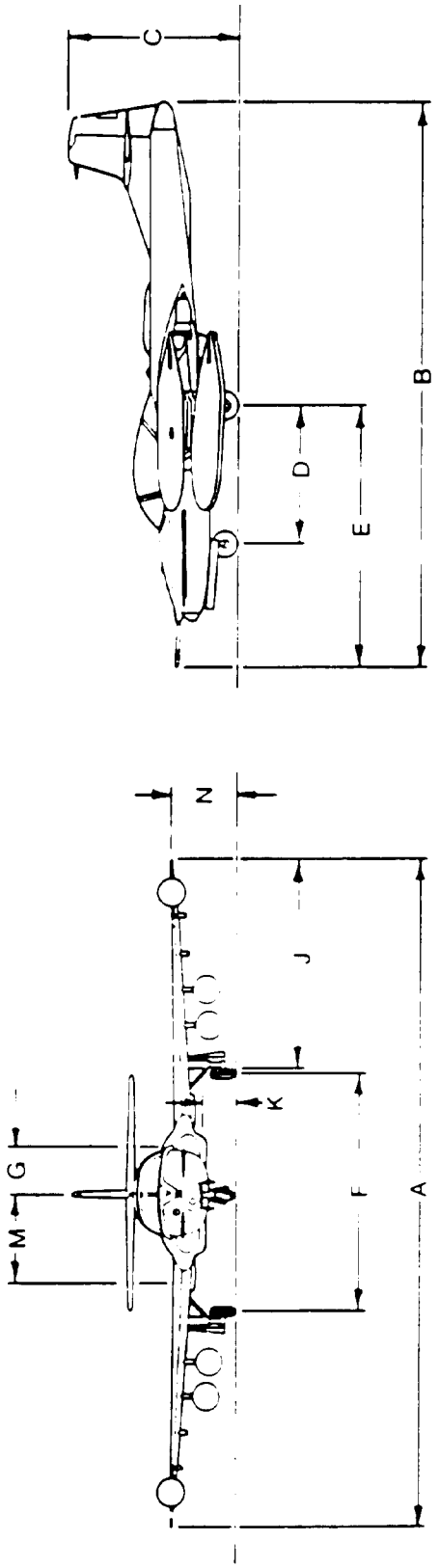


Figure C-41. A-37B, Dragonfly (Cessna)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
A	96	60	132.6	97.8	38.3	31.8	43.6	14.3	16.3	33.3	60.0	5.8	6.4	18.0	15.0
H/U	119	60	132.6	99.5	38.2	31.8	43.6	14.3	16.3	33.3	60.0	6.0	6.7	18.0	15.3

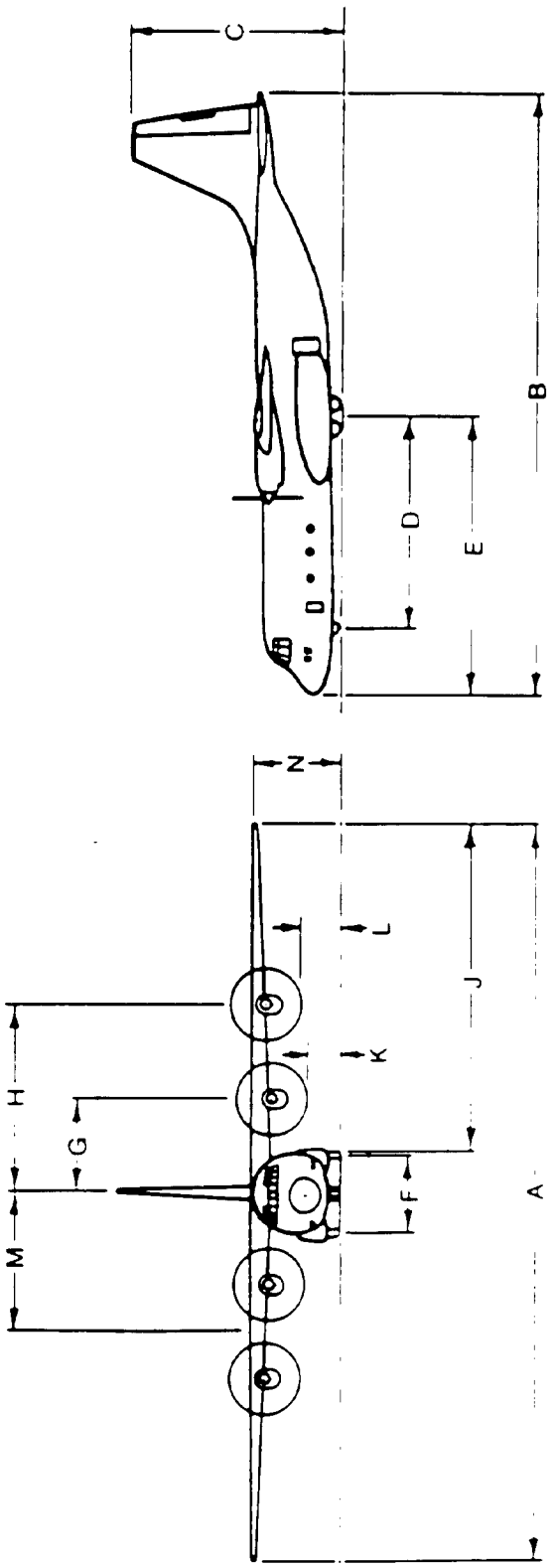


Figure C-42. AC-130, Spectre (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
C	265	215	38.6	58.3	16.4	23.3	†	17.9	†	10.0	†	8.9	†
D, E, G	265	215	38.4	63.0	16.4	23.3	†	17.9	†	10.0	†	8.9	†

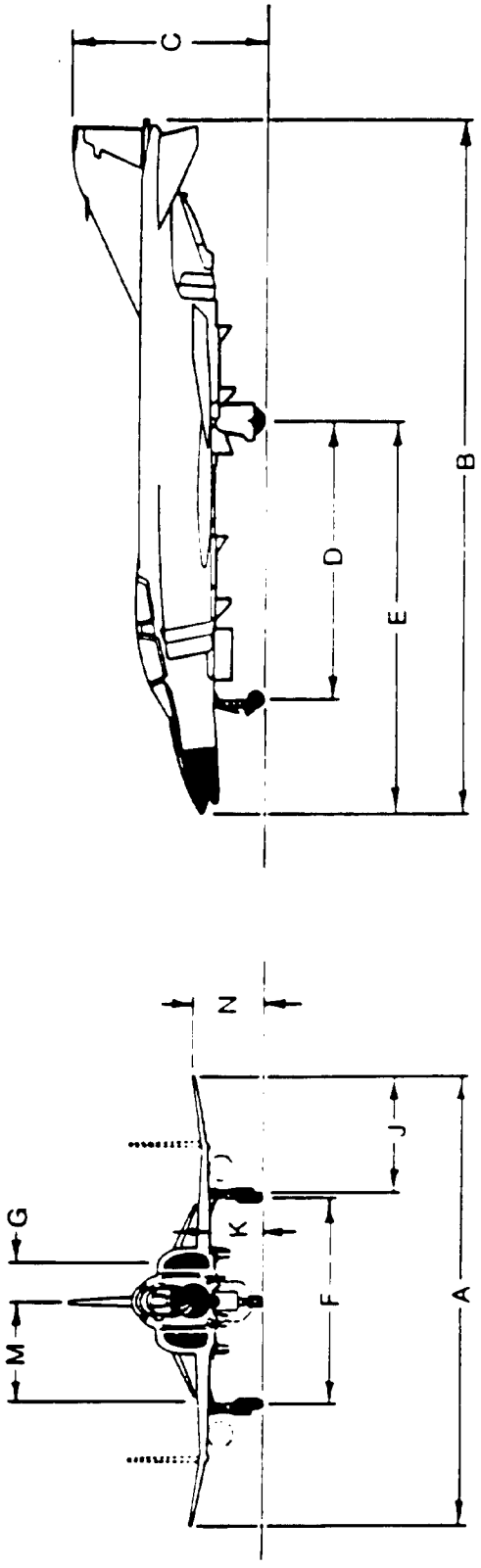


Figure C-43. F-4, Phantom II (McDonnell Douglas)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
E	210	75	26 7	48 2	13 4	17 0	†	12 5	†	6 9	†	31 3	†
F	210	75	26 7	51 7	13 2	21 2	†	12 5	†	6 9	†	26 5	†

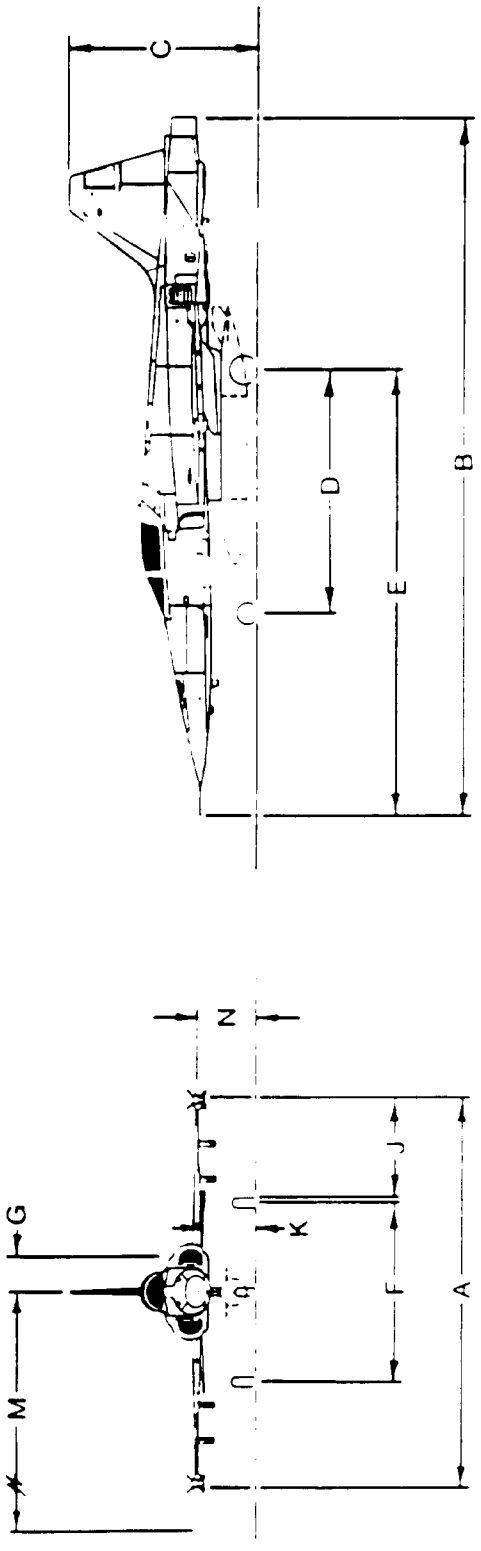


Figure C-44. F-5, Tiger II (Northrop)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
A, B	260	190	42.8	63.8	18.8	17.5	†	8.9	†	16.6	†	25.0	7.7
C, D	355	275	42.8	63.8	18.8	17.8	†	9.0	†	16.6	†	25.0	7.7
E	305	305	42.8	63.8	18.8	17.8	†	9.0	†	16.5	†	25.0	8.0

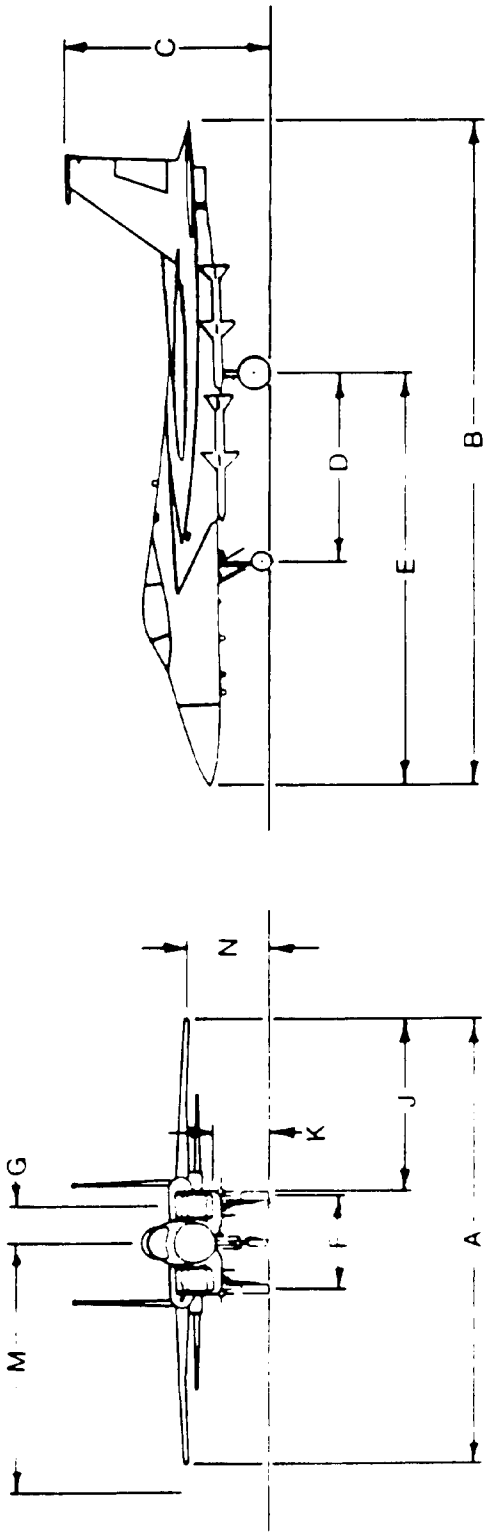


Figure C-45. F-15, Eagle (McDonnell Douglas)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
A, B	320	310	32.8	49.5	16.5	13.2	30.8	7.8	0.0	12.5	3.0	18.0	5.0
C, D	320	310	32.8	49.5	16.7	13.2	30.8	7.8	0.0	12.5	3.0	18.0	5.0

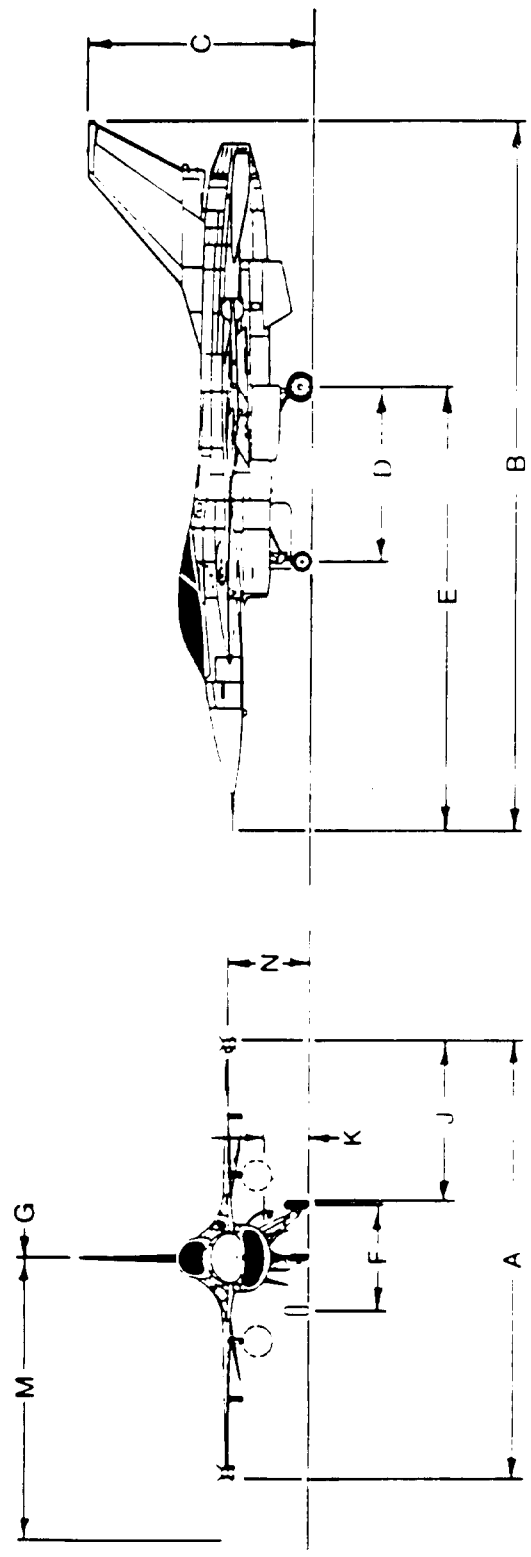


Figure C-46. F-16, Fighting Falcon (General Dynamics)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
300	185	38 8	57 6	16 2	14 7	27 9	12 7	0 0	12 8	†	21 1	†

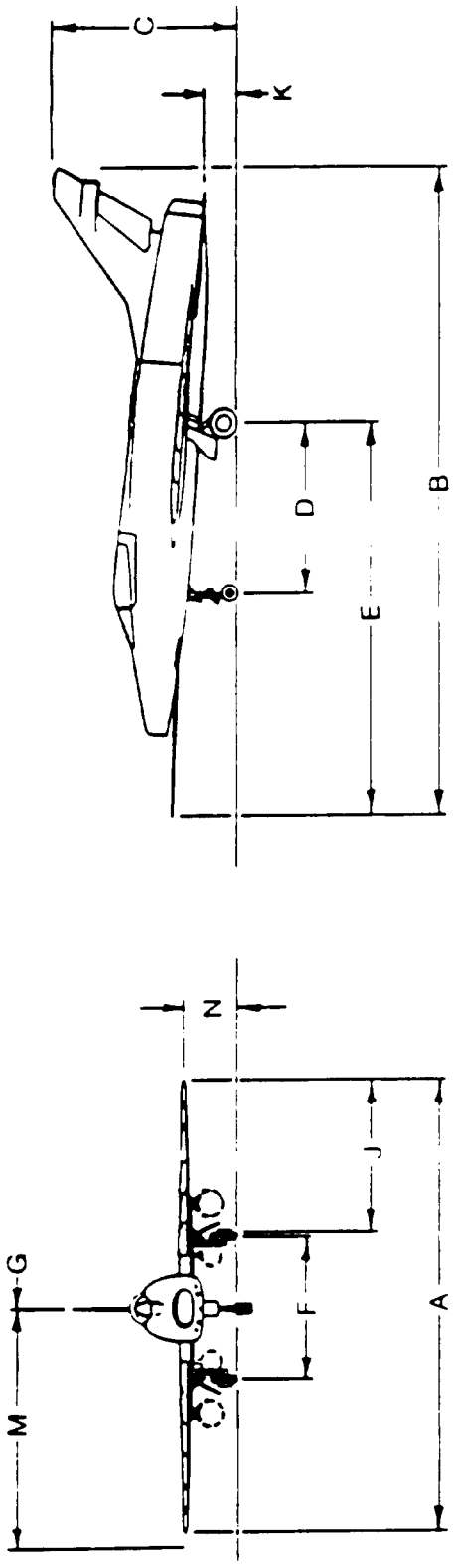


Figure C-47. F-100, Super Sabre (North American)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
298	215	39 7	66 9	17 3	21 4	†	19 9	†	9 6	†	25 3	†

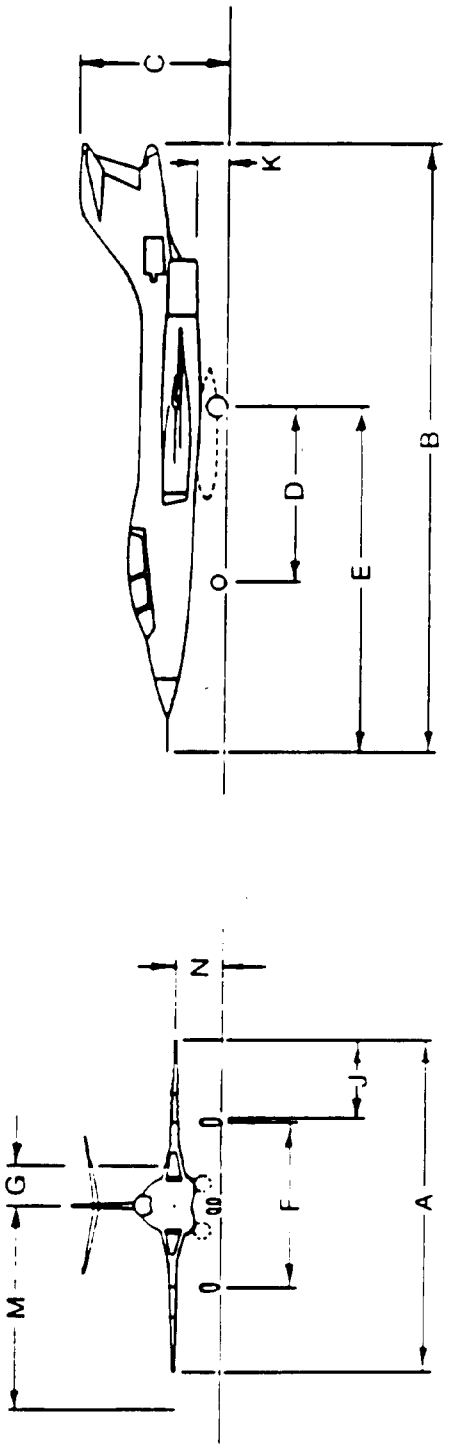


Figure C-18. F-101B, Voodoo (McDonnell Douglas)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR	21.9	54.8	13.5	15.1	†	8.8	0.0	6.3	†	32.3	†
208	225											

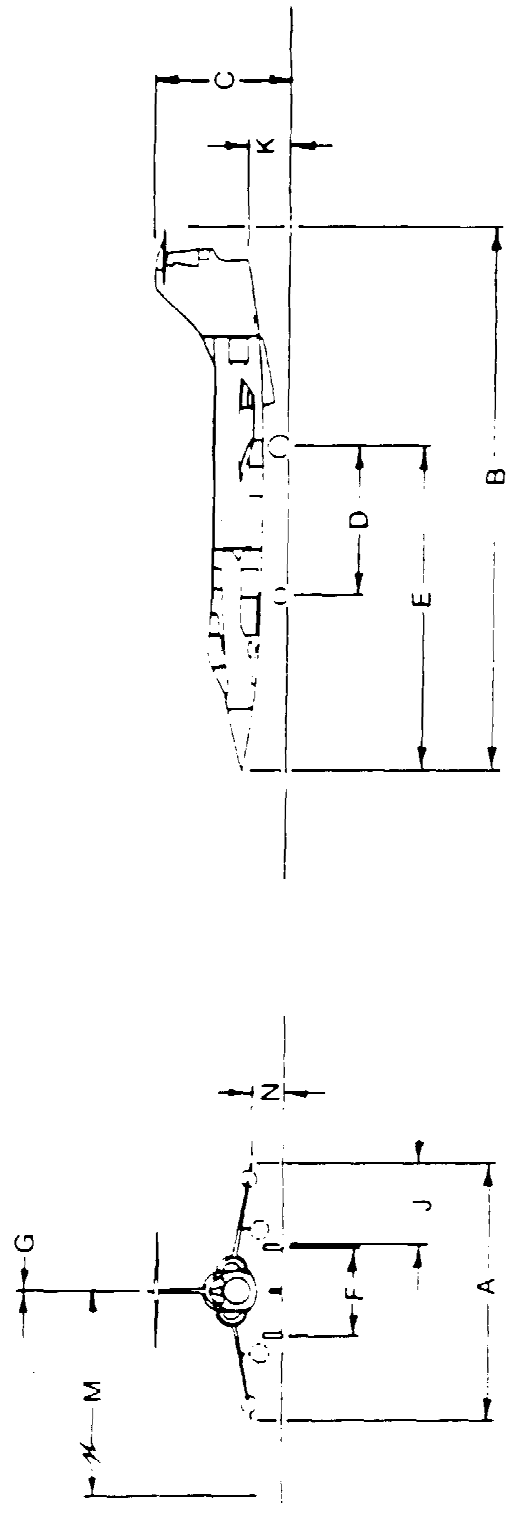


Figure C-49. F-104G, Starfighter (Lockheed)

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
D	210	145	34.9	67.5	19.7	21.1	†	17.3	0.0	8.5	†	25.2	†
F, G	210	145	34.9	69.9	20.5	23.8	†	17.3	0.0	8.5	†	27.6	†

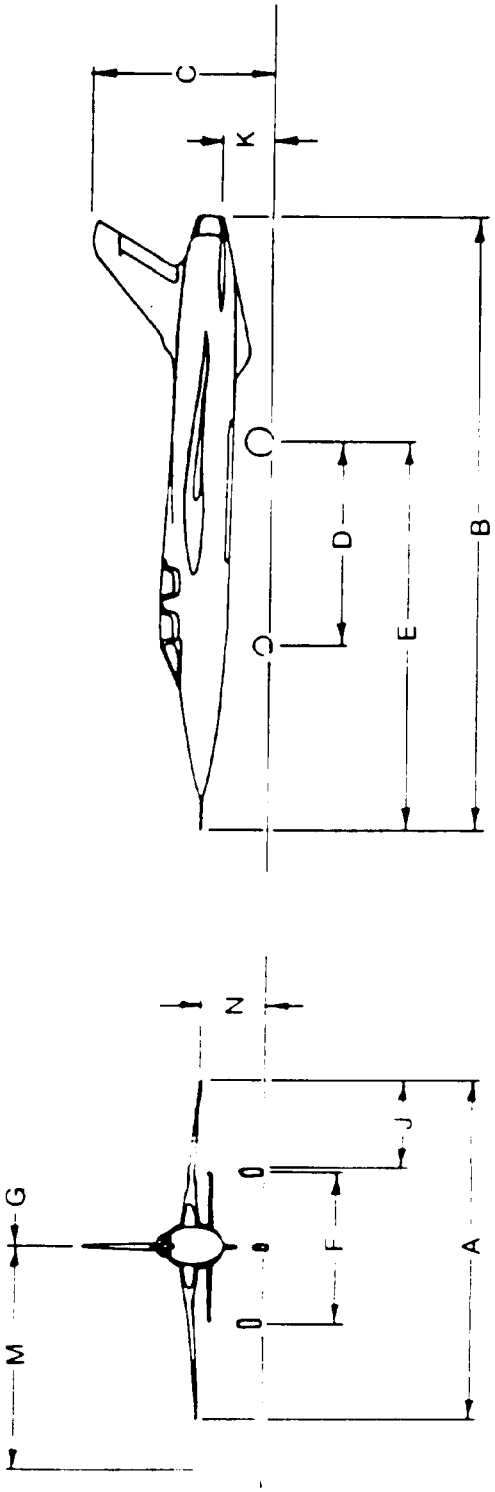


Figure C-50. F-105, Thunderchief (Fairchild)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
300	150	38.3	70.8	20.3	24.2	46.2	15.3	0.0	11.2	†	7.6	4.5

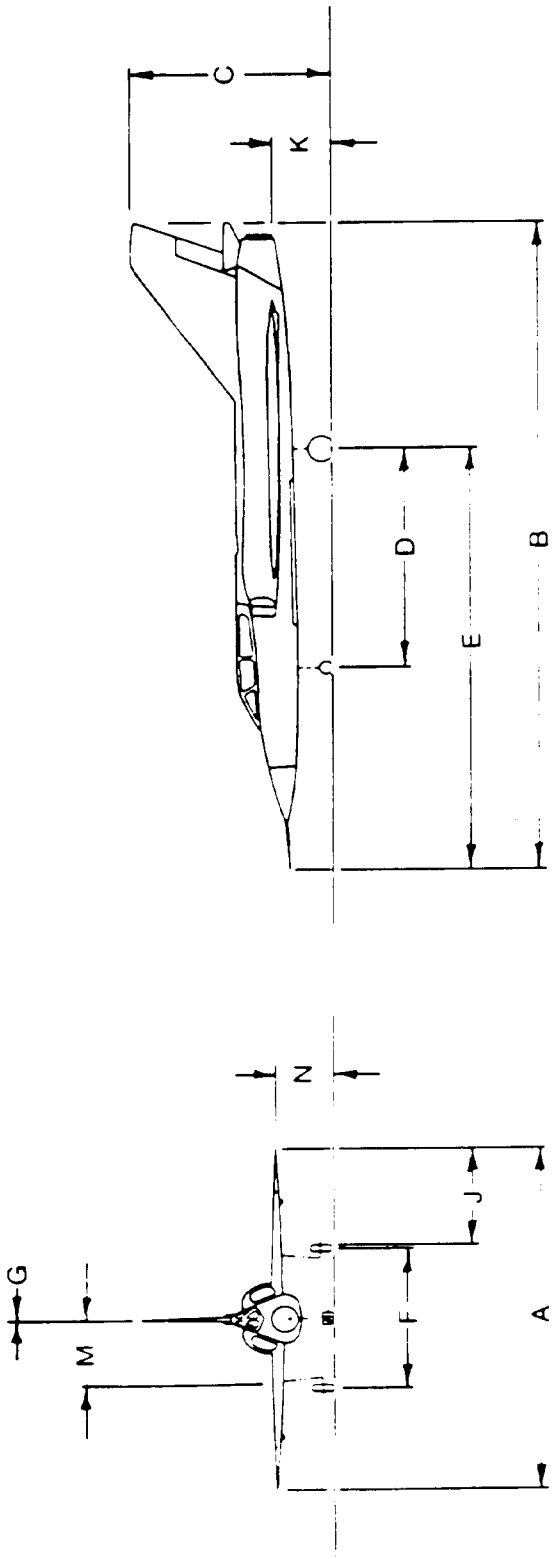


Figure C-51. F-106A/B, Delta Dart (General Dynamics/Convair)

MAXIMUM TIRE PRESSURE, PSI	
MAIN GEAR	NOSE GEAR
180	280

A	B	C	D	E	F	G	J	K	M	N
63 0	75 5	17 1	24 0	48 2	10 0	†	25.9	†	28 7	8 3

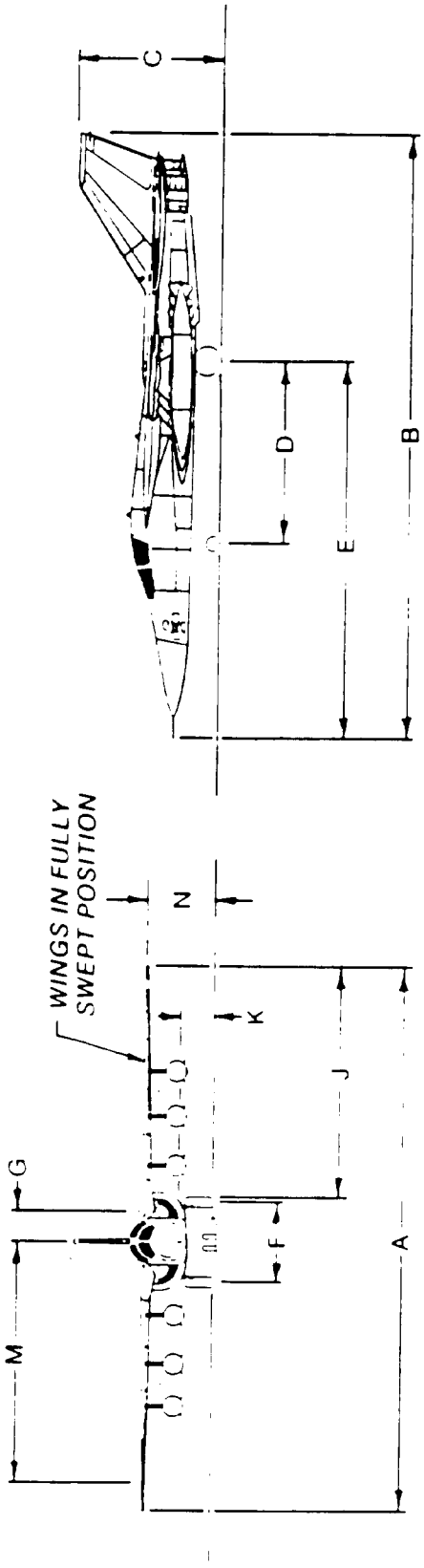


Figure C-52. F-111A/D/E/F (General Dynamics)

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	TAIL GEAR					
BELLANCA	7	Citabria	24	†	33.4	22.7	6.7	16.1	6.3
CESSNA	120/140		†	†	32.8	21.0	6.3	†	6.4
	170		†	†	36.0	25.0	6.6	†	†
	180/185	Skywagon	35	45	36.2	25.8	7.8	†	7.7
	190/195*		†	†	36.2	27.1	7.2	†	†
HELIO AIRCRAFT	H-250/H-295	Helio Courier	28	40	39.0	31.5	8.8	23.4	9.0
	HST 550	Helio Stallion	22	55	41.0	39.6	9.3	24.7	9.7
PIPER	PA-12/14/15	Super Cruiser	†	†	35.5	22.5	6.8	†	6.3
	PA-18	Super Cub	18	†	35.3	22.4	6.7	†	6.1
	PA-20	Pacer	†	†	29.3	20.4	6.3	†	†
SILVAIRE	8	----	†	†	35.0	20.0	6.3	†	6.3
TAYLORCRAFT	F-21	----	†	†	36.0	22.2	6.5	†	6.0
UNIVAIR AIRCRAFT	108	Stinson	20	25	33.9	25.2	7.5	18.6	7.1

*SERIES 195 HAS LENGTH OF 27.3'

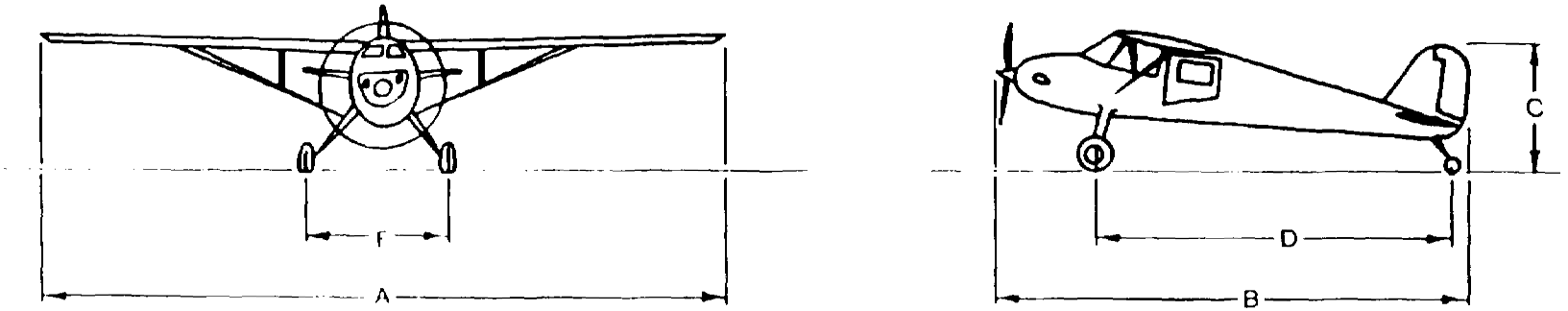


Figure C-53. Single Engine, High Wing, Tailwheel Aircraft

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	NOSE GEAR					
BEDE AIRCRAFT	BD-4	--	†	†	25.5	21.9	6.3	†	8.3
CESSNA	150	--	30	30	32.8	23.0	8.7	4.8	6.6
	172	Skyhawk	23	26	35.8	26.9	8.8	5.3	7.2
	177	Cardinal	30	30	35.5	27.0	9.1	6.4	8.3
	182	Skylane	32	45	35.8	28.1	8.9	5.6	8.0
	206	Stationair	42	45	35.8	28.0	9.7	6.9	8.2
	207	Super Skywagon	55	49	35.8	31.8	9.6	6.9	10.0
	210	Centurion	42	45	36.8	28.3	9.7	5.8	8.5
PIPER	PA-22	Tri-Pacer	†	†	29.3	20.3	6.3	†	†

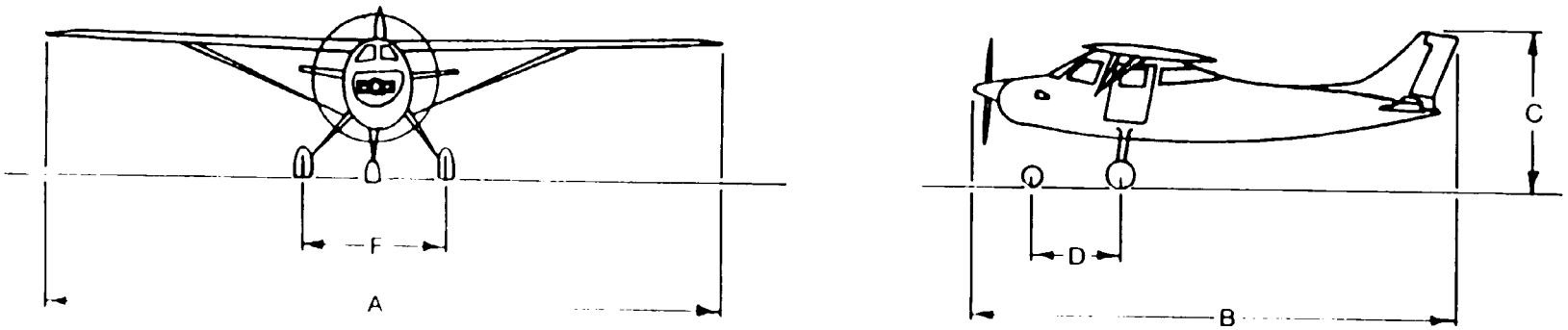


Figure C-54. Single Engine, High Wing, Tricycle Gear Aircraft

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	NOSE GEAR					
AEROSTAR AVIATION	415	Ercoupe	†	†	30.0	20.6	6.3	5.3	7.8
	M-20*	----	30	39	35.0	23.6	8.3	5.6	9.1
	M-22	Mark 22	45	42	35.0	27.0	9.8	8.3	11.0
BEECHCRAFT	23	Musketeer	40	40	32.8	25.0	8.3	6.3	11.8
	V-35B	Bonanza	40	40	33.5	26.4	6.6	7.0	9.6
	F-33	Bonanza	40	40	32.8	25.5	8.3	7.4	9.6
	F-33A	Debonair	40	40	32.8	25.5	8.3	7.4	9.6
BELLANCA	260/300	Viking	†	†	24.2	23.5	7.3	6.7	9.0
GRUMMAN	AA-1	Yankee	26	22	24.5	19.3	6.8	4.4	8.3
NAVION	G-1	Rangemaster	45	30	34.8	27.5	8.3	5.7	8.8
PIPER	PA-24	Commanche	42	42	36.0	24.8	7.4	6.6	9.7
	PA-28-180	Cherokee	†	†	30.0	23.5	7.3	6.3	10.0
	PA-28-200	Cherokee Arrow	†	†	30.0	24.2	8.0	7.4	10.5
	PA-32	Cherokee Six	†	†	32.8	27.8	7.9	7.8	10.6
ROCKWELL INTERNATIONAL	112	----	29	31	35.0	27.2	10.1	6.9	7.2

*VARIOUS MODELS OF M 20 KNOWN AS CHAPARRAL, EXECUTIVE, MUSTANG, RANGER, STATESMAN

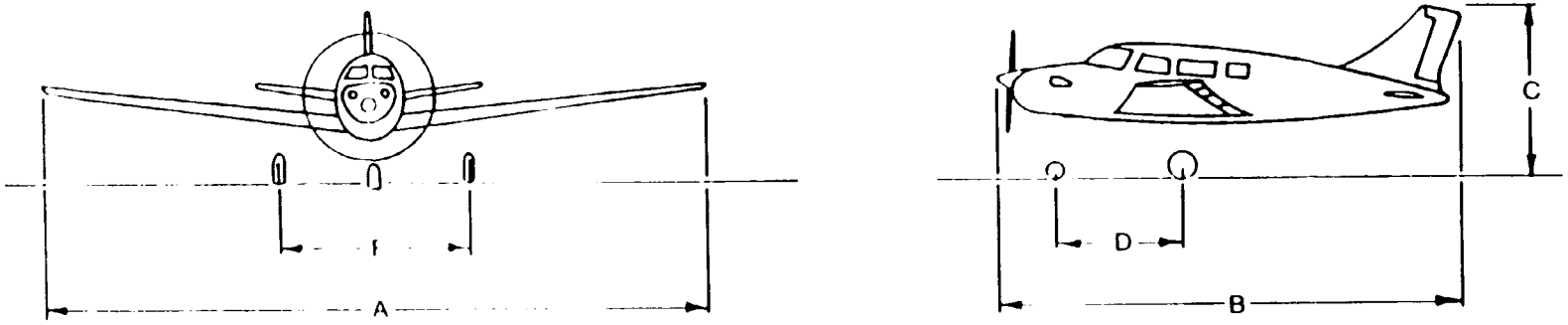


Figure C-55. Single Engine, Low Wing, Tricycle Gear Aircraft

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	NOSE GEAR					
AEROSTAR AVIATION	600/601	Aerostar	†	†	34.3	34.8	12.2	†	10.3
BEECHCRAFT	B-55	Baron	50	50	37.8	27.0	9.6	7.0	7.0
	E-55	Baron	50	50	37.8	29.0	9.2	8.0	8.0
	A-60	Duke	70	48	39.3	33.8	12.3	9.3	11.0
CESSNA	310	----	60	24	37.5	29.6	9.9	9.5	12.0
	401/402/421	Twin Cessna	70	35	39.8	33.8	11.8	10.5	14.7
PIPER	PA-23-160	Apache	†	†	37.2	27.4	9.5	7.5	11.0
	PA-23-250	Aztec	54	24	37.0	27.6	10.3	7.5	11.3
	PA-30	Twin Commanche	42	42	36.0	25.2	8.3	7.3	9.8
	PA-31	Navajo	60	42	40.7	32.7	13.0	8.7	13.8

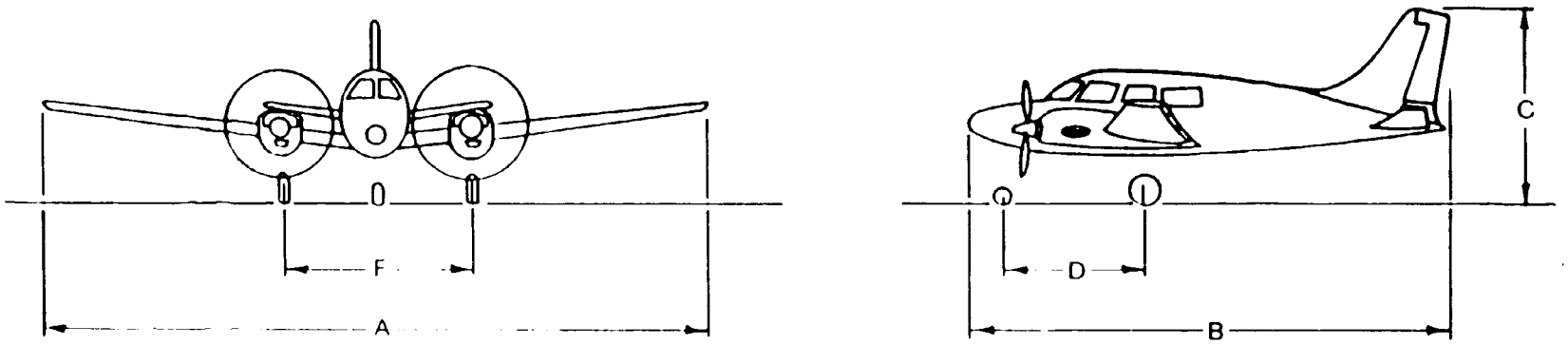
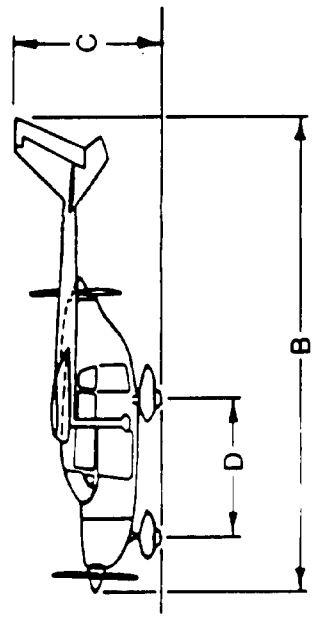


Figure C-56. Twin Engine, Low or Mid Wing, Tricycle Gear Aircraft

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	NOSE GEAR					
CESSNA	336/ 337	Super Skymaster	45	45	38.2	29.8	9.3	7.8	8.2



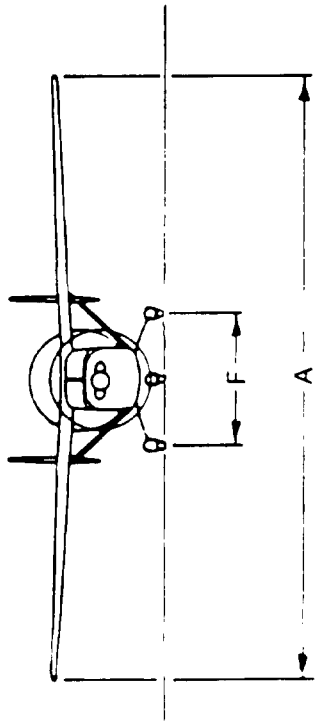


Figure C-57. Twin Engine, High Wing, Tricycle Gear Aircraft, Cessna

MANUFACTURER	MODEL	NAME	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
			MAIN GEAR	NOSE GEAR					
ROCKWELL INTERNATIONAL	500	Aero Commander	50	30	49.5	35.1	14.5	†	12.9
	560/680/ SHRIKE	Grand/Shrike Commander	50	30	49.1	36.6	14.5	14.0	12.9

SERIES 681 (TURBO II. HAWK COMMANDER) HAS WINGSPAN ("A") OF 44.0', OTHER DIMENSIONS SAME AS SERIES 560

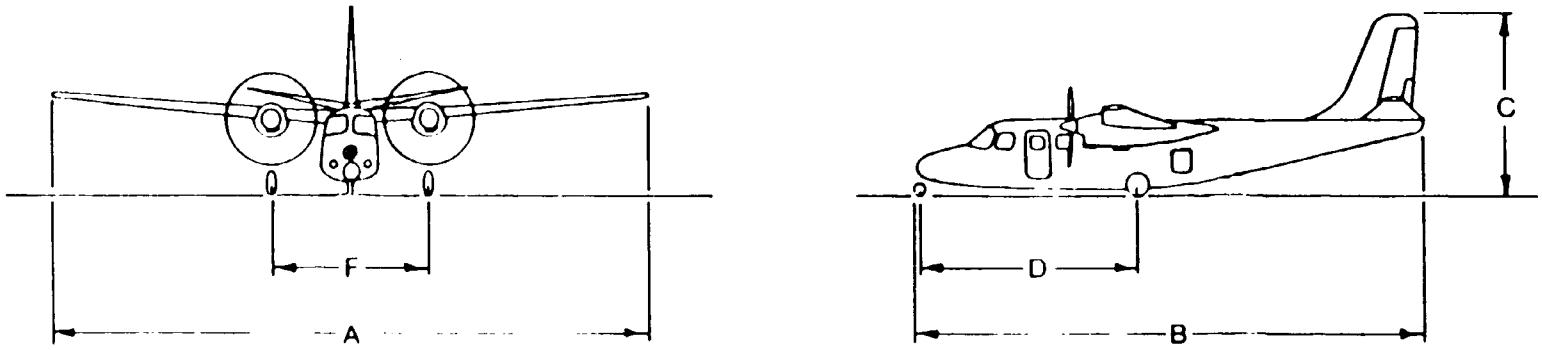


Figure C-58. Twin Engine, High Wing, Tricycle Gear Aircraft, Rockwell

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	TAIL GEAR					
18	62	50	49.7	35.3	9.3	23.8	12.9
Turbo 18	80	*	46.0	37.4	9.6	12.6**	12.9
Volpar Turboliner	80	*	46.0	44.3	9.6	12.6**	12.9

* NOSE GEAR TIRE PRESSURE IS 45 PSI FOR TURBOPROP CONVERSION WITH TRICYCLE LANDING GEAR

** DIMENSION "D" IS FOR TRICYCLE GEAR CONFIGURATION

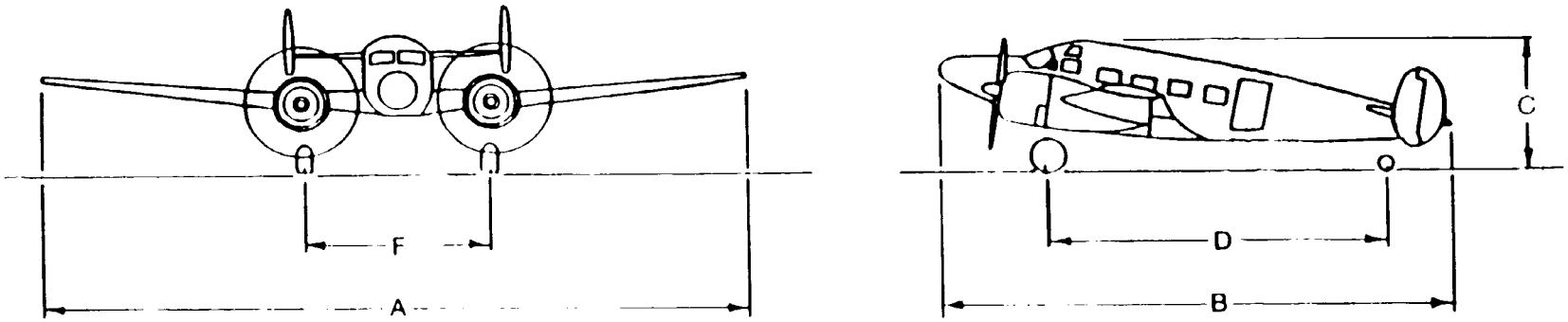


Figure C-59. Beechcraft Model 18 and Conversions

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	NOSE GEAR					
A-65	47	35	45.9	35.5	14.3	12.3	12.8
B-80	48	42	50.3	35.5	14.3	12.3	12.8

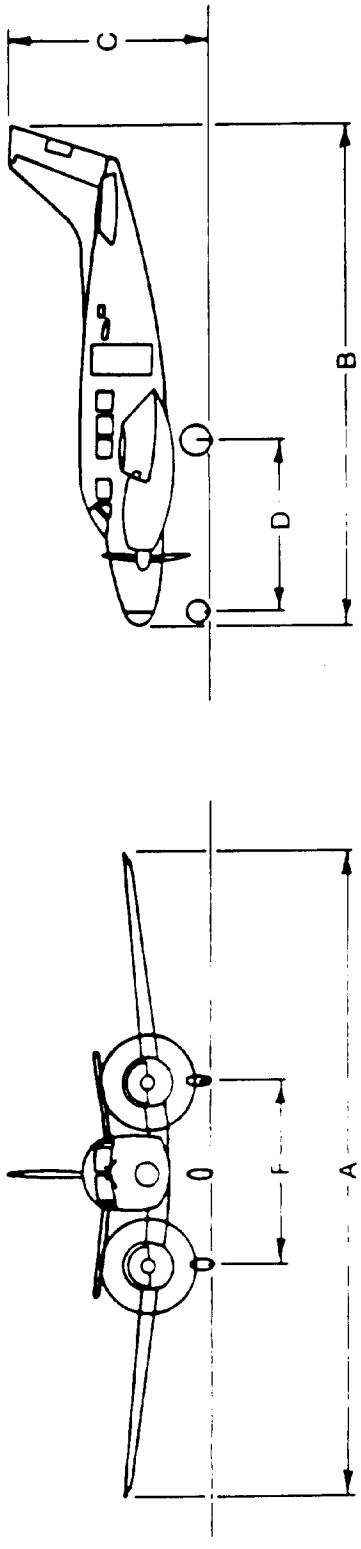


Figure C-60. Beechcraft Queen Air

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	NOSE GEAR					
A-90	55	52	50.3	36.5	14.7	12.3	12.8
A-100	105	105	45.9	39.9	15.3	14.9	13.0

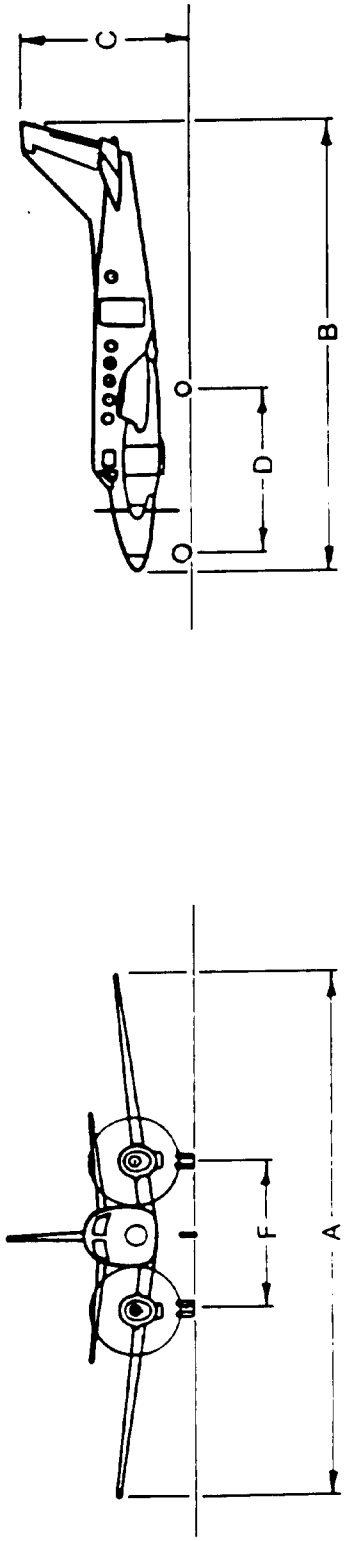
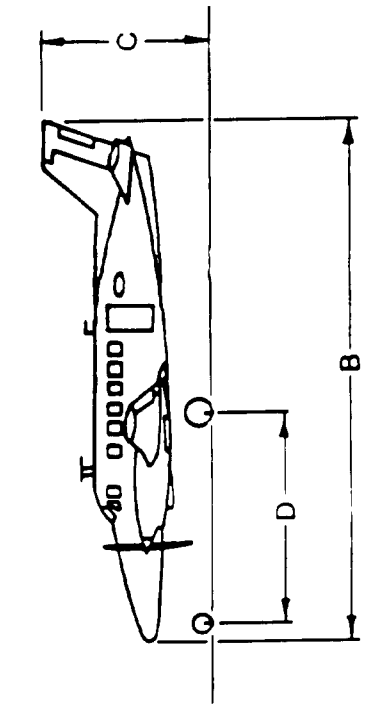


Figure C-61. Beechcraft King Air

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
MAIN GEAR	NOSE GEAR					
87	50	45.9	44.6	14.3	18.0	13.0



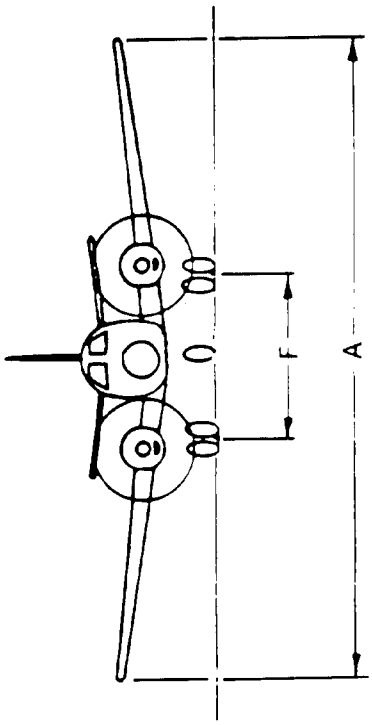


Figure C-62. Beechcraft 99A

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	NOSE GEAR					
IIB	†	†	45 9	40 1	14 3	†	15.0
III	100	85	46 3	42 2	16 7	†	15 0

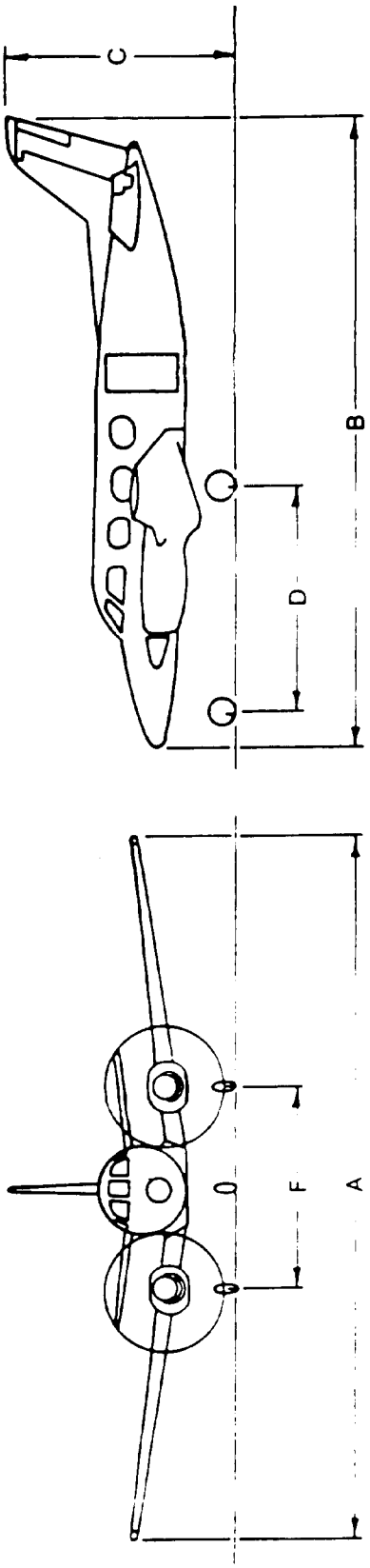


Figure C-63. Swearingen Merlin II and III

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	NOSE GEAR					
IV	100	85	46.3	59.4	16.7	19.2	15.0
SA-226TC "Metro"	100	85	46.3	59.4	16.7	19.2	15.0

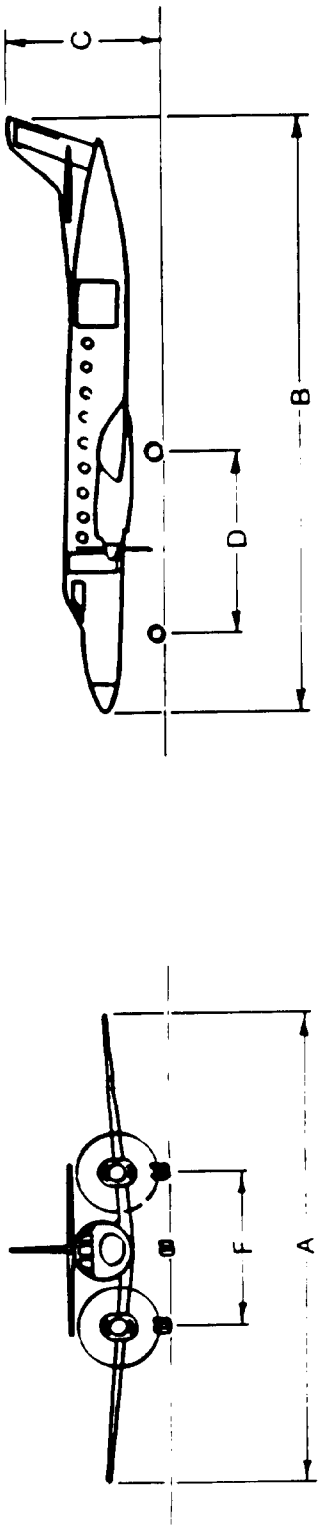


Figure C-64. Swearingen Merlin IV and Metro

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
MAIN GEAR	NOSE GEAR					
38	33	65.0	51.8	19.5	14.9	12.2

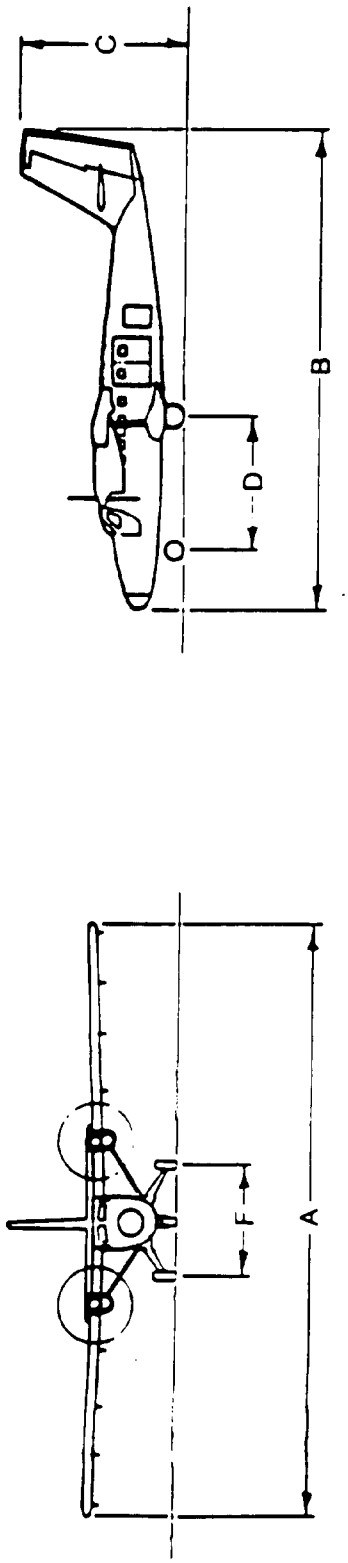


Figure C-65. De Havilland Canada DHC-6 Twin Otter

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
MAIN GEAR	NOSE GEAR					
†	†	57.0	39.3	13.3	†	13.7

Figure C-66. Hawker Siddeley Dove

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
MAIN GEAR	NOSE GEAR					
63	55	39.2	39.5	13.7	14.4	7.9

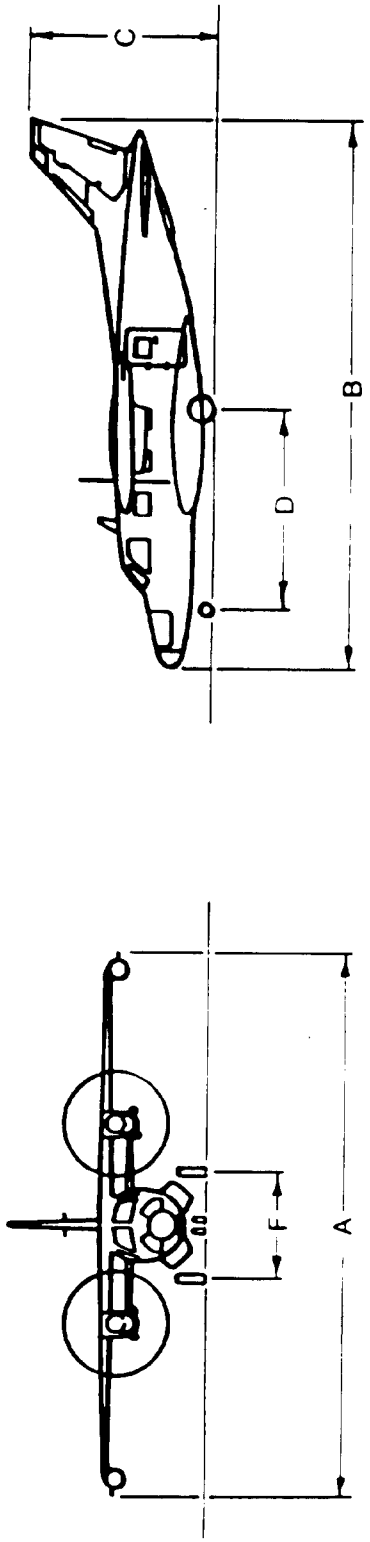


Figure C-67. Mitsubishi MU-2

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	F
	MAIN GEAR	NOSE GEAR					
SC 7	39	40	64.9	40 1	15 0	14 8	13.8
SC 7-3M	40	40	64.9	40.1	15.0	14.8	13.8
330	78	55	74 7	58 0	16 3	20.2	13.9
330-200	79	55	74.7	58 0	16 3	20 2	13.9
360	110	60	74.8	70.8	23.7	23.2	13.9

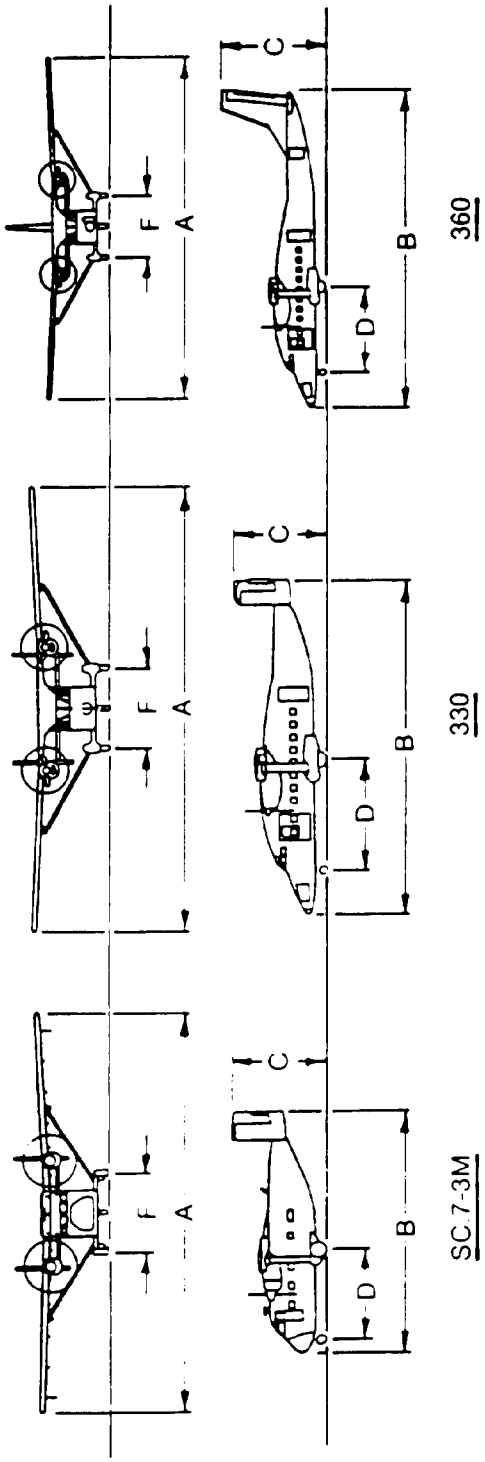
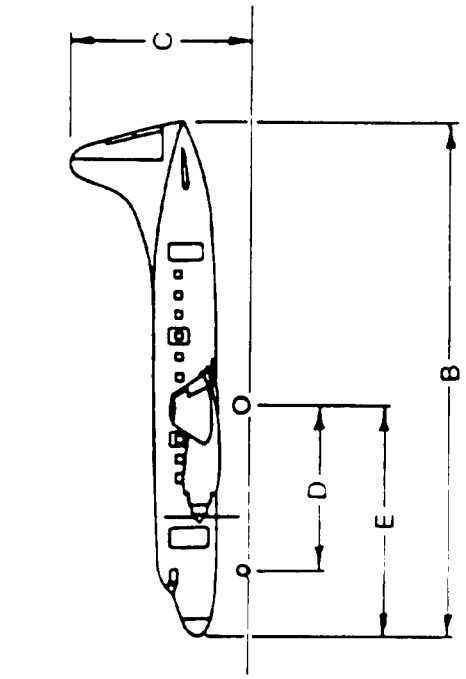


Figure C-68. Short Brothers Variants

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
240	100	90	91.8	74.7	26.9	24.8	32.8	25.0	12.5	32.2	1.0	14.7	9.0
			105.3	79.2	28.2	26.2	34.1	25.0	12.5	38.6	1.0	14.7	11.0
340	65	55											
440	68	56	105.3	81.5	28.2	26.2	36.4	25.0	12.5	38.6	1.0	14.7	11.0
580	90	64	105.3	81.5	29.2	26.2	36.4	25.0	12.5	38.6	1.0	14.7	11.0
600	109	93	91.8	74.7	26.9	24.8	32.8	25.0	12.5	32.2	1.3	14.7	9.0
640	75	60	105.3	81.5	28.2	26.2	36.4	25.0	12.5	38.6	1.1	14.7	11.0



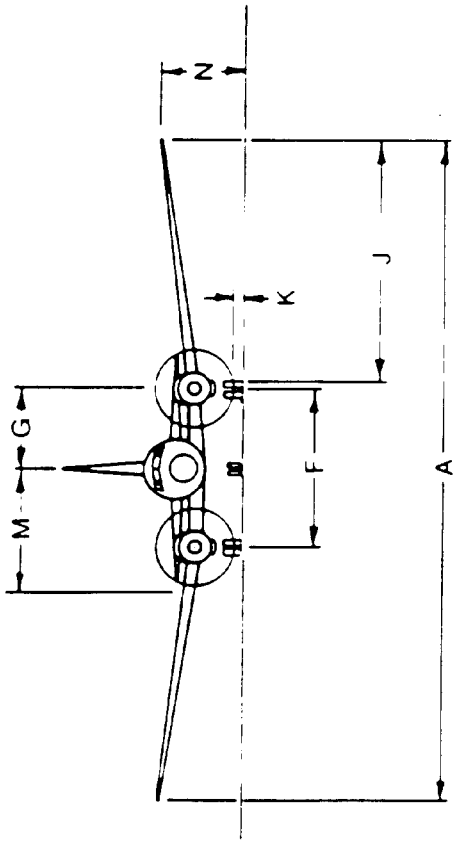


Figure C-69. Convair-Liner and Turboprop Conversions

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
56	†	95.0	64.5	23.5	37.9	18.5	18.5	9.3	37.6	1.3	9.3	9.3

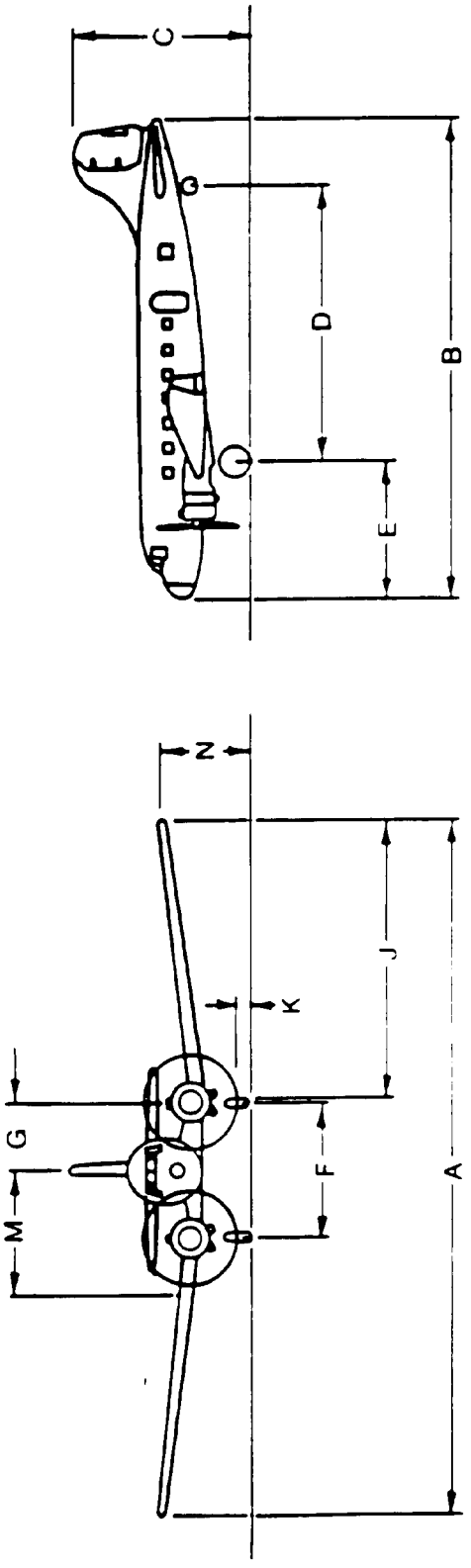


Figure C-70. Douglas DC-3

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
F-27	93	64	95.2	77.2	27.5	28.7	34.5	23.7	11.8	34.5	2.8	16.5	11.8
FH-227	107	70	95.2	83.7	27.6	34.6	40.3	23.7	11.8	34.8	3.2	12.3	11.8

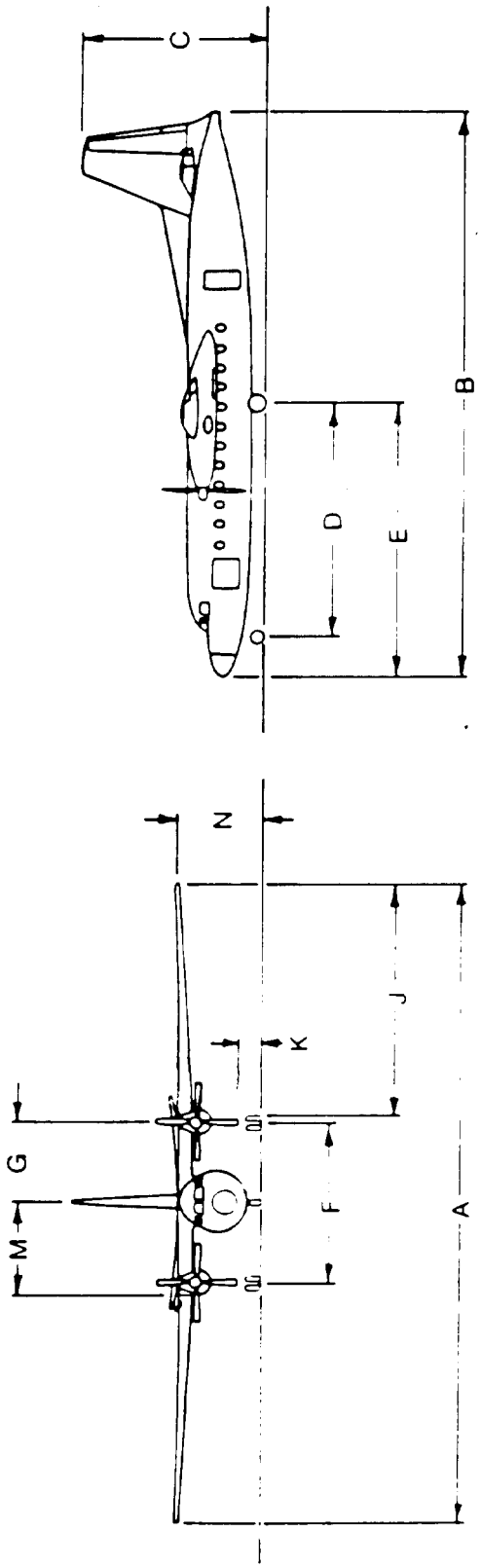


Figure C-71. Fairchild F-27 and Variants

MAXIMUM TIRE PRESSURE, (PSI)		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
†	†	78.3	63.8	22.8	19.8	26.7	24.6	12.1	25.5	1.5	12.1	8.7

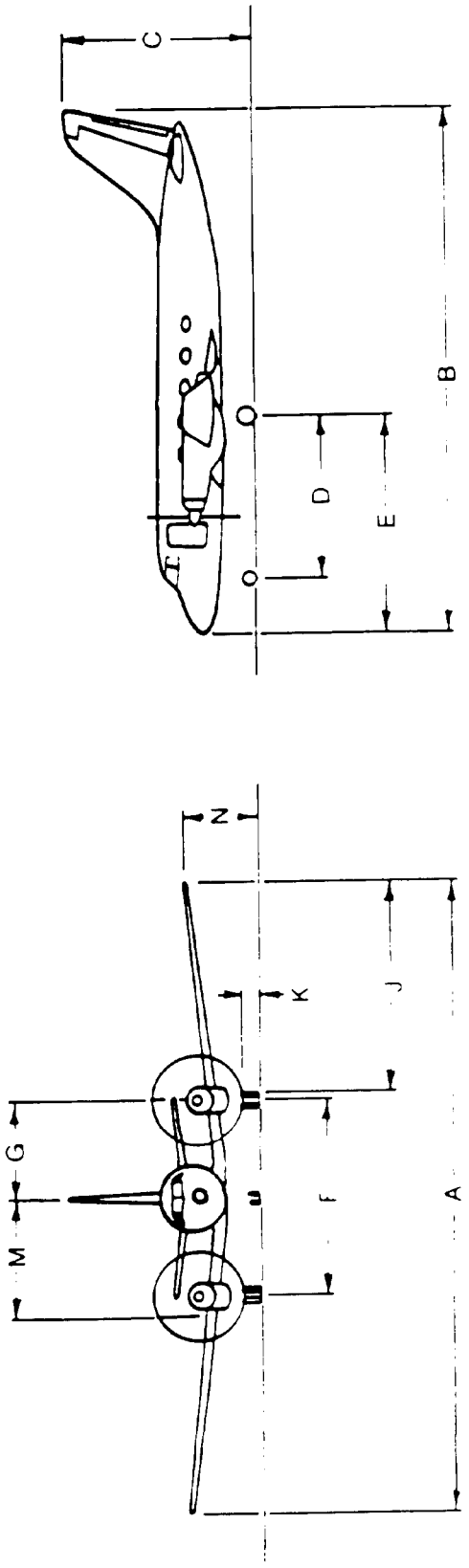


Figure C-72. Grumman Gulfstream I

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
†	†	93.3	74.6	28.7	22.4	32.3	25.0	12.5	32.7	0.9	12.5	12.5

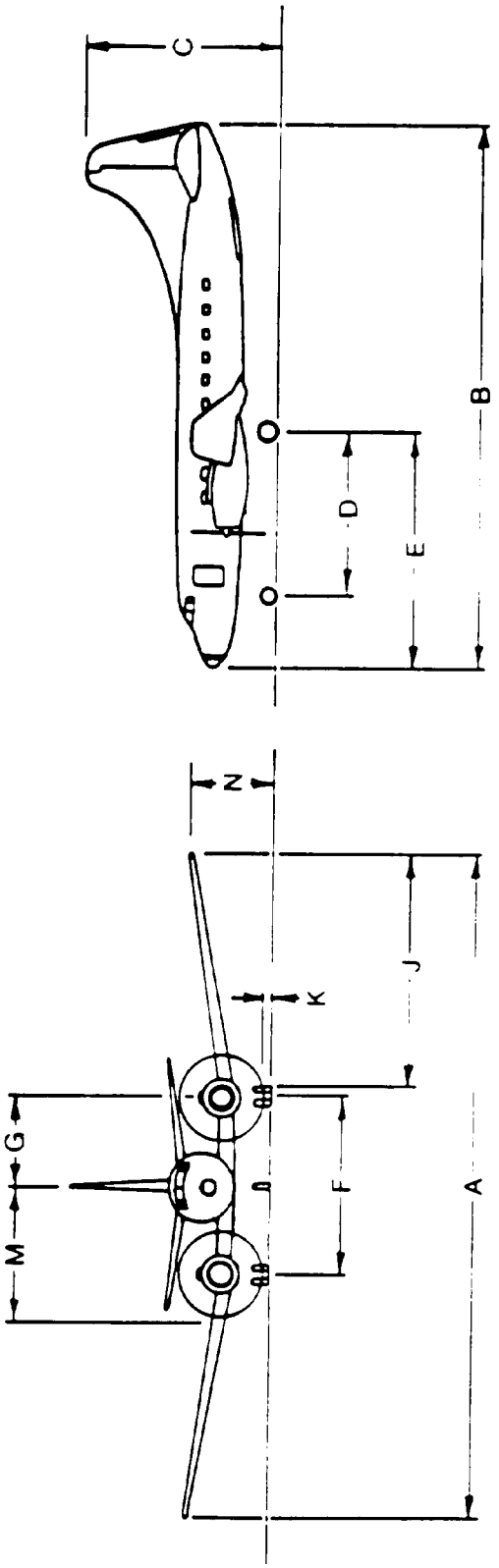


Figure C-73. Martin 404

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
54	43	71.8	63.3	20.3	23.8	29.8	10.3	9.7	30.4	5.4	5.2	12.5

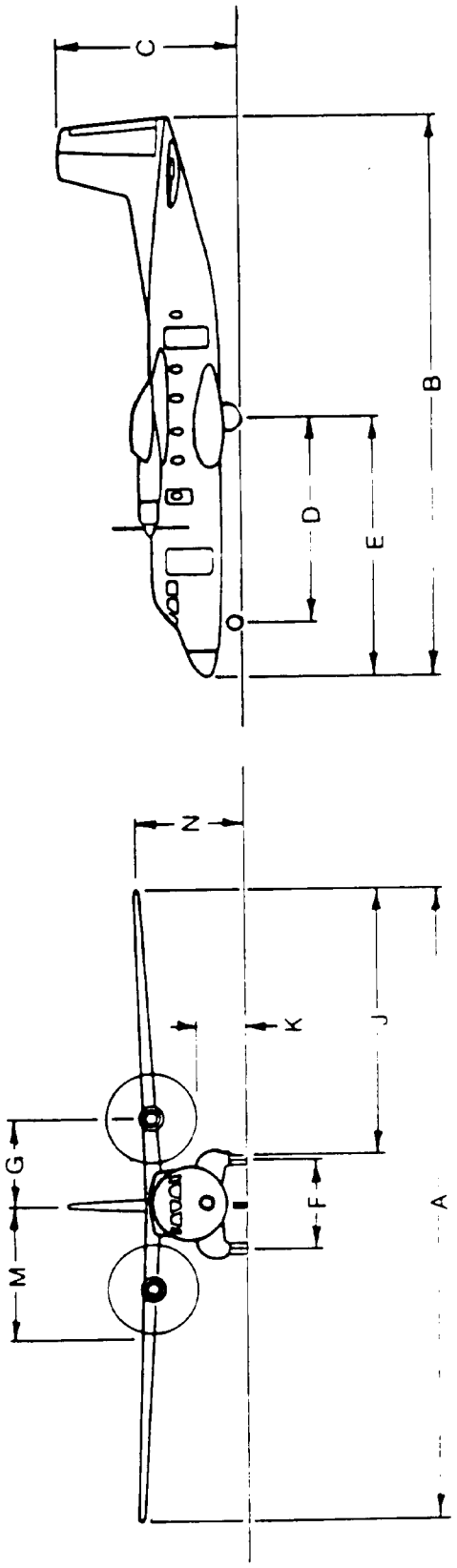


Figure C-74. Aerospatiale Nord 262

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
†	†	71.5	48.5	15.6	14.4	†	16.7	†	†	15.0	†	†	†	†

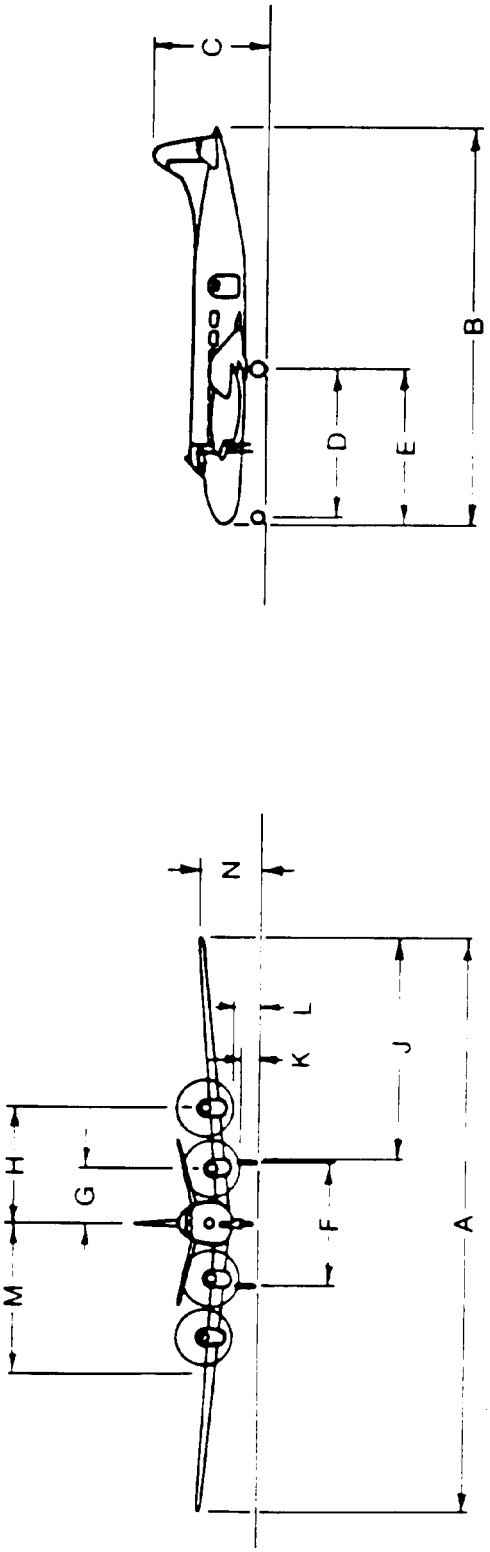


Figure C-75. Hawker Siddeley Heron

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
73	55	98.5	67.0	24.8	20.7	†	24.8	†	35.9	2.0	†	†

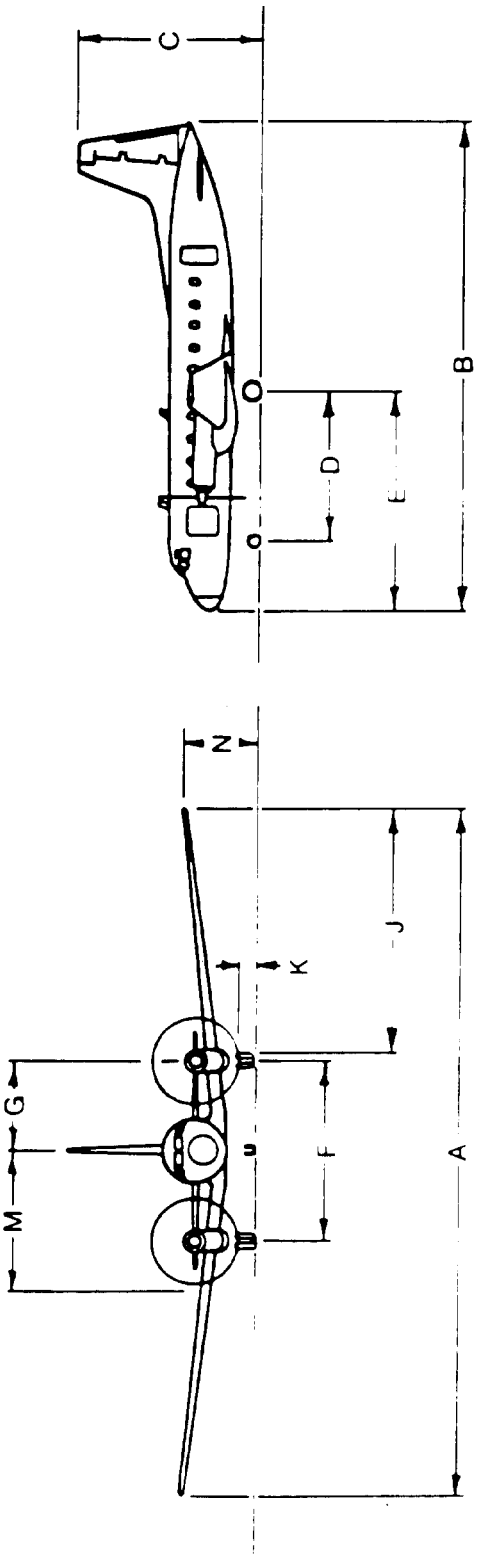


Figure C-76. Hawker Siddeley HS-748

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
75	50	105.0	86.3	29.5	31.3	†	28.3	†	37.7	†	†	†

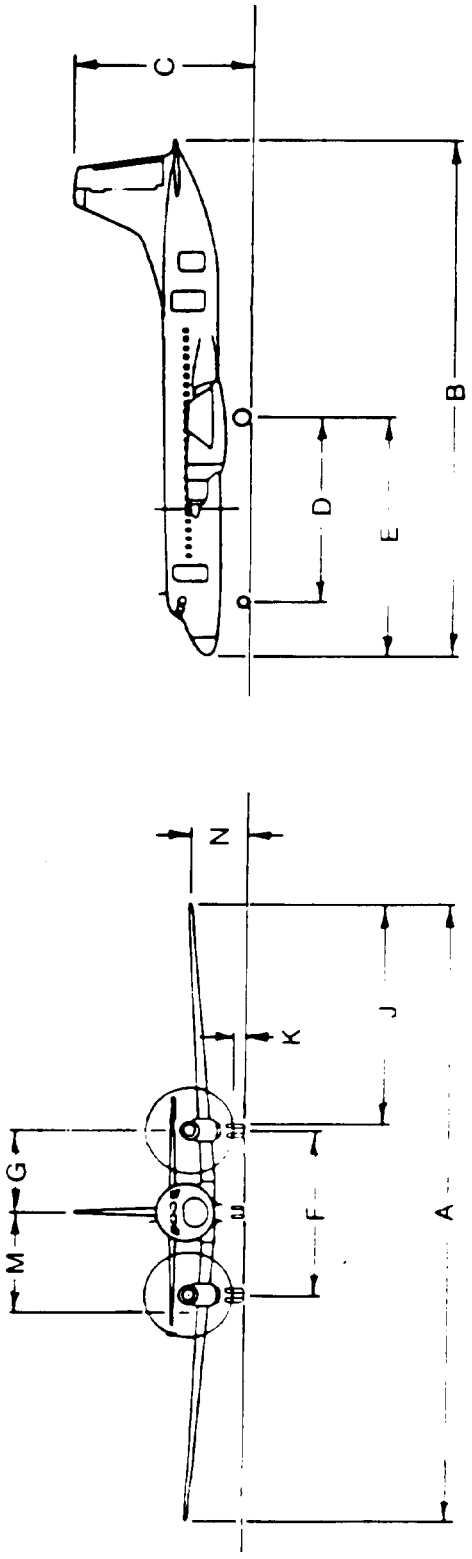


Figure C-77. Nihon/N.A.M.C. YS-11A

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
DC-4	75	60	117 5	93 9	27 9	27 4	36 0	24 7	12 3	26 3	44 6	2 2	3 8	13 8	13 5
DC-6	106	70	117 5	105 6	29 3	36 2	44 8	24 7	12 3	26 3	44 6	1 9	3 5	13 9	13 5
DC-7	126	70	127 5	112 3	31 7	39 5	48 1	34 7	17 3	31 3	44 6	1 3	3 8	17 3	13 5

MODEL DC 4 HAS ROUNDED VERTICAL STABILIZER AND CIRCULAR CABIN WINDOWS

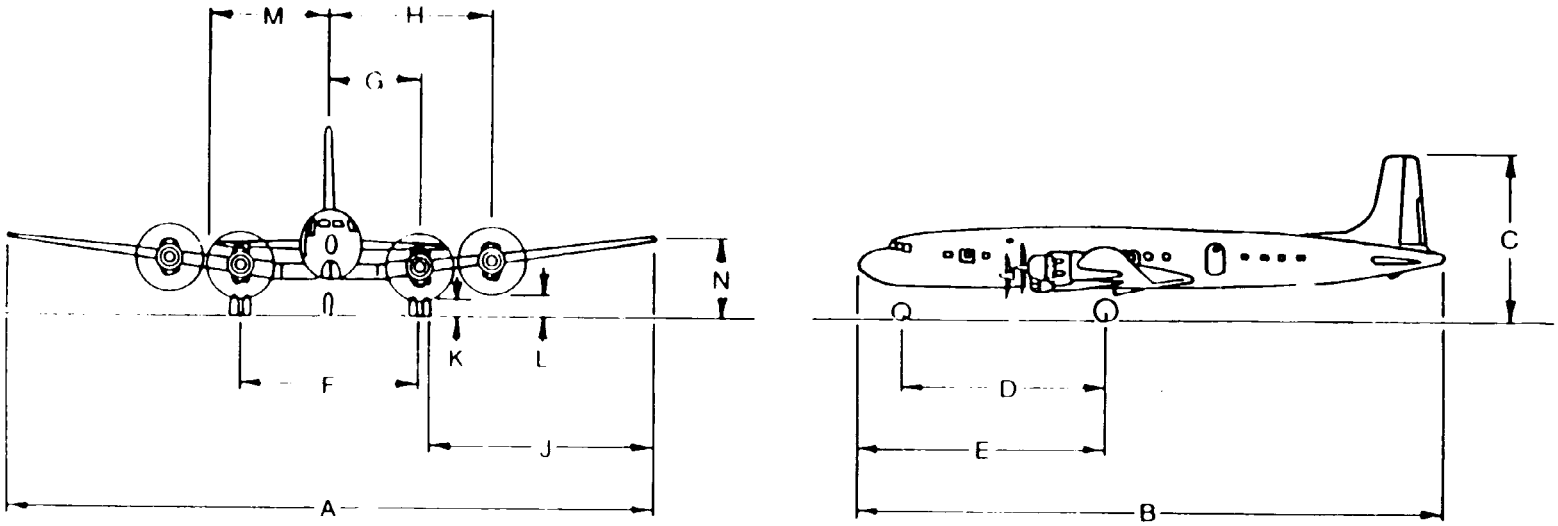


Figure C-78. Douglas DC-4/6/7

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
138	†	99.0	104.6	33.7	37.0	48.3	31.2	15.6	29.8	37.8	1.3	2.5	15.6	10.9

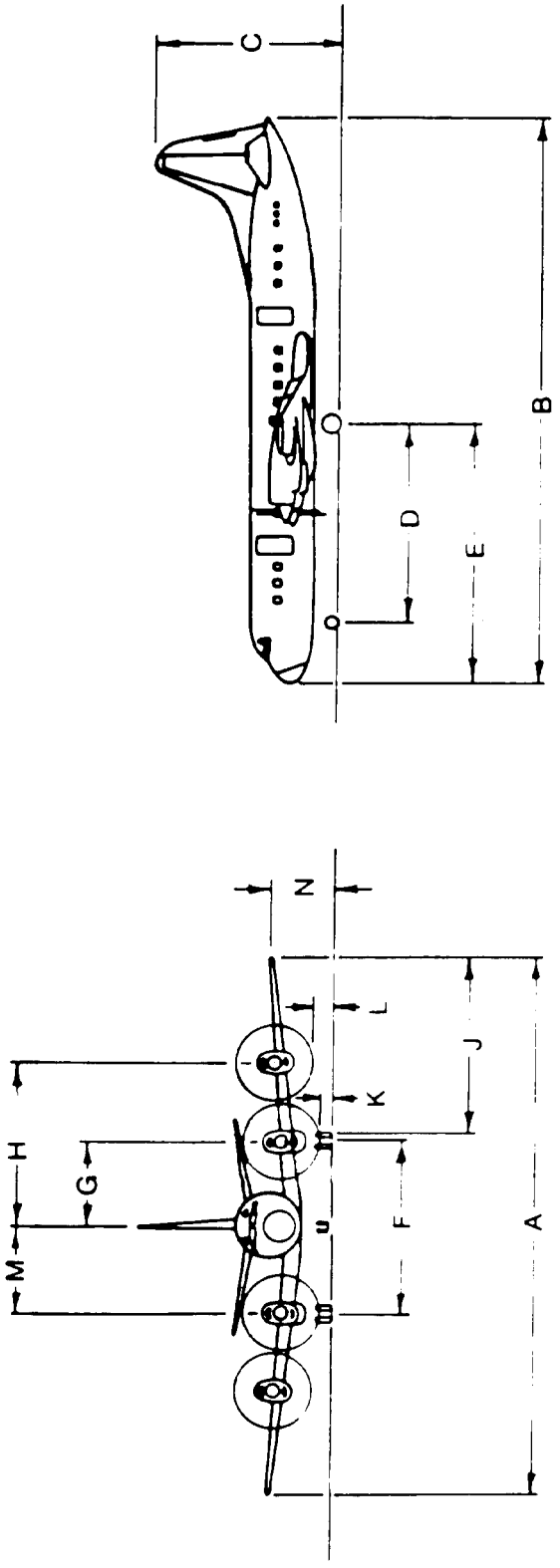


Figure C-79. Lockheed L-188 Electra II

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
L-100-20	107	60	132 6	106 1	39 3	37 1	48 6	14 3	16 8	33 3	57 4	5 9	6 9	12 0	15 3
L-100-30	107	60	132 6	112 8	39 2	40 4	51 9	14 3	16 8	33 3	57 4	5 9	6 9	14 0	15 3

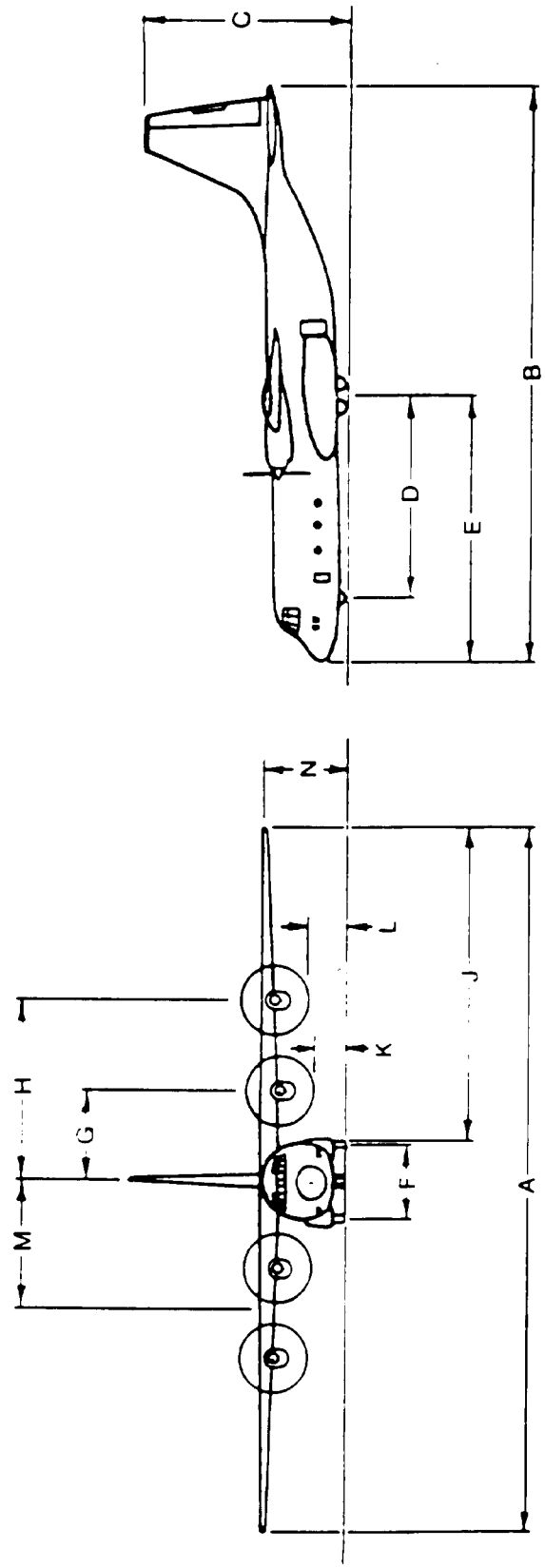


Figure C-80. Lockheed L-382 Hercules

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
749A	†	†	123 0	95 2	22 4	33 0	39 3	28 0	14 0	29 8	45 4	1 8	3 9	31 1	15 9
1049	†	†	123 0	113 6	24 9	43 6	49 9	28 0	14 0	29 8	45 4	1 8	3 9	26 0	16 3
1649A	†	†	150 0	116 2	23 4	45 6	54 3	38 4	19 2	37 3	53 8	1 4	3 6	28 3	16 9

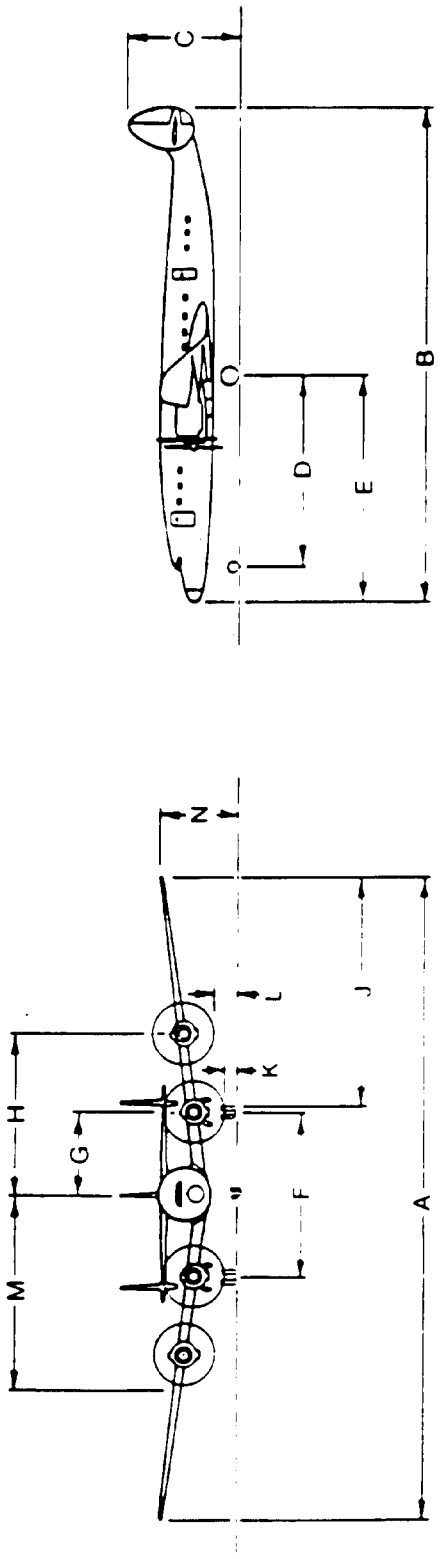


Figure C-81. Lockheed Constellation and Super Constellation

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
745	†	†	93 8	81 8	26 8	25 3	35 7	23 8	12 8	23 1	33 8	11	1 8	20 8	8 6
810	131	90	93 8	85 7	26 8	29 1	39 5	23 8	12 8	23 1	33 8	11	1 8	24 4	8 6

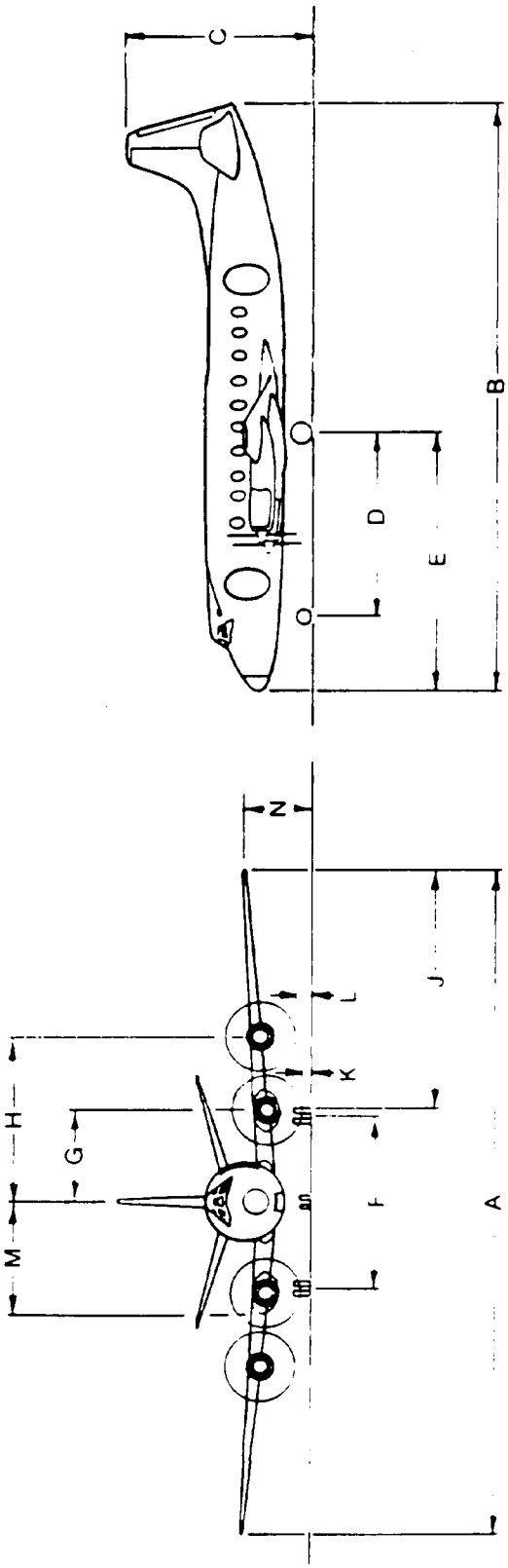


Figure C-82. B.A.C./Vickers Viscount

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
100	120	43.8	44.1	14.3	15.2	†	12.6	†	14.9	†	†	†

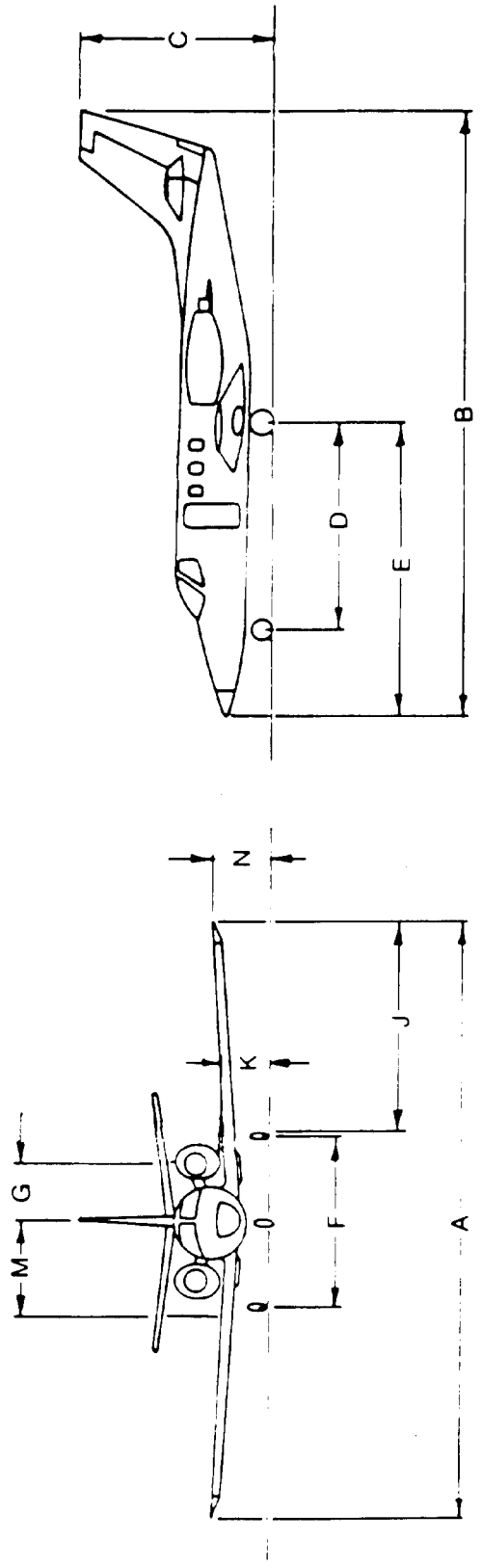


Figure C-83. Cessna Citation

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
24	115	105	35.6	43.3	12.6	16.2	21.8	8.3	3.7	12.8	4.8	16.0	3.3
25	115	105	35.6	47.6	12.6	16.2	26.0	8.3	3.7	13.1	4.8	16.0	3.3
35,36	160	160	38.1	48.7	12.3	17.3	27.1	8.3	3.7	14.3	4.8	†	3.5

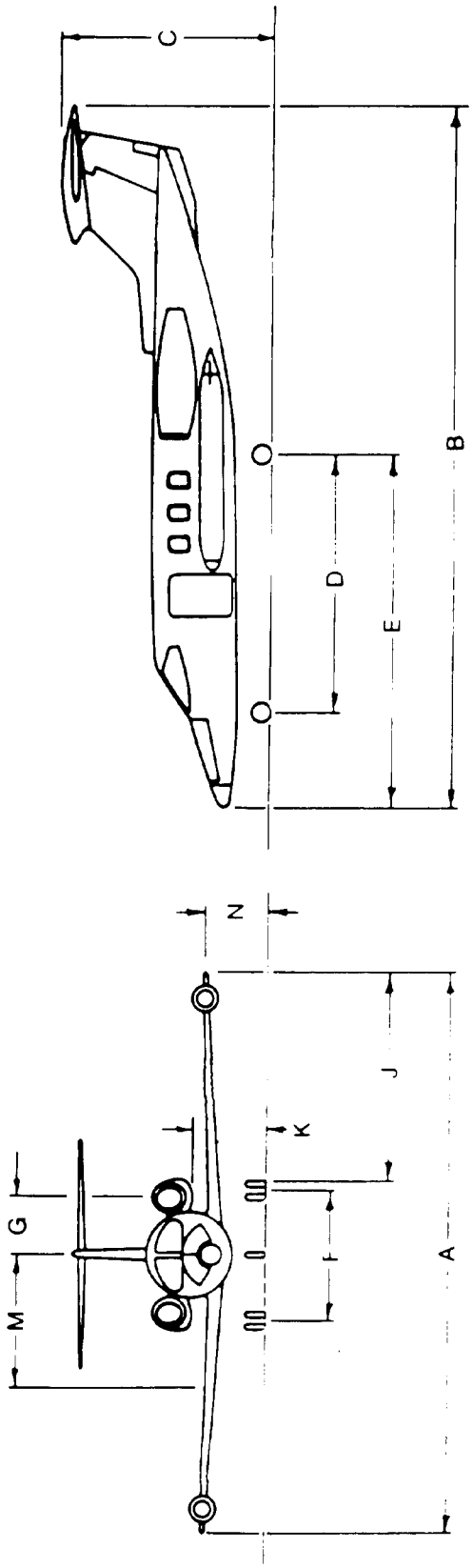


Figure C-84. Gates Learjet

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
150	95	68 8	79 9	24 5	33 3	40 4	13 7	6 3	26.7	8 8	6.8	6.0

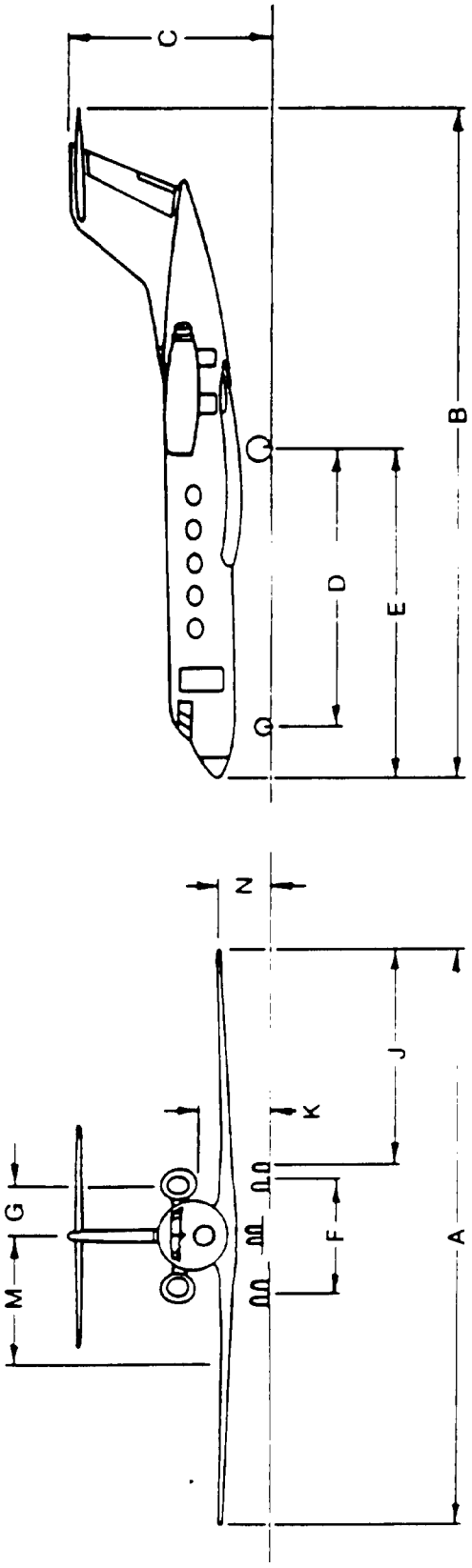


Figure C-85. Grumman Gulfstream II

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
220	220	54.4	80.4	20.4	20.6	34.9	12.3	5.6	7.9	19.3	5.2	5.2	7.2	4.4

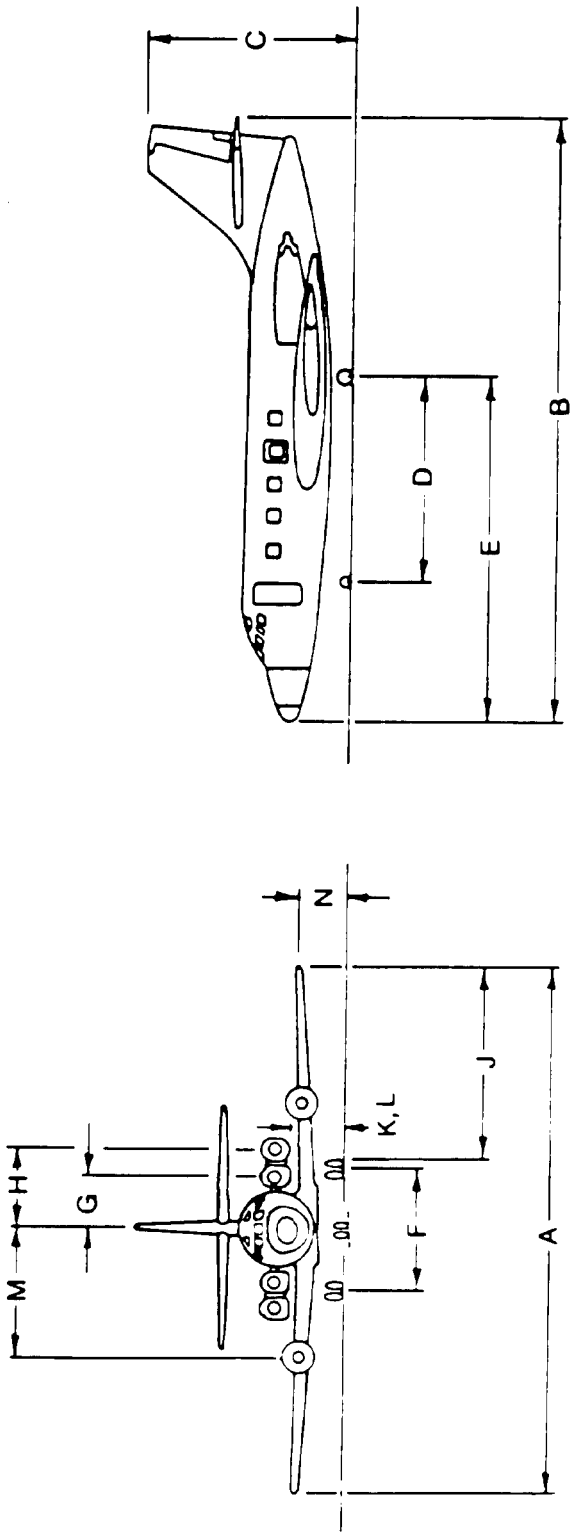


Figure C-86. Lockheed 1329 Jetstar

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
40	180	100	44.4	43.8	16.0	14.5	22.8	7.3	4.5	18.3	3.8	17.7	3.7
60	185	75	44.4	48.3	16.0	15.9	24.1	7.3	4.5	18.3	3.8	†	3.7
75A	180	100	44.5	47.2	17.3	15.8	†	8.3	4.5	†	3.5	†	3.6

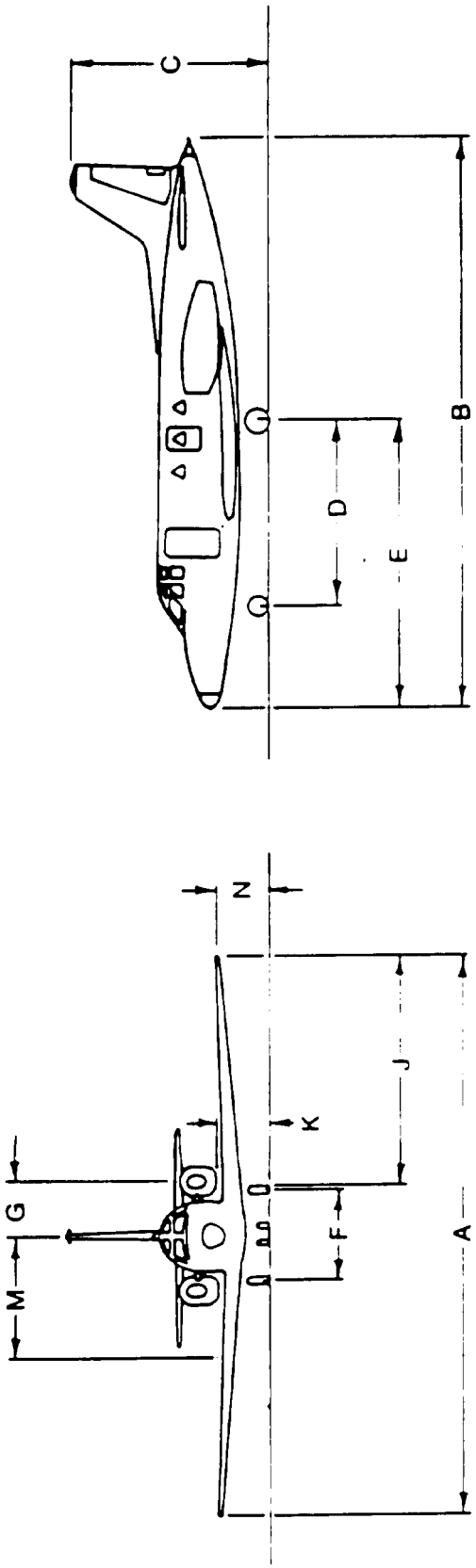


Figure C-87. Rockwell International NA-265 Sabreliner

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
143	151	53.5	56.3	17.4	18.8	29.5	12.2	5.5	18.9	5.7	15.3	4.8

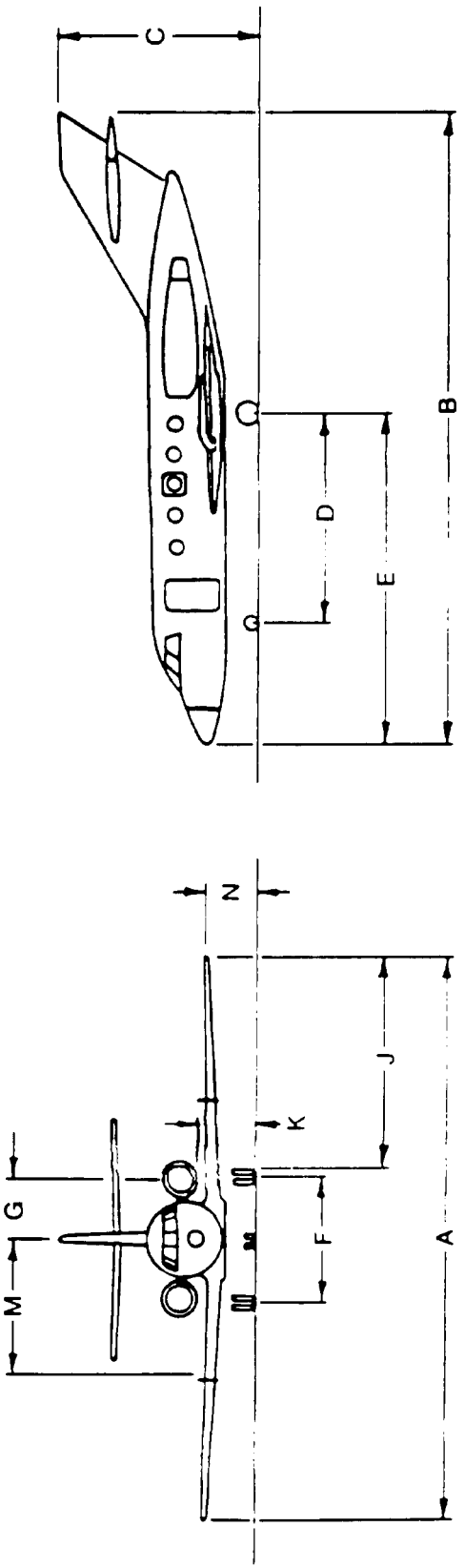


Figure C-88. Avions Marcel Dassault Mystere 20 (Fan Jet Falcon)

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
95	80	77.3	80.6	27.8	29.3	28.2	16.6	8.5	28.8	5.2	8.3	7.8

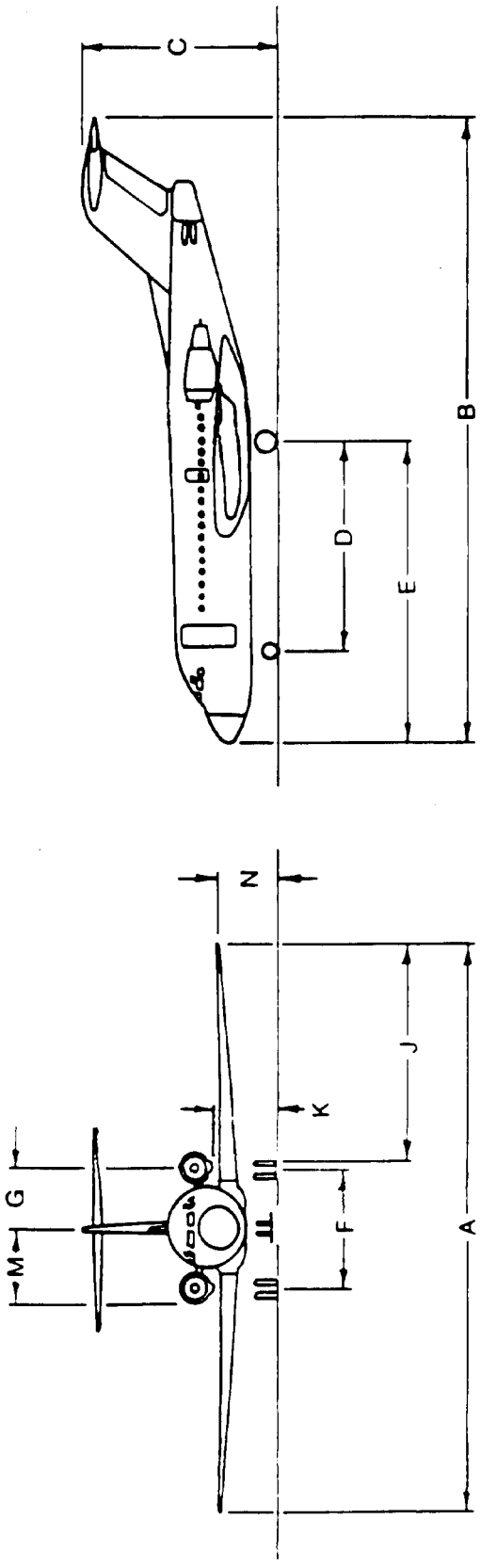


Figure C-89. Fokker F-28

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
120	94	47.5	54.5	16.2	22.1	28.2	7.8	4.7	19.6	5.9	8.3	7.3

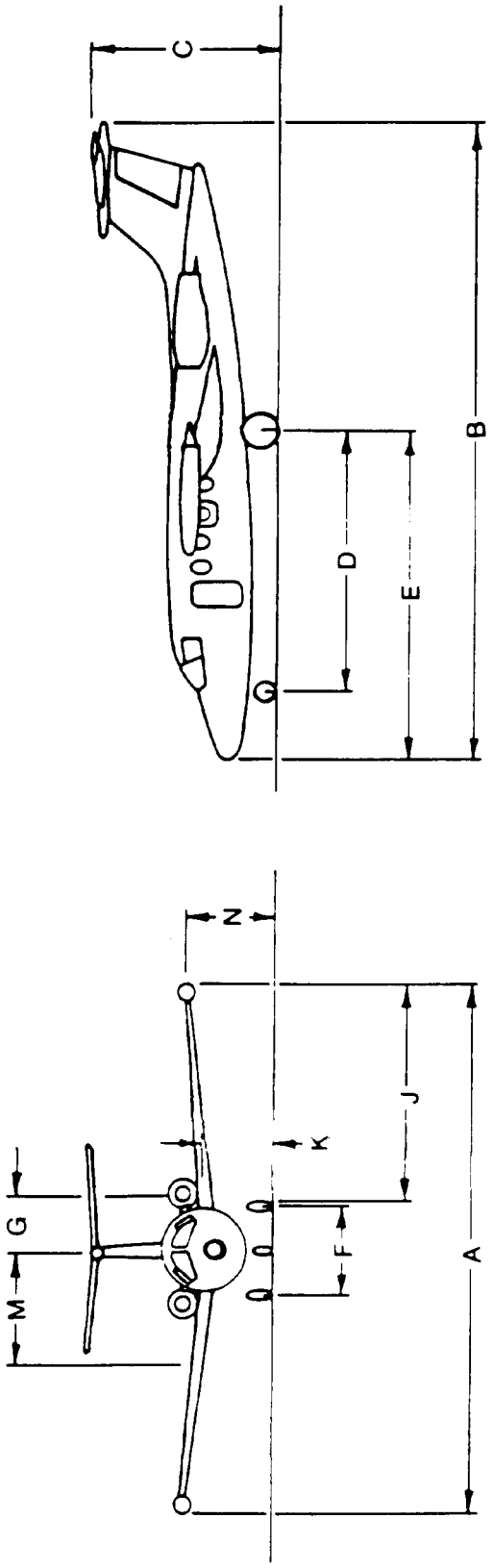


Figure C-90. Hamburger-Flugzeubau HFB-320 Hansa

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
112	75	47.0	47.4	16.5	18.8	26.3	9.2	4.2	18.6	4.8	19.0	4.3

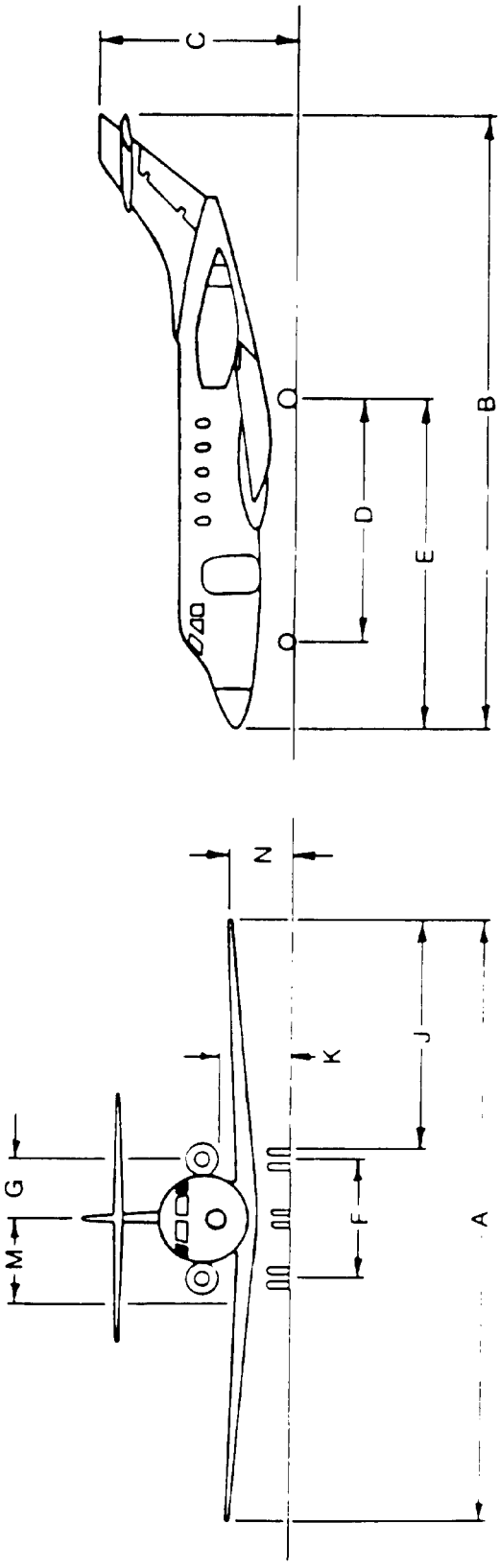


Figure C-91. Hawker Siddeley HS-125

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
1121	135	65	43.3	50.4	15.8	23.8	†	11.2	3.3	15.8	5.2	23.7	4.9
1123	155	50	43.3	52.3	15.8	23.8	†	12.0	3.3	15.8	5.2	†	†

NOTE MODEL 1121 FORMERLY PRODUCED BY NORTH AMERICAN ROCKWELL AS "JET COMMANDER"

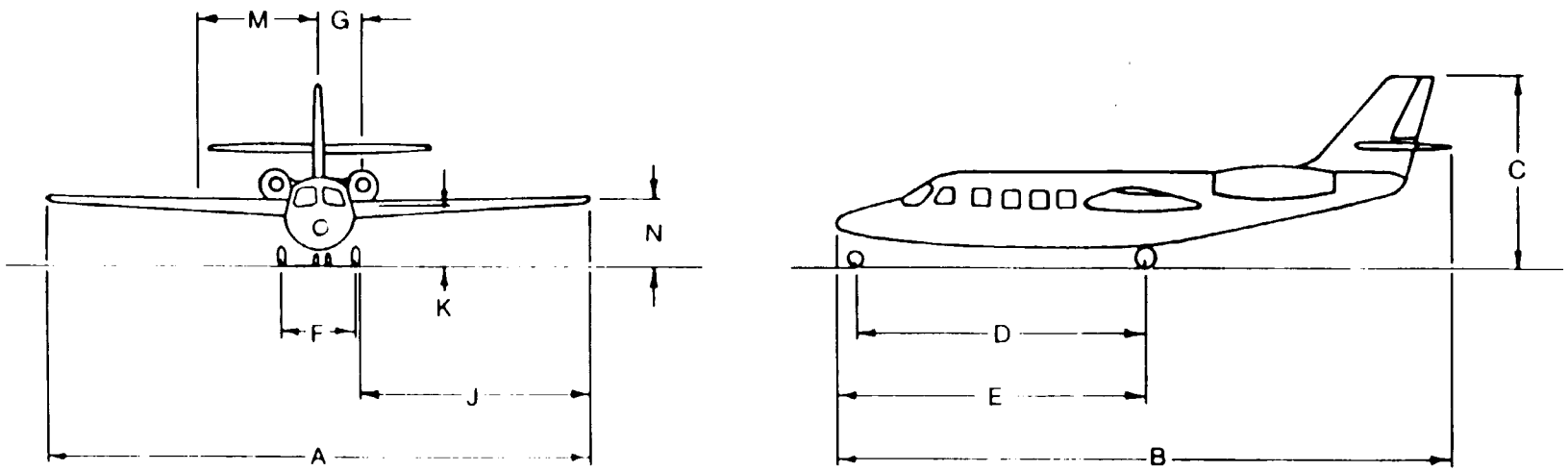


Figure C-92. Israel Aircraft Industries Commodore Jet

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
707-120B	170	90	130 8	145.1	41.7	52.3	69.8	22.1	27.2	46.1	52.3	2.3	4.2	36.6	11.6
707-320/420	180	115	142 4	152.9	42.2	59.0	76.4	22.1	32.5	51.4	58.1	2.8	4.6	38.3	12.1
707-320B,C	180	115	145.8	152.9	42.1	59.0	76.4	22.1	32.5	51.4	59.8	2.8	4.6	38.3	12.1
720	145	100	130 8	136.2	41.4	50.7	68.1	21.9	27.2	46.1	52.5	2.6	4.3	32.8	10.8
720B	145	115	130 8	136.8	41.2	50.7	68.1	21.9	27.2	46.1	52.5	2.1	3.8	32.8	10.8

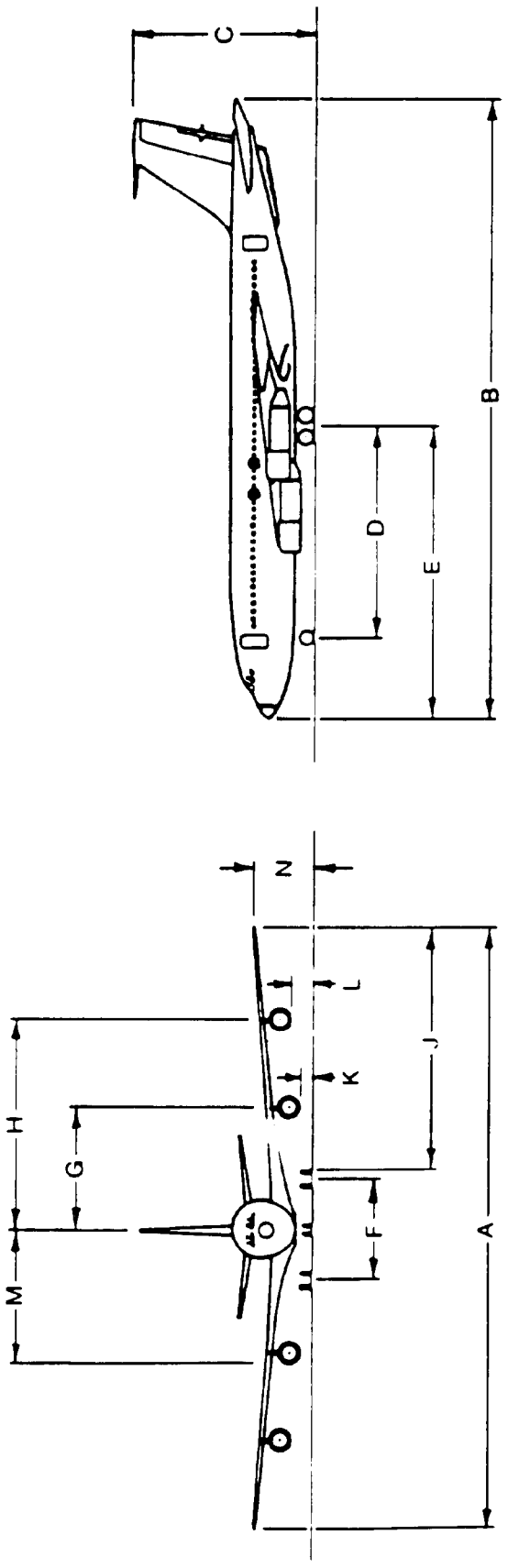


Figure C-93. Boeing 707 and 720

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	P
	MAIN GEAR	NOSE GEAR												
100	158	100	108.0	133.2	34.3	53.3	68.3	18.8	9.3	42.5	10.3	14.3	5.7	12.0
100-C	165	100	108.0	133.2	34.3	53.3	68.3	18.8	9.3	42.5	10.3	14.3	5.7	12.0
200	173	100	108.0	153.2	34.9	63.3	78.3	18.8	9.3	42.3	10.3	16.9	4.8	12.0

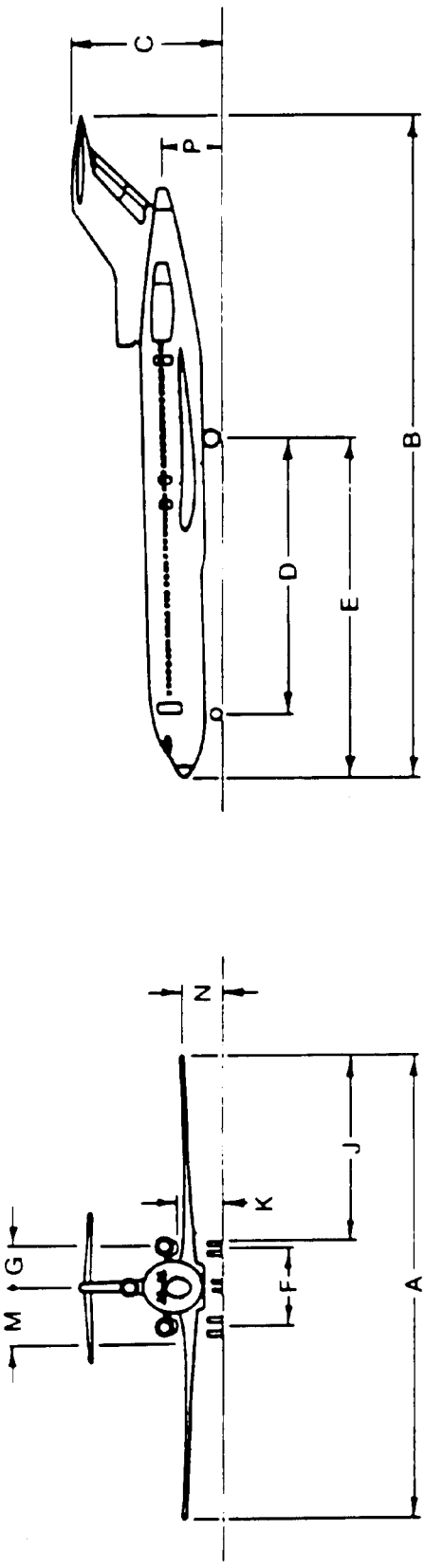


Figure C-94. Boeing 727

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
100	157	145	93.0	94.0	37.2	34.3	47.3	17.2	15.8	36.1	1.7	9.2	10.0
200	182	140	93.0	100.2	37.3	37.3	50.3	17.2	15.8	36.1	1.7	10.0	10.0
300	195	165	94.8	109.6	36.6	40.8	54.0	17.2	15.8	36.9	1.5	11.0	10.0
400	203	172	94.8	119.6	36.5	46.8	60.0	17.2	15.8	36.9	1.5	12.4	10.0

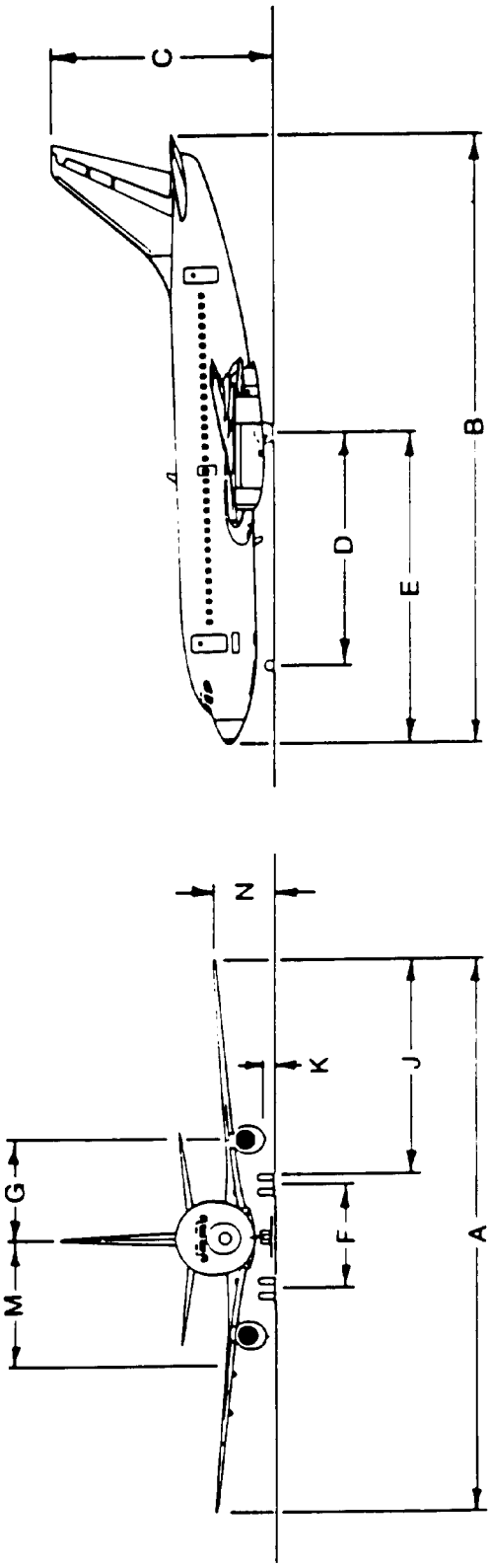


Figure C-95. Boeing 737

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
100B 200B,C 300PASS	190	183	195.7	231.8	64.3	84.0	109.4	36.1	39.8	69.8	77.3	3.8	4.9	40.0	17.6
200C 200F CARGO	201	188	195.7	231.8	64.7	84.0	109.4	36.1	39.8	69.8	77.3	3.8	6.0	40.0	17.6
SP	205	209	195.7	184.8	65.8	67.3	92.8	36.1	39.2	69.5	77.3	3.6	5.6	40.0	17.2
400	210	205	211.0	231.8	64.3	84.0	109.4	36.1	39.2	69.5	84.8	3.8	6.0	40.0	24.4

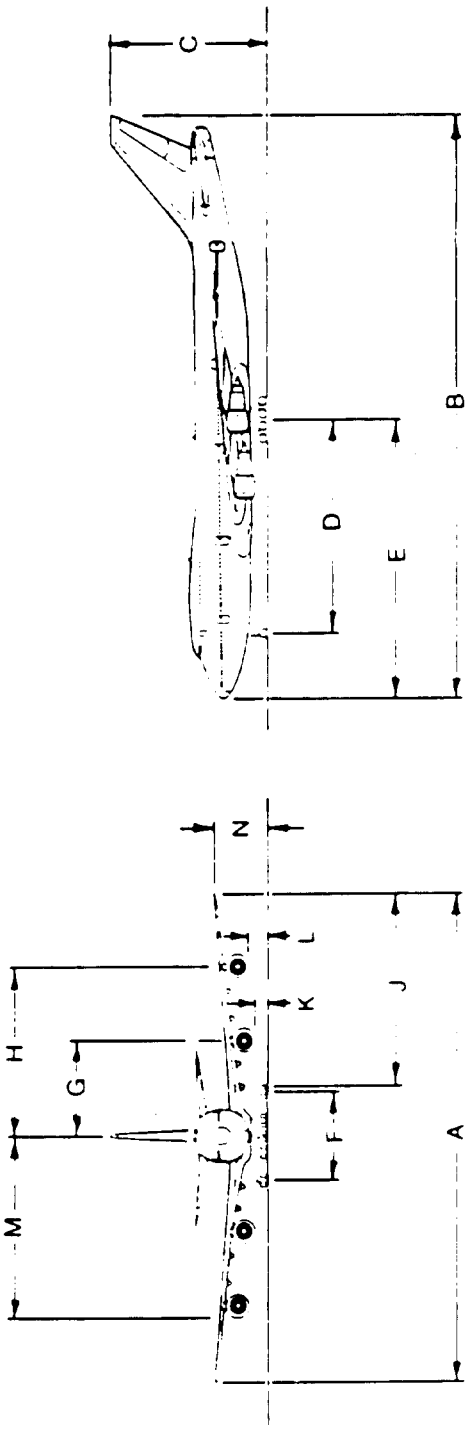


Figure C-96. Boeing 747

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
200	170	150	124 8	155 3	45 1	60 0	79 3	24 0	21 3	48 2	2 4	35 0	15 3

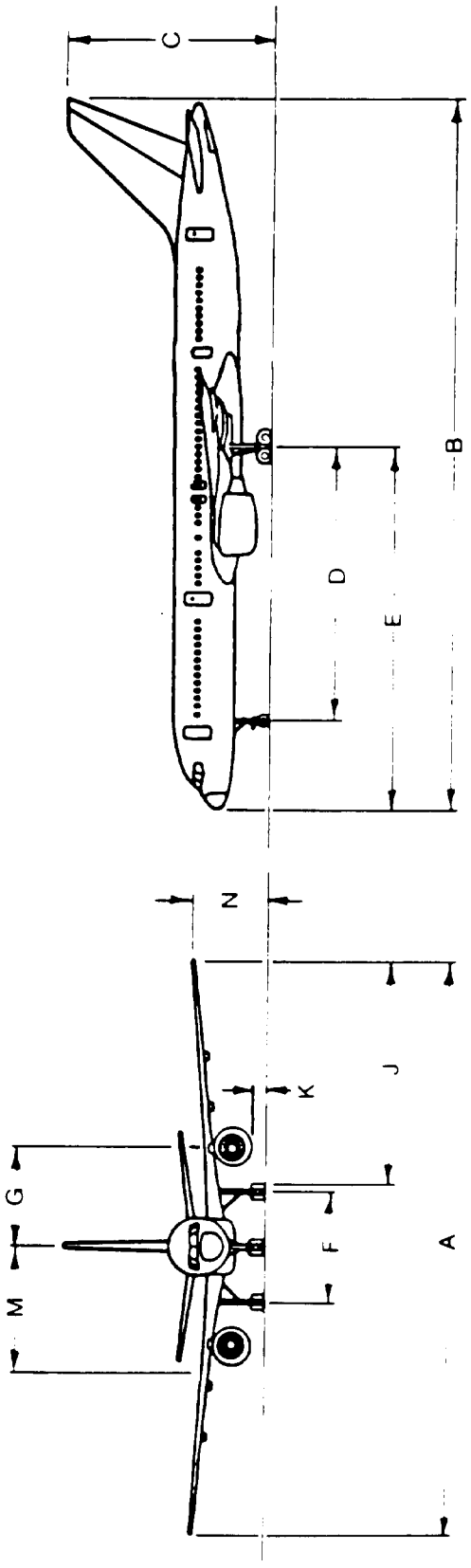


Figure C-97. Boeing 757

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
200	190	145	156.1	159.2	52.9	64.6	79.5	30.5	26.0	60.1	2.7	36.0	16.3
200ER	190	155	156.1	159.2	52.9	64.6	79.5	30.5	26.0	60.1	2.7	36.0	16.3
300	190	150	156.1	180.3	52.6	74.7	89.6	30.5	26.0	60.1	2.8	41.0	16.1
300ER	190	150	156.1	180.3	52.6	74.7	89.6	30.5	26.0	60.1	2.8	41.0	16.1

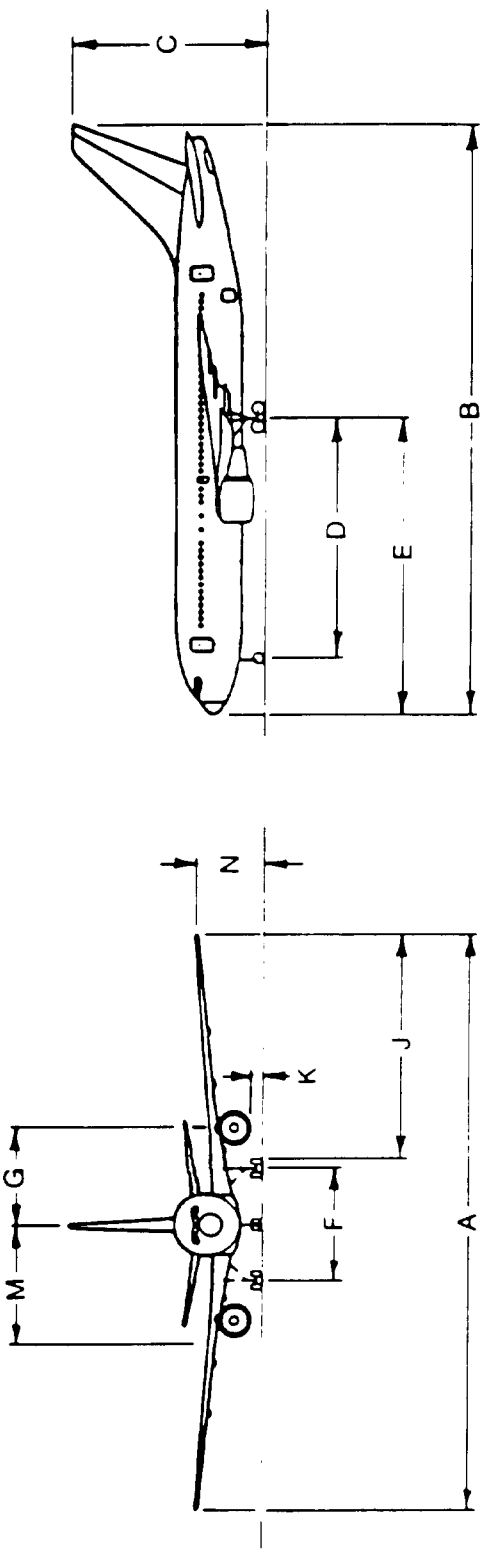


Figure C-98. Boeing 767

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
22 (CONVAIR 880)	155	140	120 0	129 3	36 3	53 1	64 8	18 8	22 2	41 3	49 3	27	39	19 4	10 9
30A (CONVAIR 990)	186	200	120 0	139 8	39 5	57 3	68 9	19 9	22 2	41 3	48 8	28	40	29 3	12 8

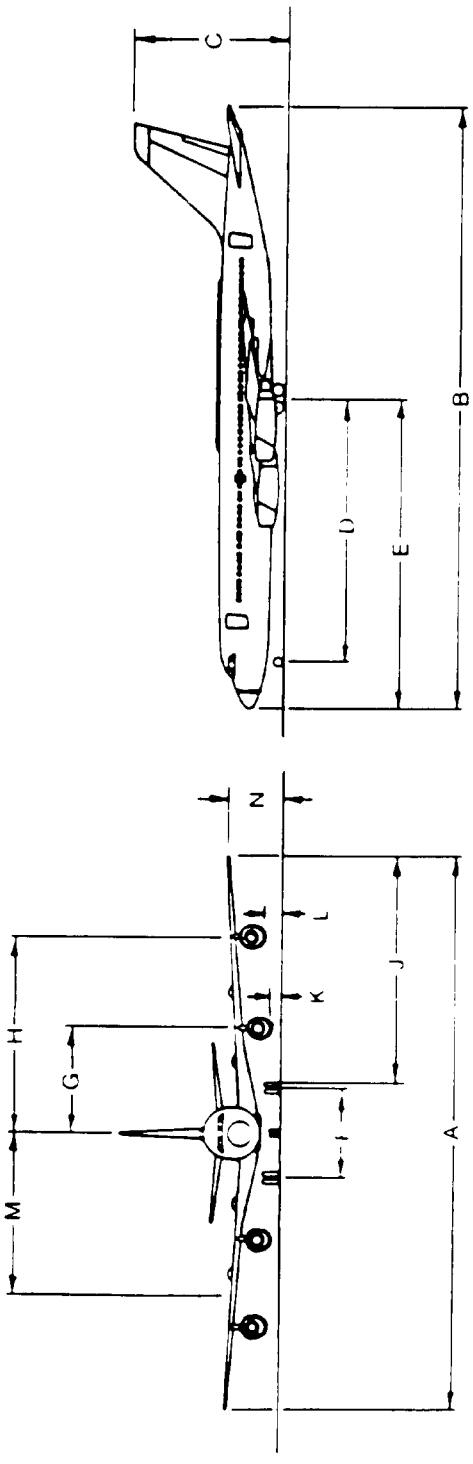


Figure C-99. General Dynamics/Convair 880 and 990

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	P
	MAIN GEAR	NOSE GEAR												
1	180	200	155.3	177.7	55.8	70.0	99.8	36.0	34.8	56.7	2.9	38.8	16.1	18.8
100	175	180	155.3	177.7	55.8	70.0	99.8	36.0	34.8	56.7	2.9	38.8	16.1	18.8
200	175	180	155.3	177.7	55.8	70.0	99.8	36.0	34.8	56.7	2.9	38.8	16.1	18.8
500	184	220	155.3	164.2	55.8	61.7	91.4	36.0	34.8	56.7	2.9	34.0	16.1	20.0
500 Ex Wing	184	220	164.3	164.2	55.8	61.7	91.4	36.0	34.8	61.2	2.9	34.0	16.8	20.0

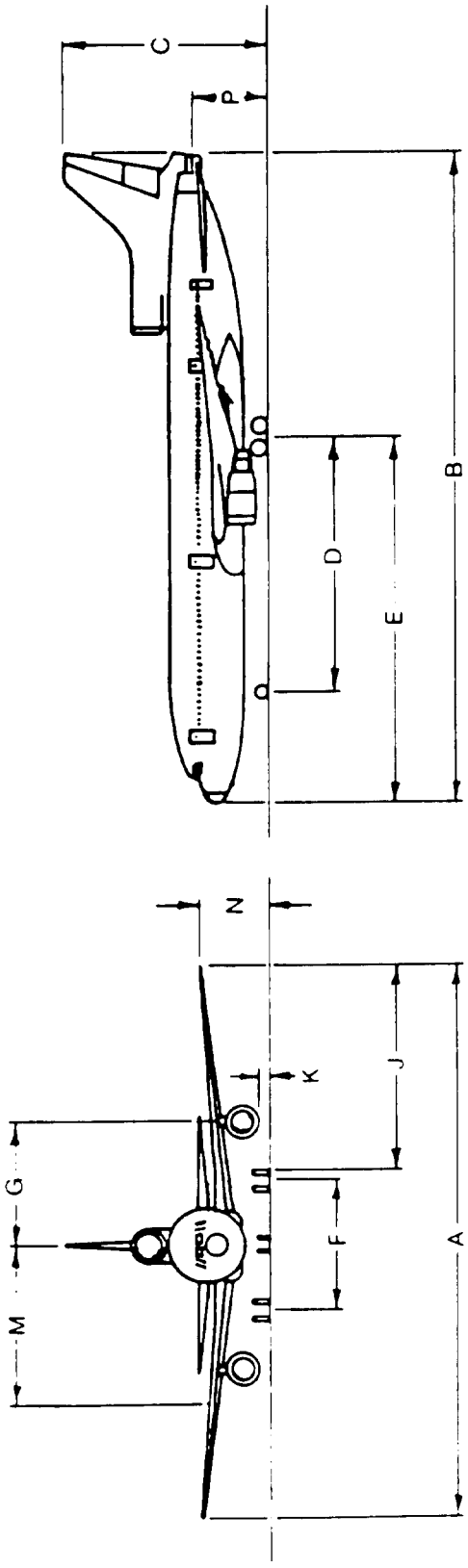


Figure C-100. Lockheed L-1011 Tristar

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
43	177	162	142 4	150.7	43 4	57 5	73 4	20 8	25 8	44.6	58.8	3 3	4.7	22.1	15.0
55	186	171	142 4	150 7	43 6	57 5	73 4	20 8	25 8	44 6	58.8	3 1	4 6	22.1	15.0
55F	186	171	142 4	150.7	43 8	57 5	73 4	20 8	25 8	44 6	58 8	3 1	4 6	22 1	14.9
61/71	188	118	142 4	187 4	43 3	77 5	93 4	20 8	25 8	44 6	58 8	3 3	4 6	27 0	14 8
61F/71F	190	119	142 4	187 4	43 2	77 5	93 4	20 8	25 8	44 6	58 8	3 3	4 6	27 0	14 9
62/72	191	174	148 4	157 5	43.3	60 8	76.7	20 8	25 8	44 6	61 7	2 5	4 2	39 3	15 4
62F/72F	191	174	148 4	157 5	43 3	60 8	76 7	20 8	25 8	44 6	61.7	2 5	4 2	39 3	15.4
63/73	196	147	148 4	187 4	43 0	77 5	93 4	20 8	25 8	44 6	61.7	2 6	4 2	38 8	15 3
63F/73F	196	147	148 4	187 4	43 2	77 5	93 4	20 8	25 8	44 6	61.7	2 6	4 2	38 8	15 3

NOTE REDUCE DIMENSION (K AND L) BY 0 8 FEET FOR DC 8 -0 SERIES AIRCRAFT

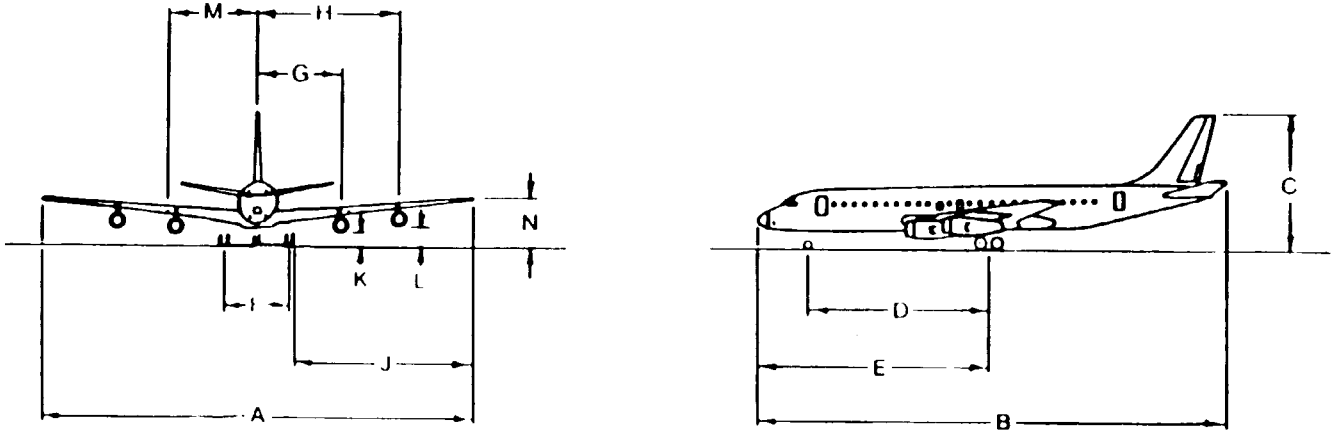


Figure C-101. McDonnell Douglas DC-8

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
15	130	118	89.4	104.4	27.6	43.7	51.3	16.1	8.9	35.0	6.4	8.5	7.2
15F	130	118	89.4	104.4	27.6	43.7	51.3	16.4	8.9	35.0	6.4	8.5	7.2
21	143	131	93.3	104.4	27.4	43.7	51.3	16.4	8.9	36.9	6.4	8.5	7.3
32	155	140	93.3	119.3	27.8	53.2	60.8	16.4	8.9	36.9	6.4	10.3	7.3
33F	155	140	93.3	119.3	27.8	53.2	60.8	16.4	8.9	36.9	6.4	10.3	7.3
41	160	148	93.3	125.6	28.4	56.2	63.7	16.4	8.9	37.0	6.9	10.9	7.2
51	172	157	93.3	133.6	28.8	60.9	68.5	16.0	8.9	37.0	6.8	11.8	7.1
81 82,88 83	170 184 195	155 155 170	107.8	147.8	30.3	72.4	80.0	16.7	8.9	43.6	7.5	14.0	8.6
87	184	192	107.8	130.4	31.3	62.9	70.5	16.7	8.9	43.6	7.5	12.2	8.7

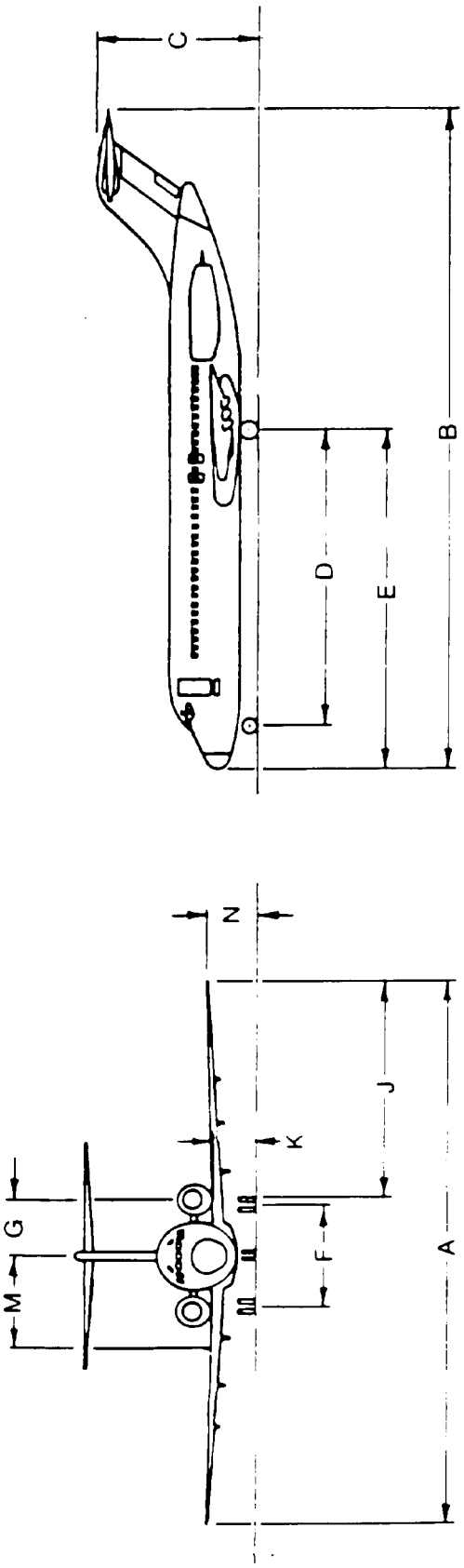


Figure C-102. McDonnell Douglas DC-9 and MD-80 Series

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	P
	MAIN GEAR	NOSE GEAR												
10	195	165	155.3	182.3	58.4	72.4	100.3	35.0	26.8	57.1	2.8	27.0	14.4	29.6
30	177	185	165.3	181.6	58.6	72.4	100.3	35.0	26.8	62.1	2.8	27.6	14.3	29.5
40	177	185	165.3	182.3	58.6	72.4	100.3	35.0	26.8	62.1	2.8	27.6	14.3	29.5

NOTE MODEL 30 AND 40 ARE EQUIPPED WITH CENTERLINE TWIN TIRES IN MAIN GEAR VICINITY THESE TWIN TIRES HAVE PRESSURES OF 153 PSI

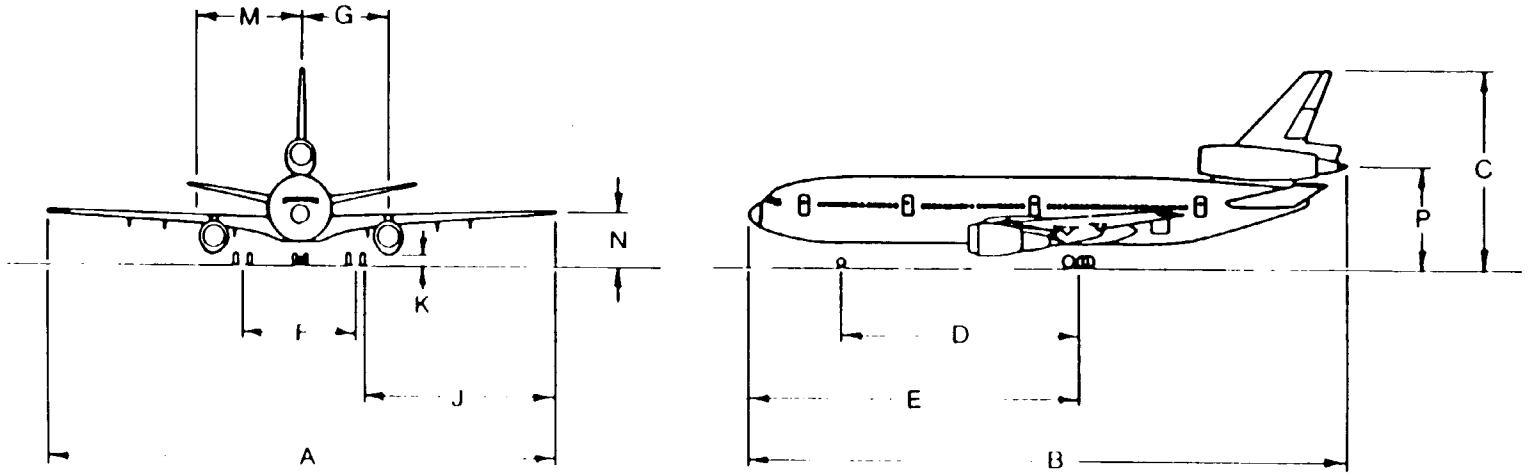


Figure C-103. McDonnell Douglas DC-10

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
MAIN GEAR	NOSE GEAR											
155	109	112 5	105.0	28 3	38 5	55 5	17 1	7 4	46.6	7.2	33.2	7.4

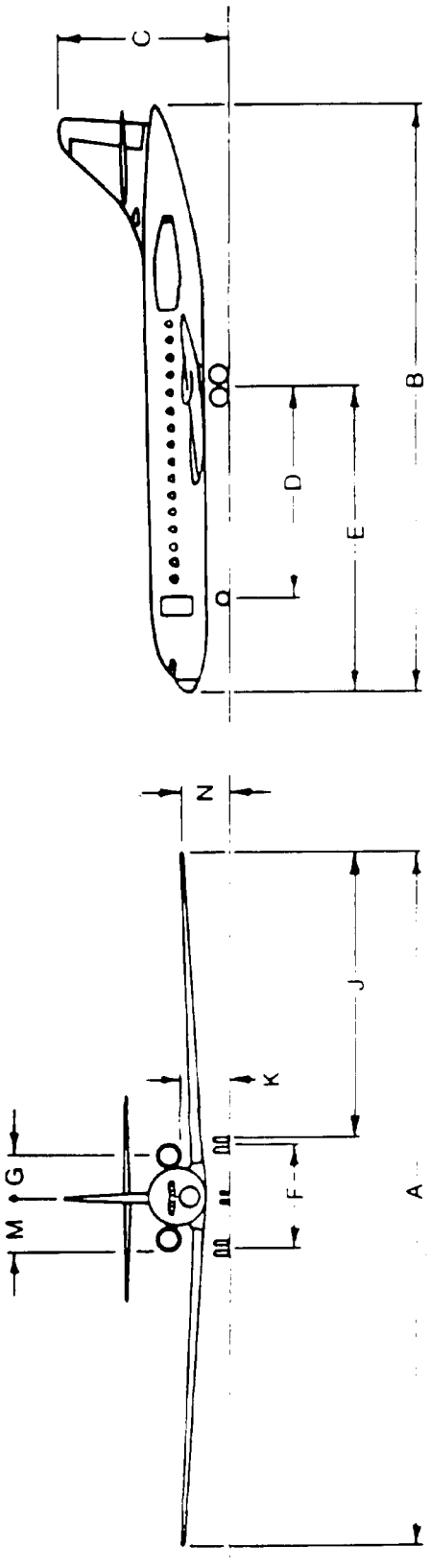


Figure C-104. Aerospatiale/Sud-Aviation SE-210 Caravelle

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
200	135	112	88.5	93.5	24.5	33.1	48.4	14.3	8.2	35.8	6.6	7.7	7.3
400	153	120	88.5	93.5	24.5	33.1	48.4	14.3	8.2	35.8	6.6	7.7	7.3
500	177	120	93.5	107.3	24.5	41.4	56.8	14.3	8.2	42.7	6.6	7.7	7.3

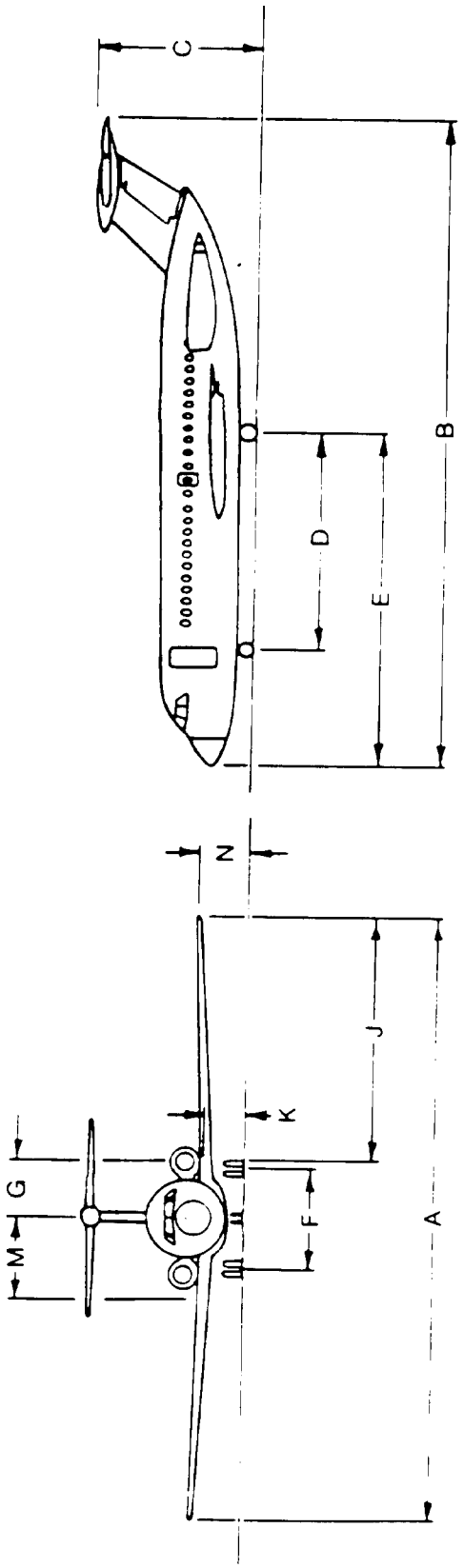


Figure C-105. B.A.C. One-Eleven

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
1100	115	100	146 2	158 8	39 5	65 8	†	21 4	†	†	†	†	†	†	†
1150	†	†	146 2	171 7	39 5	72 1	†	21 4	†	†	†	†	†	†	†

NOTE SERIES 1150 KNOWN AS SUPER VC 10

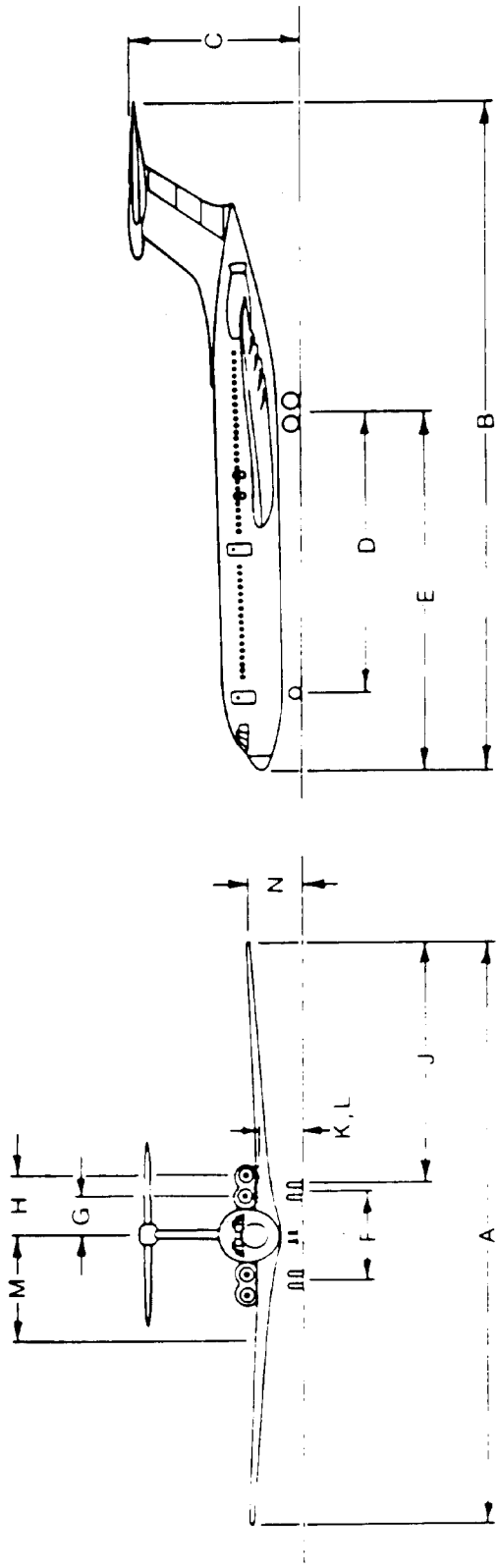


Figure C-106. B.A.C./Vickers VC-10

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
MAIN GEAR	NOSE GEAR													
135	114	141.8	174.3	40.5	80.4	†	22.3	†	†	58.0	†	†	†	†

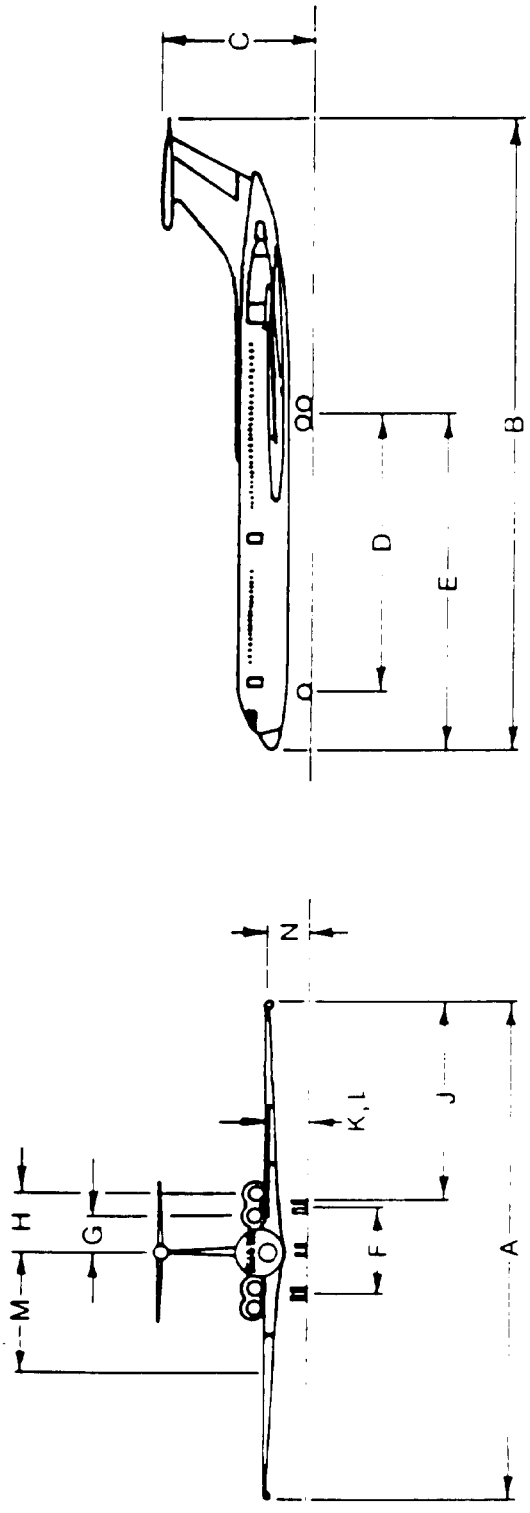


Figure C-107. Ilyushin IL-62

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N
	MAIN GEAR	NOSE GEAR											
A300B2	180	125	147.1	175.5	55.5	60.8	82.7	31.5	26.0	55.8	2.6	37.3	19.3
A300B4	206	131	147.1	175.5	55.5	60.8	82.7	31.5	26.0	55.4	2.6	37.3	19.3
A300 -600	180	136	147.1	177.5	54.7	61.1	82.9	31.5	26.0	55.4	3.3	37.9	18.8
A310 -300	163	131	144.1	153.2	52.3	49.9	71.8	31.5	25.3	54.2	2.2	34.2	16.9
A320	†	†	111.3	123.3	38.3	41.5	58.1	24.9	18.8	40.8	1.8	15.1	13.4

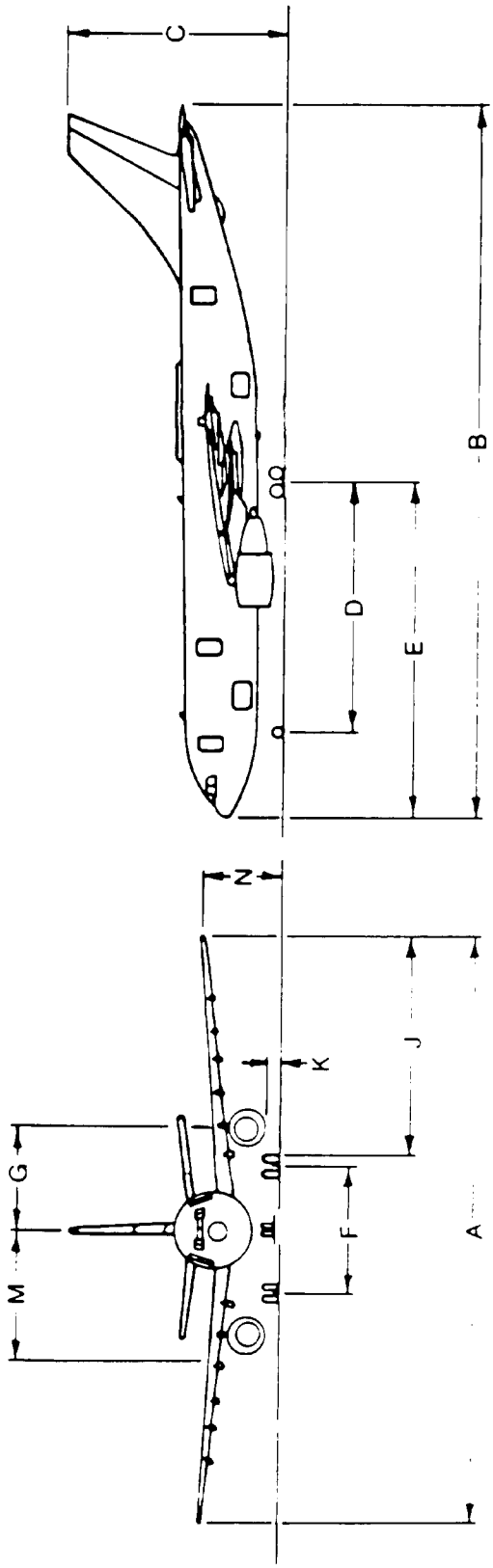


Figure C-108. Airbus Industries A300, A310, A320

MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	J	K	M	N	*TIP OF PROBE
MAIN GEAR	NOSE GEAR												
232	181	83.8	205.4	37.4	59.7	122.8	25.3	18.1	27.3	6.1	32.4	8.5	8.5

*NOSE FULLY LOWERED

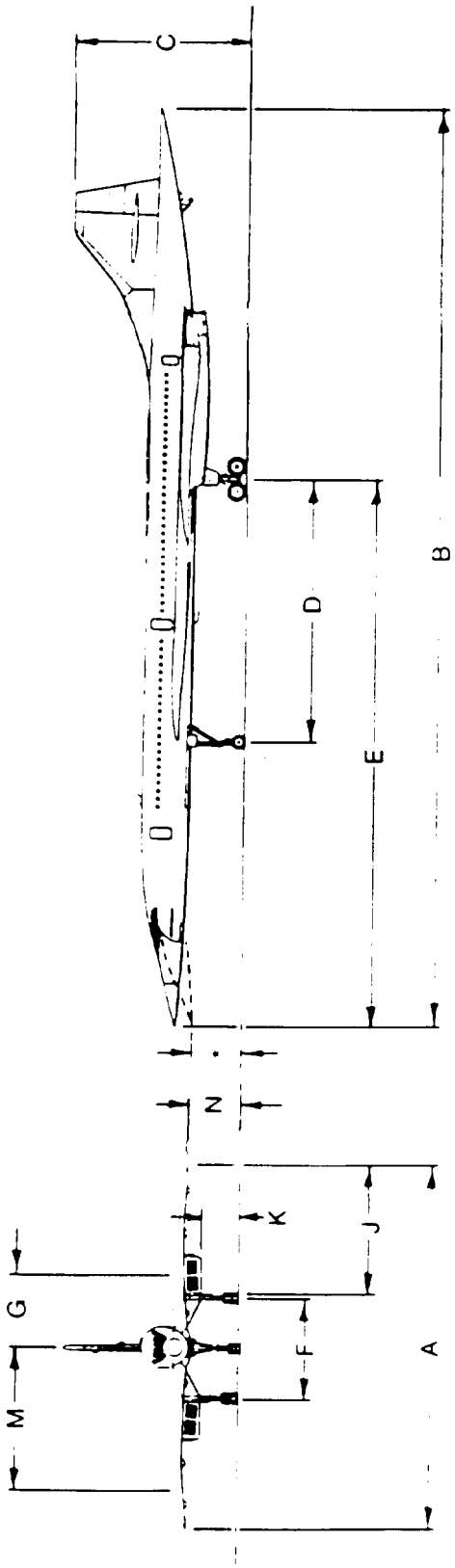


Figure C-109. B.A.C./SNIAS Concorde

MODEL	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J	K	L	M	N
	MAIN GEAR	NOSE GEAR													
100	122	113	86 4	85 8	28 3	33 1	40 6	15 5	13 6	22 3	33 7	5 0	4 7	15 5	13 9
200	122	113	86 4	93 7	28 3	36 8	44 2	15 5	13 6	22 3	33 7	5 0	4 6	15 5	13 9
300	122	113	86 4	104 2	28 1	36 8	48 8	15 5	13 6	22 3	33 7	5 0	4 6	15 5	13 9

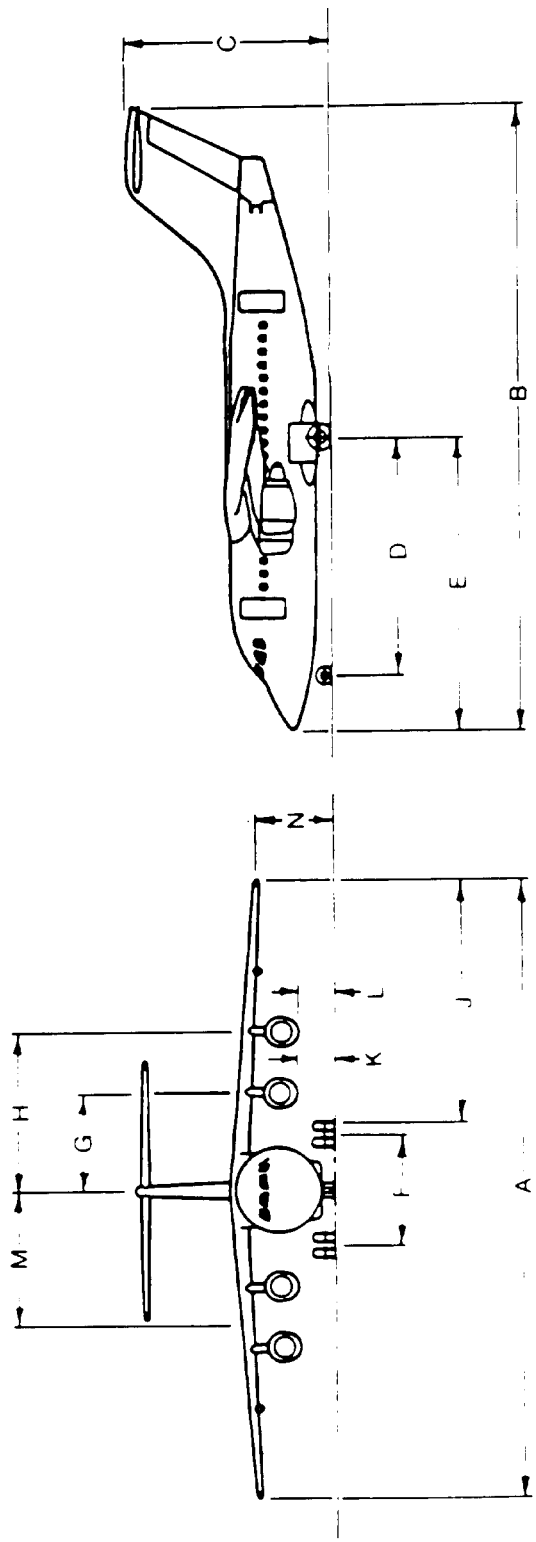


Figure C-110. British Aerospace 146

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	56.0	56.0	36.2	42.4	10.1	5.3	10.8	7.8	†	†	6.3	†

SILHOUETTES NOT AVAILABLE

Figure C-111. Aerospatiale 315B, Lama

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	85	85	49.5	59.8	16.9	13.2	7.9	†	†	10.0	14.4

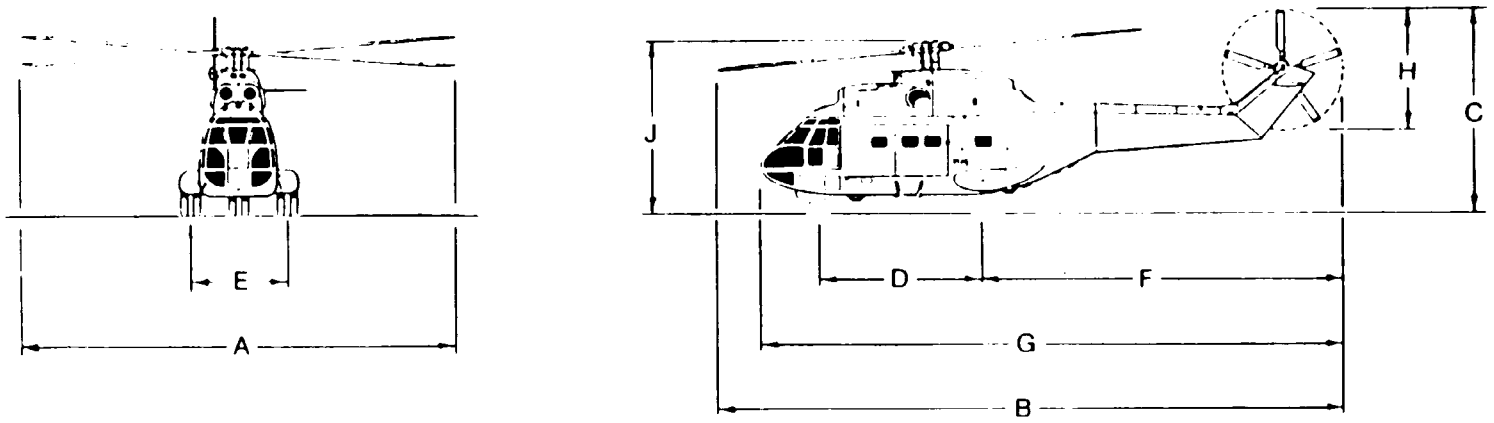


Figure C-112. Aerospatiale 330J, Puma

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	85	85	51.2	61.4	16.2	17.2	9.8	†	†	10.0	15.2

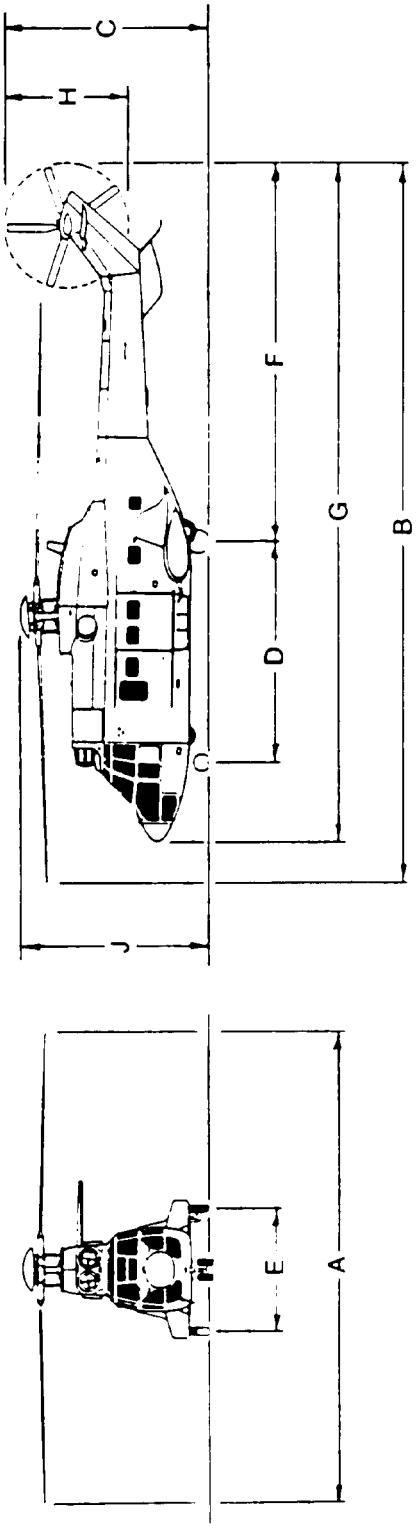


Figure C-113. Aerospatiale 332C/L, Super Puma

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	45.0	45.0	34.5	39.3	10.4	6.4	†	6.7	†	31.3	2.3*	8.9

* ENCLOSED TAIL ROTOR

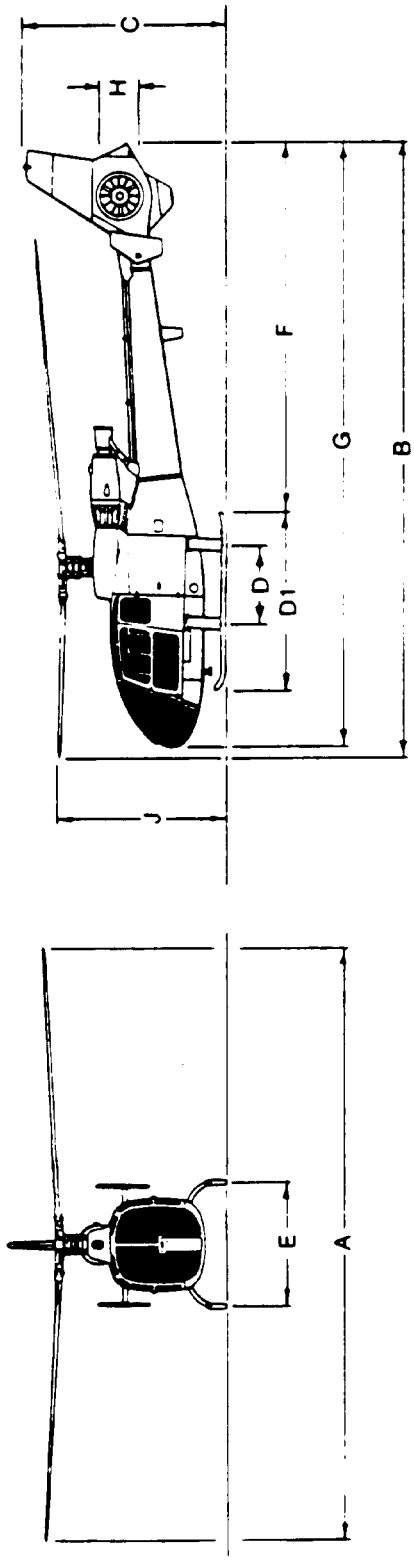


Figure C-114. Aerospatiale 341, Gazelle

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	43.0	43.0	35.1	42.6	10.3	4.7	†	7.2	†	35.8	6.1	†

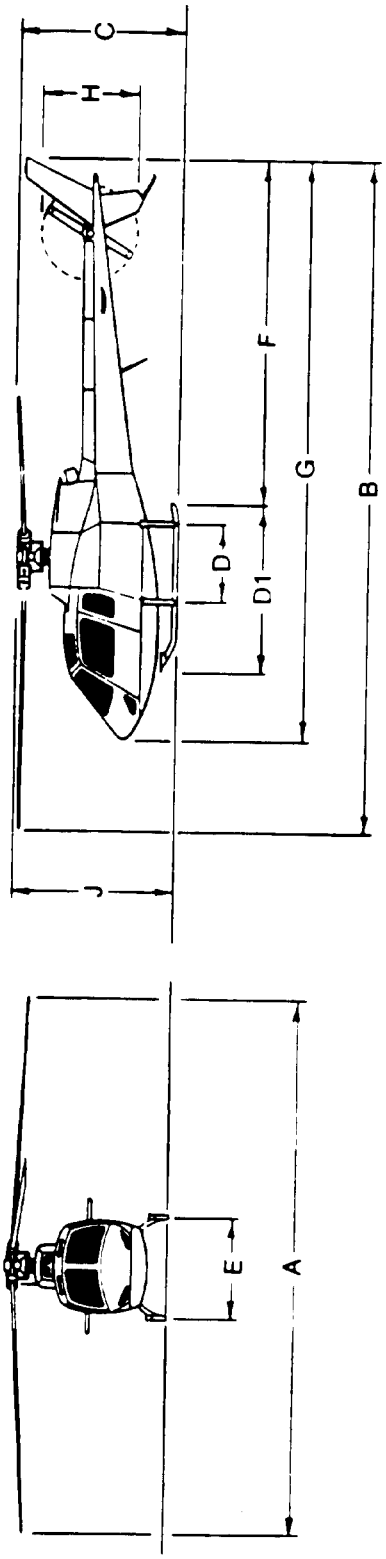


Figure C-115. Aerospatiale 350B/D, Astar

MODEL	MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
		FORWARD	AFT										
355E/F	3	43.0	43.0	35.1	42.6	10.6	4.5	†	6.6	†	35.8	6.1	†
355F1	3	43.0	43.0	35.1	42.6	10.6	4.5	†	7.1	†	35.8	6.1	†

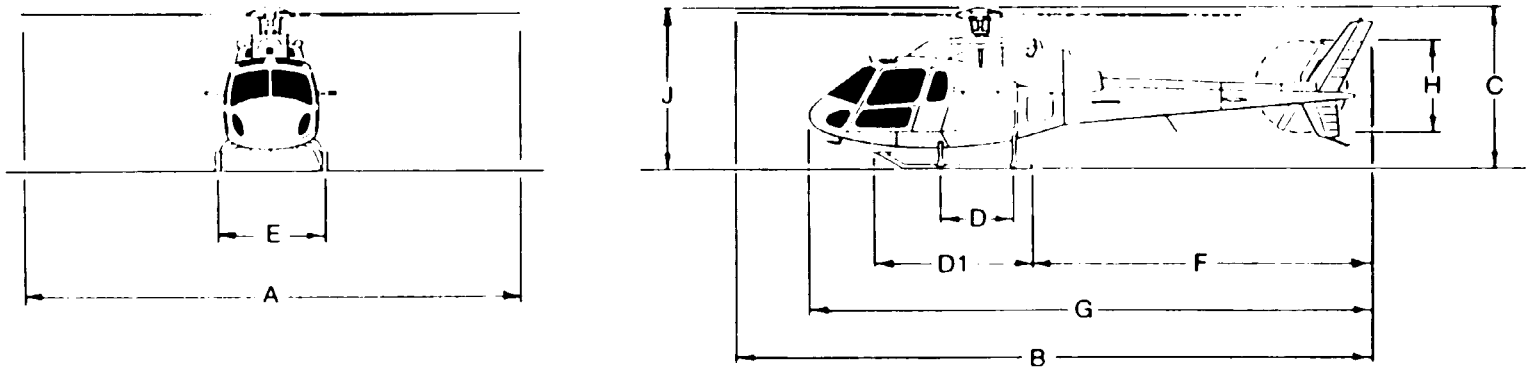
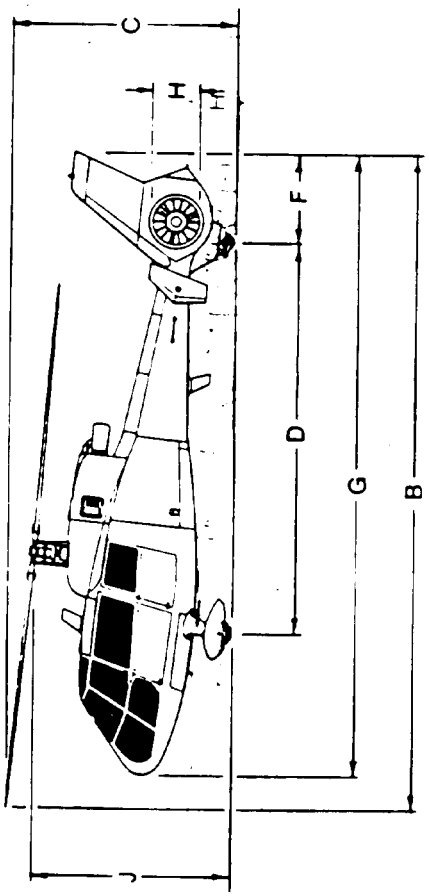


Figure C-116. Aerospatiale 355E/F/F1, Twinstar

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	73	73	37.7	43.3	11.5	23.7	6.4	†	36.0	3.0°	†

* ENCLOSED TAIL ROTOR



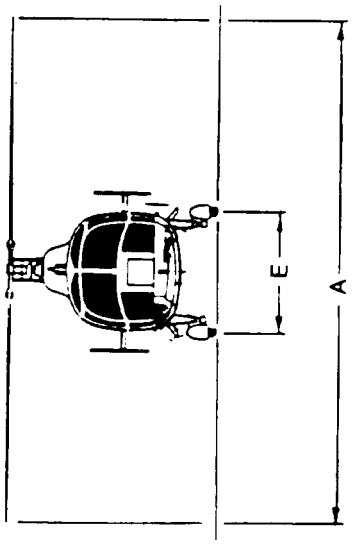


Figure C-117. Aerospatiale 360C, Dauphin

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	73	73	38.3	43.7	11.4	23.7	6.4	†	36.0	3.0*	†

* ENCLOSED TAIL ROTOR

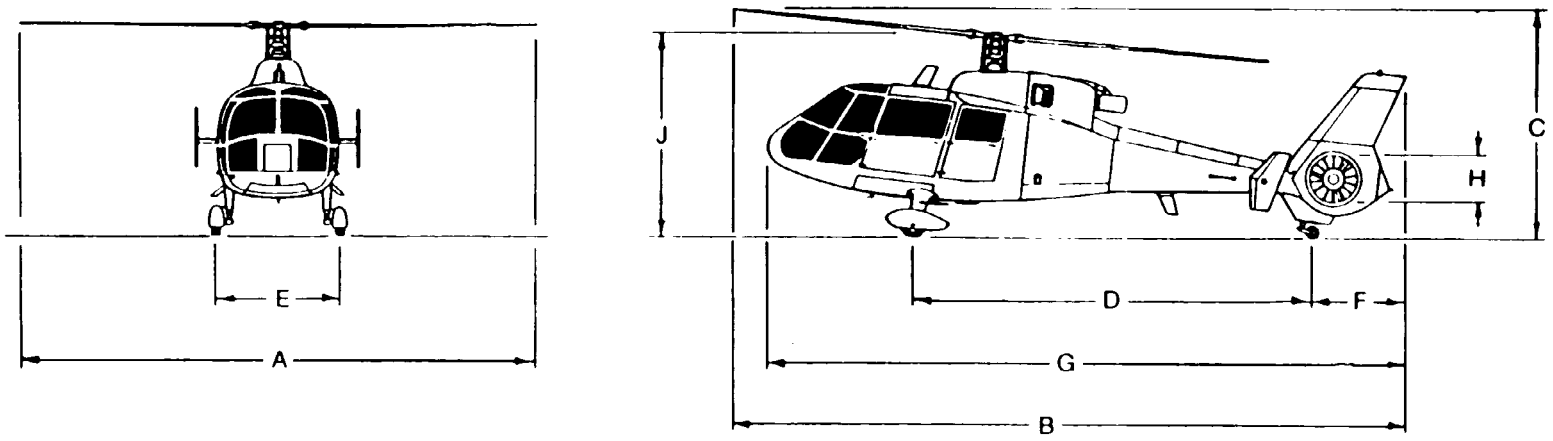
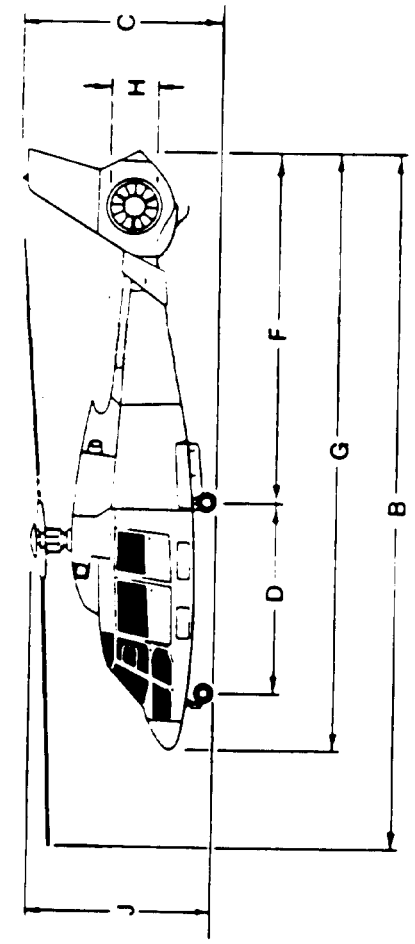


Figure C-118. Aerospatiale 365C, Dauphin 2

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	58	101	39.1	44.2	13.1	11.8	6.6	†	37.6	3.0°	11.5

° ENCLOSED TAIL ROTOR



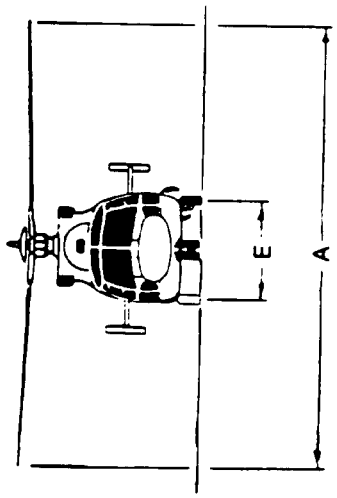


Figure C-119. Aerospatiale 365N, Dauphin 2

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	85	85	25.6	42.8	10.8	11.6	7.5	23.7	37.6	6.7	9.5

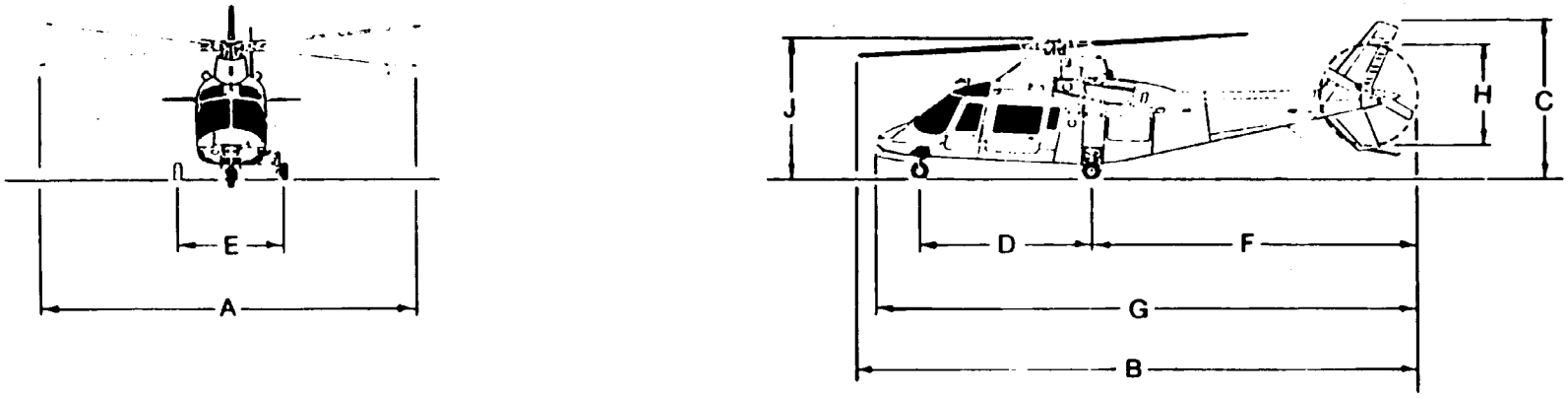


Figure C-120. Agusta 109A and 109A MkII

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	16.1	16.1	37.1	43.3	9.3	5.1	9.4	7.5	22.8	32.3	5.8	9.4

SILHOUETTES NOT AVAILABLE

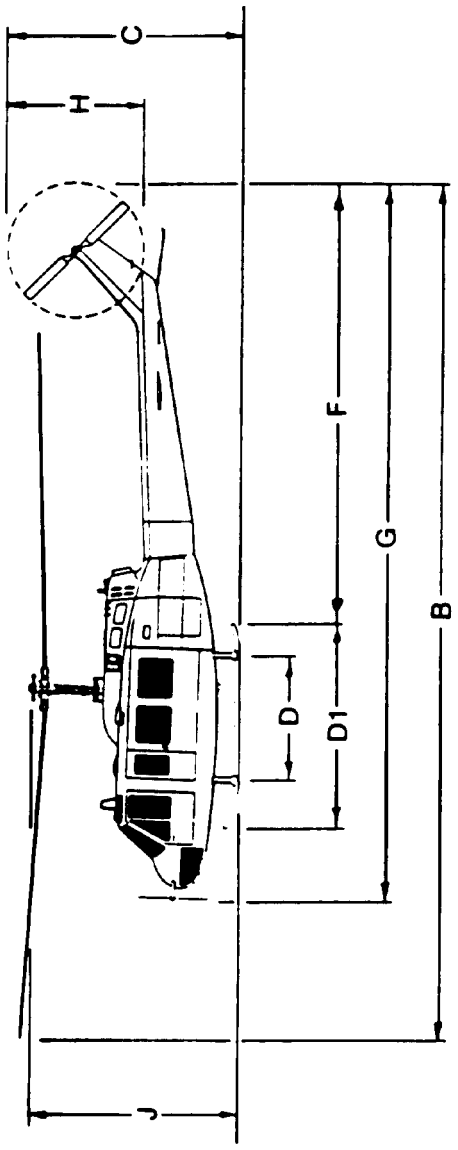
Figure C-121. Bell 47G-3B (OH-13 and TH-13T), Sioux

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	37.1	43.6	9.3	†	9.9	7.5	†	†	5.8	†

SILHOUETTES NOT AVAILABLE

Figure C-122. Bell 47G-5A

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	24.3	25.0	44.0	53.0	14.8	7.6	12.1	8.4	29.8	42.7	8.5	12.7



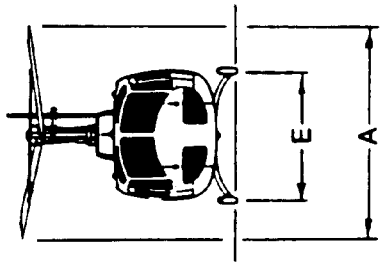


Figure C-123. Bell 204 (UH-1B/C/M), Iroquois

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	24.3	25.0	48.0	57.1	14.5	7.6	12.1	8.6	29.8	44.9	8.5	13.1

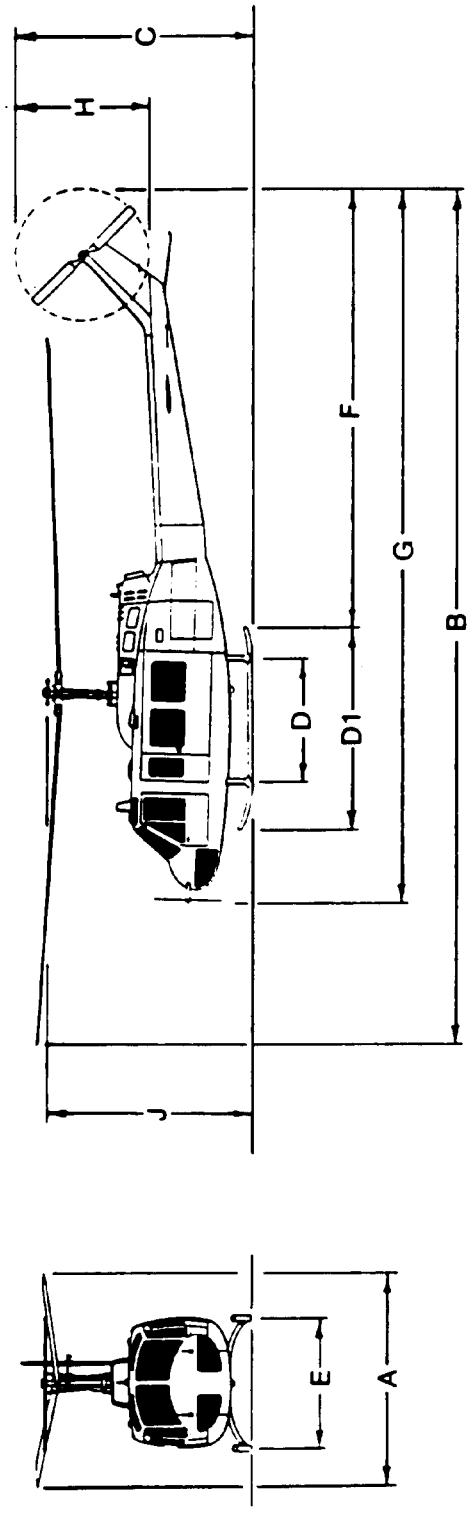


Figure C-124. Bell 205 (UH-1D/H), Iroquois

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	48.0	57.1	14.4	†	12.1	9.0	†	44.9	8.5	13.1

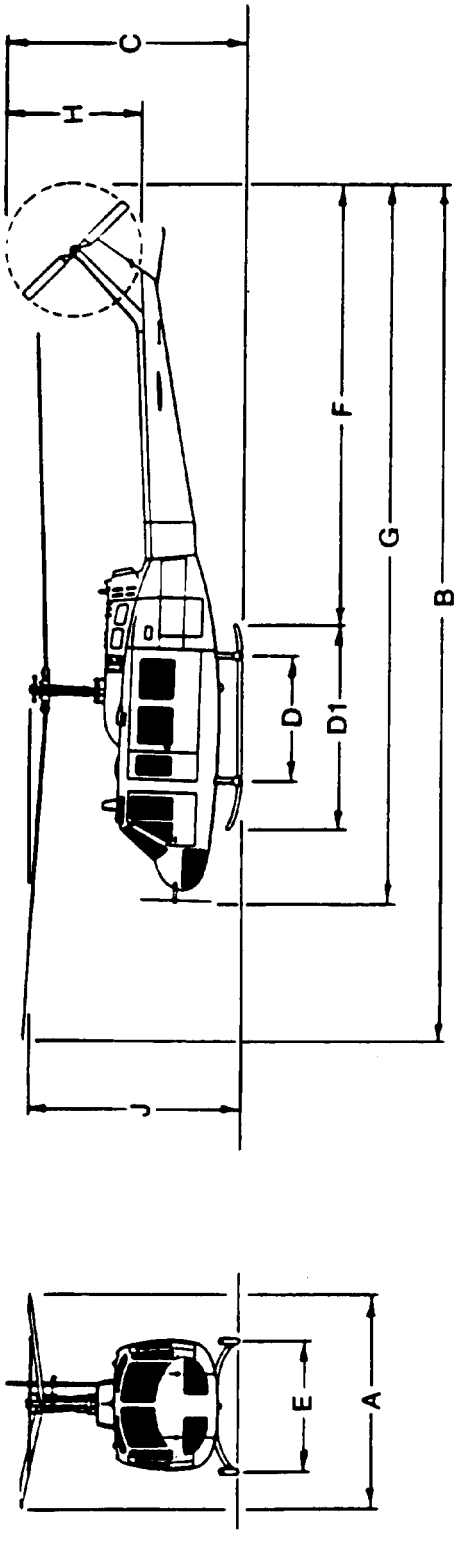


Figure C-125. Bell 205A-1

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	18.3	18.3	35.4	41.0	12.0	4.8	8.1	6.4	21.0	32.2	5.2	9.6

* HEIGHT OVER TAIL FIN, 8 2 FT.

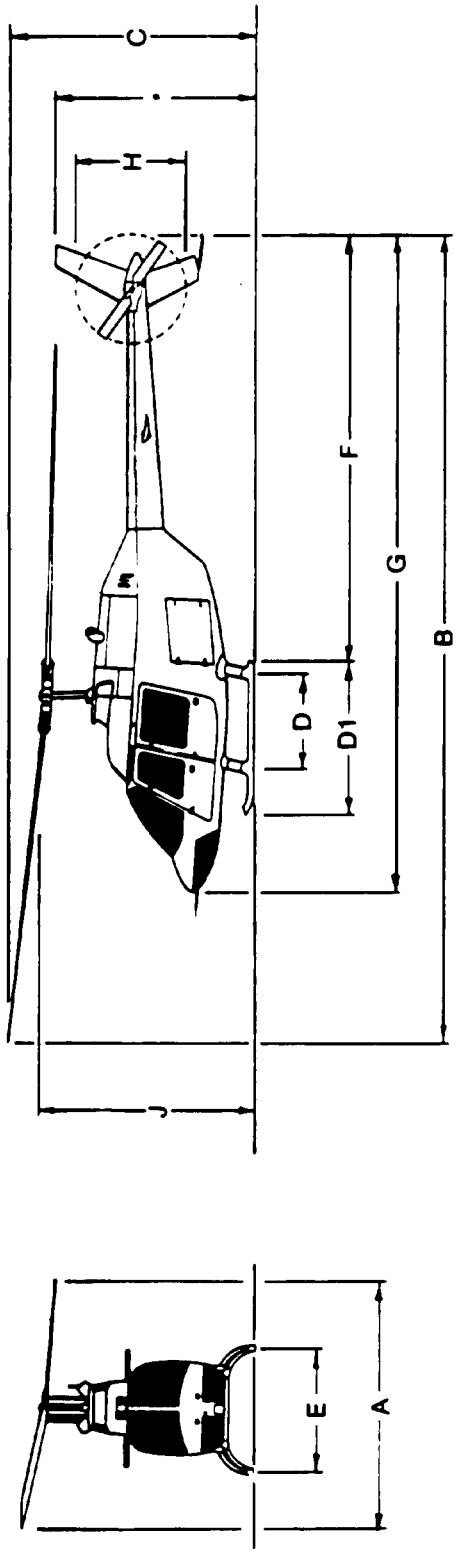
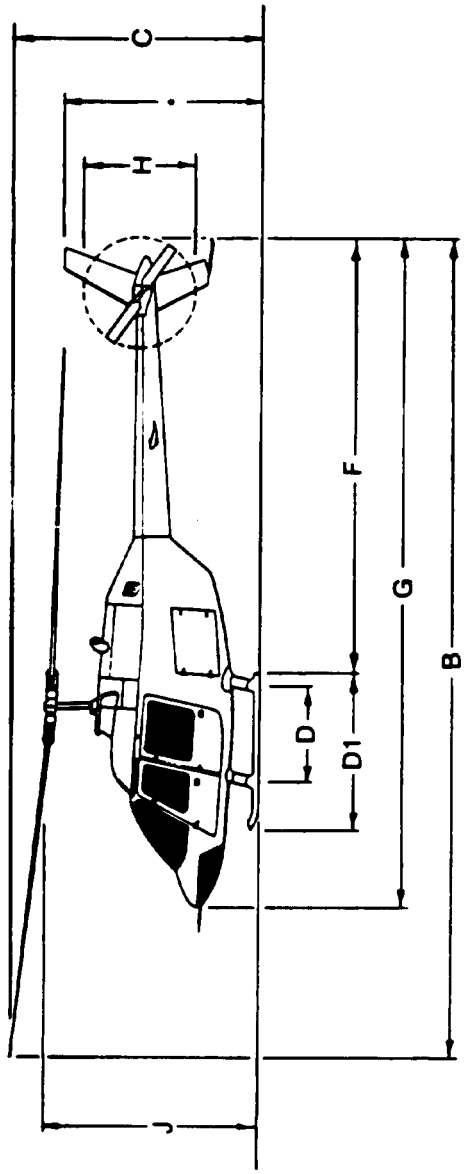


Figure C-126. Bell 206A (OH-58A/C), Kiowa

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	13.5	13.5	33.3	39.2	11.6	4.5	7.8	6.0	†	31.2	5.4	9.6

† HEIGHT OVER TAIL FIN, 8.3 FT.



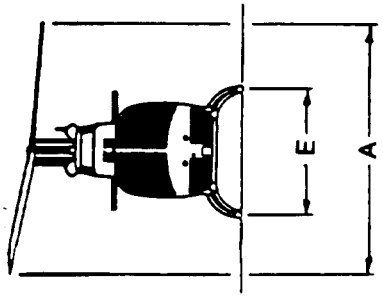
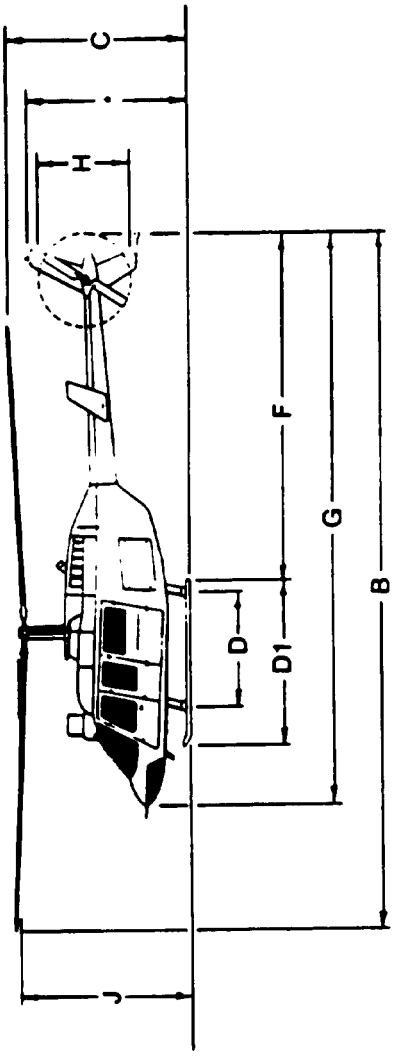


Figure C-127. Bell 206B, Jet Ranger 3

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	13.5	13.5	37.0	42.5	11.7	6.8	9.9	7.2	†	†	5.4	10.3

* HEIGHT OVER TAIL FIN, 9.5 FT.



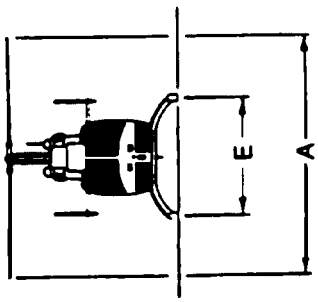


Figure C-128. Bell 206L-3, Long Ranger 3

MODEL	MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
		FORWARD	AFT										
AH-1G	2	26.4	26.4	44.0	52.9	13.5	5.9	11.0	7.3	28.5	46.0	8.5	13.4
AH-1S (PROD.)	2	26.4	26.4	44.0	53.0	13.5	5.9	11.0	7.3	28.5	46.0	8.5	13.4
AH-1S (ECAS)	2	26.4	26.4	44.0	53.1	13.5	5.9	11.0	7.0	28.5	46.0	8.5	13.4
AH-1S (MOD.)	2	26.4	26.4	44.0	53.1	13.5	5.9	11.0	7.0	28.5	46.0	8.5	13.4

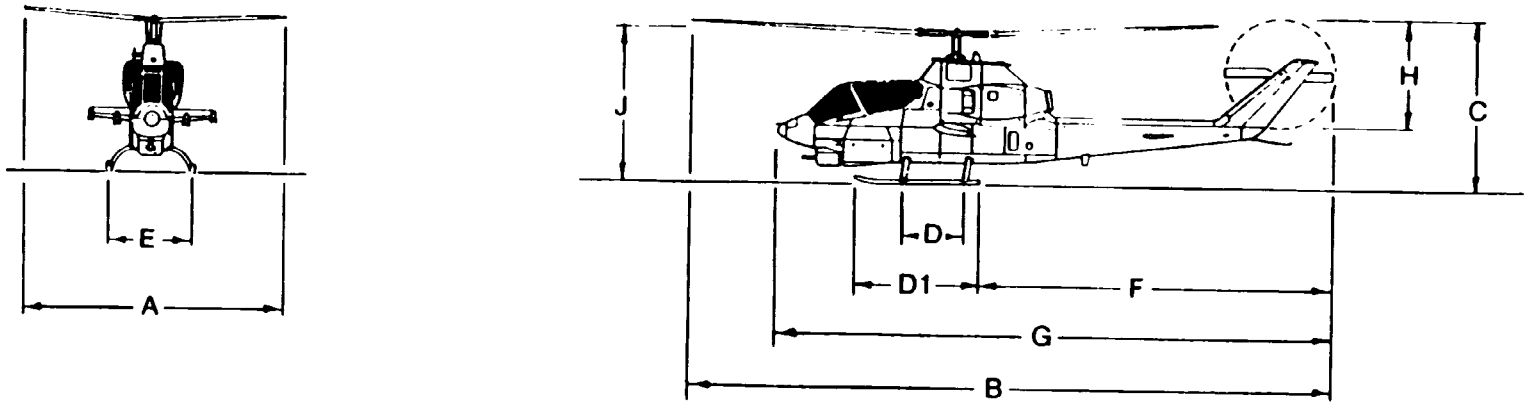


Figure C-129. Bell 209 (AH-1G), Cobra; [AH-1S (Production)], Cobra; [AH-1S (ECAS)], Upgun Cobra; [AH-1S (Modernized)], Mod. Cobra

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	24.0	24.0	48.0	57.3	14.4	7.6	12.1	8.7	29.8	45.9	8.6	12.8

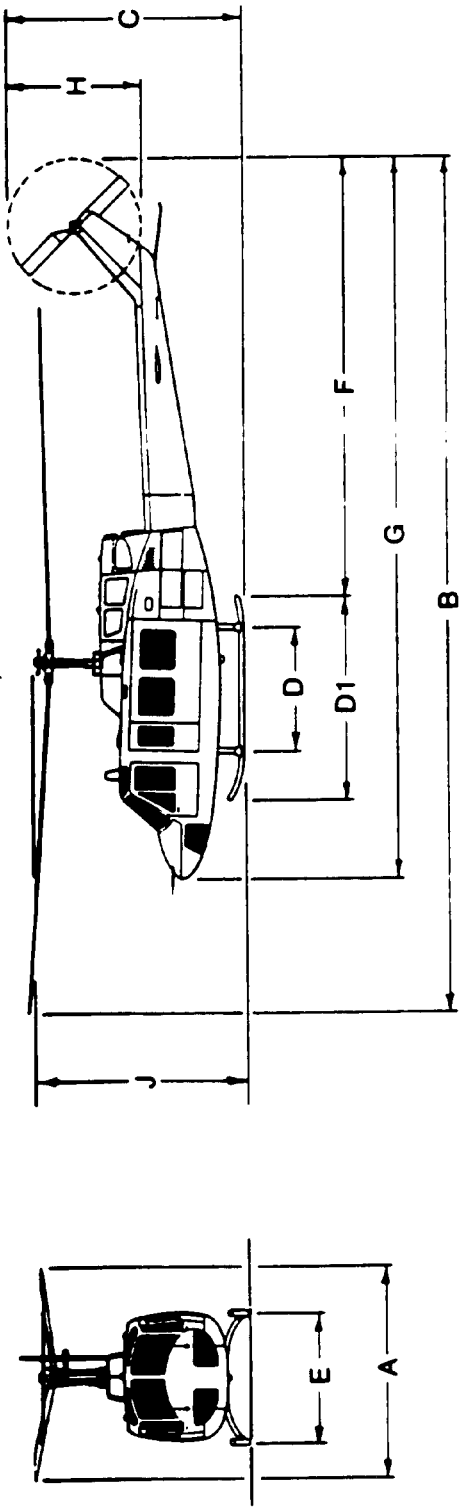


Figure C-130. Bell 212 (UH-1N), Twin Huey

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	24.0	24.0	48.0	57.3	13.0	7.6	12.1	8.3	†	†	8.6	†

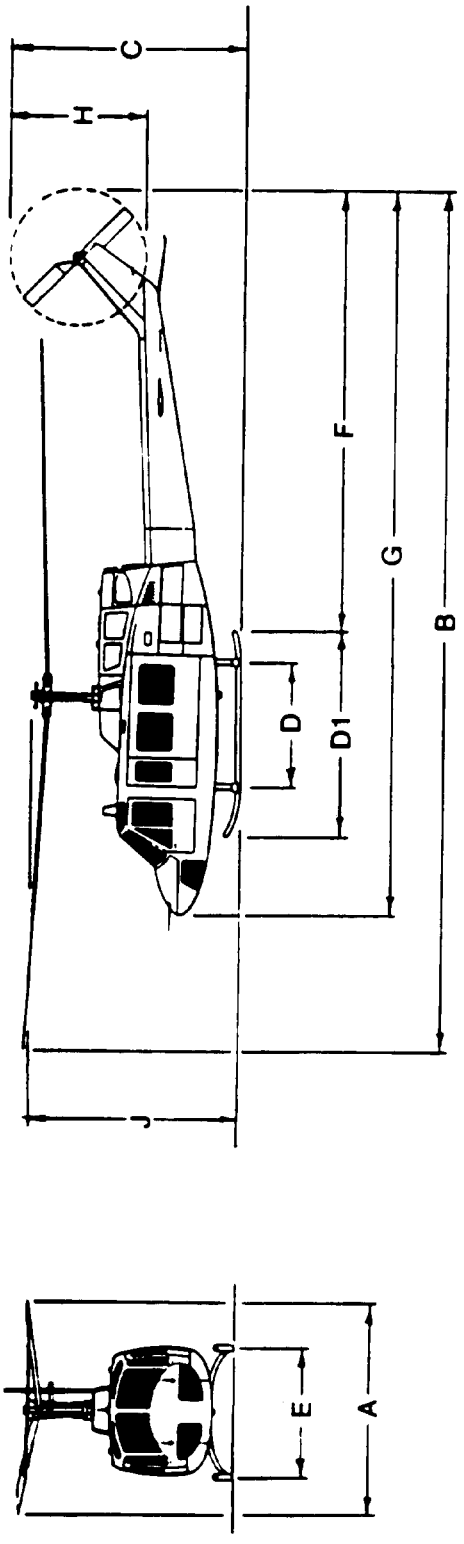


Figure C-131. Bell 212

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	50.0	60.4	13.4	†	12.1	8.6	†	†	9.6	†

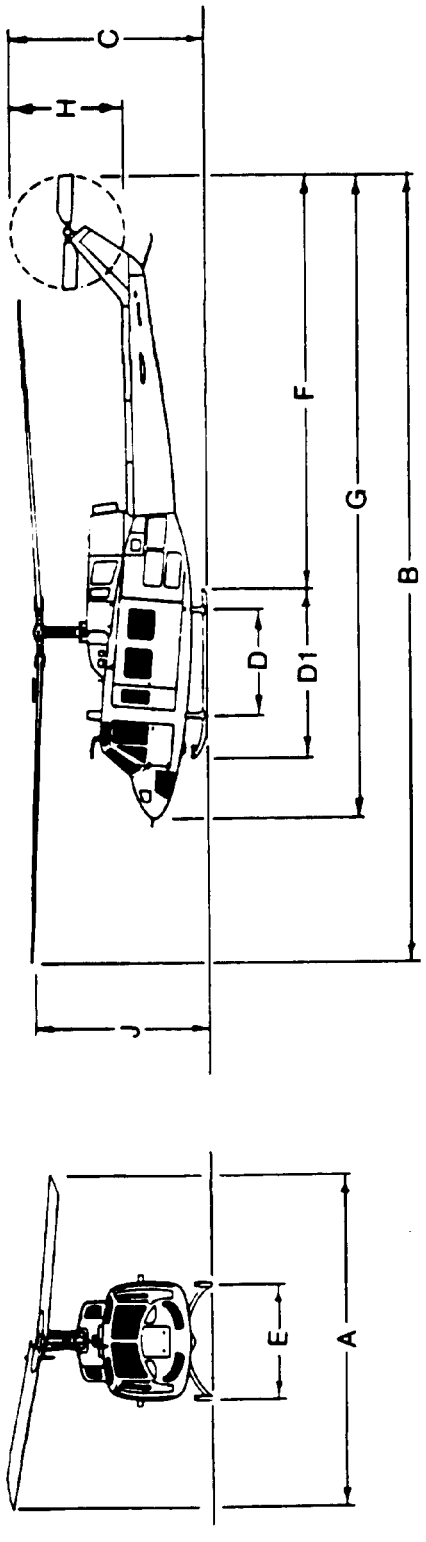
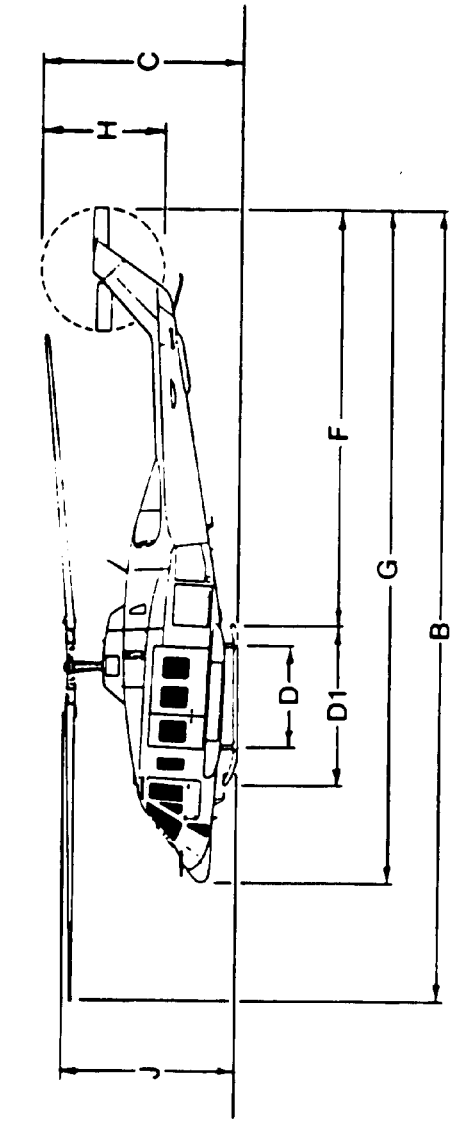


Figure C-132. Bell 214B, Big Lifter

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	52.0	62.2	13.2	8.1	†	8.3	†	†	9.7	†



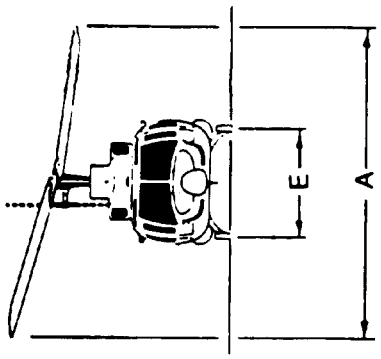


Figure C-133. Bell 214ST, Super Transport

MODEL	MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
		FORWARD GEAR	AFT GEAR									
222	2	60	75	39.8	47.5	11.0	12.2	9.1	†	36.0	6.5	†
222B	2	60	75	42.0	50.3	11.3	12.2	9.1	†	42.2	6.9	†

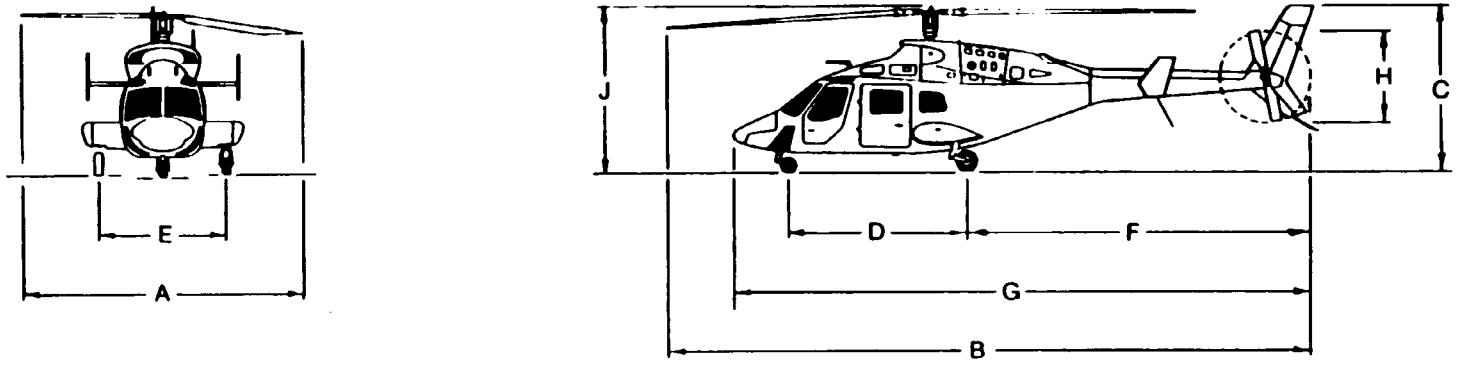
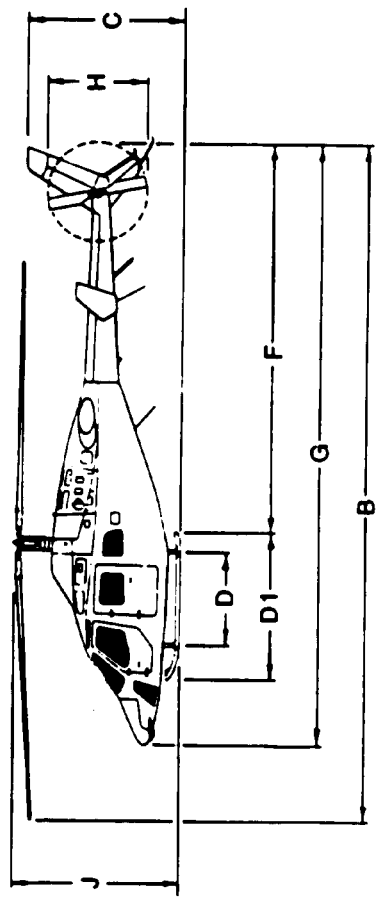


Figure C-134. Bell 222 and 222B

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	24.0	24.0	42.0	50.3	10.5	7.9	†	7.8	†	42.2	6.9	†



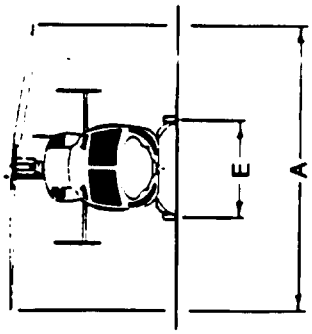


Figure C-135. Bell 222UT, Utility Twin

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
4	16.3	16.3	35.0	42.2	12.8	4.8	8.1	6.4	21.1	33.0	5.4	8.5

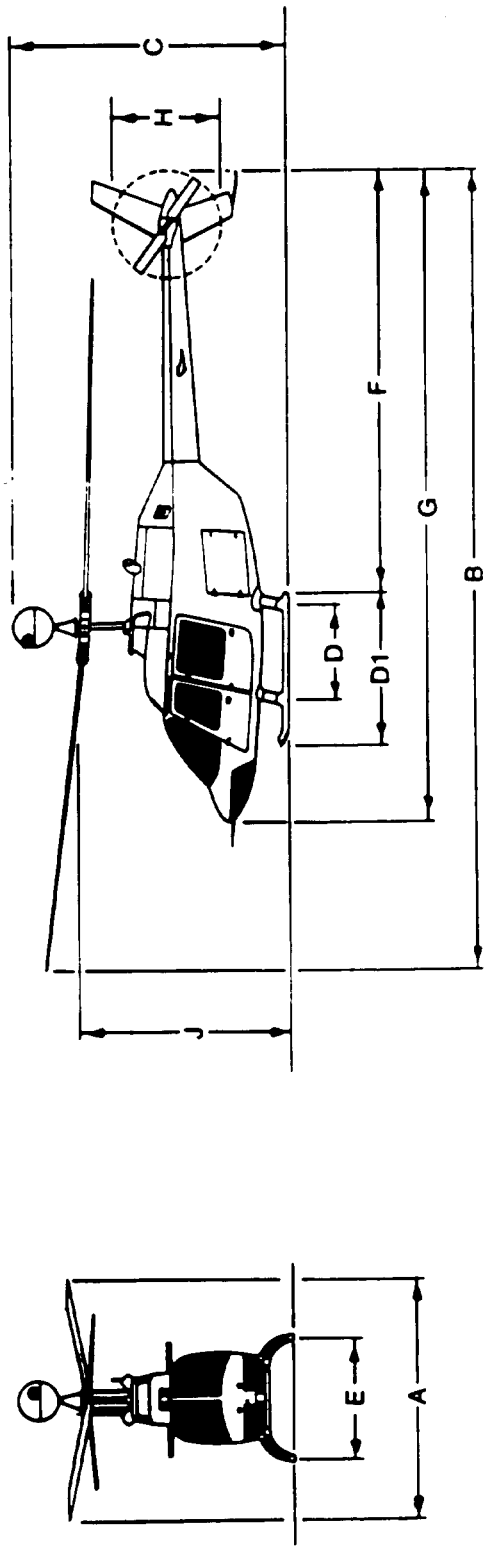


Figure C-136. Bell 406 AHIP (OH-58D), Kiowa

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
4	24.0	24.0	46.0	56.2	10.9	7.9	12.1	8.3	†	†	8.6	10.8

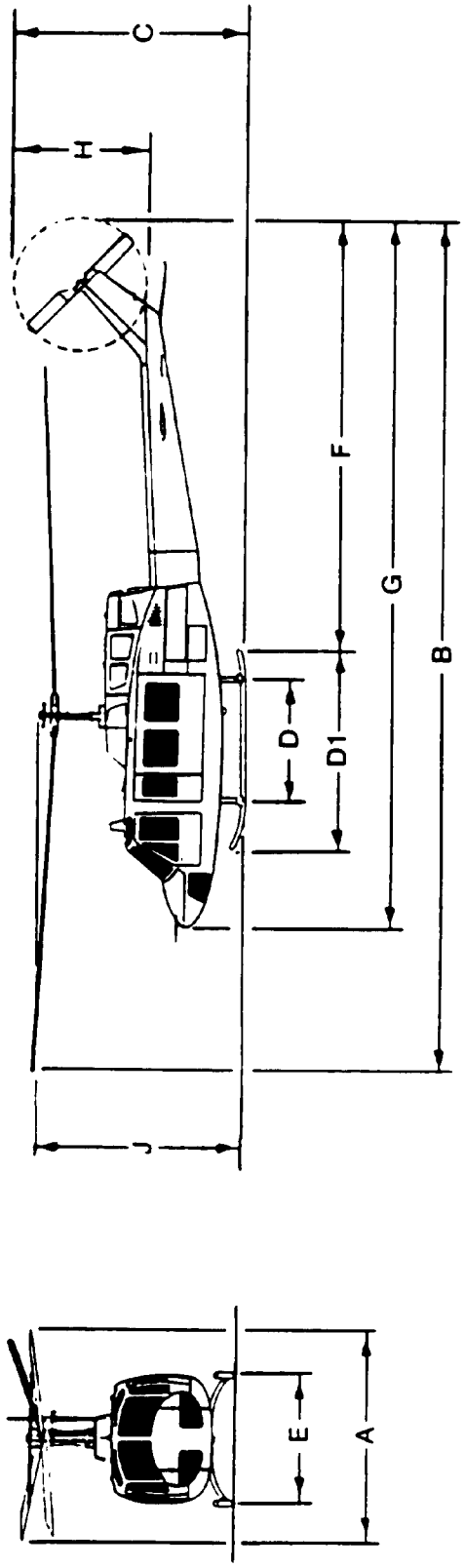


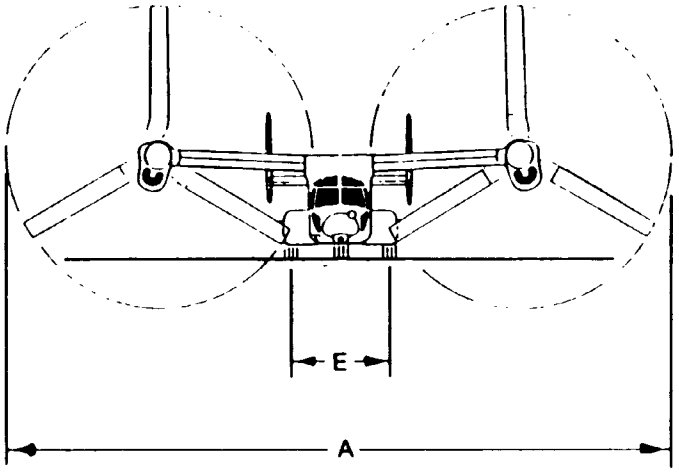
Figure C-137. Bell 412

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3*	†	†	84.6**	62.6	21.8	21.8	15.2	32.1	57.3	††	21.8

* THREE BLADES ON 2 ROTORS.

** EACH ROTOR DIAMETER IS 38.0 FT.

†† AIRCRAFT IS NOT EQUIPPED WITH VERTICAL TAIL ROTOR.



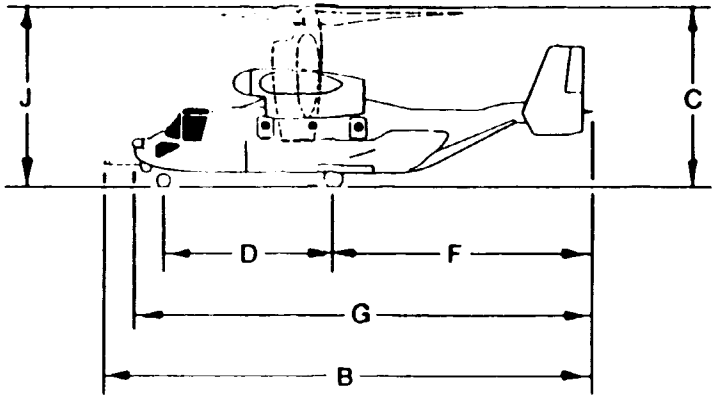


Figure C-138. Bell/Boeing 301 (V-22), Osprey

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3*	150	150	50.0	83.3	16.9	24.9	12.9	33.3	63.7	50.0**	15.0††

* THREE BLADES EACH ON 2 ROTORS.
** TAIL ROTOR IS HORIZONTAL.
†† DIMENSION FOR FORWARD ROTOR HEAD AFT ROTOR HEAD DIMENSION IS 16.9 FT.

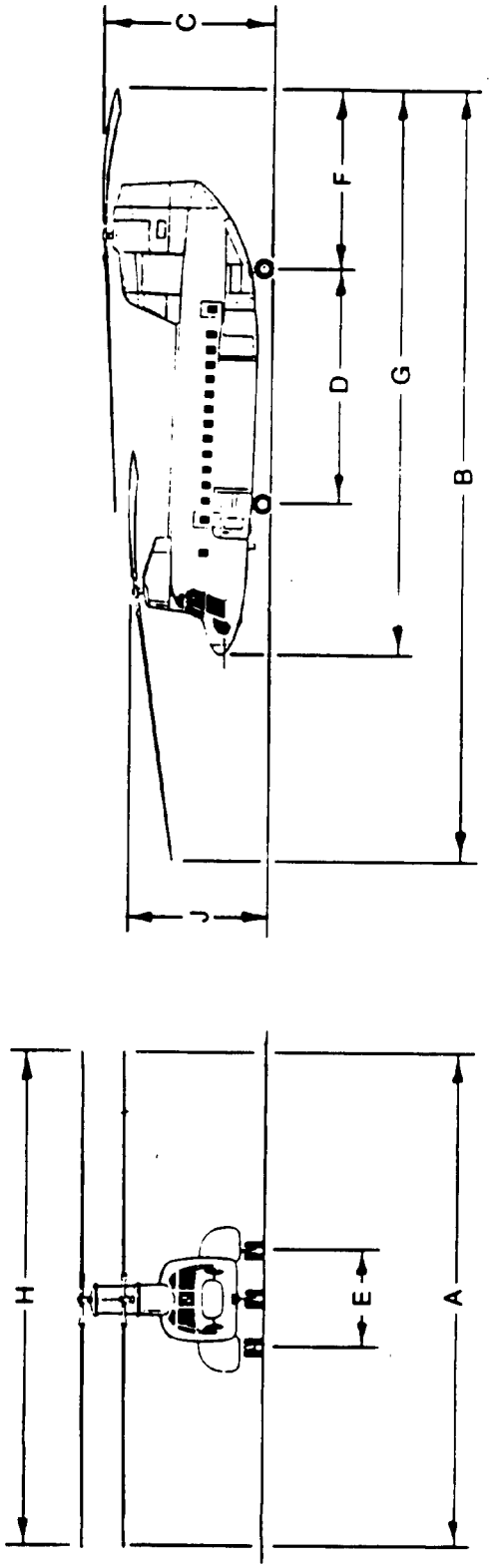


Figure C-139. Boeing 107-II

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3*	**	**	60.0	99.0	18.7	22.5	10.5	33.4	74.6	60.0††	15.3‡

* THREE BLADES EACH ON 2 ROTORS.

** TIRE PRESSURES FOR CH-47B, CH-47C, AND CH-47D ARE 67, 88, AND 124 PSI; RESPECTIVELY.

†† TAIL ROTOR IS HORIZONTAL.

‡ DIMENSION FOR FORWARD ROTOR HEAD. AFT ROTOR HEAD DIMENSION IS 18.7 FT

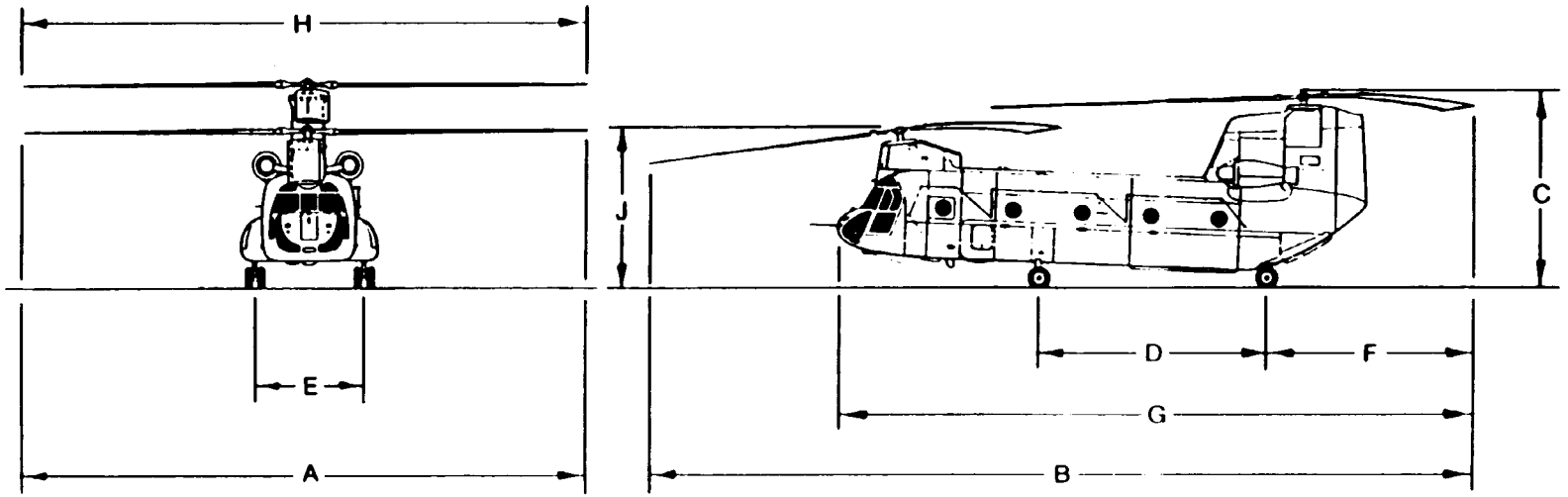


Figure C-140. Boeing 114 (CH-47B/C/D), Chinook

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3*	124	104	60.0	99.0	18.7	25.8	10.5	33.4	74.6	60.0**	15.3††

* THREE BLADES EACH ON 2 ROTORS.
** TAIL ROTOR IS HORIZONTAL.
†† DIMENSION FOR FORWARD ROTOR HEAD. AFT ROTOR HEAD DIMENSION IS 18.7 FT.

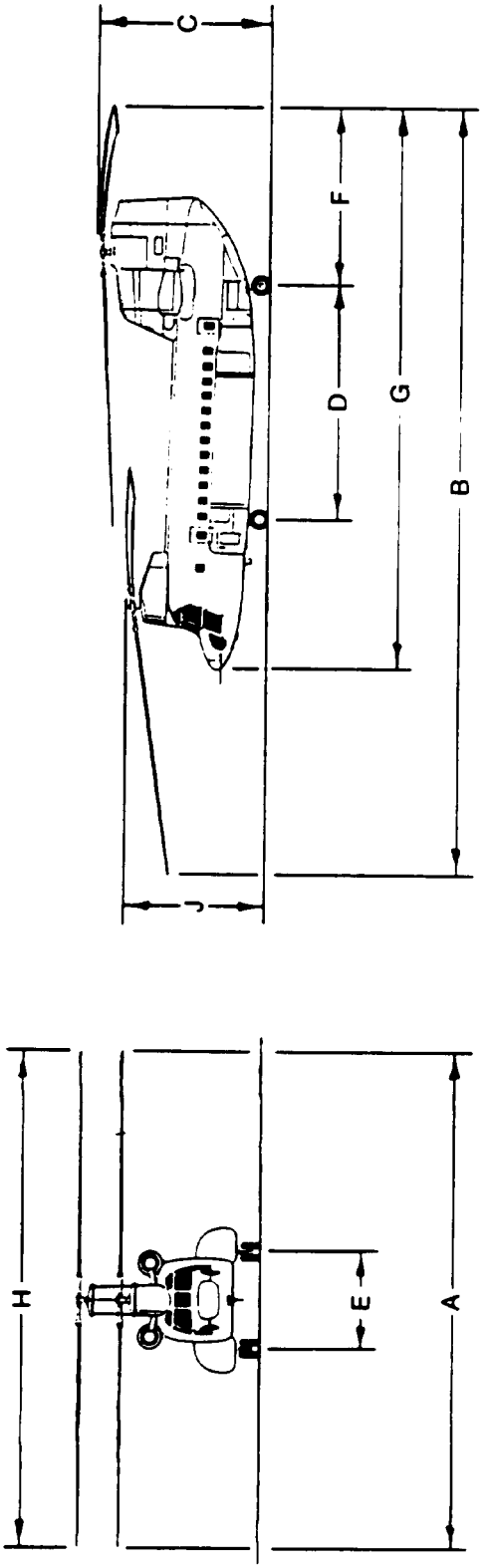


Figure C-141. Boeing 234 LR/ER/UT/MLR

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4*	†	†	49.7	83.3	19.6	32.7	11.4	30.4	66.4	49.7**	14.8††

* FOUR BLADES EACH ON 2 ROTORS.

** TAIL ROTOR IS HORIZONTAL.

†† DIMENSION FOR FORWARD ROTOR HEAD. AFT ROTOR HEAD DIMENSION IS 19.6 FT.

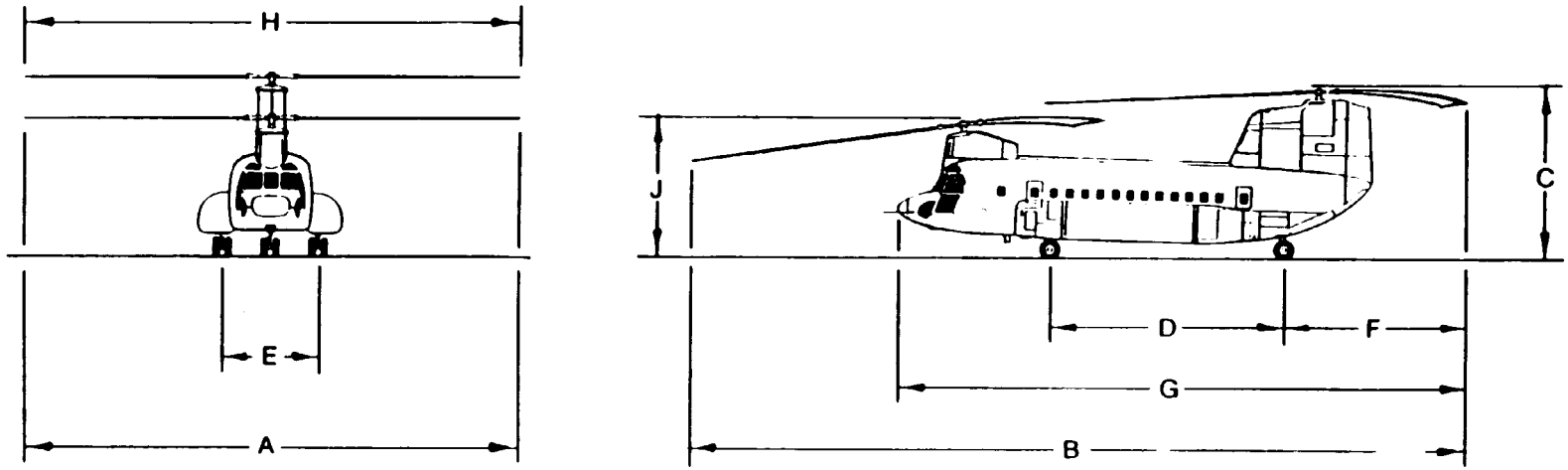


Figure C-142. Boeing 360

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
5	†	†	61.0	75.3	21.3	22.9	14.1	†	†	13.1	†

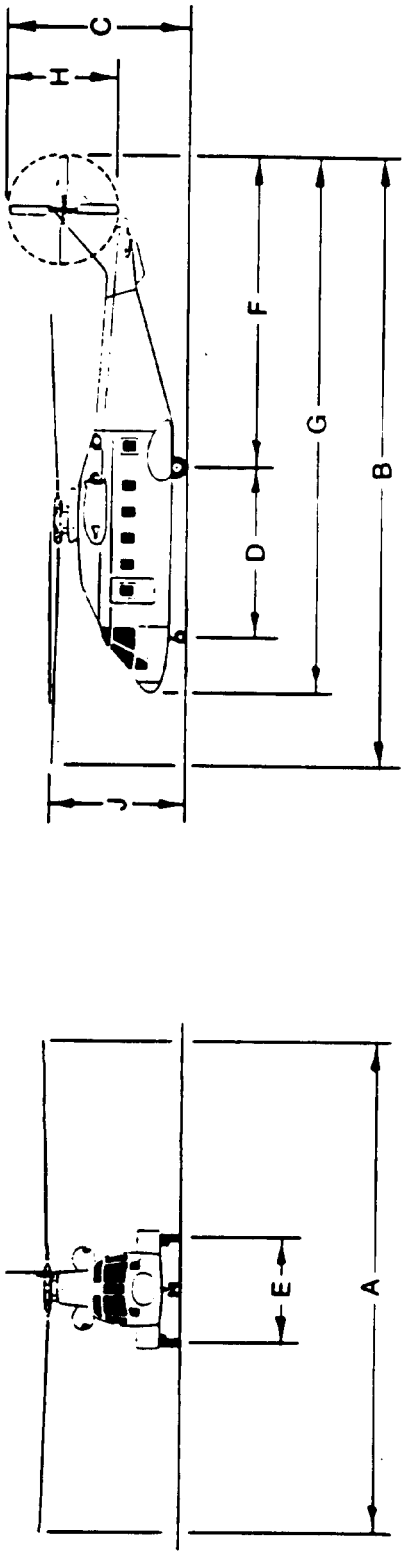
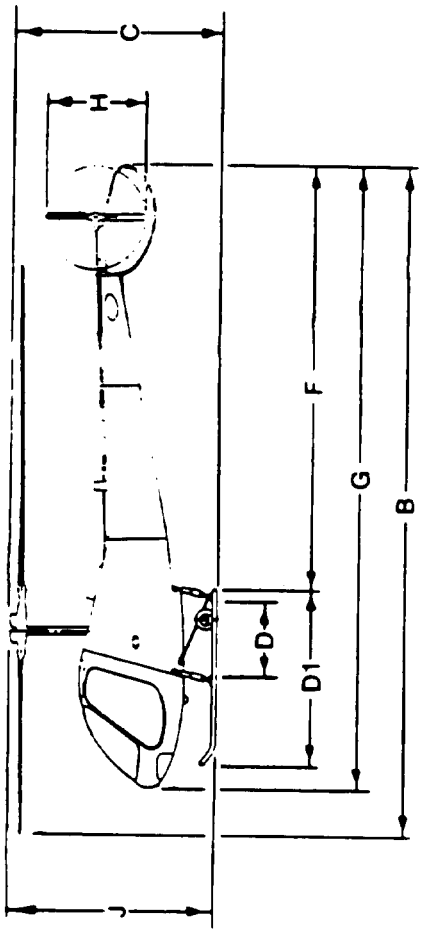


Figure C-143. E.H. Industries EH 101

MODEL	MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
		FORWARD	AFT										
280C 280F 280FX	3	†	†	32.0	29.3	9.0	†	8.0	7.4	†	28.7	4.7	9.0
F28C-2 F28F	3	†	†	32.0	29.3	9.0	†	8.0	7.4	†	28.1	4.7	9.0



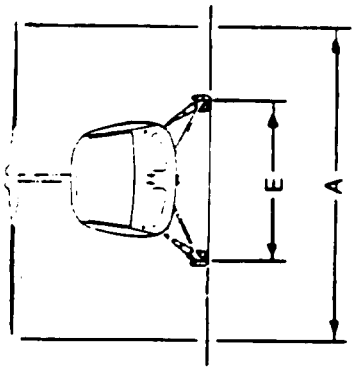


Figure C-144. Enstrom 280C, F28C-2, 280F, and 280FX; Shark and F28F; Falcon

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	†	†	23.8	28.0	6.8	†	†	5.7	†	†	4.3	†

SILHOUETTES NOT AVAILABLE

Figure C-145. Hynes H-2/with skid landing gear

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3	28	30	23.8	28.0	6.8	7.1	6.9	†	†	4.3	†

SILHOUETTES NOT AVAILABLE

Figure C-146. Hynes H-2/with wheel landing gear

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	†	†	28.5	32.9	6.0	†	†	5.7	†	†	4.3	†

SILHOUETTES NOT AVAILABLE

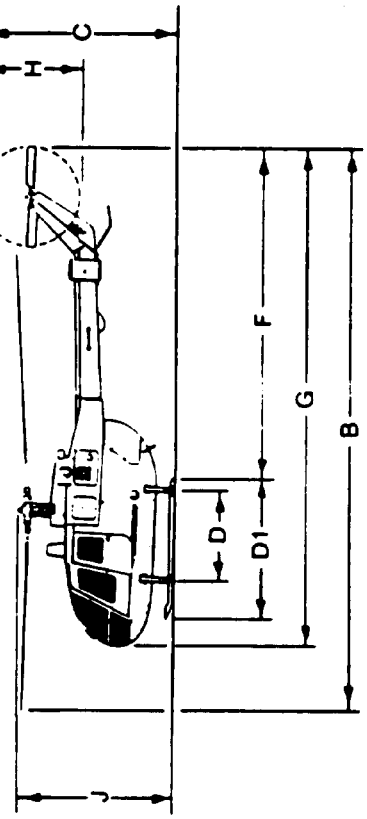
Figure C-147. Hynes H-5/with skid landing gear

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3	28	30	28.5	32.9	6.0	7.1	6.9	†	†	4.3	†

SILHOUETTES NOT AVAILABLE

Figure C-148. Hynes H-5/with wheel landing gear

MODEL	MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
		FORWARD	AFT										
BO 105 CB	4	19.5	19.5	32.3	38.9	12.5	8.3	8.9	8.2	20.5	31.2	6.2	9.8
BO 105 CBS/LS	4	19.5	19.5	32.3	38.9	12.5	8.3	8.9	8.2	20.5	32.0	6.2	9.8



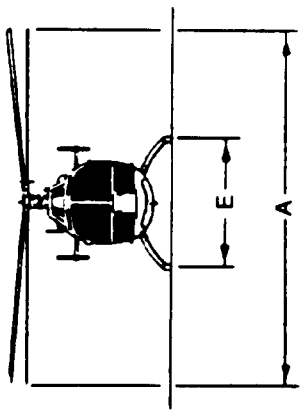
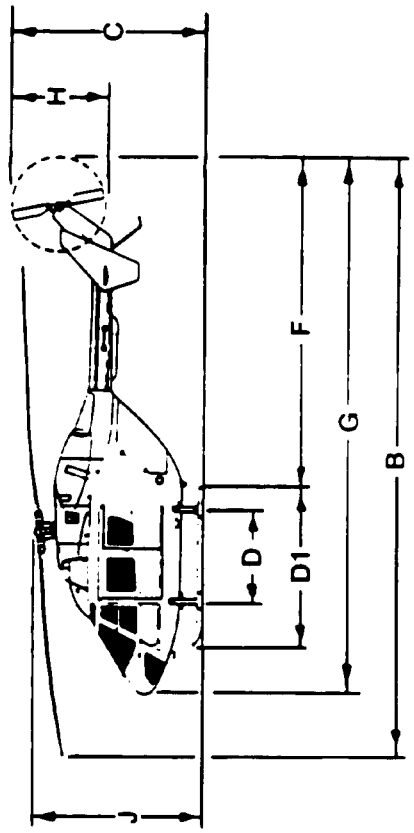


Figure C-149. MBB BO 105 CB/CBS/LS

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
4	31.8	31.8	36.1	42.7	12.6	6.2	10.1	7.9	21.4	35.4	6.4	11.0



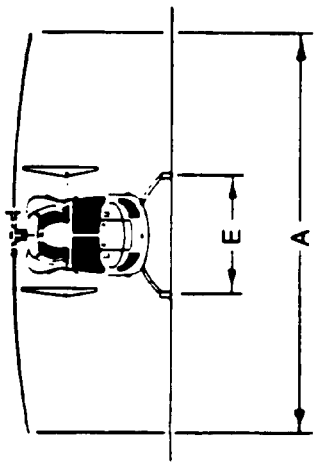


Figure C-150. MBB/Kawasaki BK 117

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	105	105	48.0	58.3	16.8	34.8	6.7	2.8	48.2	9.2	12.6

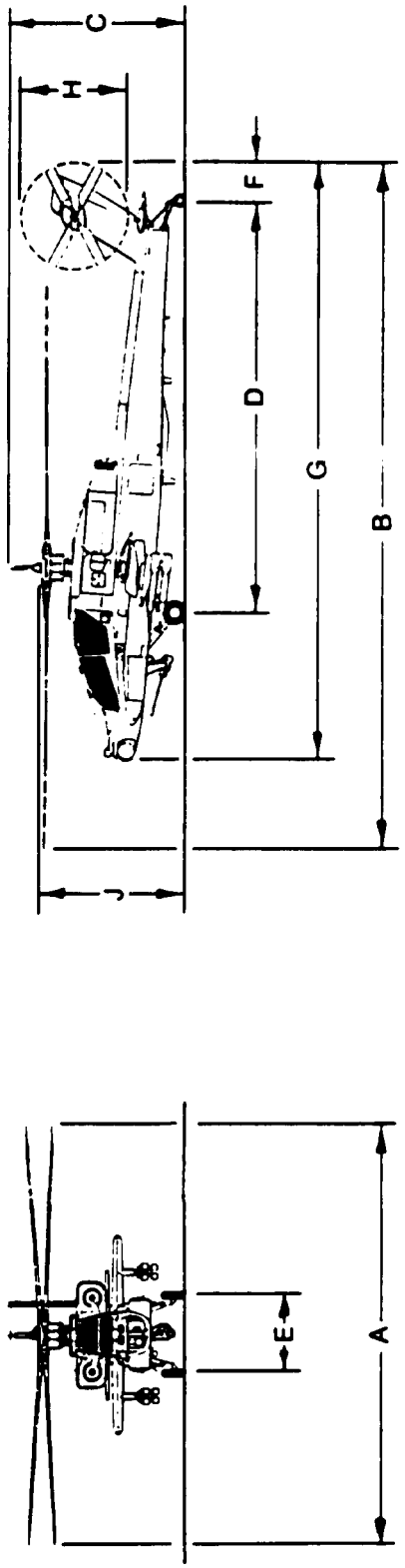


Figure C-151. McDonnell Douglas 77 (AH-64A), Apache

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
4	15.8	15.8	26.3	30.3	8.5	4.5	7.8	6.8	15.7	23.4	4.3	8.3

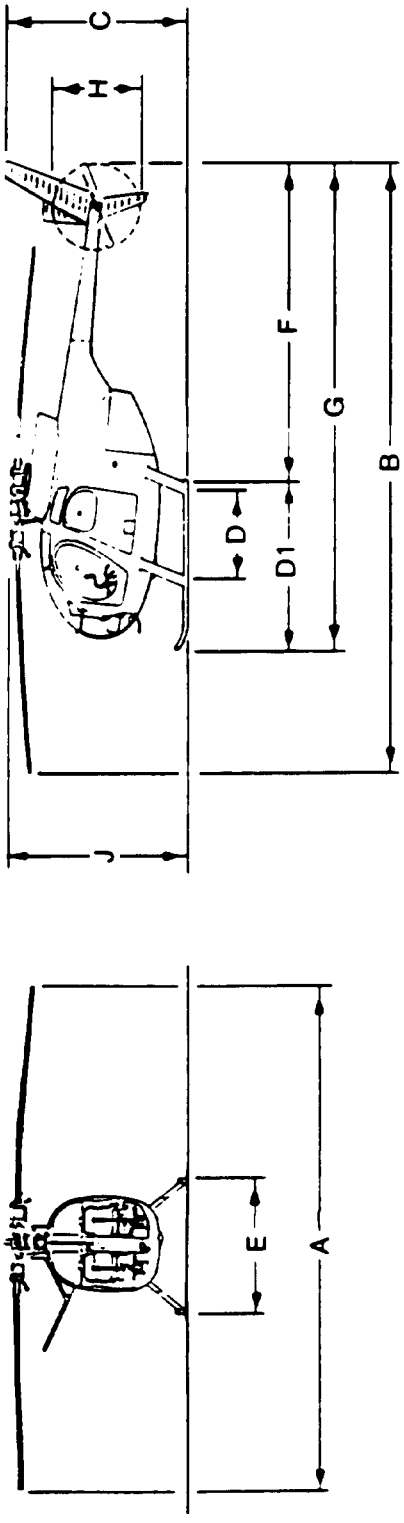


Figure C-152. McDonnell Douglas 500 (OH-6A), Cayuse

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
5	15.8	23.1	26.4	30.8	8.4	4.5	7.8	6.8	15.8	23.6	4.6	8.4

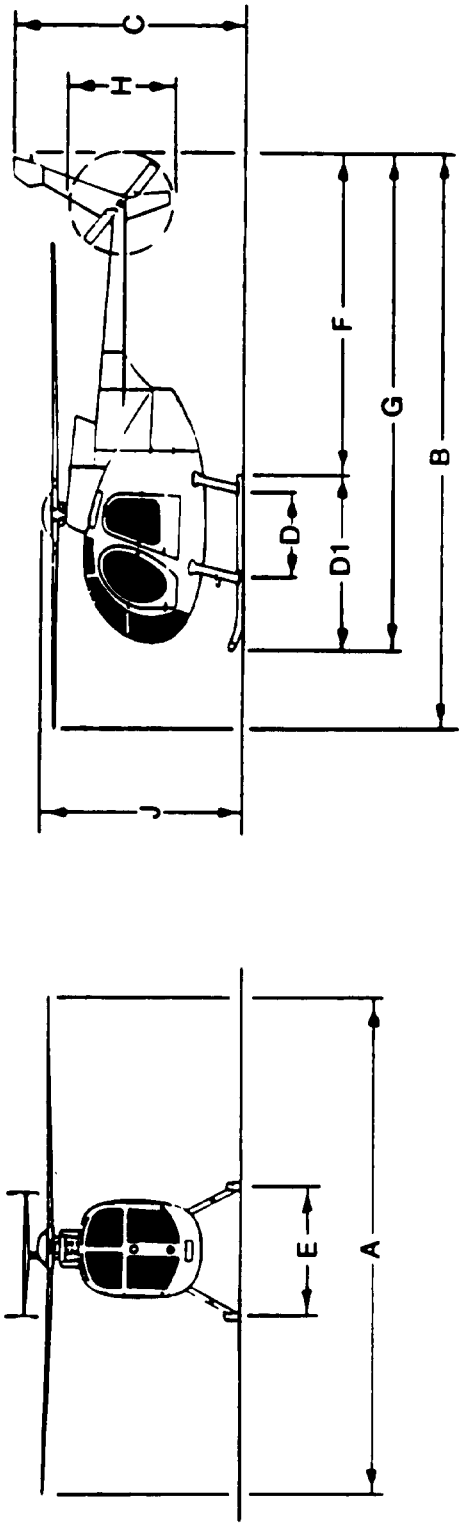
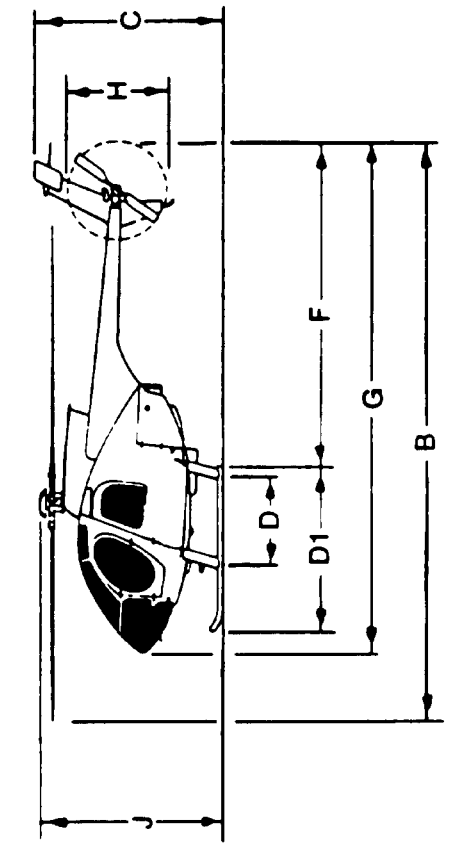


Figure C-153. McDonnell Douglas 500D

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
5	15.8	23.1	27.4	32.1	8.2	4.5	7.8	6.9	16.5	25.6	4.8	8.4



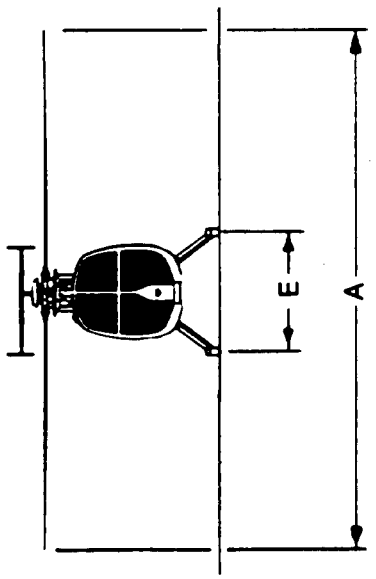


Figure C-154. McDonnell Douglas 530F

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	3.8	3.8	25.2	28.8	8.8	4.2	7.8	6.3	14.0	21.8	3.5	8.8

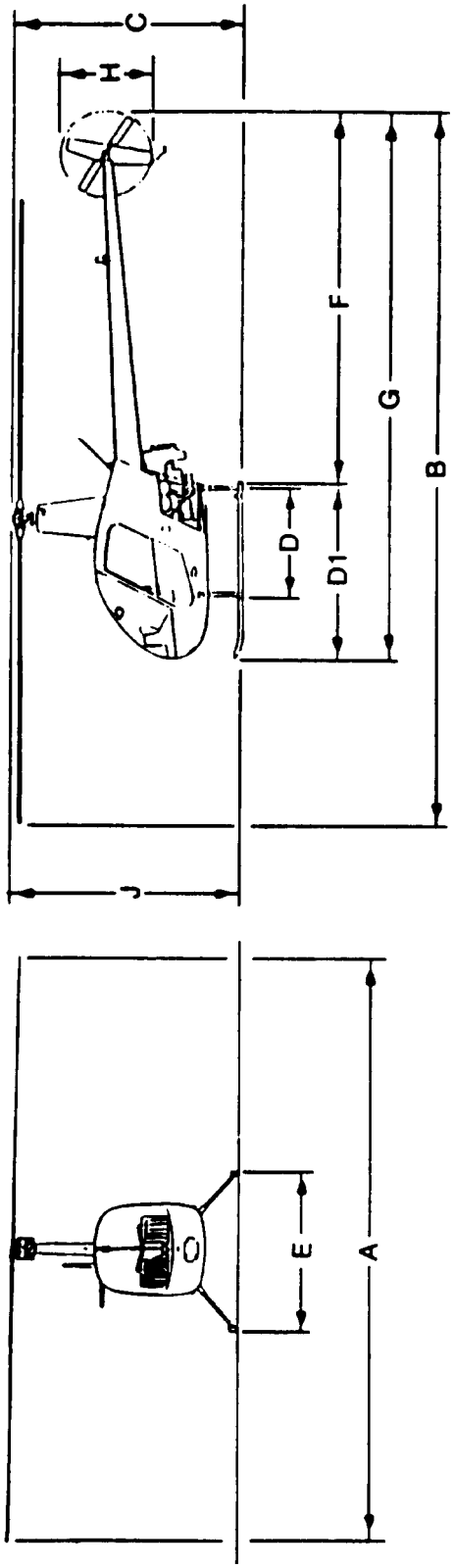


Figure C-155. Robinson R22

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	35.4	39.8	9.3	†	†	7.3	†	†	6.0	9.3

SILHOUETTES NOT AVAILABLE

Figure C-156. Rogerson Hiller RH-1100

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
2	†	†	35.4	40.8	10.1	†	8.3	7.5	†	†	5.5	10.1

SILHOUETTES NOT AVAILABLE

Figure C-157. Rogerson Hiller UH-12E/E4/ET/E4T

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN^2		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	4.2	4.2	27.4	28.3	8.3	3.6	8.0	6.3	14.1	22.3	3.8	8.3

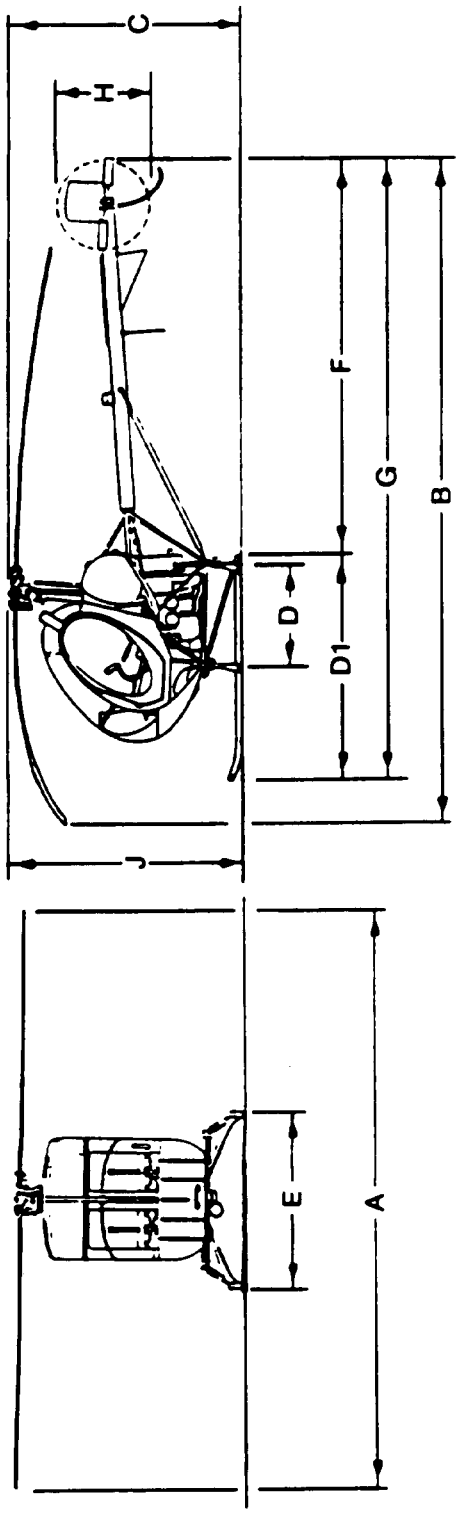


Figure C-158. Schweizer 269A (TH-55A), Osage

MAIN ROTOR BLADES, NO.	CONTACT AREA, IN²		A	B	C	D	D1	E	F	G	H	J
	FORWARD	AFT										
3	4.2	4.2	26.8	30.8	8.7	3.8	8.2	6.5	13.9	23.0	4.3	8.7

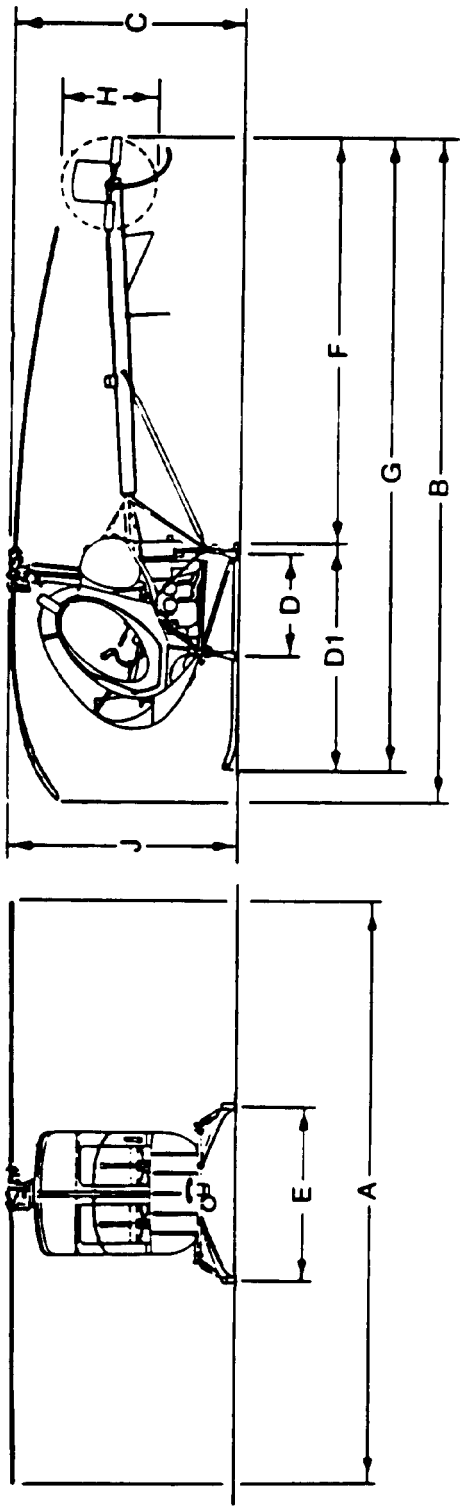


Figure C-159. Schweizer 300C

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	42	†	56.0	65.8	15.9	28.3	12.0	†	51.1	9.5	14.3

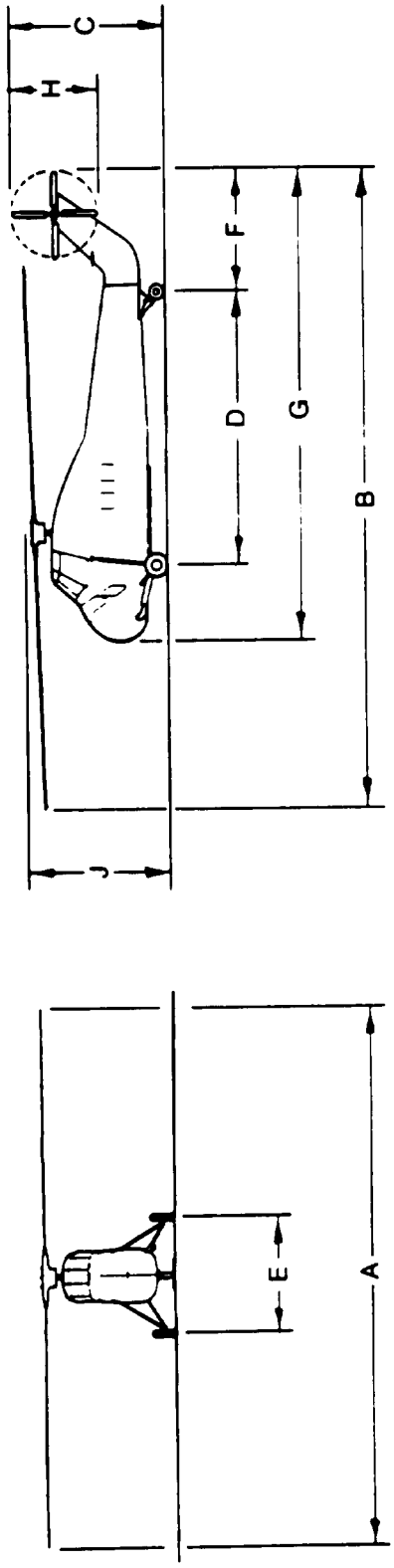
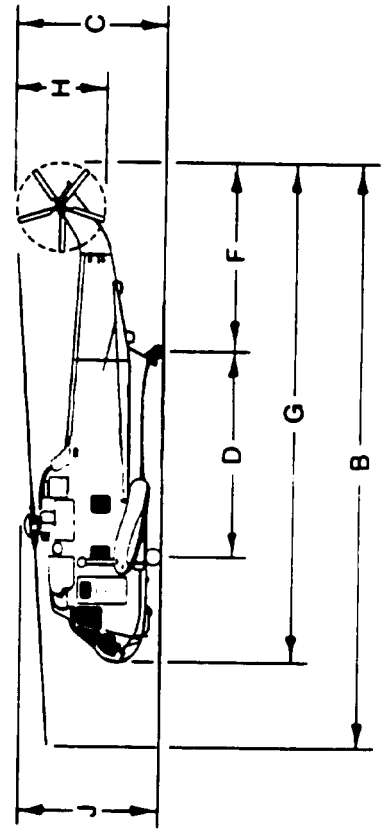


Figure C-160. Sikorsky S-58T

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
5	70	†	62.0	72.8	18.9	23.5	13.0	17.4	†	10.3	15.5



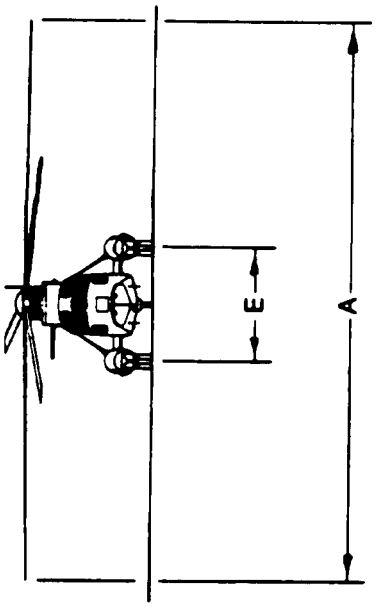


Figure C-161. Sikorsky S-61N

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
3	70	70	53.0	62.3	16.0	17.8	12.2	†	49.0	8.8	14.2

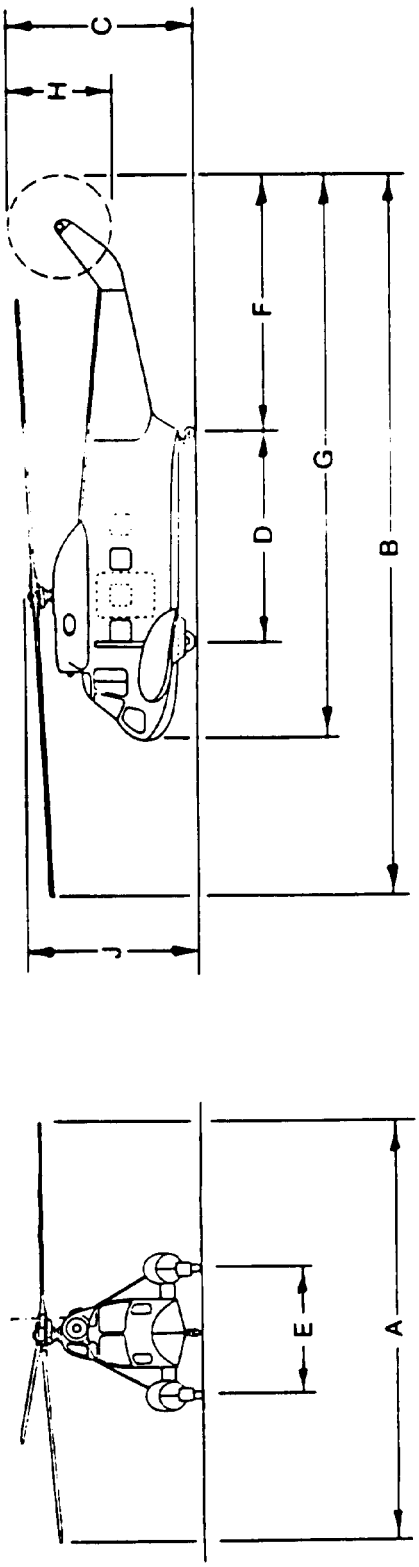


Figure C-162. Sikorsky S-62

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
6	100	95	72.0	88.5	25.4	24.4	19.8	46.1	76.3	16.0	18.6

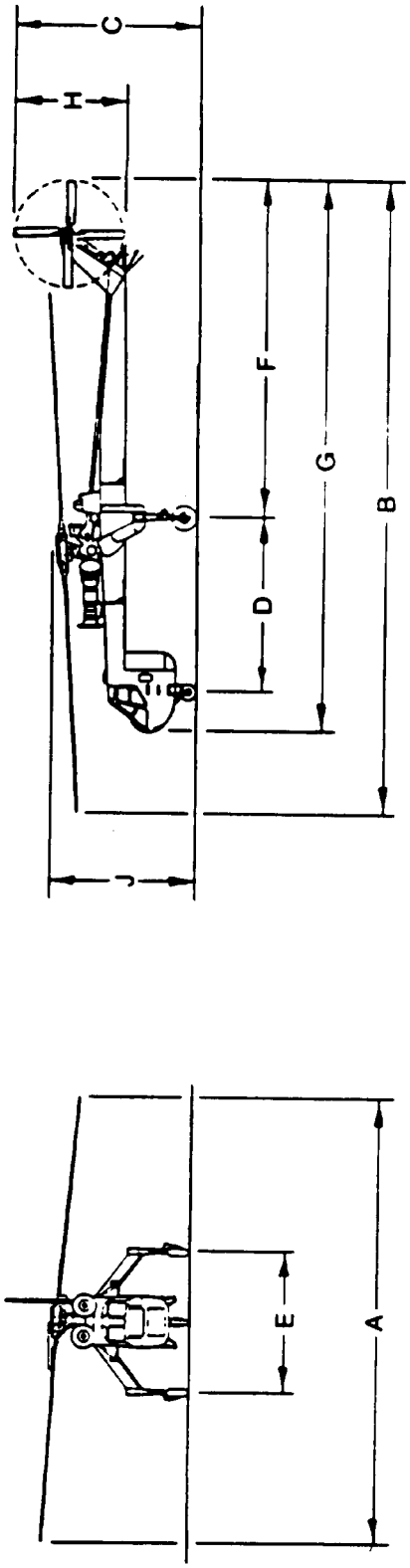
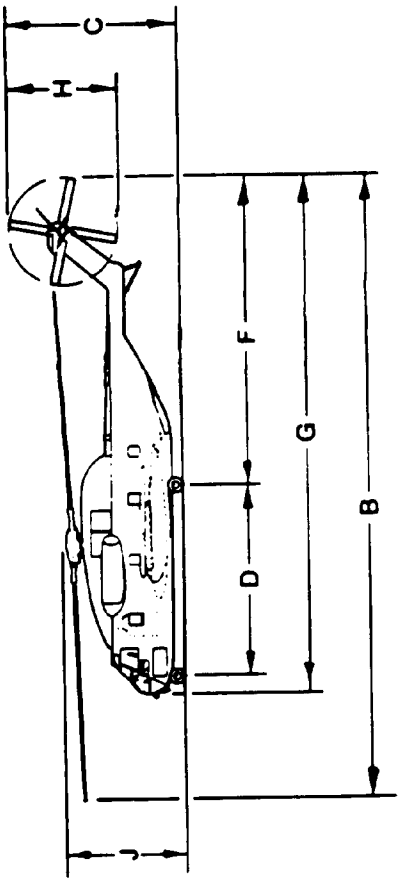


Figure C-163. Sikorsky S-64 (CH-54A), Tarhe

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
6	95	95	72.3	88.3	24.9	27.3	13.0	43.9	74.2	16.0	17.2



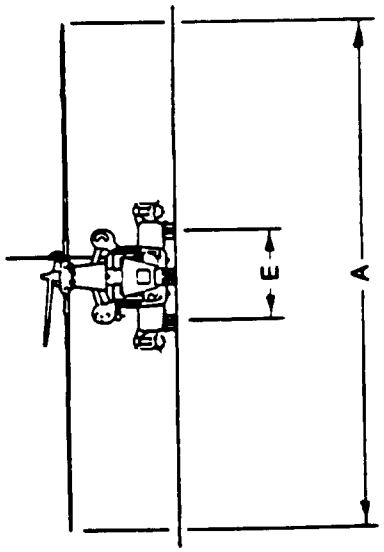


Figure C-164. Sikorsky S-65A (CH-53C and HH-53C), Super Jolly

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	140	95	53.7	64.8	17.5	29.0	8.8	12.7	53.0	11.0	12.4

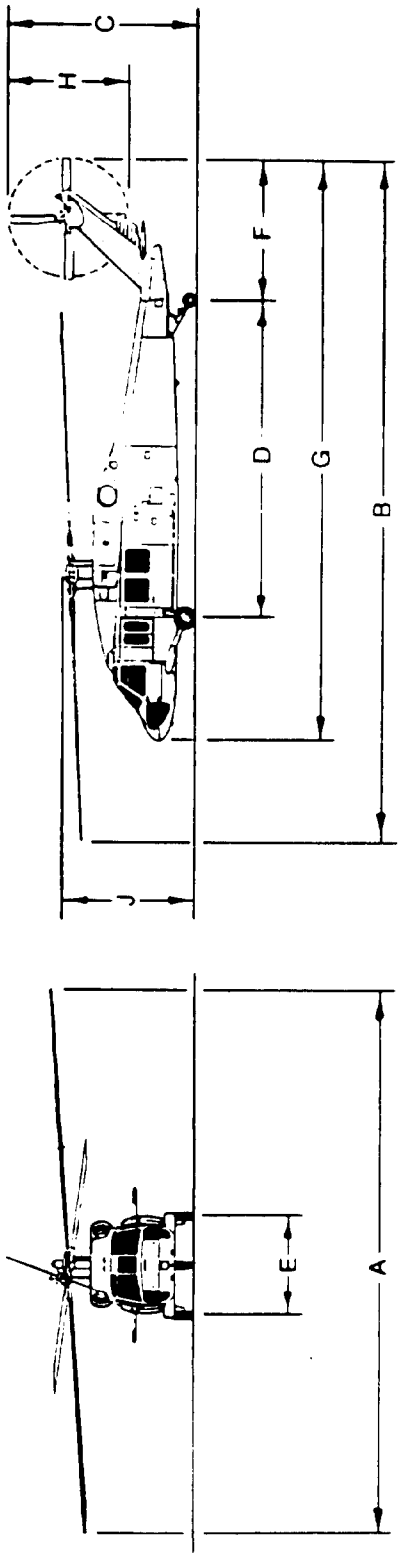


Figure C-165. Sikorsky S-70 (HH-60A, Night Hawk and UH-60A, Black Hawk)

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	140	95	53.7	64.8	16.8	29.0	8.8	12.7	53.0	11.0	12.4

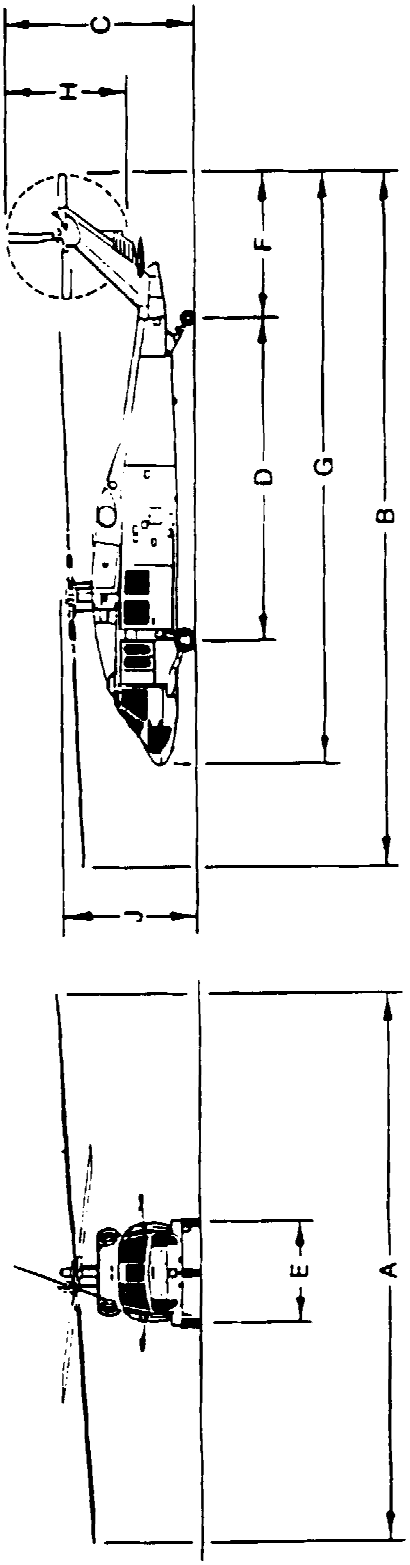
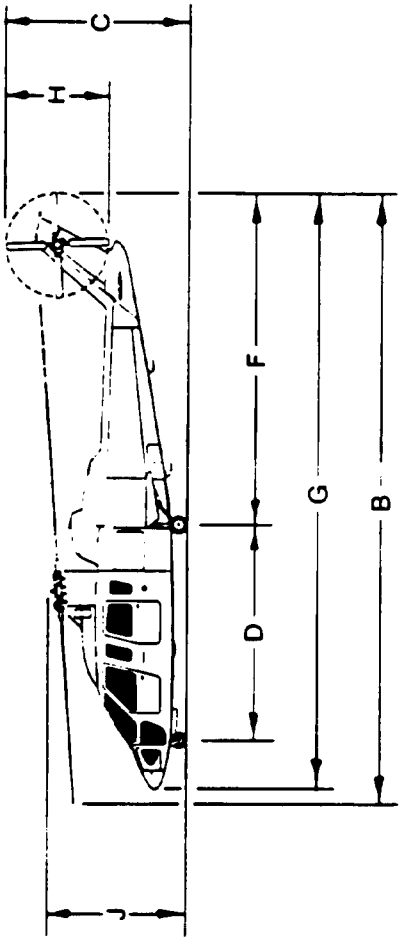


Figure C-166. Sikorsky S-70C

MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
	FORWARD GEAR	AFT GEAR									
4	135	165	44.0	52.5	14.5	16.4	8.0	22.1	46.1	8.0	11.8



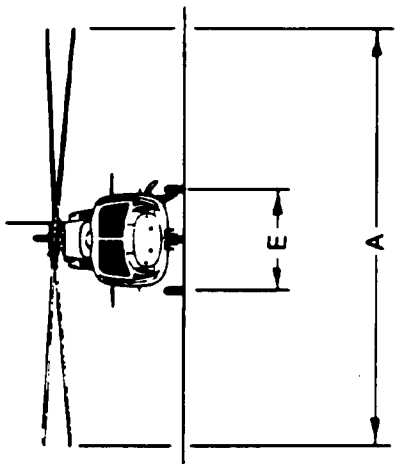
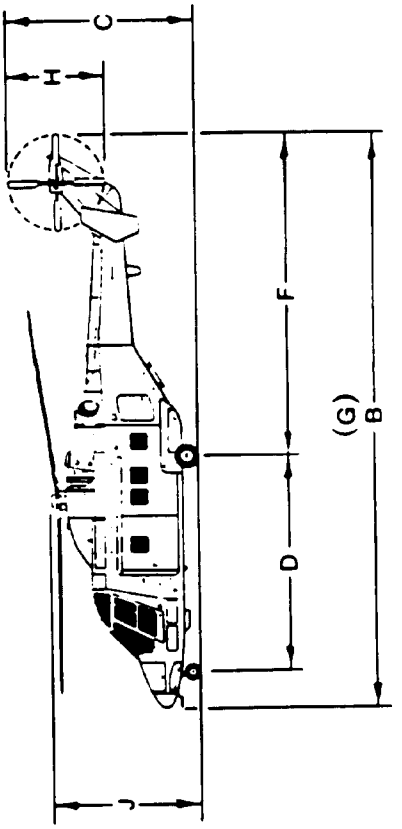


Figure C-167. Sikorsky S-76A/B

MODEL	MAIN ROTOR BLADES, NO.	MAXIMUM TIRE PRESSURE, PSI		A	B	C	D	E	F	G	H	J
		FORWARD GEAR	AFT GEAR									
30-100-60	4	55	68	43.7	52.1	15.5	17.9	10.1	†	52.1	8.0	†
30-200	4	55	68	43.7	52.1	15.4	17.9	10.1	†	52.1	8.0	†
30-300	5	†	†	42.5	52.1	16.3	17.8	9.3	†	52.1	9.0	†



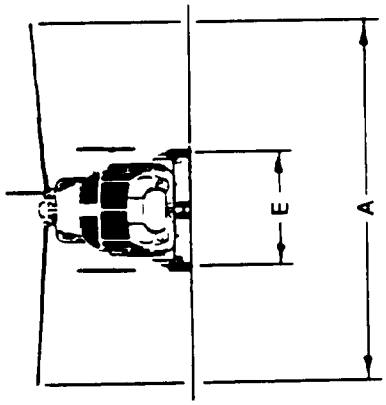


Figure C-168. Westland 30-100-60, 30-200 and 30-300

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT TURNING DIAGRAMS

D-l. This appendix presents various turning diagrams for US Army, US Air Force, and numerous civil and comercial fixed-wing aircraft. Aircraft turning capabilities and maneuvering characteristics are provided for planners and civil engineers in the layout and design of airfield systems. Travel geometry data are illustrated for various aircraft components (gear, wing tip, tail, etc.). Turning data are from information provided by Air Logistics Center managers and aircraft manufacturers.

D-2. Turning diagrams are arranged in figure format for various military, civil, and commercial fixed-wing aircraft (fig. D-l to D-110). Diagrams are grouped by military aircraft (figs D-l to D-47) and civil and commercial aircraft (figs D-48 to D-llO). Military aircraft are further subgrouped as follows:

a. Bomber Aircraft.

Figure	Aircraft
D-l	B-lB
D-2	B-52G/H
D-3	FB-111A

b. Cargo/Transport Aircraft.

Figure	Aircraft
D-4	C-5A/B
D-5	C-9A
D-6	C-12A/C/D/F
D-7	C-12J
D-8	C-21A
D-9 and D-10	C-22B
D-11	C-23A
D-12	C-130B/E/H
D-13	C-135B and KC-135R
D-14 and D-15	C-137B
D-16 and D-17	C-137C
D-18	C-140A/B
D-19	C-141A
D-20	C-141B
D-21	KC-10A
D-22	VC-25A

c. Special-Duty Aircraft.

Figure	Aircraft
D-23	E-3A/B/C
D-24	E-4A/B
D-25 and D-26	EC-18B
D-27	EC-130E/H, MC-130E/H and WC-130E/H
D-28	EC-135A/C/E/G/H/J/K/L/P/Y, RC-135M/S/U/V/W, and WC-135B
D-29	EF-111A
D-30	OA-37B
D-31	OV-1B/C/D
D-32	OV-10A
D-33	RC-12D/G/H/K and U-21J
D-34	RF-4C
D-35	UV-18

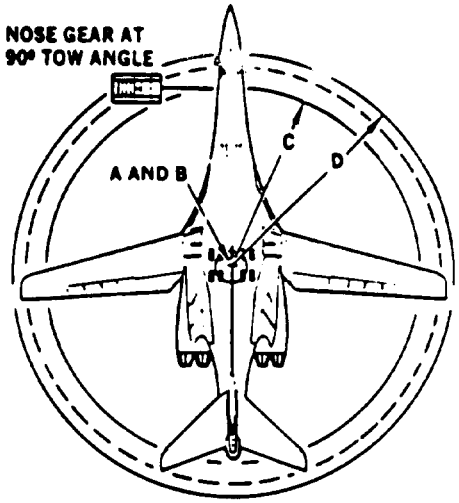
d. Tactical Aircraft.

Figure	Aircraft
D-36	A-7D/K
D-37	A-10A
D-38	A-37B
D-39	AC-130A/H/U
D-40	F-4C
D-41	F-4D/E/G
D-42	F-5E/F
D-43	F-15A/B/C/D/E
D-44	F-16A/B/C/D
D-45	F-100
D-46	F-106A/B
D-47	F-111A/D/E/F

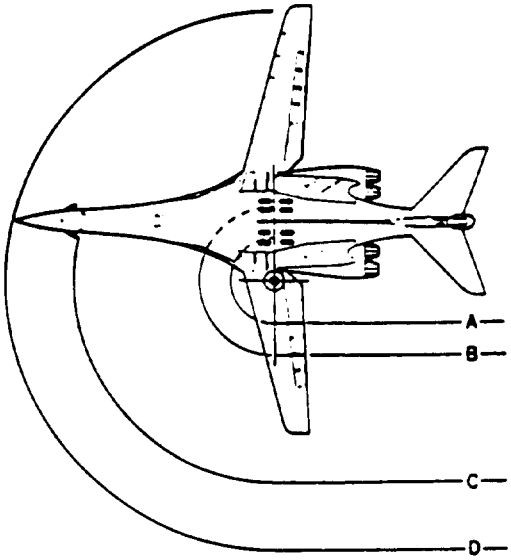
D-3. Turning diagrams for civil and commercial aircraft are as follows:

Figure	Aircraft
D-48	DeHavilland Canada DHC-6
D-49	Short Brothers SC.7 and SC.7-3M
D-50	Short Brothers 330 and 330-200
D-5l	Short Brother. 360
D-52	Convair 240/600
D-53	Convair 340/440/580/640
D-54	Lockheed L-188
D-55	Lockheed L-382 (L-100-20 and L-l00-30)
D-56	Gates Learjet 24
D-57	Gates Learjet 25
D-58	Gates Learjet 35 and 36
D-59	Lockheed 1329
D-60 and D-61	Boeing 707-120B
D-62 and D-63	Boeing 707-320/-320B/-320C/-420
D-64 and D-65	Boeing 720 and 720B
D-66	Boeing 727-100/-100C
D-67	Boeing 727-200
D-68	Boeing 727-100/-100C/-200
D-69	Boeing 737-100
D-70	Boeing 737-200
D-71	Boeing 737-100/-200
D-72	Boeing 737-300
D-73	Boeing 737-400
D-74	Boeing 737-300/-400

Figure	Aircraft
D-75	Boeing 747-100B/-200B-Pass/ -200C-Pass/-200C-Cargo/ -200F-Cargo/-300-Pass
D-76	Boeing 747-400
D-77	Boeing 747SP
D-78 and D-79	Boeing 757-200
D-80	Boeing 767-200/-200ER
D-81	Boeing 767-300/-300ER
D-82	Boeing 767-200/-200ER/-300/ -30011.
D-83	Lockheed L-1011-l/-100/-200
D-84	Lockheed L-1011-500 and L-1011-500 Extended Wing
D-85	Lockheed L-1011-1/-100/-200/ -500/-500 Extended Wing
D-86 and D-S7	McDonnell Douglas DC-8-43/-55/ -55F
D-88 and D-89	McDonnell Douglas DC-8-61/-61F/ -71/-71F
D-90 and D-91	McDonnell Douglas DC-8-62/-62F/ -72/-72F
D-92 and D-93	McDonnell Douglas DC-8-63/-63F/ -73/-73F
D-94	McDonnell Douglas DC-9-15/-15F
D-95	McDonnell Douglas DC-9-21
D-96	McDonnell Douglas DC-9-32/-33F
D-97	McDonnell Douglas DC-9-41
D-98	McDonnell Douglas DC-9-51
D-99	McDonnell Douglas DC-9-15/ -15F/-21/-32/-33F/-41/-51
D-100 and D-l0l	McDonnell Douglas MD-81/-82/ -83/-88
D-102 and D-103	McDonnell Douglas MD-87
D-104 and D-105	McDonnell Douglas DC-b-b
D-106 and D-107	McDonnell Douglas DC-lO-30 and DC-l0-40
D-108	B.A.C. One-Eleven Model 200, 400, and 500
D-109 and D-ll0	B.A.C./SNIAS Concorde



TOW TURN



TAXI AND TAKEOFF/LANDING TURN

NOTES: 1. ENSURE WINGS ARE SWEPT FORWARD PRIOR TO TOWING.

2. PIVOT POINTS: TAXI TURN - 9.7 FEET FROM NEAREST GEAR.
TAKEOFF/LANDING TURN - 90.5 FEET FROM NEAREST GEAR.

3. DO NOT USE A TURN RADIUS LESS THAN 75 FEET.

TRAVEL MODE	MAXIMUM TURNING SPEED, KNOTS	MINIMUM RADIUS, FEET				MINIMUM TURN SURFACE WIDTH, FEET
		MAIN GEAR		NOSE GEAR	WING TIP	
		A	B	C	D*	
TAXI (73 DEGREES)	2	10.0	24.0	60.0	86.0	90
TAKEOFF/LANDING (30 DEGREES)	15	90.0	105.0	113.0	161.0	225
TOW (90 DEGREES)	5	7.0	7.0	56.0	69.0	70

*WING FULL FORWARD (15 DEGREES)

Figure D-1. B-1B, Minimum Turning Radii

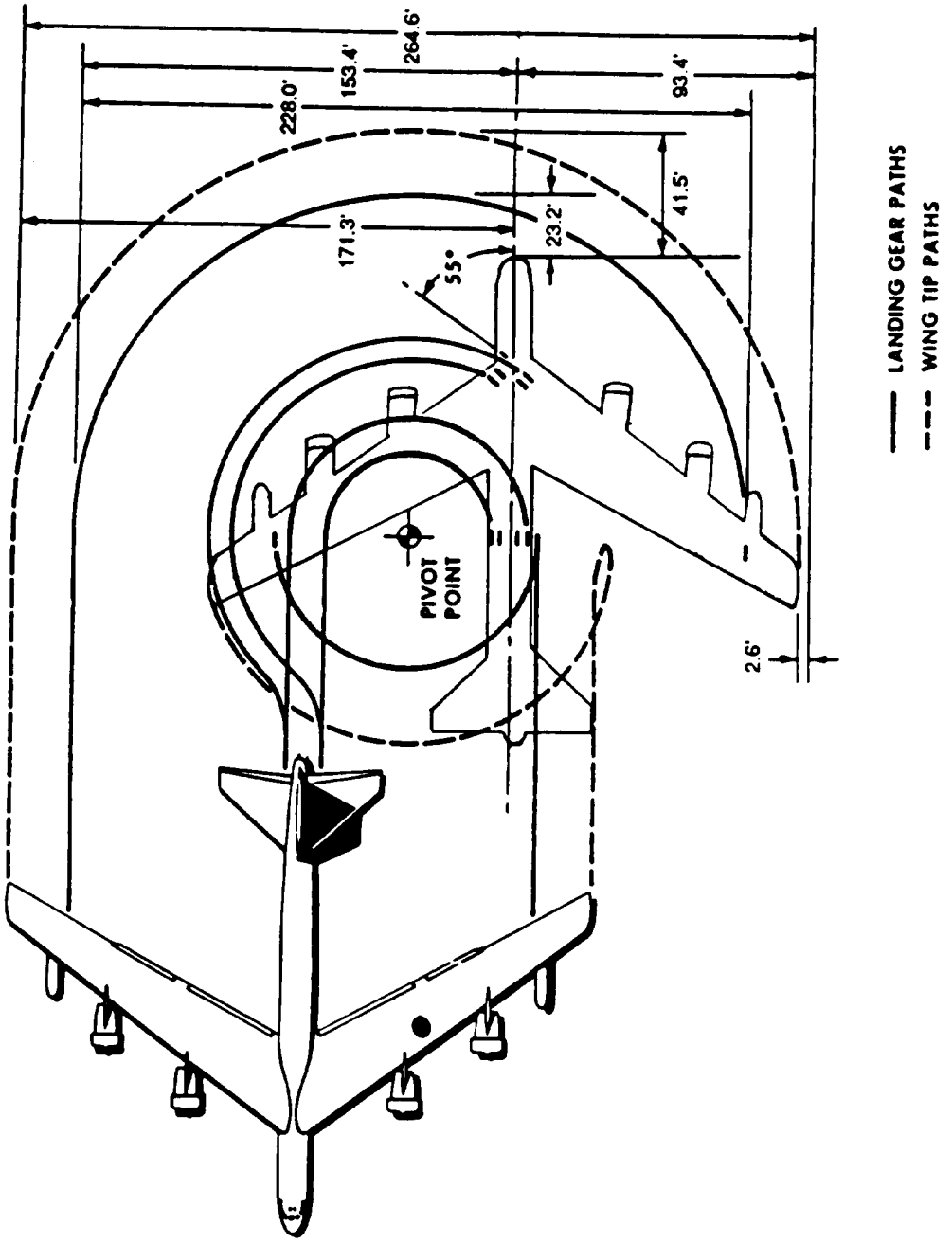
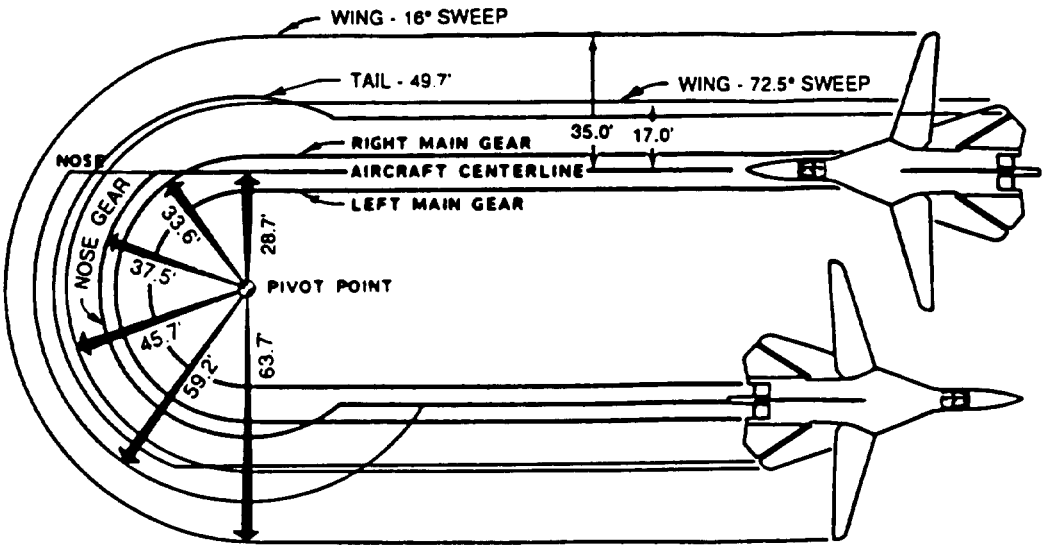


Figure D-2. B-52G/H, Turning Radii



NOTES: 1. PIVOT POINT BASED ON 40 DEGREES NOSE WHEEL STEERING.

2. TURNING DISTANCES ARE BASED ON MINIMUM TAXI SPEED OF 5 KNOTS.

Figure D—3. FB-111A, Minimum Taxi Turn Radii

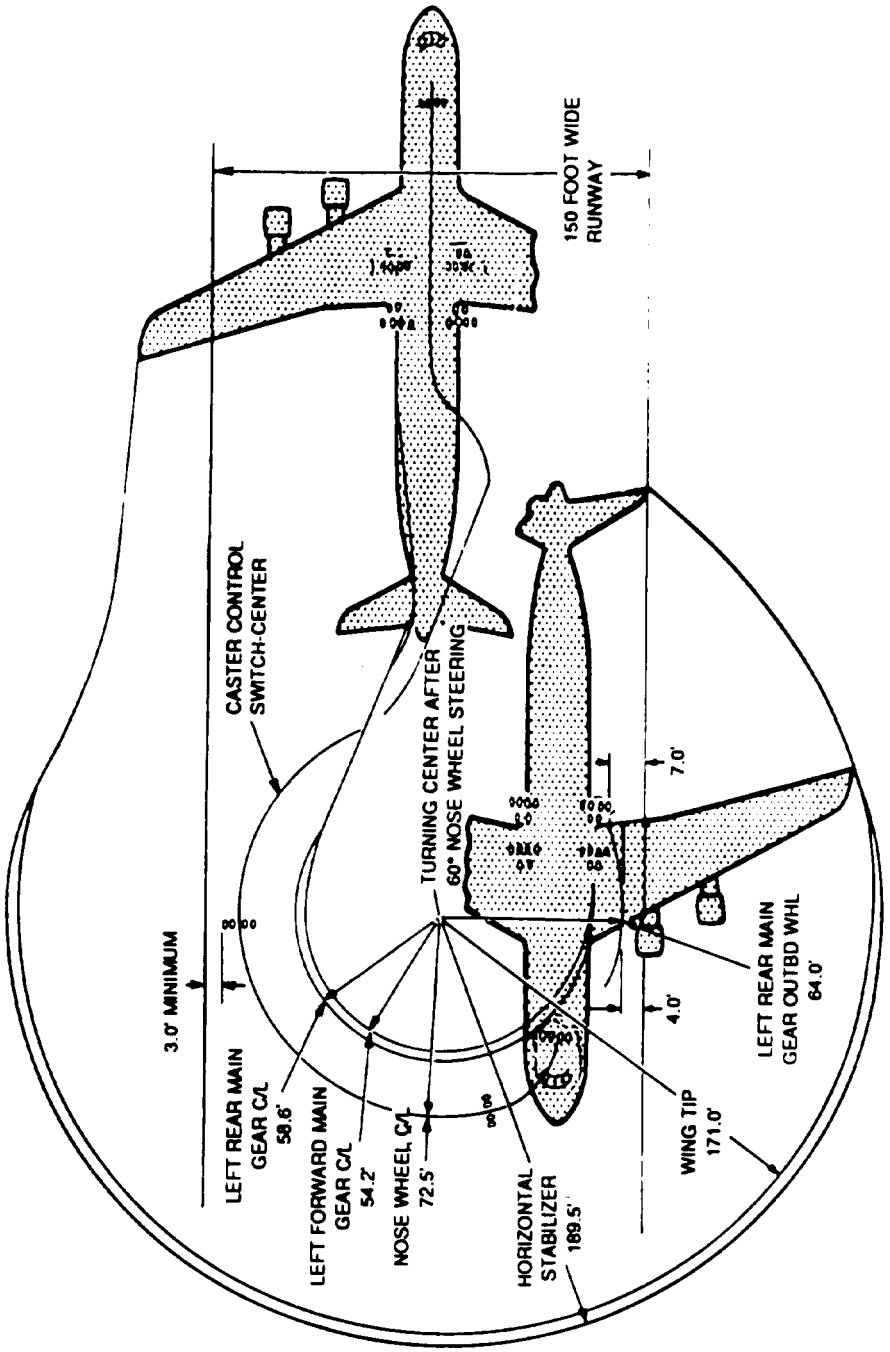


Figure D—4. C-5A/B, Minimum Taxi Turn Radii

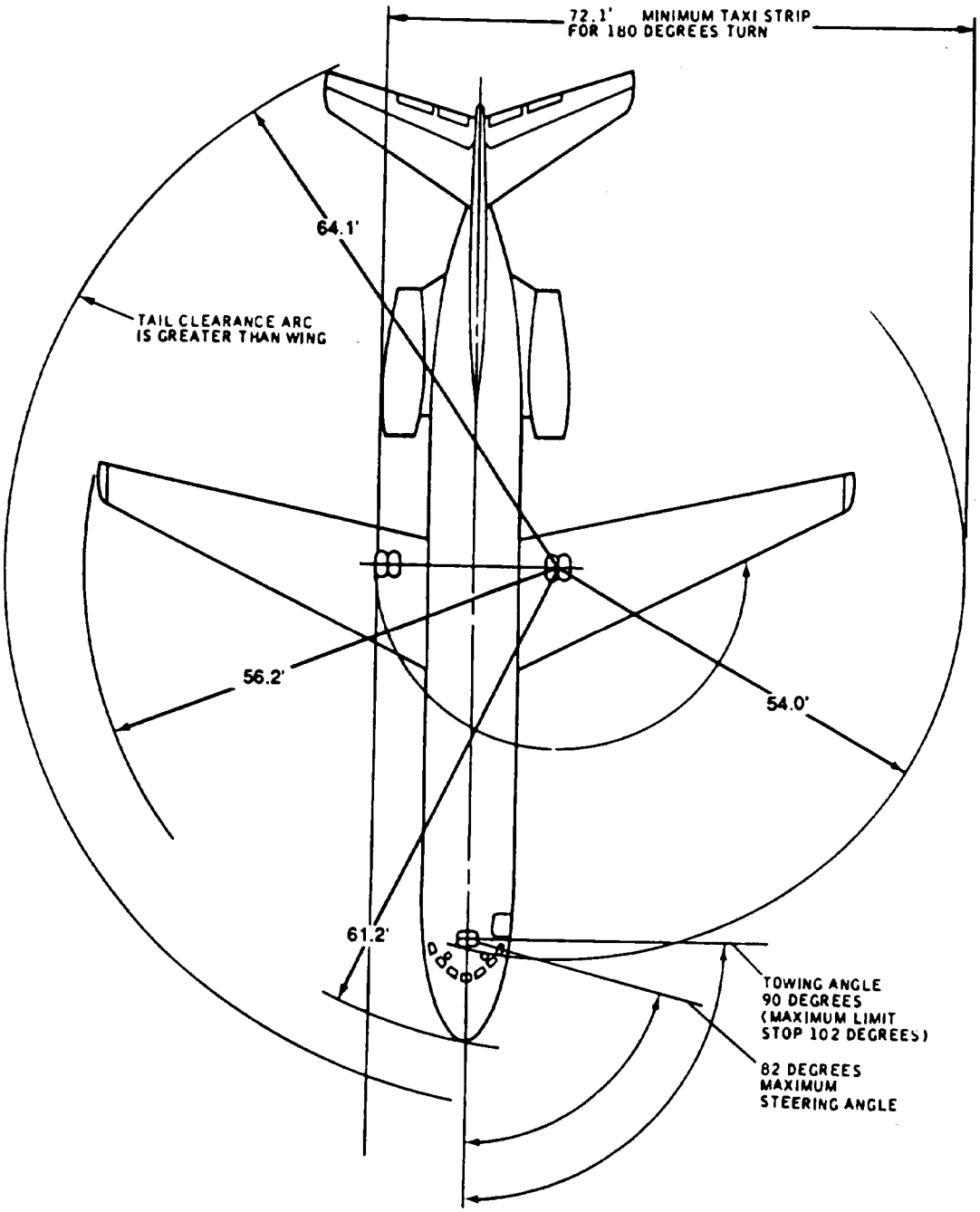


Figure D—5. C—9A, Turning Radii

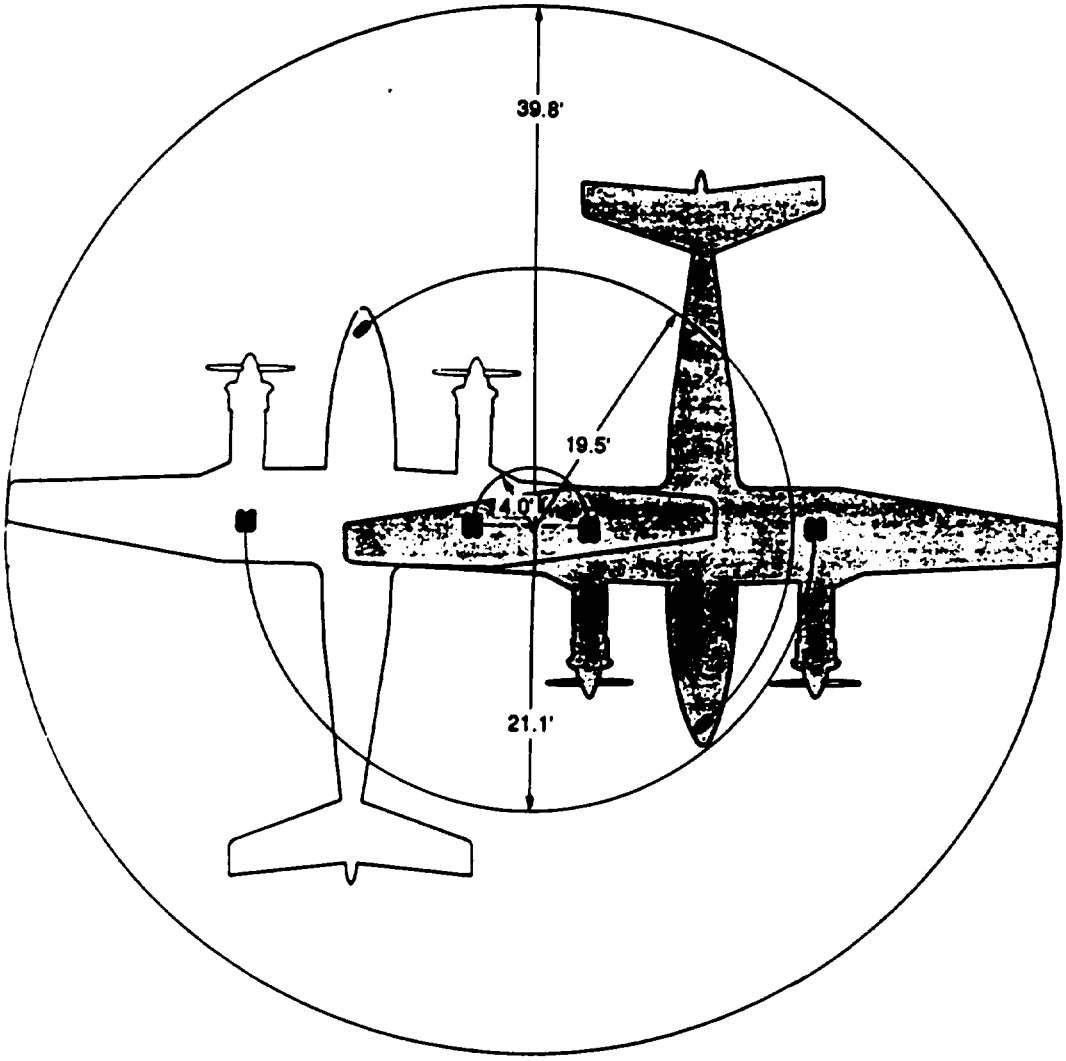


Figure D—6. C-12A/C/D/F, Turning Radii

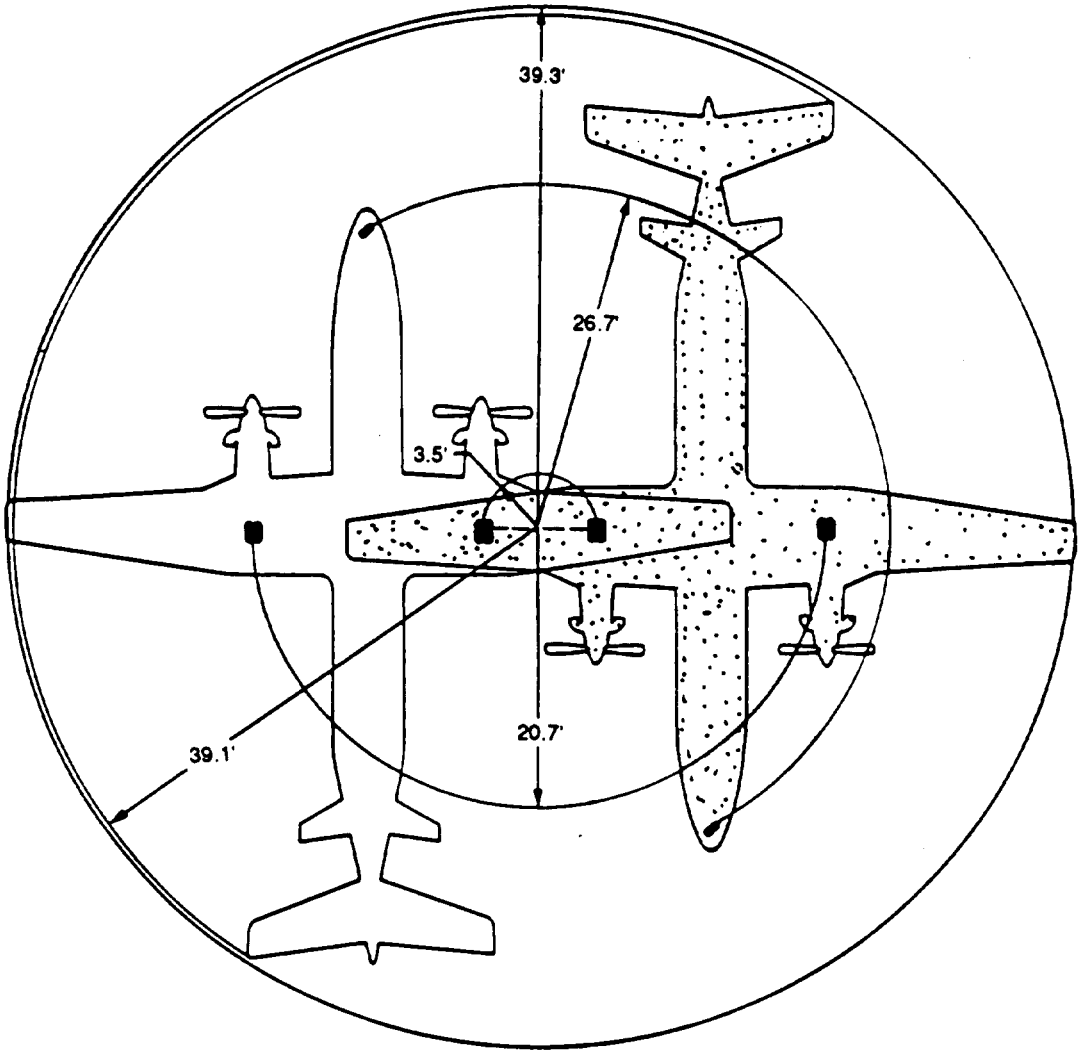


Figure D-7. C-12J, Turning Radii

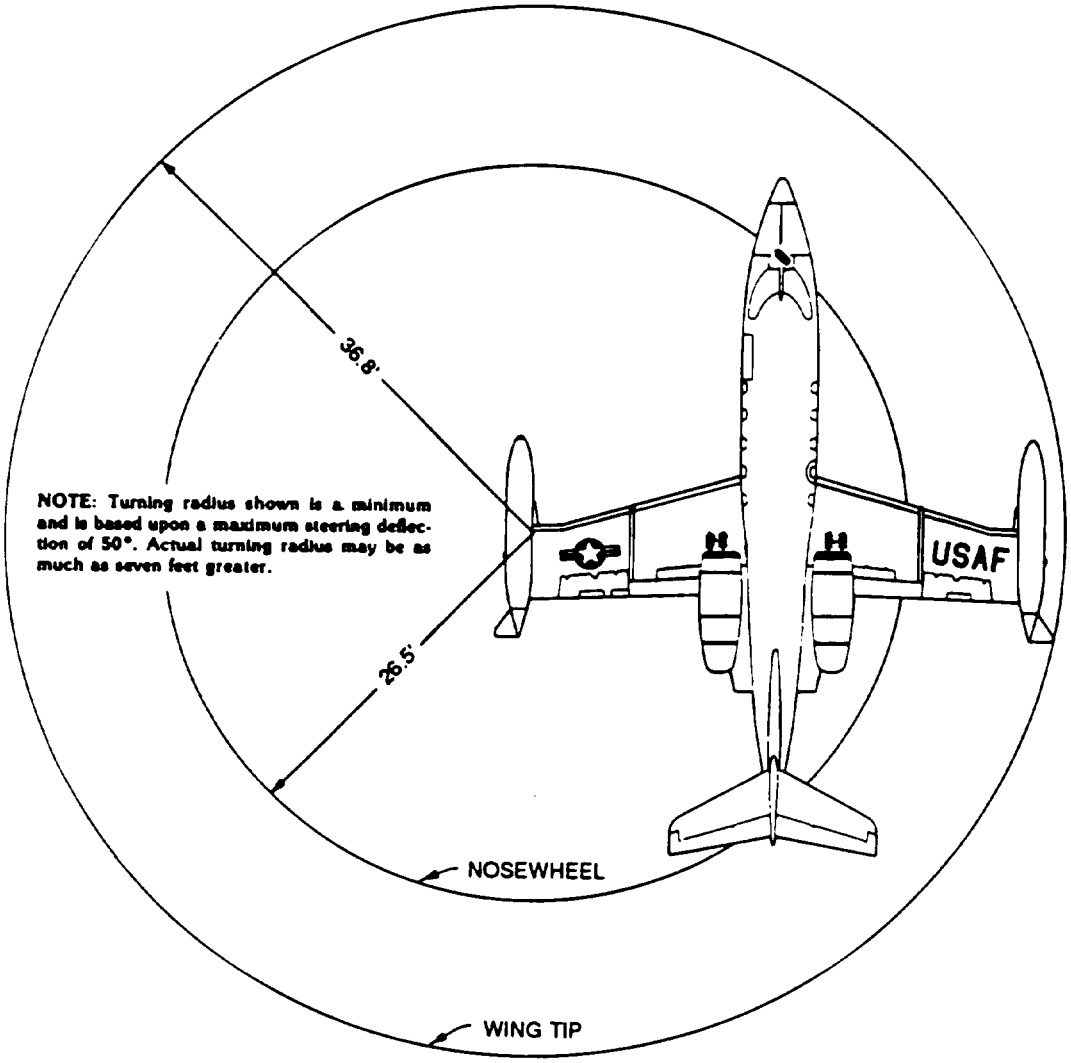
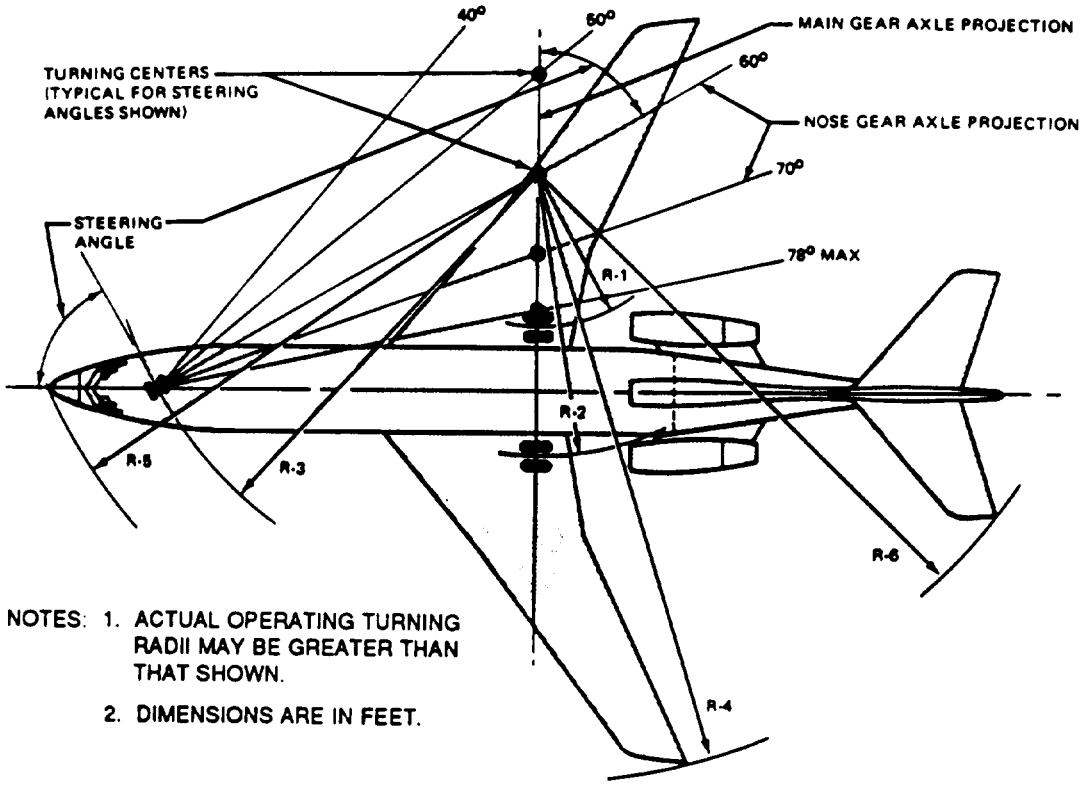


Figure D-8. C—21A, Turning Radii

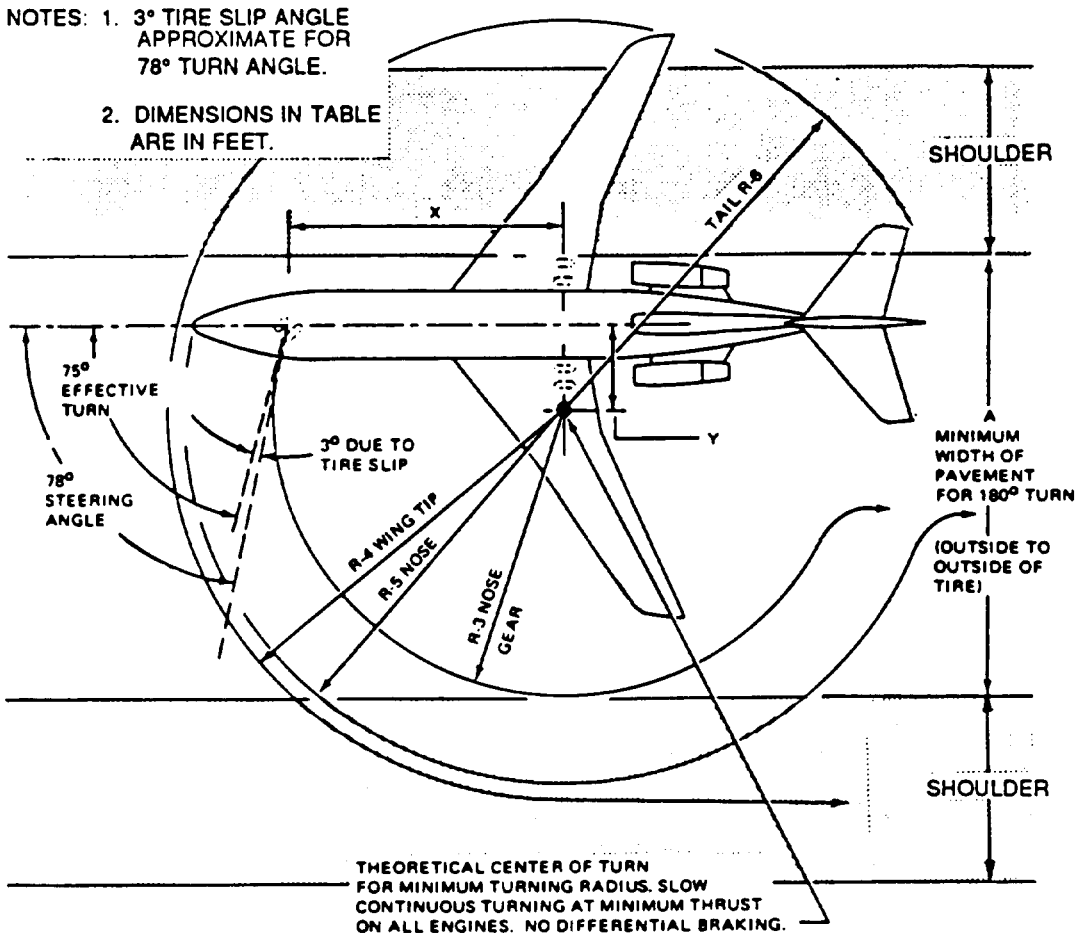


NOTES: 1. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN THAT SHOWN.

2. DIMENSIONS ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	83	102	106	148	115	127
35	67	86	93	132	102	114
40	54	73	83	120	93	103
45	44	63	75	109	87	96
50	35	54	70	101	82	89
55	28	47	65	94	78	85
60	21	40	62	87	75	80
65	15	34	59	82	73	77
70	10	29	57	77	71	74
75	5	24	55	72	70	72
78 (MAXIMUM)	2	21	54	69	69	71

Figure D—9. C-22B, Turning Radii — No Slip Angle



FOR AN EFFECTIVE TURN ANGLE OF 75°						
X	Y	A	R-3	R-4	R-5	R-6
53.3	14.3	82.5	55.0	72.0	70.0	72.0

Figure D-10. C—22B, Minimum Turning Radii — 3° Slip Angle

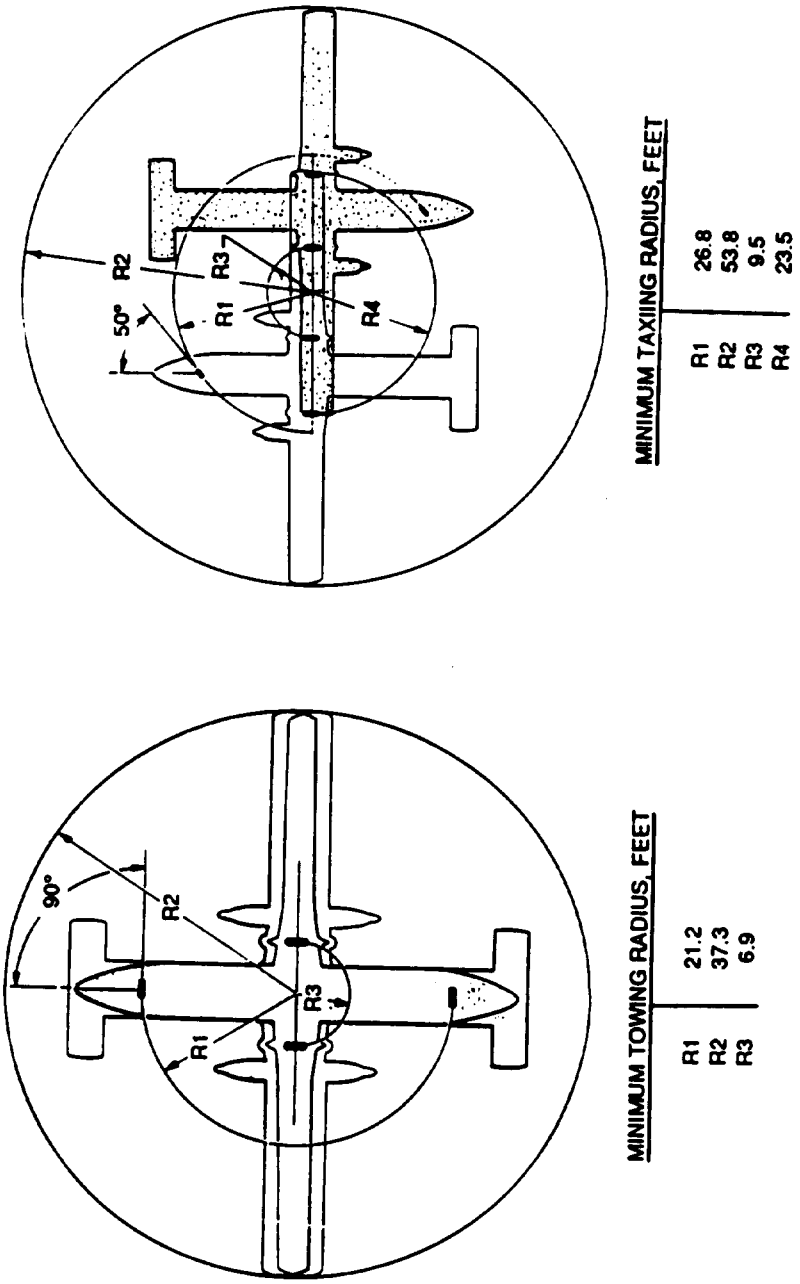
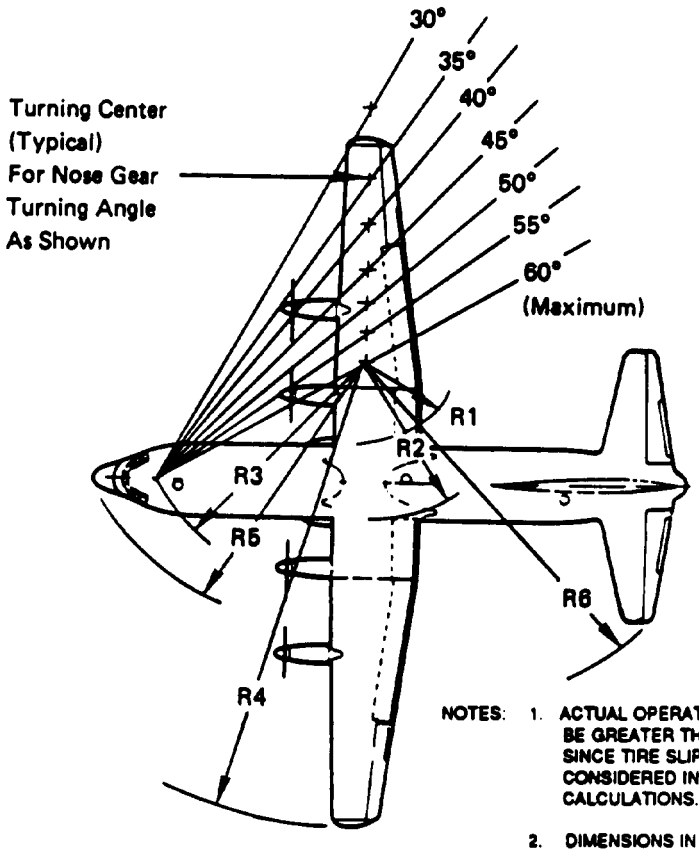


Figure D-11. C—23A, Minimum Turning Radii



NOTES:
1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	W*	R1	R2	R3	R4	R5	R6
	PVT. WIDTH	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	158	63	77	81	136	88	111
35	135	51	65	71	124	78	100
40	108	41	56	63	114	71	92
45	105	33	48	57	107	66	86
50	94	27	41	53	101	62	81
55	85	21	35	50	95	59	77
60 (MAXIMUM)	77	16	30	47	90	57	74

*W= MINIMUM PAVEMENT WIDTH FOR 180° TURN.

Figure D-12. C-130B/E/H, Turning Radii — No Tire Slippage

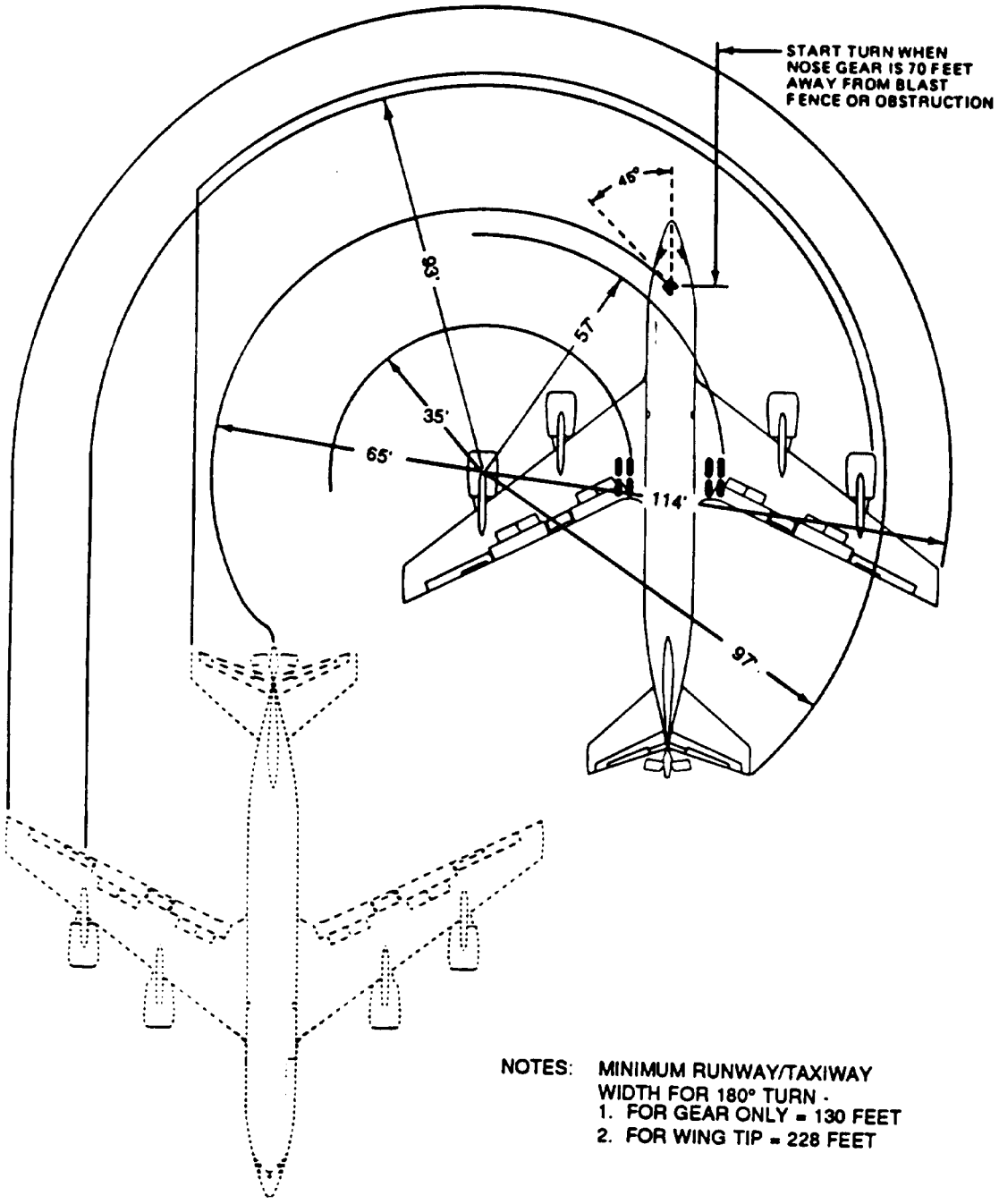
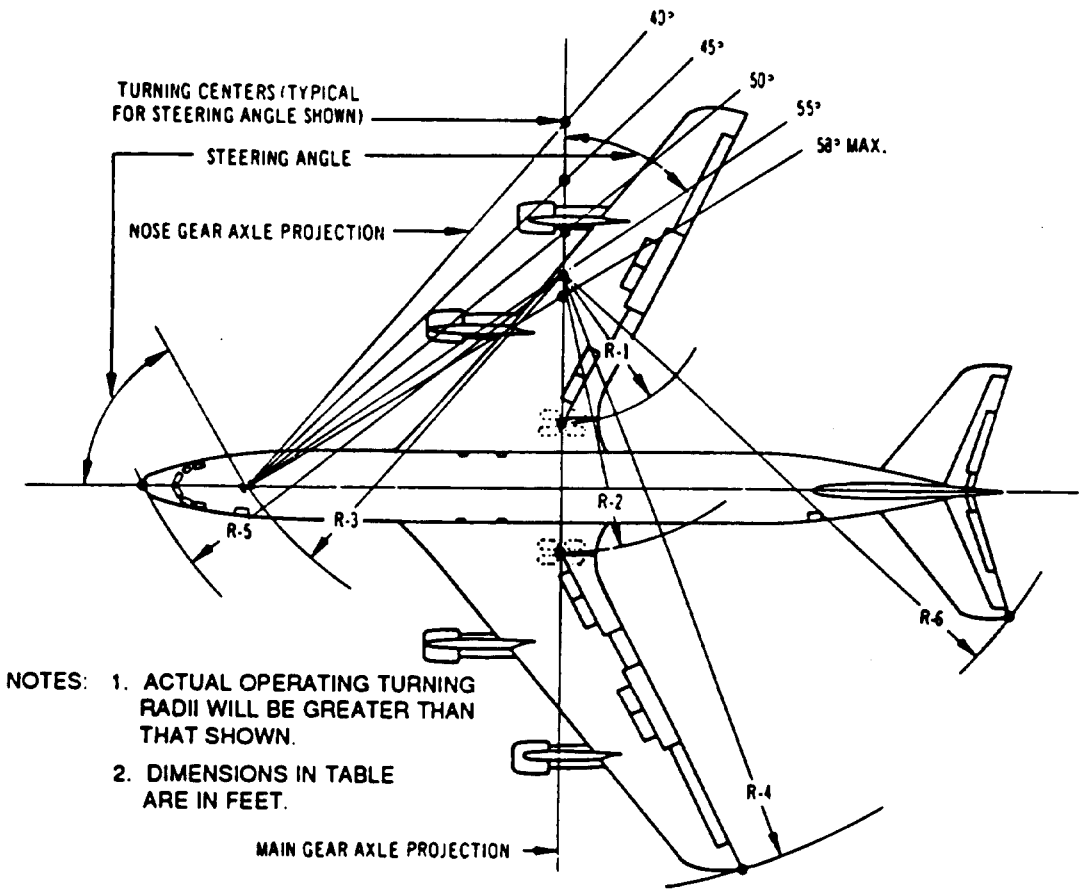
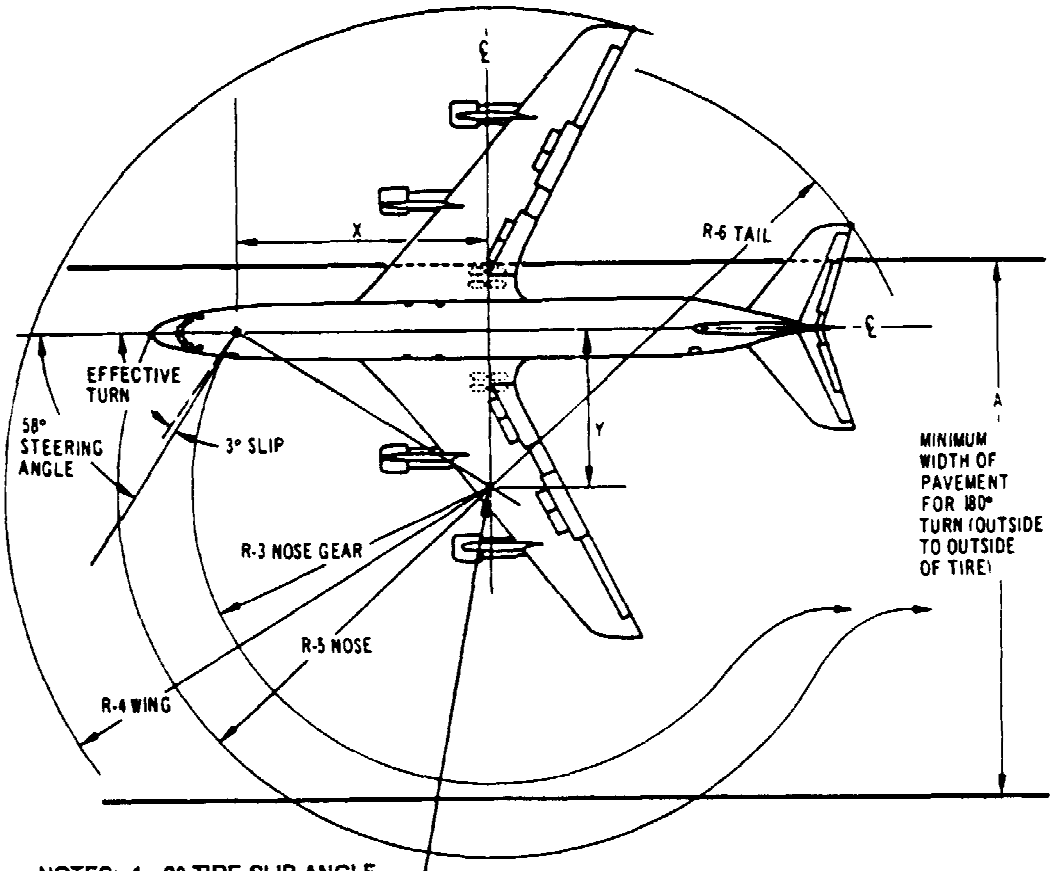


Figure D-13. C-135B and KC-135R,
Minimum Turning Radii



STEERING ANGLE (DEGREES)	R-1 INNER GEAR	R-2 OUTER GEAR	R-3 NOSE GEAR	R-4 WING TIP	R-5 NOSE	R-6 TAIL
30	80	102	105	159	114	136
35	64	86	91	143	102	123
40	51	73	82	132	94	113
45	41	63	74	122	87	105
50	33	55	68	113	82	100
55	26	48	65	107	79	95
58 (MAXIMUM)	22	44	63	103	77	90

Figure D—14. C-137B, Turning Radii — No Slip Angle

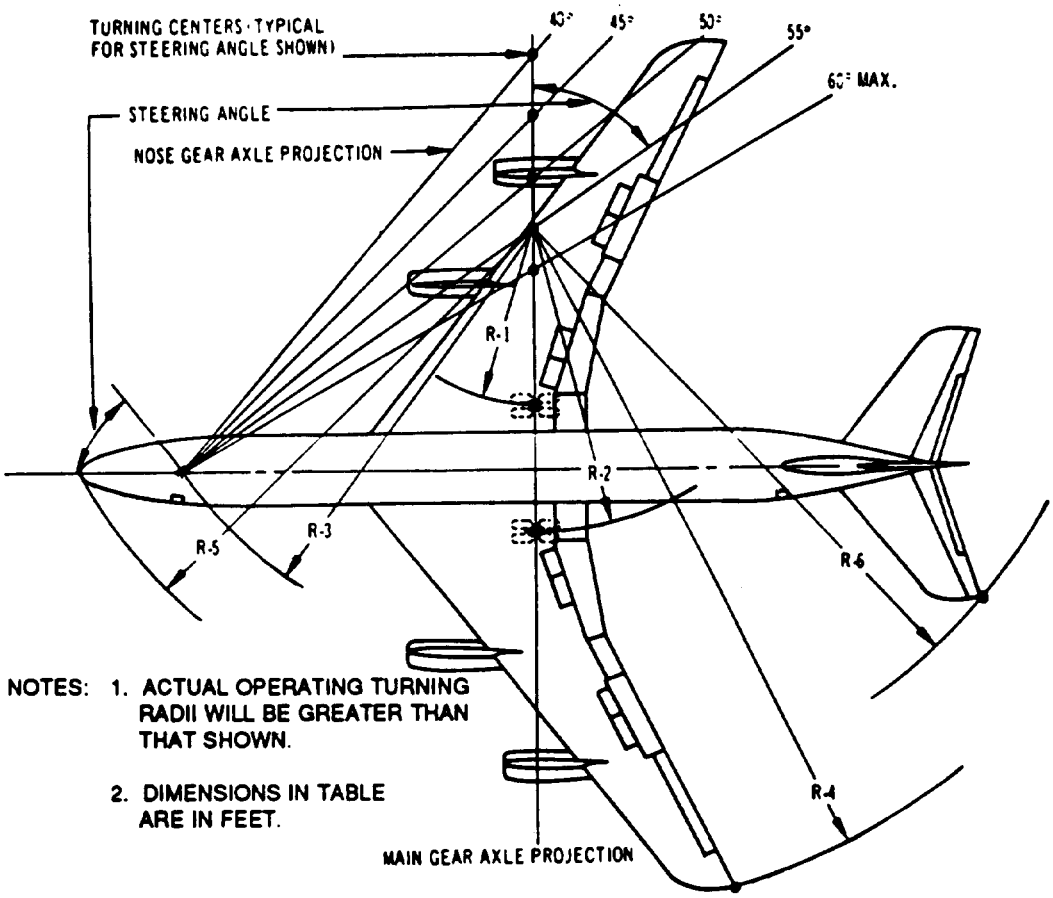


NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 58° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

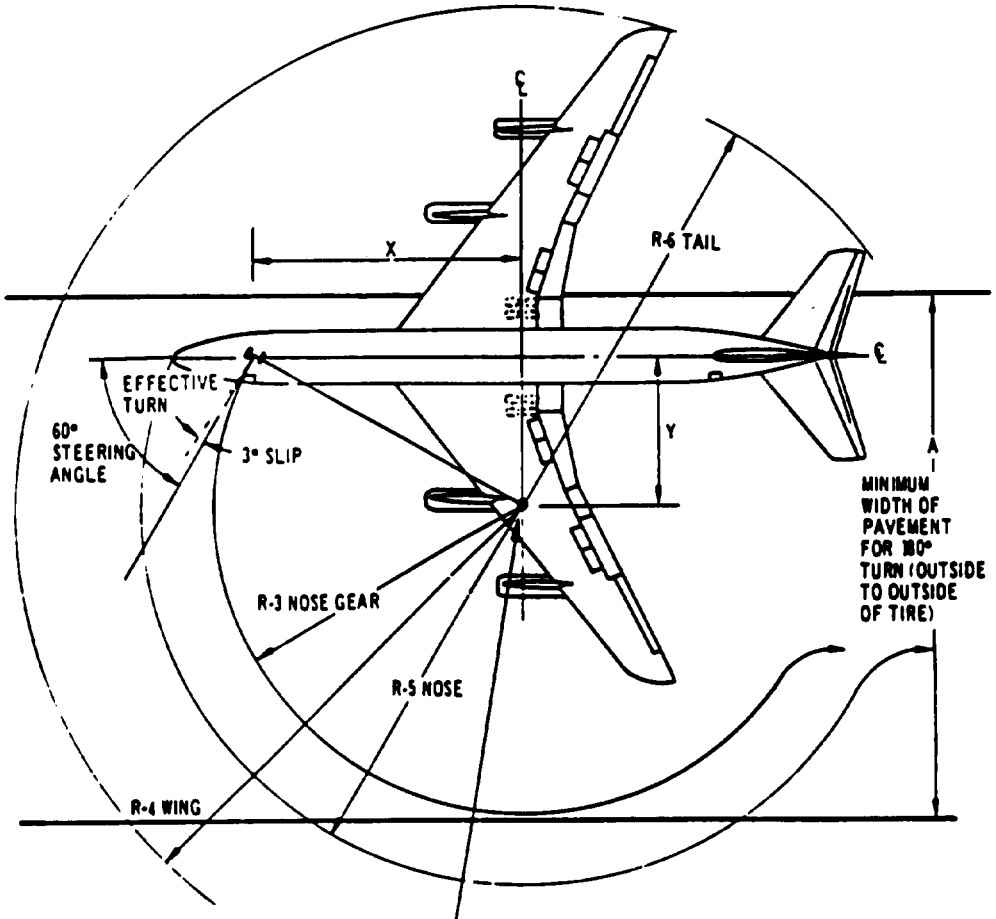
FOR AN EFFECTIVE TURN ANGLE OF 55°						
X	Y	A	R-3	R-4	R-5	R-6
52.3	36.6	116.2	65.0	107.0	79.0	95.0

Figure D-15. C-137B, Minimum Turning Radii — 3° Slip Angle



STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	91	113	118	179	127	147
35	74	96	103	161	114	132
40	60	82	92	147	104	121
45	48	70	84	136	97	112
50	39	61	77	127	91	106
55	30	52	71	119	87	100
60 (MAXIMUM)	23	45	68	112	84	96

Figure D—16. C—137C, Turning Radii — No Slip Angle

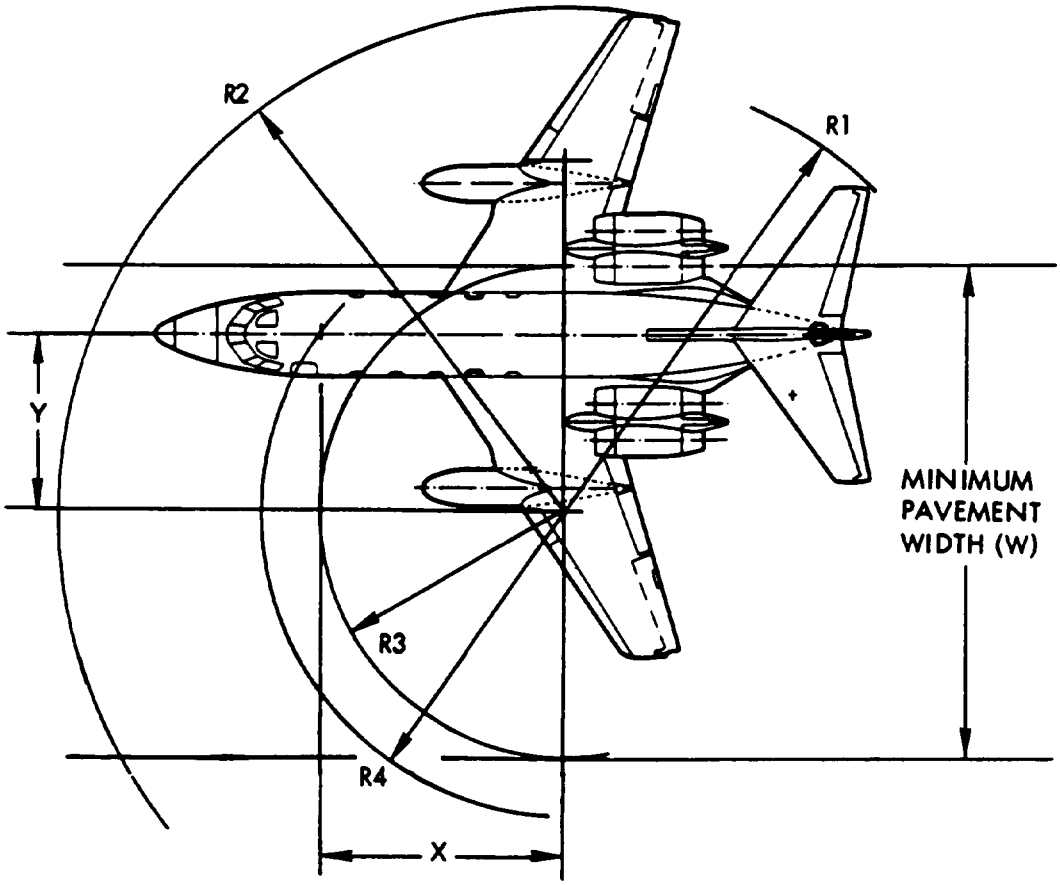


NOTES:
1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 60° TURN ANGLE.
2. DIMENSIONS IN TABLE ARE IN FEET.

THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. SLOW CONTINUOUS TURNING WITH APPROXIMATELY IDLE THRUST ON ALL ENGINES. NO DIFFERENTIAL BRAKING

FOR EFFECTIVE TURN ANGLE OF 57°						
X	Y	A	R-3	R-4	R-5	R-6
59.0	38.3	123.4	70.5	116.0	85.5	98.0

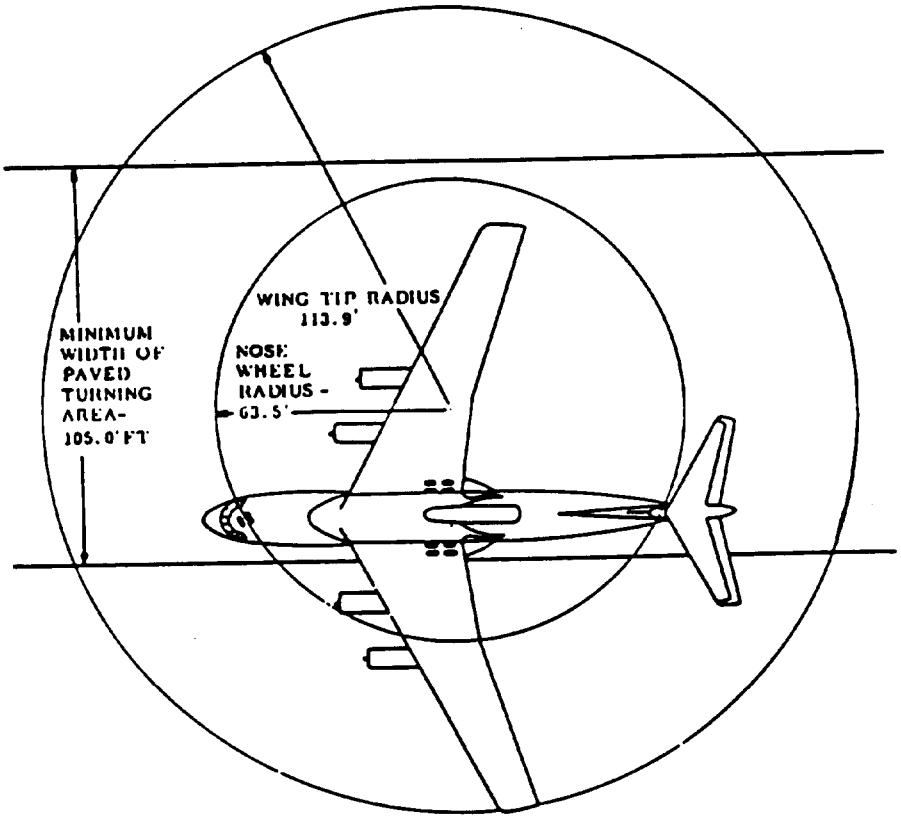
Figure D-17. C-137C, Minimum Turning Radii — 3° Slip Angle



TURN ANGLE	X	Y	R1	R2	R3	R4	W
53°	20.6	15.5	37.1	43.3	21.8	25.8	34.0

NOTE: DIMENSIONS ARE IN FEET.

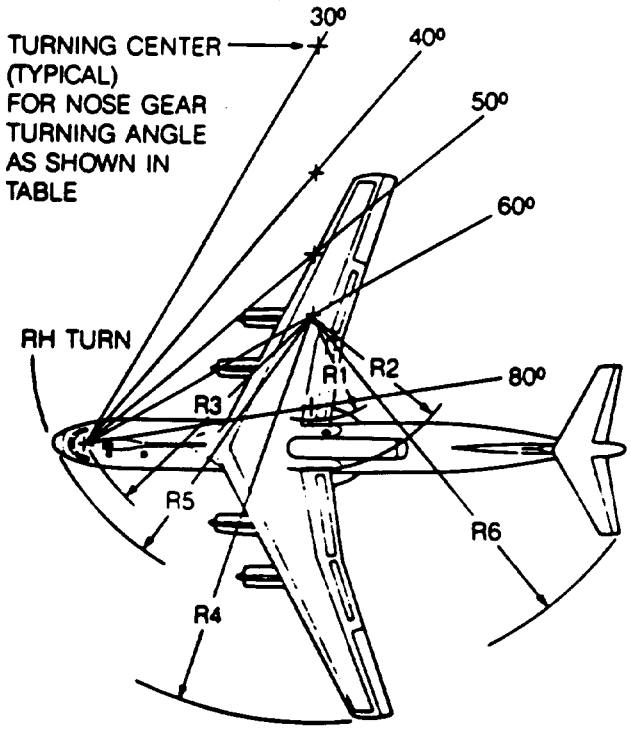
Figure D—18. C-140A/B, Minimum Turning Radii



NOSE GEAR TURN IN DEGREES	WING TIP RADIUS, FEET	NOSE WHEEL RADIUS, FEET	WING TIP GROWTH,* FEET
5	709.0	631.1	0.3
10	362.5	316.6	0.6
15	266.1	212.5	0.9
20	232.2	160.6	1.0
25	199.2	130.2	1.3
30	176.7	110.0	1.4
35	160.1	96.9	1.5
40	147.2	85.6	1.7
45	136.8	77.8	1.8
50	128.1	71.8	1.9
55	120.5	67.2	2.0
60 (MAXIMUM)	113.9	63.5	2.2

*OUTBOARD WING TIP ON SWEPTWING AIRCRAFT "GROW" IN TURNS. WHENEVER A MINIMUM OF 10 FEET WING TIP CLEARANCE IS NOT ASSURED DURING TURNS, REFER TO WING TIP GROWTH TABLE.

Figure D—19. C-l4lA, Turning Radii



STEERING ANGLE (DEGREES)	W*	R 1	R 2	R 3	R 4	R 5	R 6
	FEET	FEET	FEET	FEET	FEET	FEET	FEET
30	270	104	126	133	197	140	167
35	233	84	106	116	178	123	150
40	204	68	90	103	160	111	138
45	182	56	77	94	148	102	129
50	164	45	66	86	137	95	121
55	150	36	57	81	128	90	115
60**	137	28	49	77	120	86	110
75.3***	108	7	28	69	100	81	100
80	101	1	22	67	94	79	98

* = MINIMUM PAVEMENT WIDTH FOR 180° TURN.

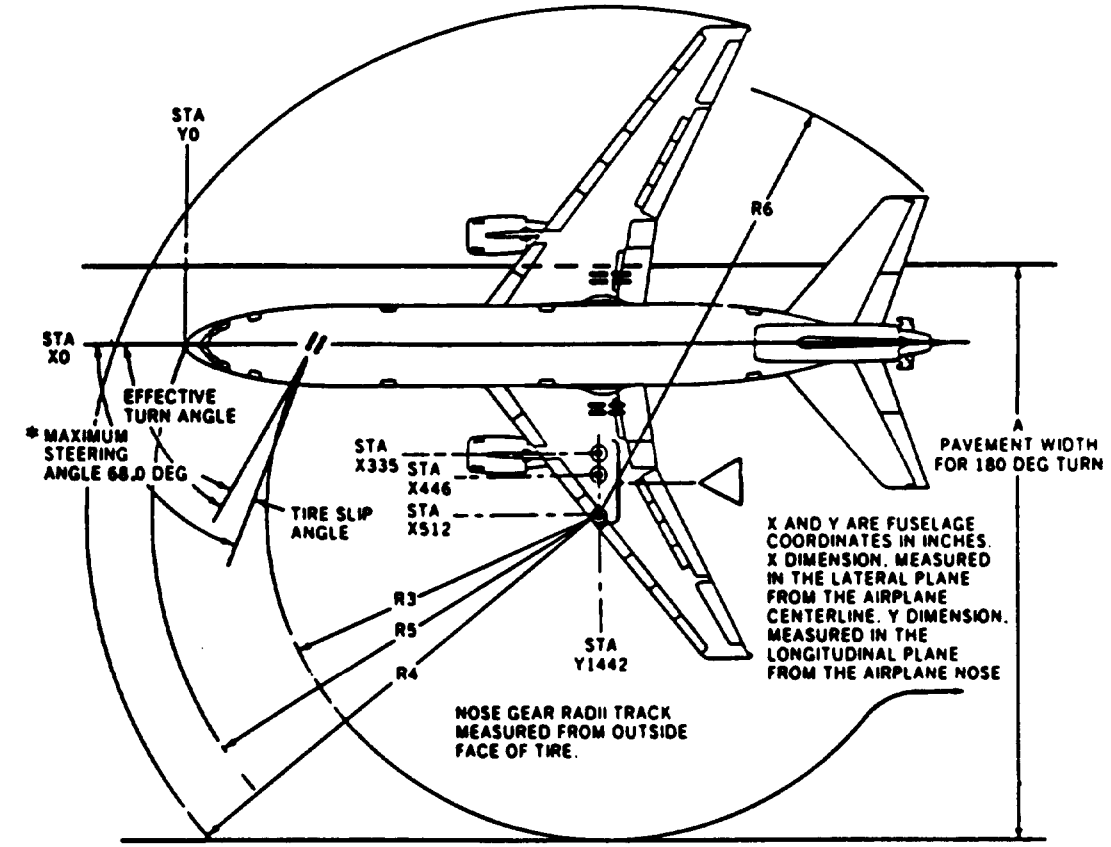
** = MAXIMUM STEERING ANGLE ON AIRCRAFT.

*** = HORIZONTAL STABILIZER TIP RADIUS EQUAL TO WING TIP RADIUS.

NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. TO ACHIEVE STEERING ANGLES GREATER THAN 60 DEGREES, THE NOSE WHEEL STEERING SCISSORS MUST BE DISCONNECTED.

Figure D–20. C-141B, Turning Radii – No Slip Angle



1 MAXIMUM STEERING:
SYMMETRICAL THRUST AND
NO DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAXIMUM GROSS WEIGHT

2 MAXIMUM STEERING:
UNSYMMETRICAL THRUST AND
LIGHT DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAXIMUM GROSS WEIGHT

3 MINIMUM RADIUS TURN RECOMMENDED
FOR NORMAL, ROUTINE OPERATIONS
LIMITED TO AVOID EXCESSIVE TIRE
WEAR AND REDUCTION OF LANDING
GEAR FATIGUE LIFE

TYPE OF TURN	EFFECTIVE TURN ANGLE* (DEGREES)	TIRE SLIP ANGLE* (DEGREES)	X INCHES	Y INCHES	A FEET	R3 FEET	R4 FEET	R5 FEET	R6 FEET
1	62.9	5.1	446	1,442	141.4	83.5	125.3	107.5	105.9
2	66.9	1.1	335	1,442	128.5	79.8	116.1	104.7	99.5
3	-	-	512	1,442	149.5	85.2	130.5	109.6	109.6

*ANGLE MEASURED RELATIVE TO GROUND

Figure D–21. KC–lOA, Minimum Taxiing Radii

X TURN RADIUS (FEET) 4	RADIUS (FEET)										Z 3 MINIMUM WIDTH FOR 180° TURN (FEET)	
	A WING TIP		B 3 NOSE GEAR		C 3 WING GEAR		D TAIL TIP		E NOSE			
	1	2	1	2	1	2	1	2	1	2	1	2
0	113	115	86	81	23	21	125	130	110	105	109	102
20	131	133	89	84	42	41	132	136	111	106	131	125
40	149	151	96	92	62	61	142	146	116	112	158	153
60	168	170	106	102	82	81	153	156	125	121	189	183
80	186	187	118	115	102	101	167	170	136	132	220	216
100	205	206	133	130	121	121	181	184	149	146	254	251
120	225	226	149	146	141	141	197	200	163	160	290	287
140	244	245	166	163	161	161	213	216	178	175	327	324
160	264	265	183	181	181	181	230	232	195	192	364	362

1 BODY GEAR STEERING INOPERATIVE

2 WITH BODY GEAR STEERING

3 MEASURED TO OUTSIDE TIRE FACES

4 WITH BODY GEAR OPERATING, TURN CENTER PASSES THROUGH WING LANDING GEAR. WITH BODY GEAR NOT OPERATING, TURN CENTER PASSES APPROXIMATELY HALFWAY BETWEEN WING GEAR AND BODY GEAR.

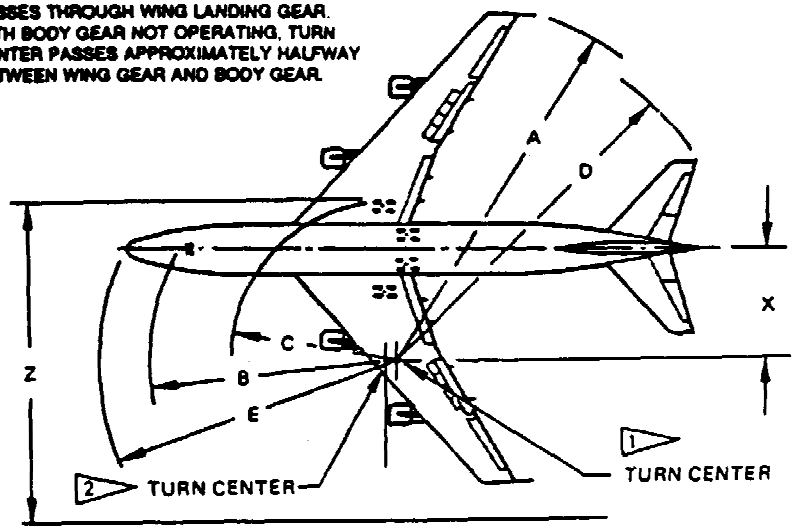
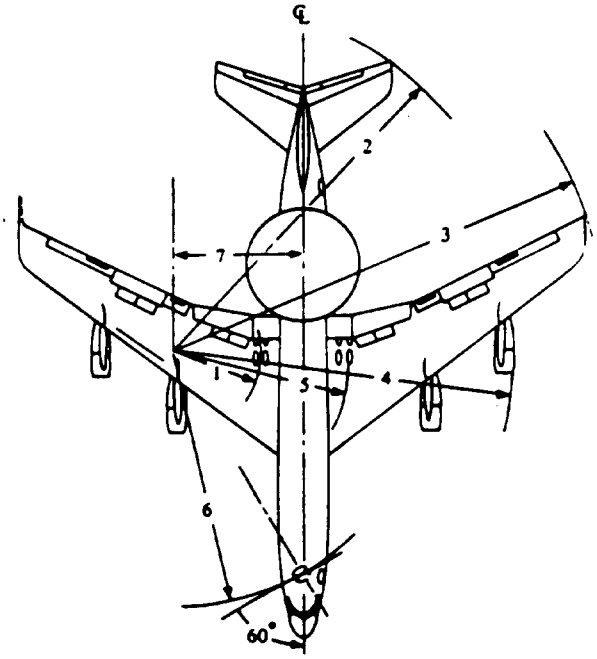


Figure D—22. VC-25A, Turning Radii



ALL DIMENSIONS ARE APPROXIMATE AND ARE BASED ON MAXIMUM STEERING ANGLE OF 60°.

1.	RH MAIN WHEEL	23 FEET
2.	STABILIZER TIP	96 FEET
3.	WING TIP (ANTENNA)	116 FEET
4.	JET ENGINE	89 FEET
5.	LH MAIN WHEEL	46 FEET
6.	NOSE WHEEL	68 FEET
7.	PIVOT POINT	34 FEET

NOTE: MINIMUM PAVEMENT WIDTH FOR 180° TURN - 120 FEET.

Figure D—23. E—3A/B/C, Minimum Turning Radii

X TURN RADIUS (FEET) [4]	RADIUS (FEET)										Z [3] MINIMUM WIDTH FOR 180° TURN (FEET)	
	A WING TIP		B [3] NOSE GEAR		C [3] WING GEAR		D TAIL TIP		E NOSE			
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
0	113	115	86	81	23	21	125	130	110	105	109	102
20	131	133	89	84	42	41	132	136	111	106	131	125
40	149	151	96	92	62	61	142	146	116	112	158	153
60	168	170	106	102	82	81	153	156	125	121	188	183
80	186	187	118	115	102	101	167	170	136	132	220	216
100	205	206	133	130	121	121	181	184	149	146	254	251
120	225	226	149	146	141	141	197	200	163	160	290	287
140	244	245	166	163	161	161	213	216	178	175	327	324
160	264	265	183	181	181	181	230	232	195	192	364	362

[1] BODY GEAR STEERING INOPERATIVE

[2] WITH BODY GEAR STEERING

[3] MEASURED TO OUTSIDE TIRE FACES

[4] WITH BODY GEAR OPERATING, TURN CENTER PASSES THROUGH WING LANDING GEAR. WITH BODY GEAR NOT OPERATING, TURN CENTER PASSES APPROXIMATELY HALFWAY BETWEEN WING GEAR AND BODY GEAR.

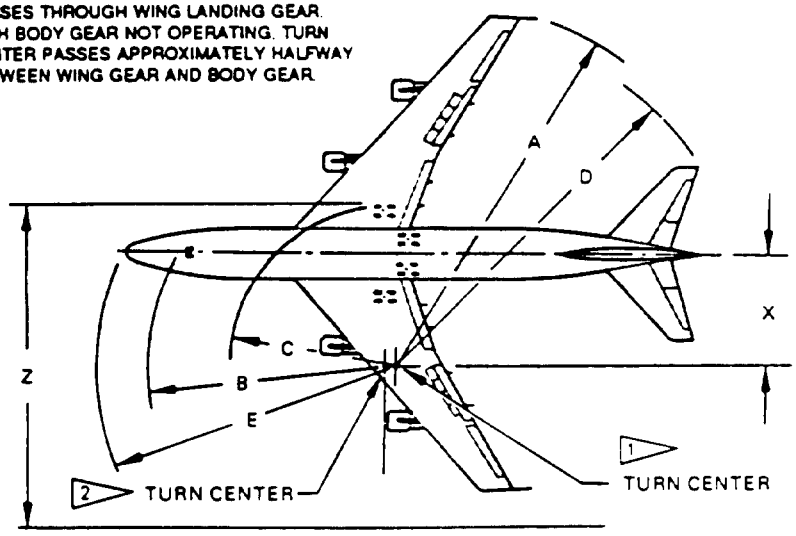
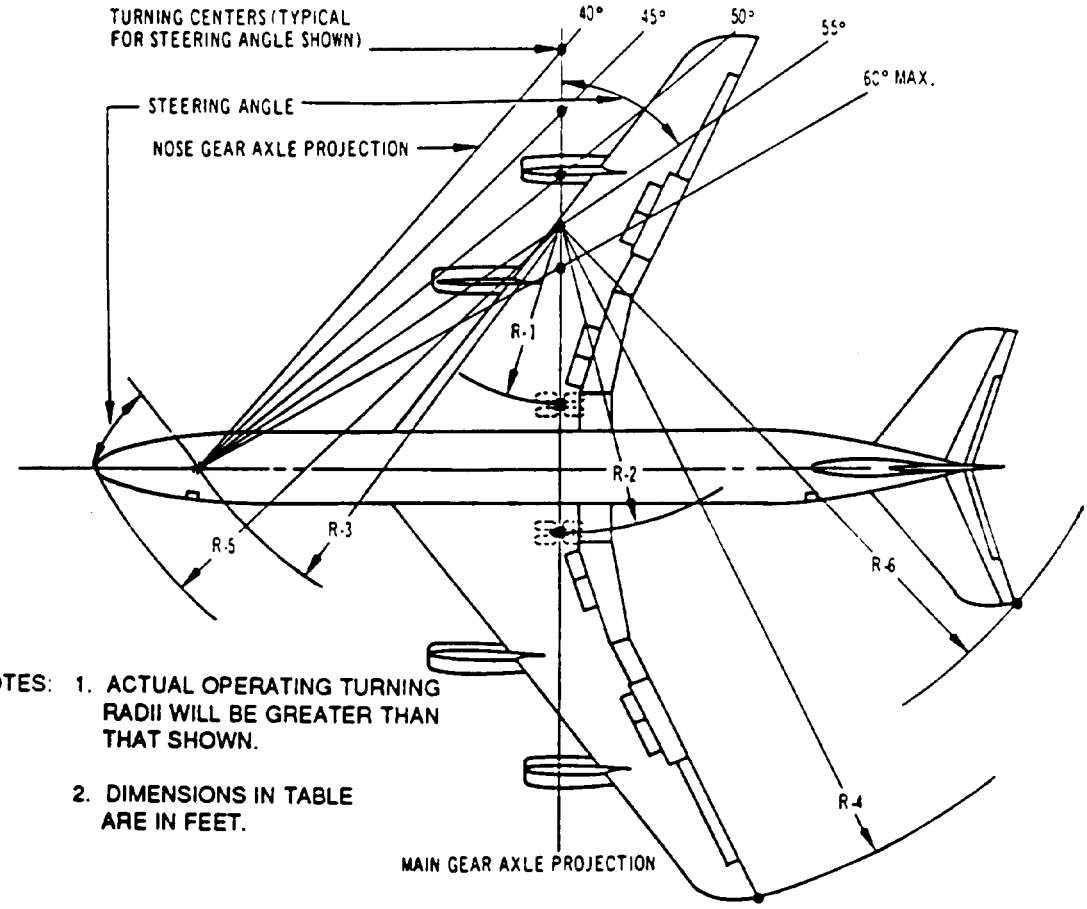


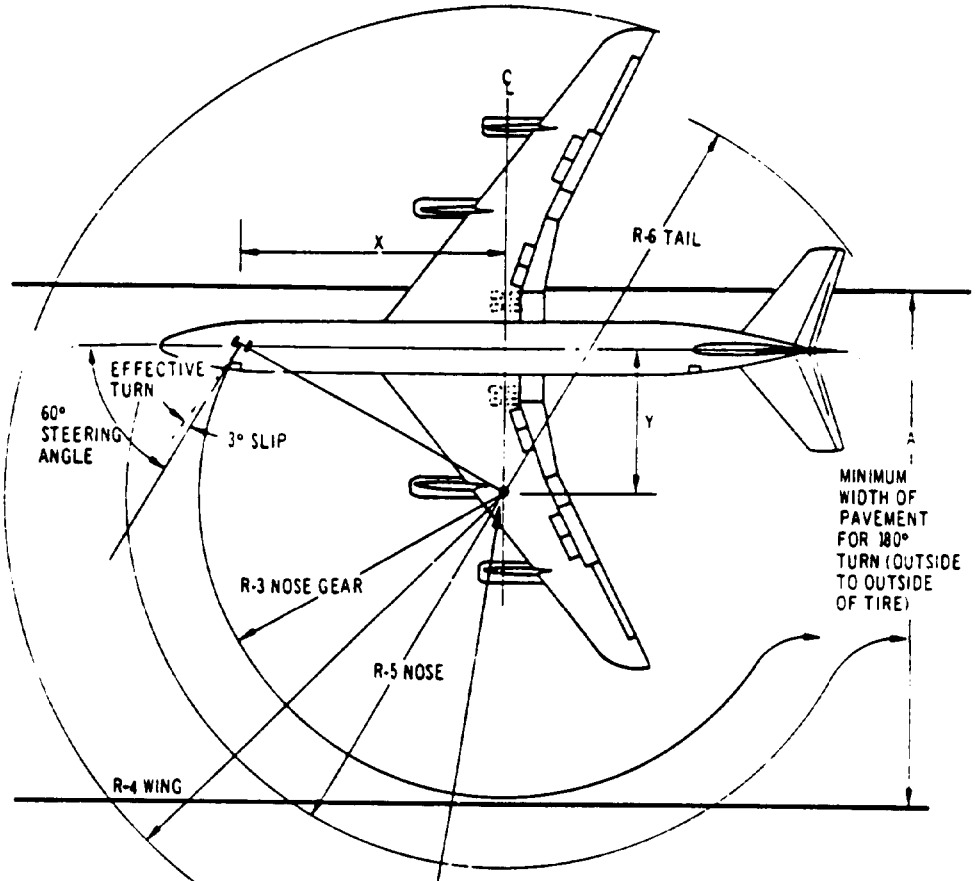
Figure D—24. E—4A/B, Turning Radii



NOTES:
1. ACTUAL OPERATING TURNING RADII WILL BE GREATER THAN THAT SHOWN.
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	91	113	118	178	127	147
35	74	96	103	161	114	132
40	60	82	92	147	104	121
45	48	70	84	136	97	112
50	39	61	77	127	91	106
55	30	52	71	119	87	100
60 (MAXIMUM)	23	45	68	112	84	96

Figure D—25. EC-18B, Turning Radii - No Slip Angle

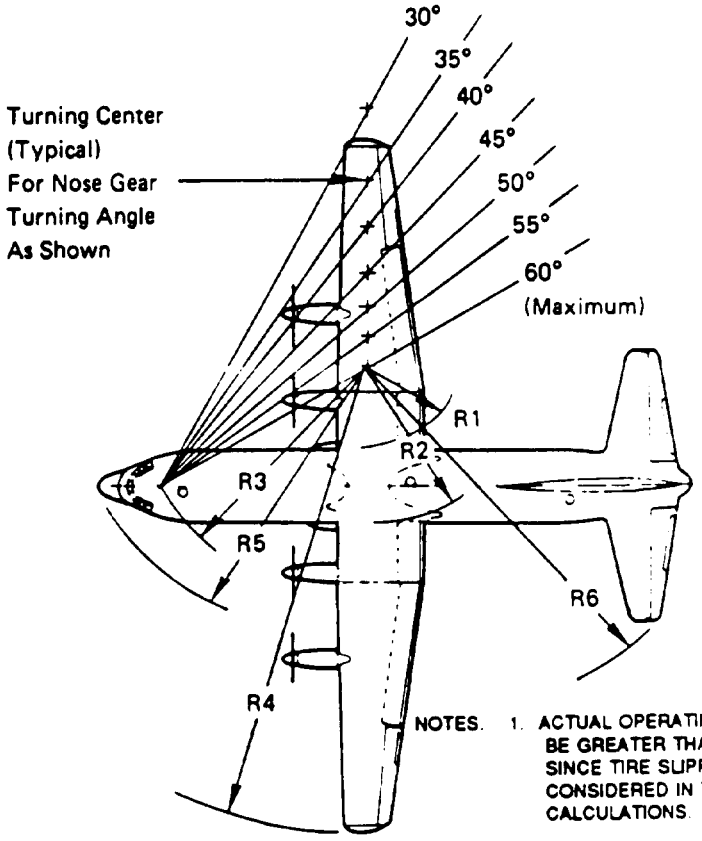


NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 60° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

FOR AN EFFECTIVE TURN ANGLE OF 57°						
X	Y	A	R-3	R-4	R-5	R-6
59.0	38.3	123.4	70.5	116.0	85.5	98.0

Figure D—26. EC—18B, Minimum Turning Radii — 3° Slip Angle



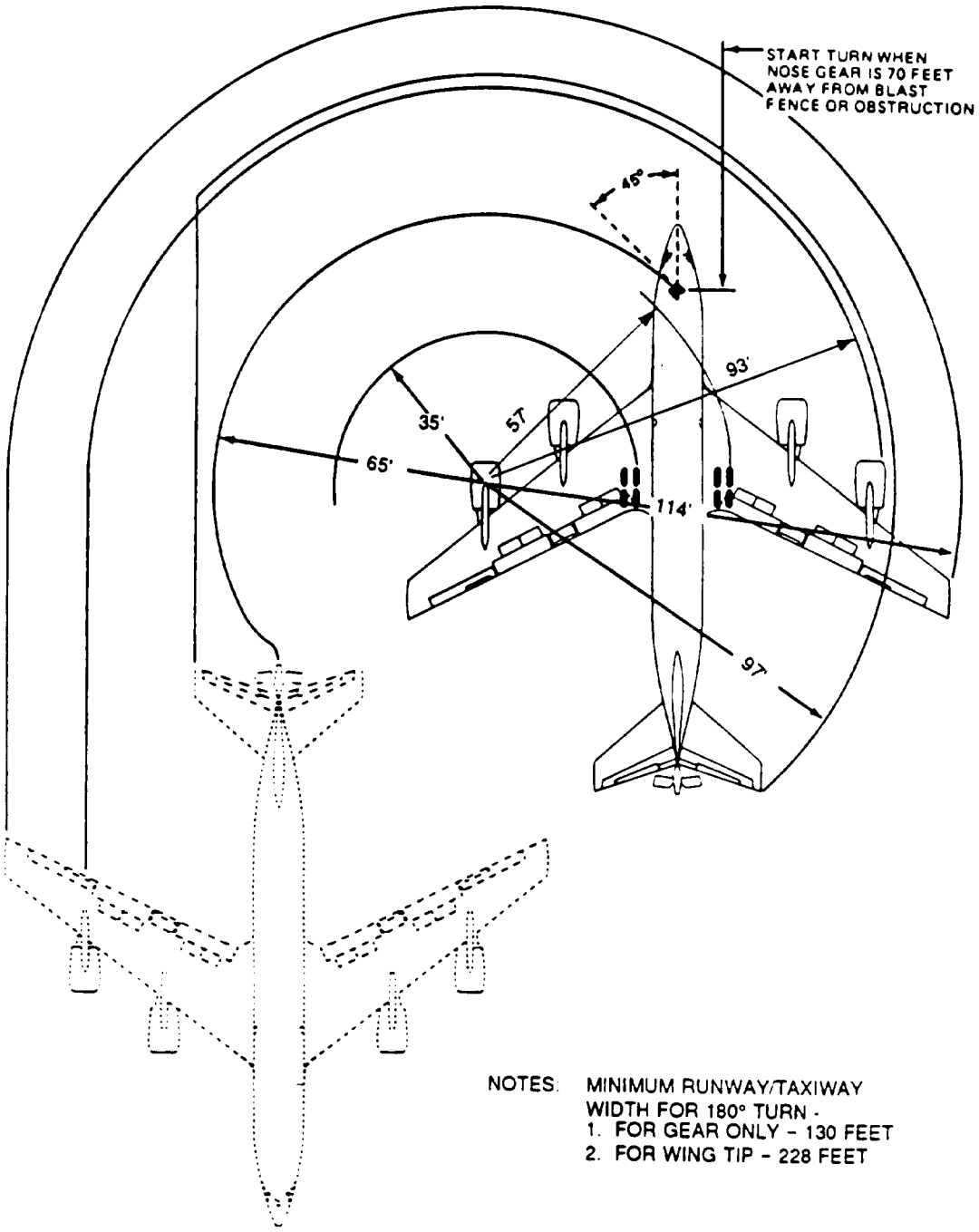
NOTES.
1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET

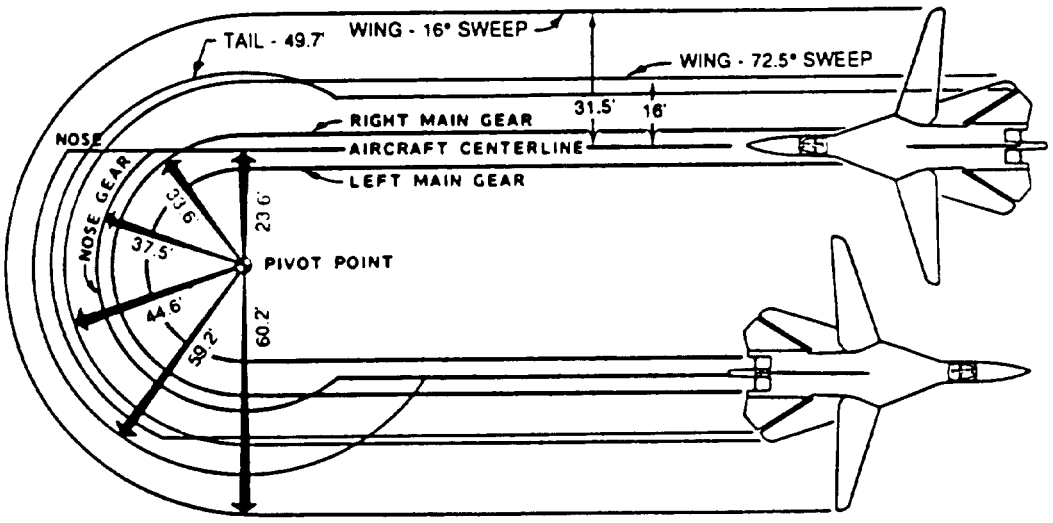
STEERING ANGLE (DEGREES)	W*	R1	R2	R3	R4	R5	R6
	PVT. WIDTH	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	158	63	77	81	136	88	111
35	136	51	65	71	124	78	100
40	108	41	56	63	114	71	92
45	105	33	48	57	107	66	86
50	94	27	41	53	101	62	81
55	85	21	35	50	95	59	77
60 (MAXIMUM)	77	16	30	47	90	57	74

*W = MINIMUM PAVEMENT WIDTH FOR 180° TURN

Figure D–27. EC-130E/H, MC-130E/H, and WC-130E/H, Turning Radii – No Tire Slippage

Figure D-28. EC-135A/C/E/G/H/J/K/L/P/Y, RC-135M/S/U/V/W, and WC—135B, Minimum Turning Radii

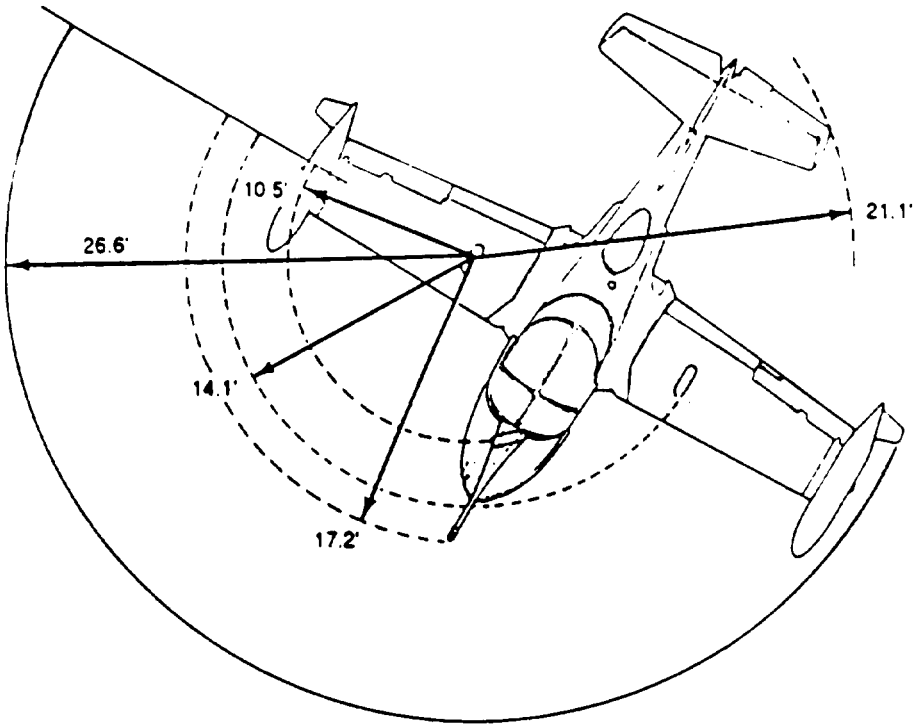




NOTES: 1. PIVOT POINT BASED ON 40 DEGREES NOSE WHEEL STEERING.

2. TURNING DISTANCES ARE BASED ON MINIMUM TAXI SPEED OF 5 KNOTS.

Figure D–29. EF-111A, Minimum Taxi Turn Radii



NOTE. TURNING RADII ARE DETERMINED WITH USE OF NOSEWHEEL STEERING AND BRAKES.

Figure D—30. OA-37B, Minimum Turning Radii

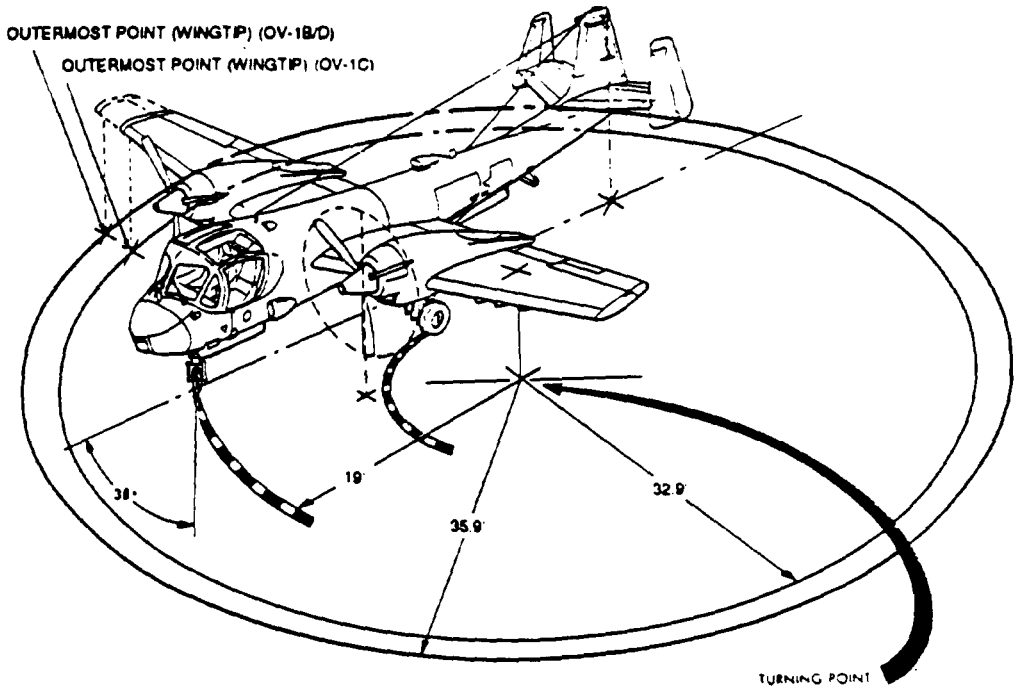
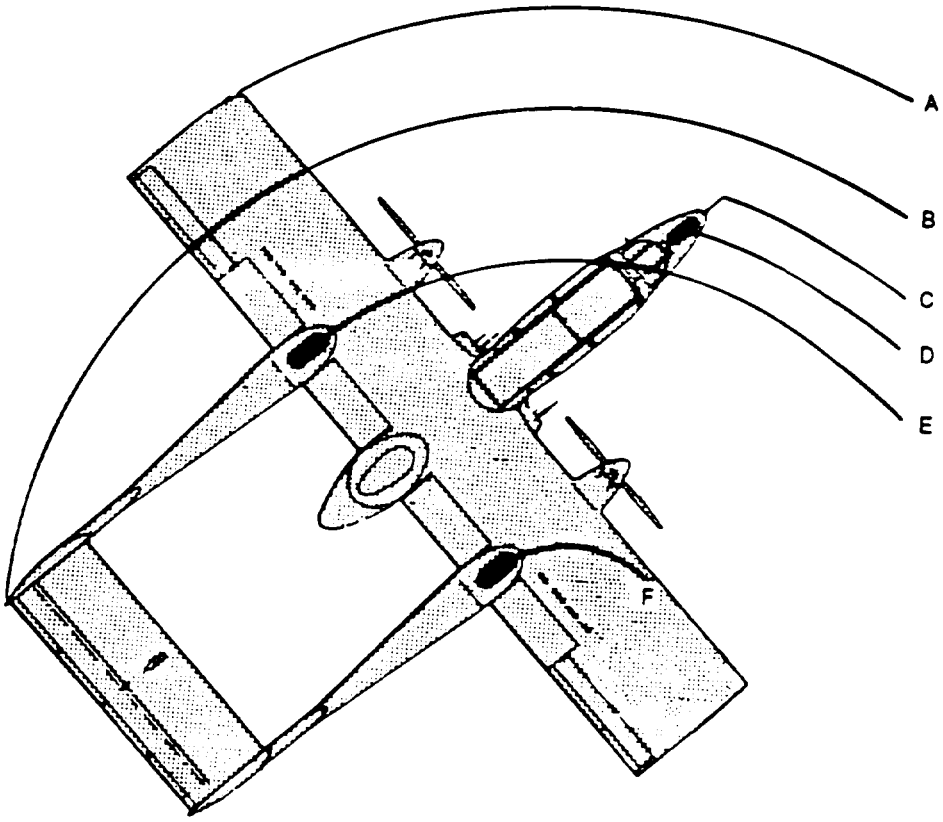


Figure D—31. OV-1B/G/D, Minimum Taxi Turn Radii



NOTE: TURN RADII BASED ON SPEED OF 3 KNOTS
A - WING TIP - 33.2 FEET
B - VERTICAL STABILIZER - 28.6 FEET
C - PITOT BOOM - 25.8 FEET
D - NOSE WHEEL - 22.7 FEET
E - LEFT MAIN WHEEL - 20.6 FEET
F - RIGHT MAIN WHEEL - 5.6 FEET

Figure D—32. OV—lOA, Minimum Taxi Turn Radii

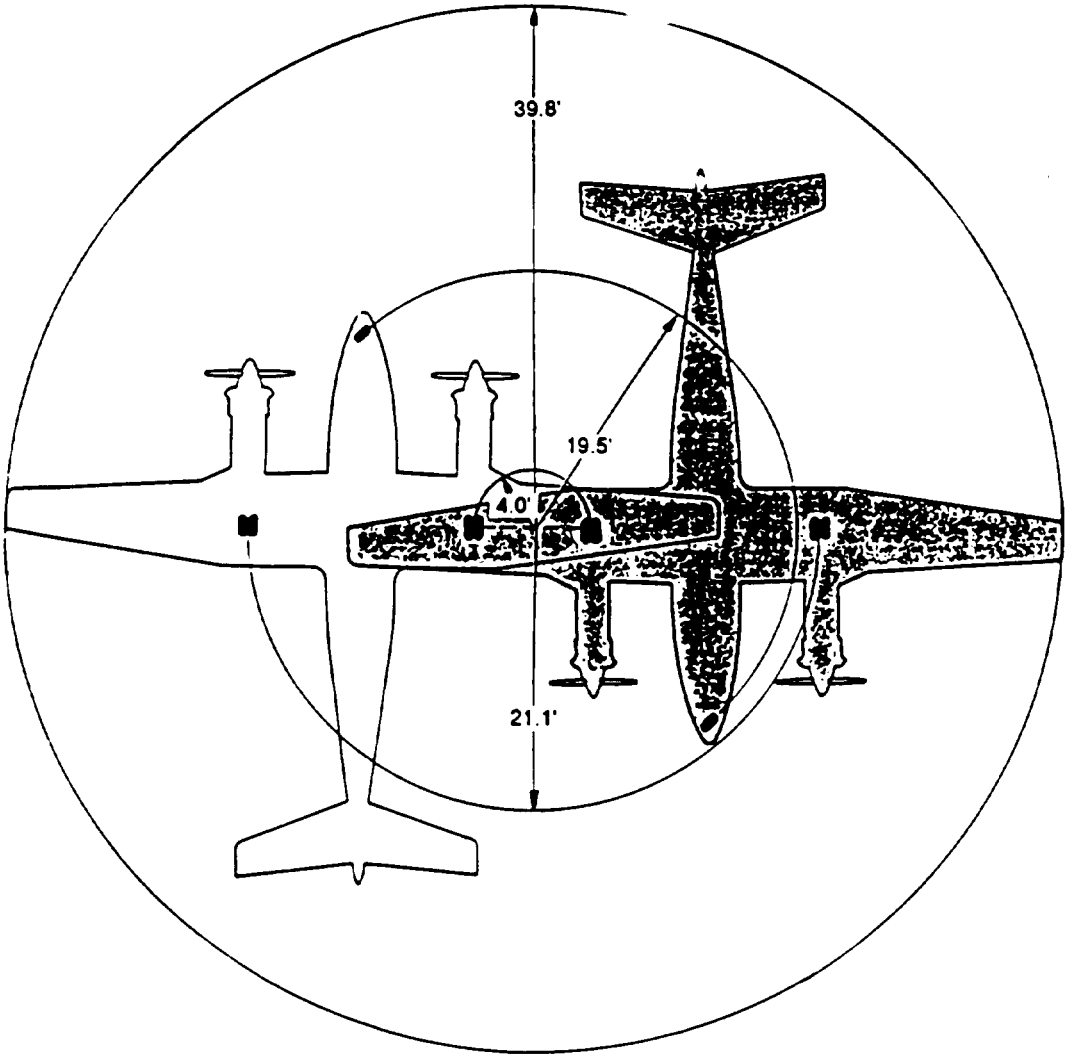


Figure D—33. RC-12D/G/H/K and U-21J, Turning Radii

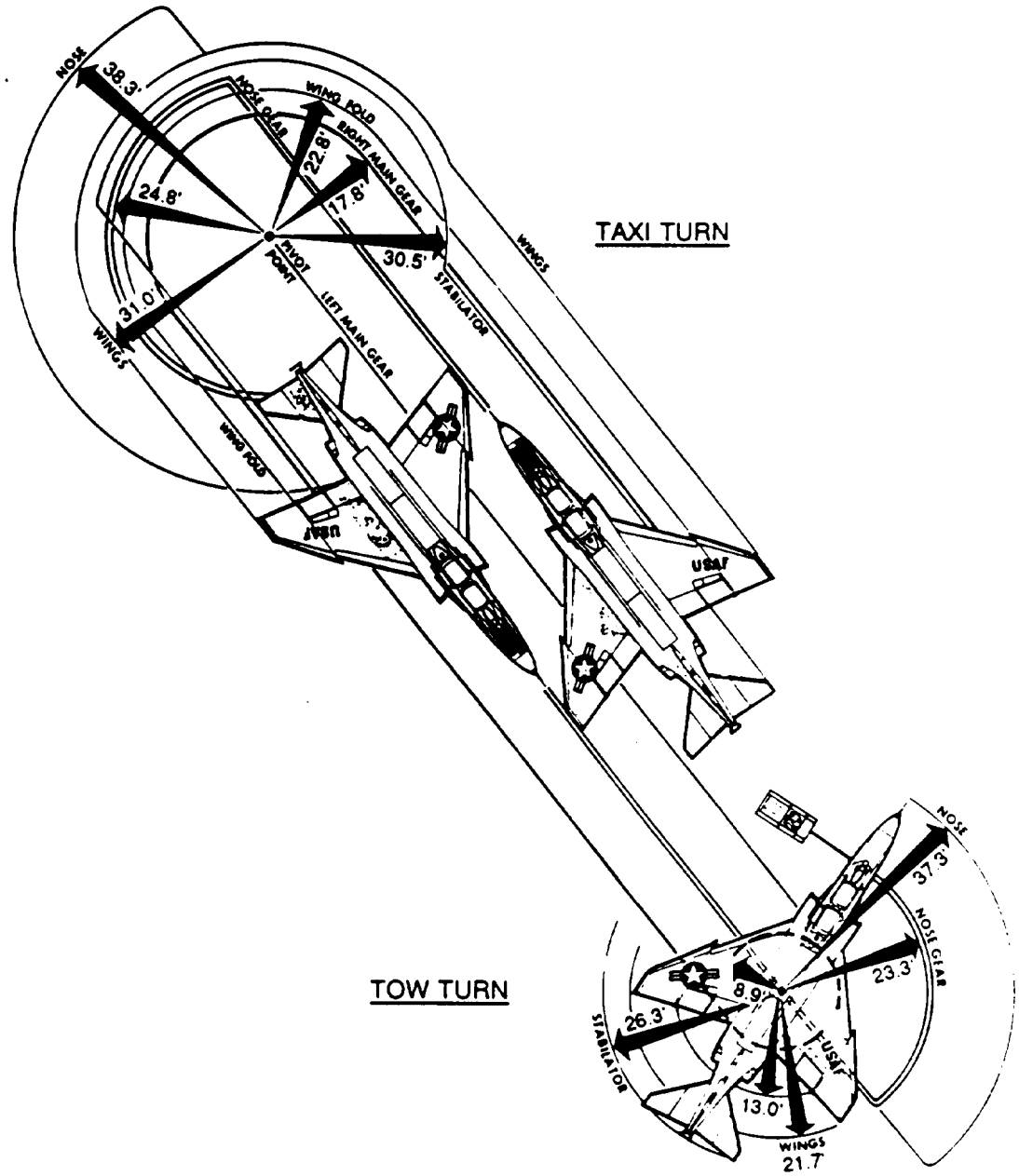
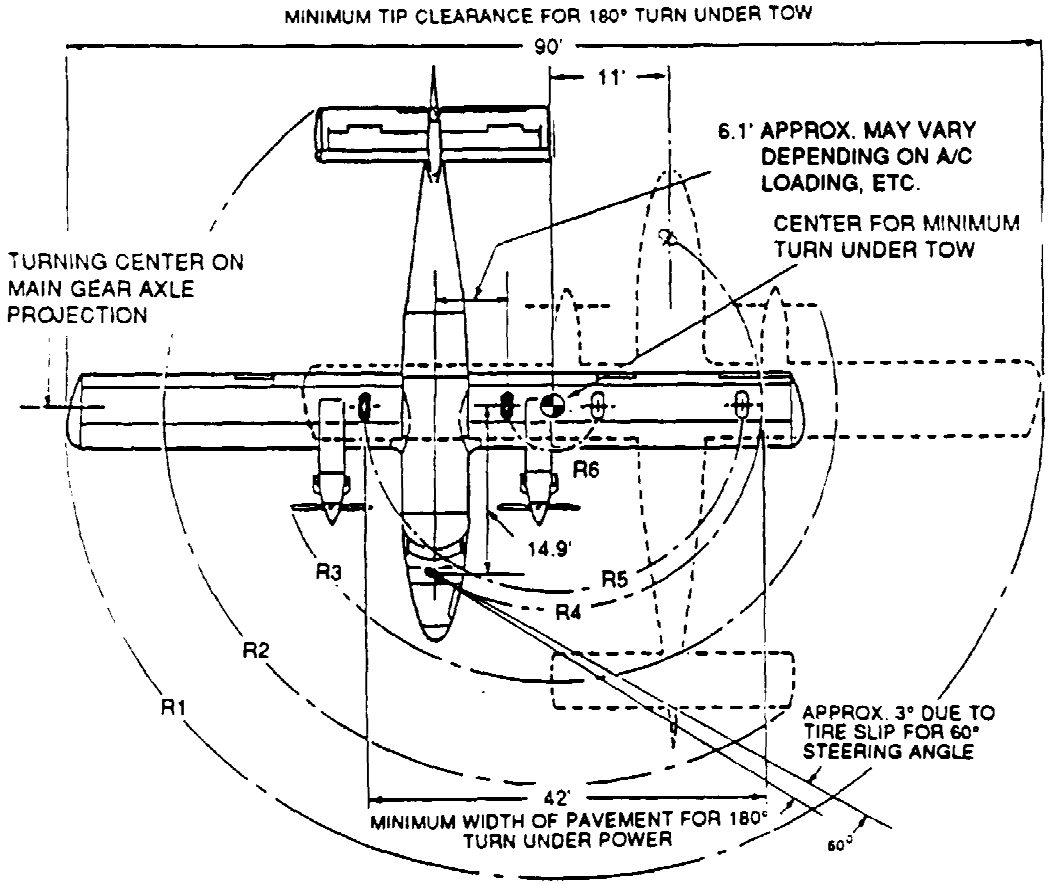


Figure D—34. RF-4C, Taxi and Tow Turn Radii



AIRCRAFT COMPONENT	TURNING RADII UNDER TOW, FEET (PIN REMOVED)	TURNING RADII UNDER POWER, FEET (NOSE WHEEL STEERING)
R1 WING TIP	45	48
R2 ELEVATOR TIP	36	39
R3 PROPELLER TIP	26	29
R4 NOSE WHEEL	19	22
R5 OUTER WHEEL	17	20
R6 INNER WHEEL	4	7

Figure D—35. UV-18, Minimum Turning Radii

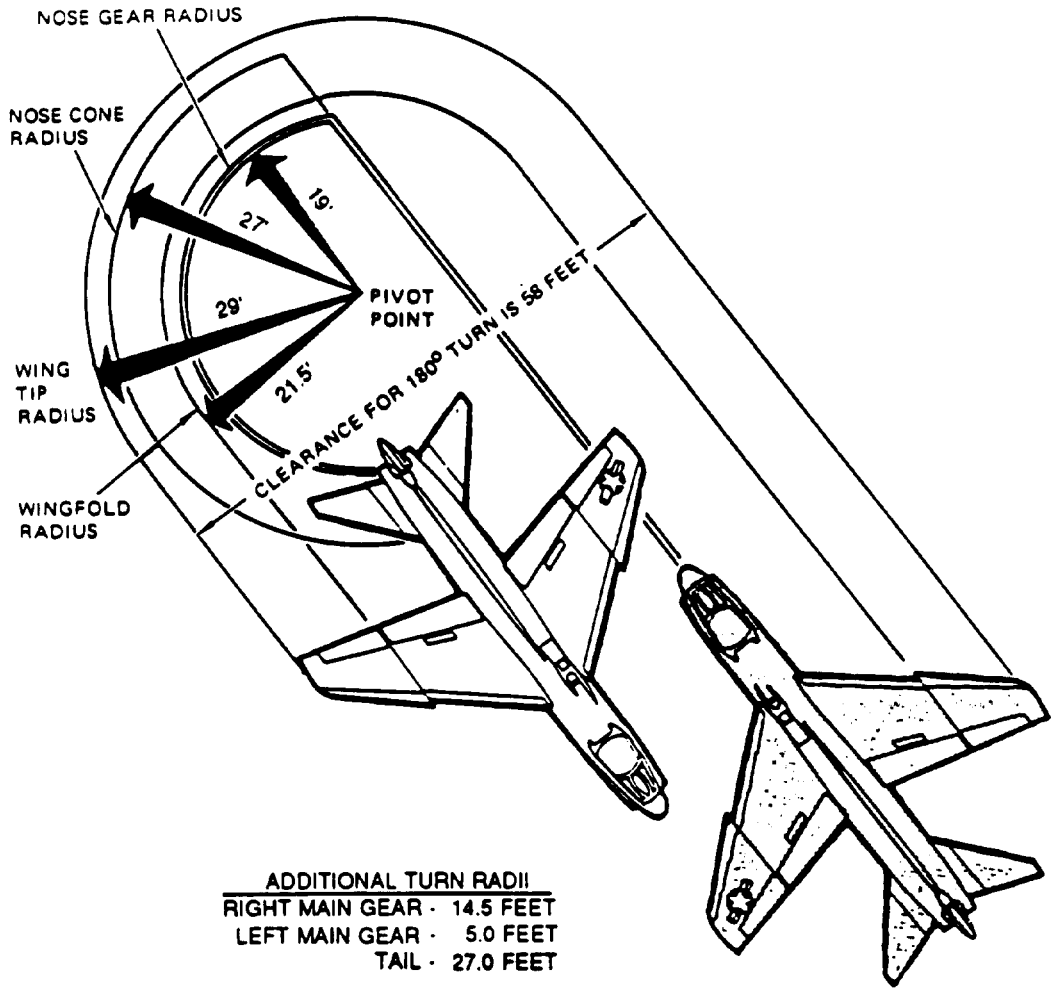


Figure D—36. A—7D/K, Minimum Taxi Turn Radii

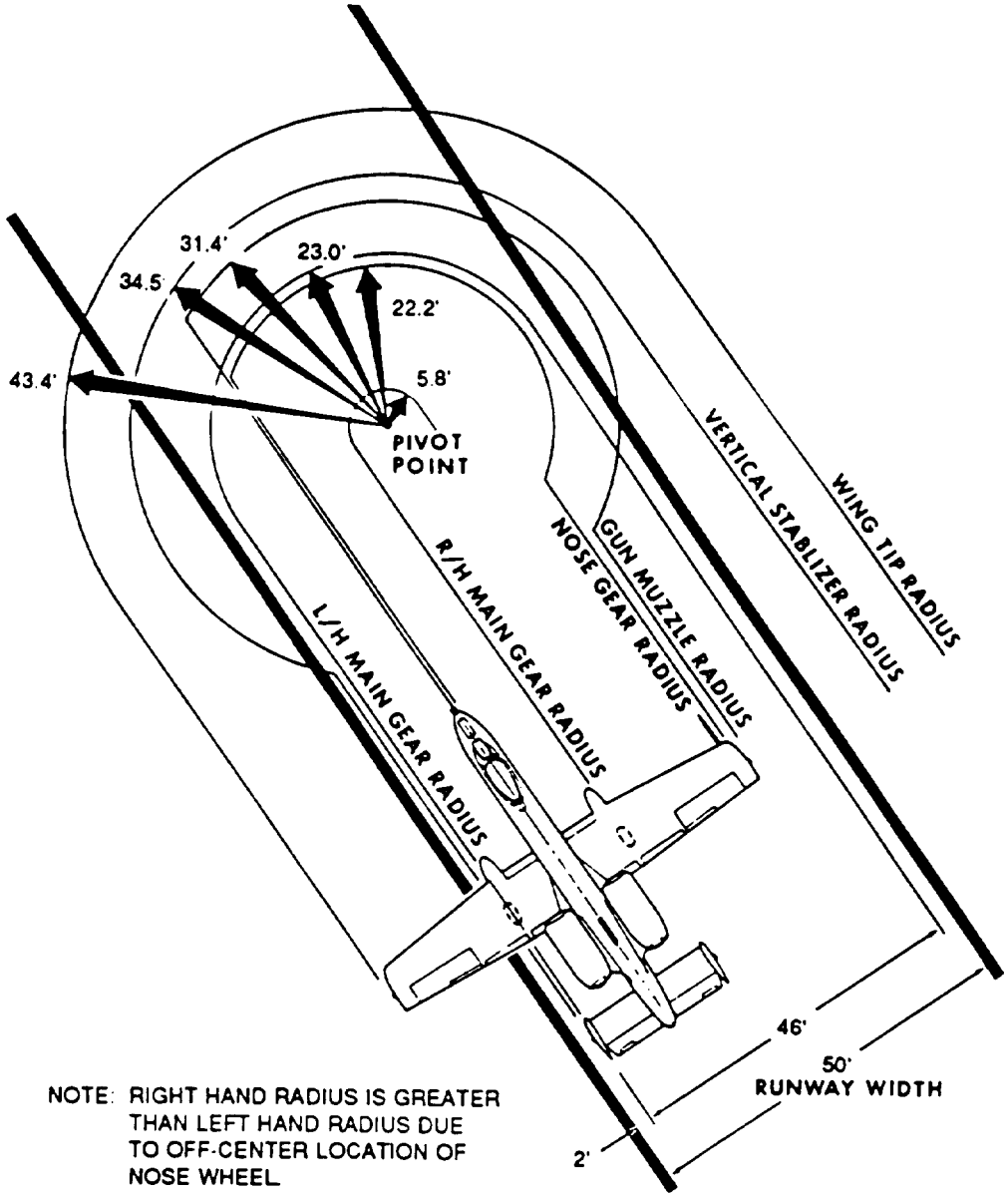
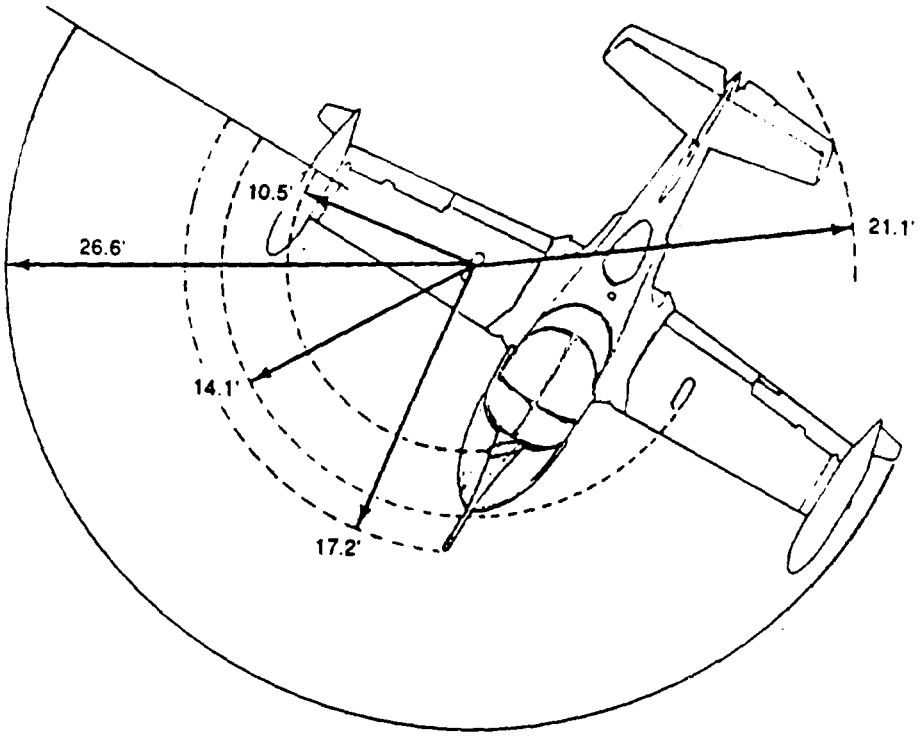
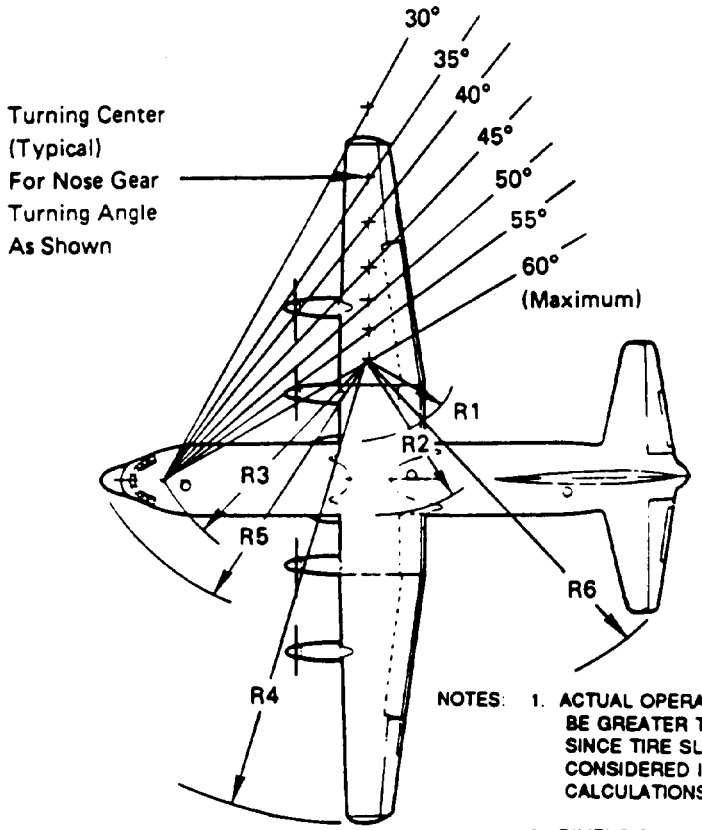


Figure D—37. A—lOA, Minimum Taxi Turn Radii



NOTE: TURNING RADII ARE DETERMINED WITH USE OF NOSEWHEEL STEERING AND BRAKES.

Figure D—38. A—37B, Minimum Turning Radii



NOTES:
1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	W*	R1	R2	R3	R4	R5	R6
	PVT. WIDTH	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	158	63	77	81	136	88	111
35	135	51	65	71	124	78	100
40	108	41	56	63	114	71	92
45	105	33	48	57	107	66	86
50	94	27	41	53	101	62	81
55	85	21	35	50	95	59	77
60 (MAXIMUM)	77	16	30	47	90	57	74

*W = MINIMUM PAVEMENT WIDTH FOR 180° TURN.

Figure D—39. AC—130A/H/U, Turning Radii - No Tire Slippage

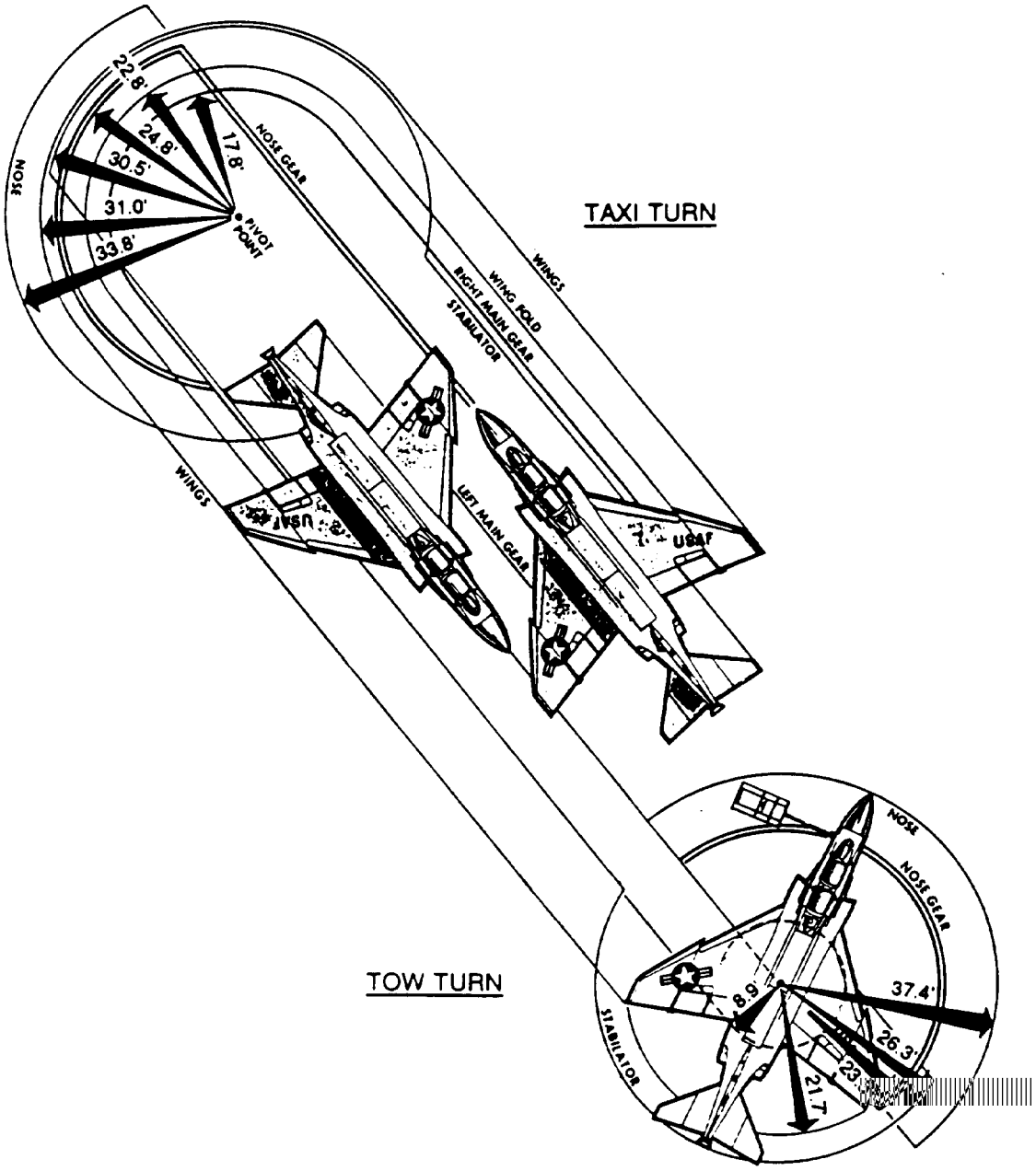


Figure D—40. F—4C, Taxi and Tow Turn Radii

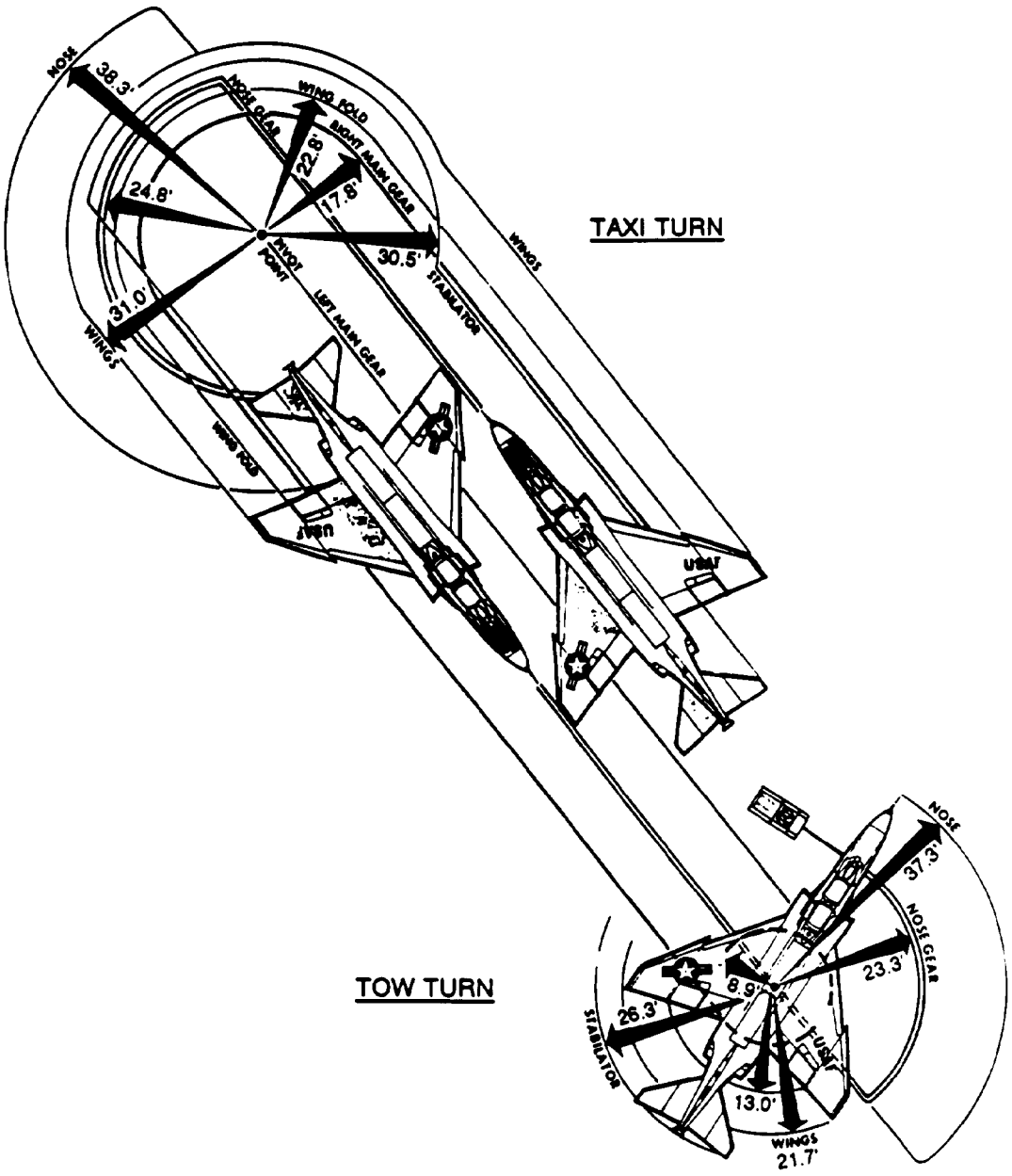
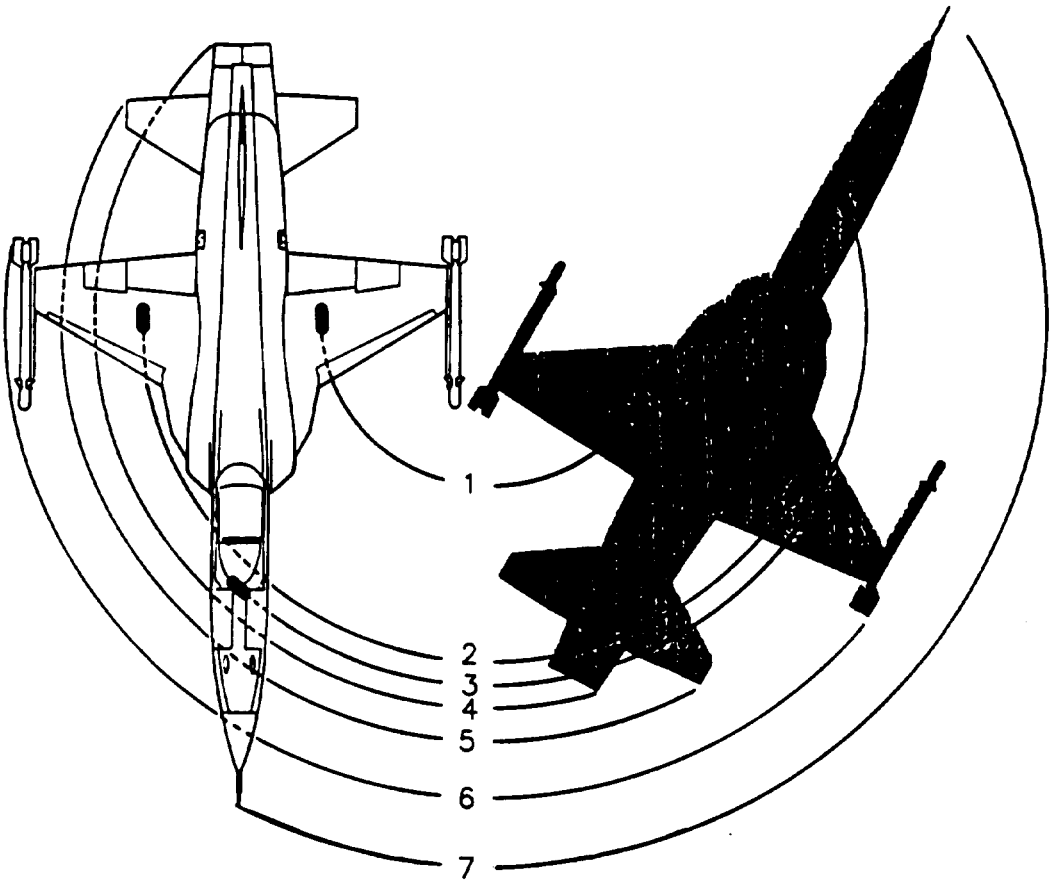


Figure D—41. F-4D/E/G, Taxi and Tow Turn Radii



AIRCRAFT COMPONENT	TURNING RADIUS, FEET	
	F-5E	F-5F
1. LEFT MAIN GEAR	13.7	18.6
2. RIGHT MAIN GEAR	26.4	31.8
3. NOSE GEAR	26.8	31.9
4. TAILPIPE	27.8	32.8
5. HORIZONTAL TAIL	30.6	34.3
6. MISSILE FIN	34.5	39.4
7. NOSE BOOM	36.9	42.7

Figure D—42. F—5E/F, Minimum Turning Radii

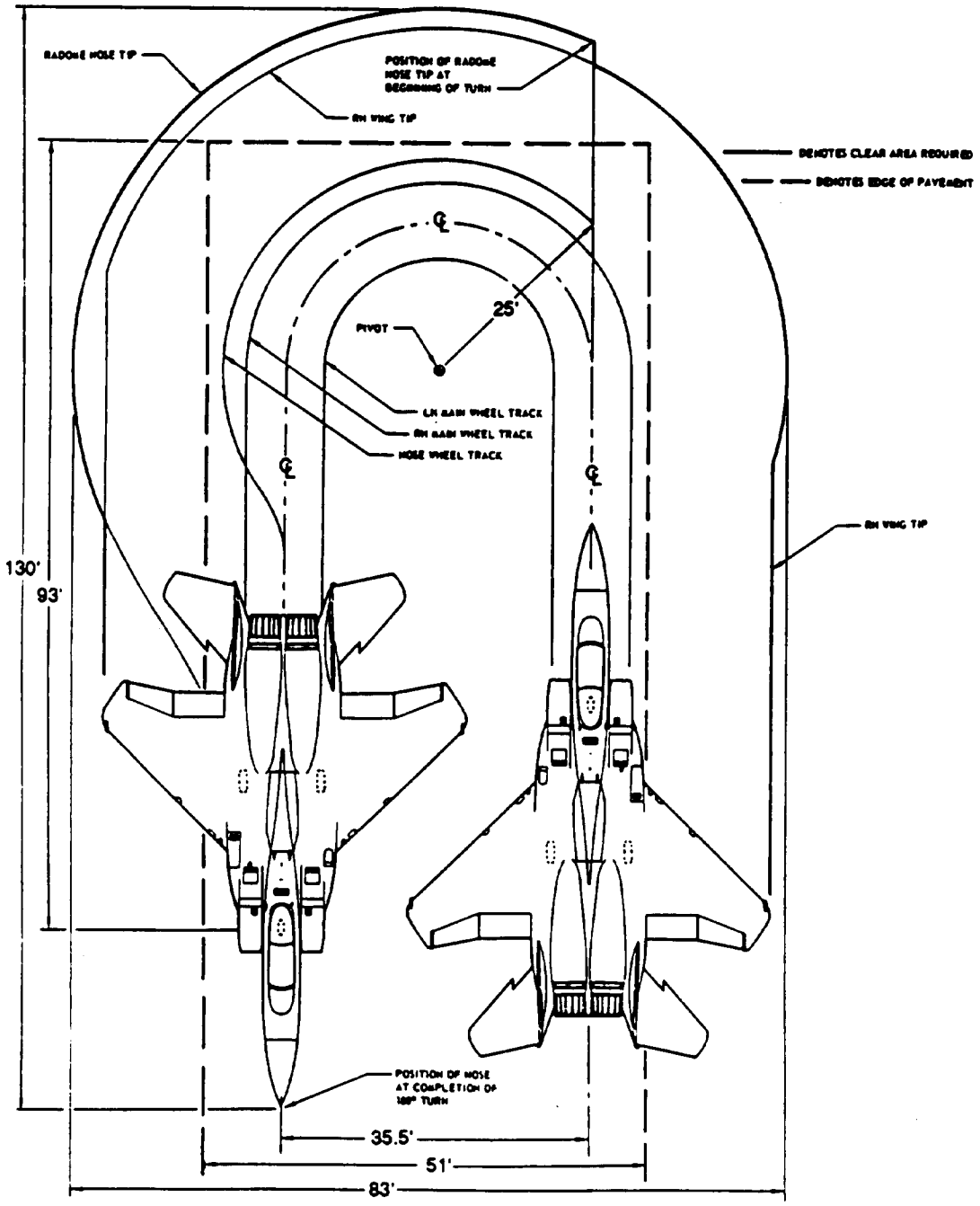
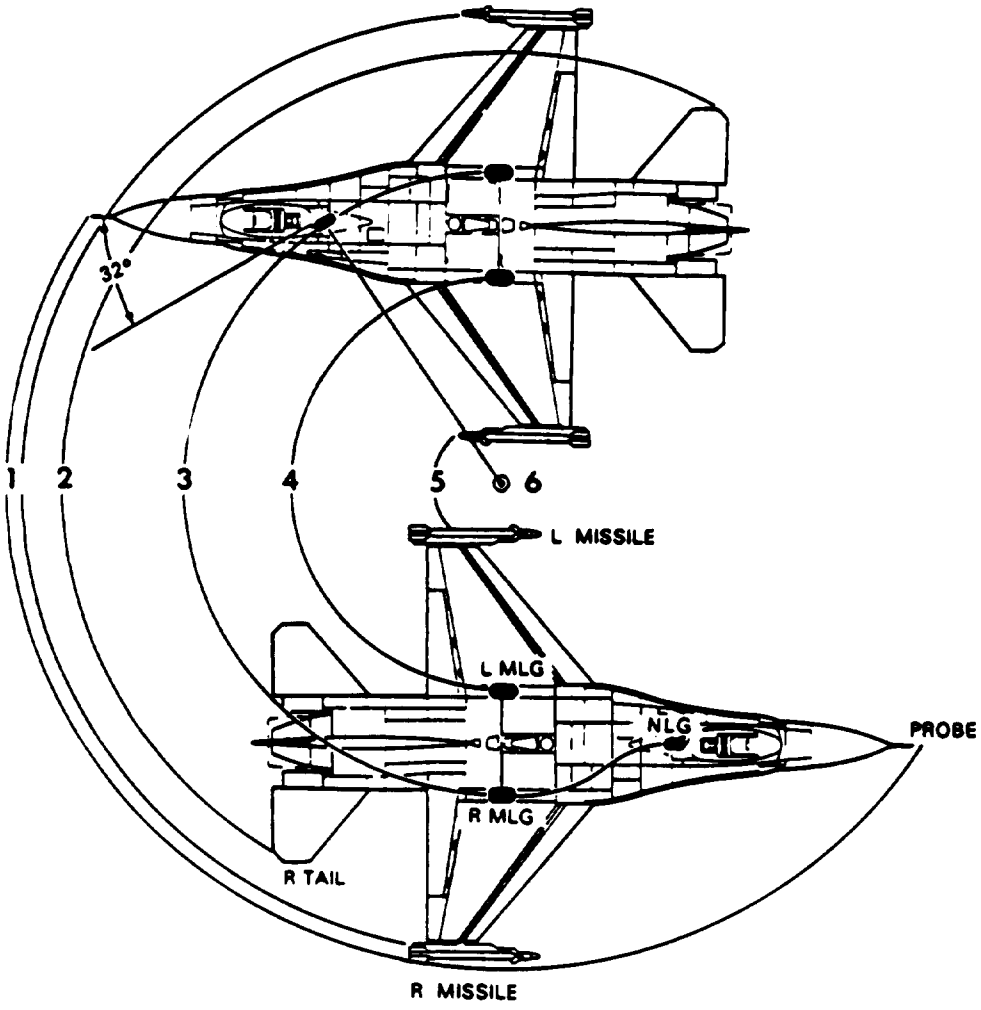


Figure D—43. F—15A/B/C/D/E, Taxi Turning Radii



NOTE: TURN RADIUS CAN BE REDUCED TO 38 FEET BY USING INSIDE BRAKE.

1. 39 FEET
2. 35 FEET
3. 25 FEET
4. 18 FEET
5. 6 FEET
6. PIVOT POINT

Figure D-44. F—16A/B/C/D, Minimum Turning Radii

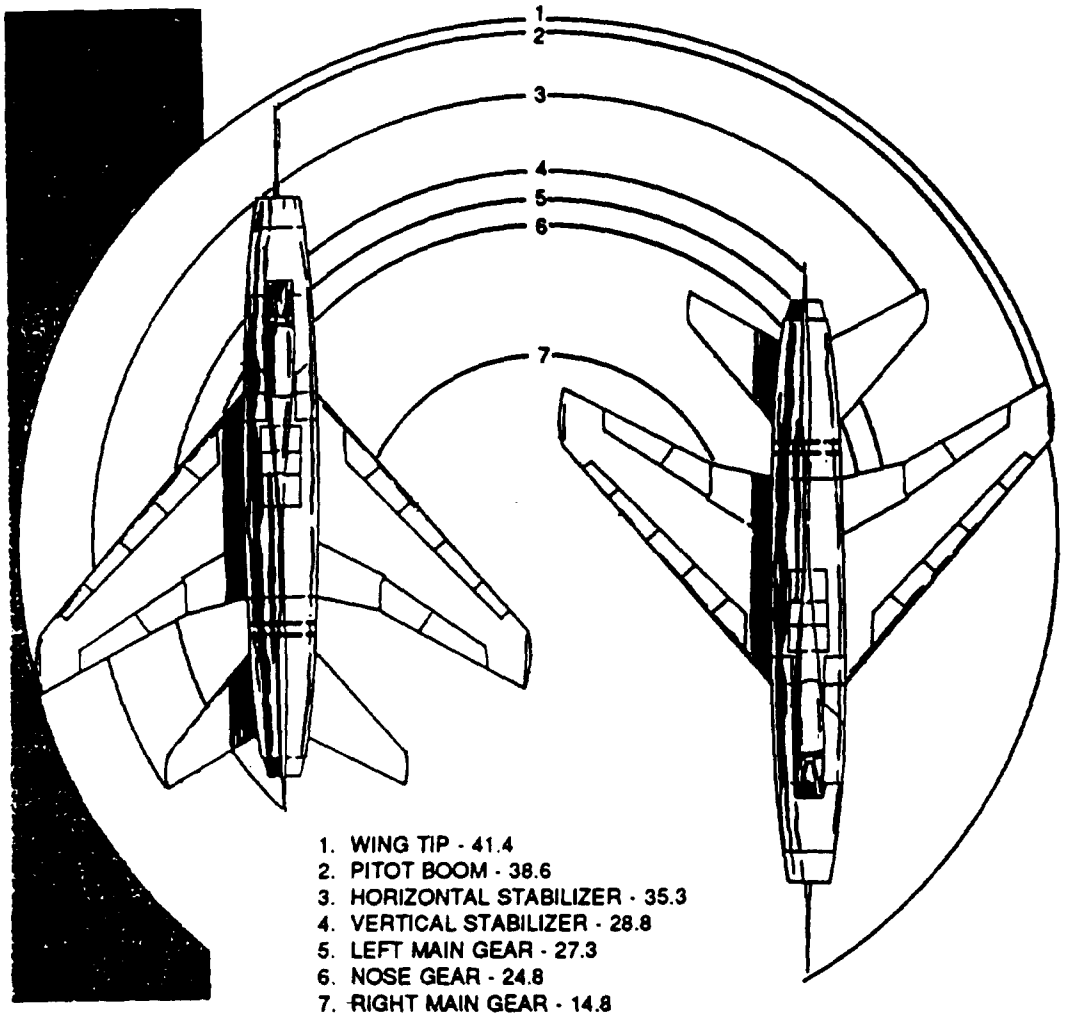


Figure D-45. F—100, Minimum Turning Radii

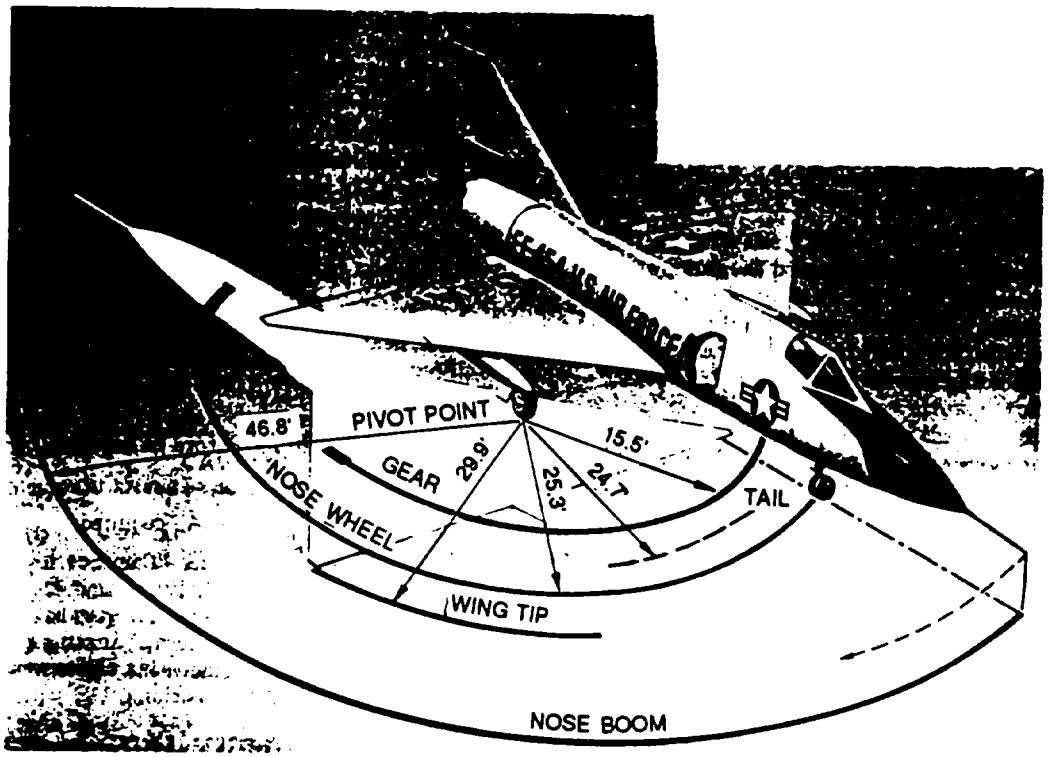
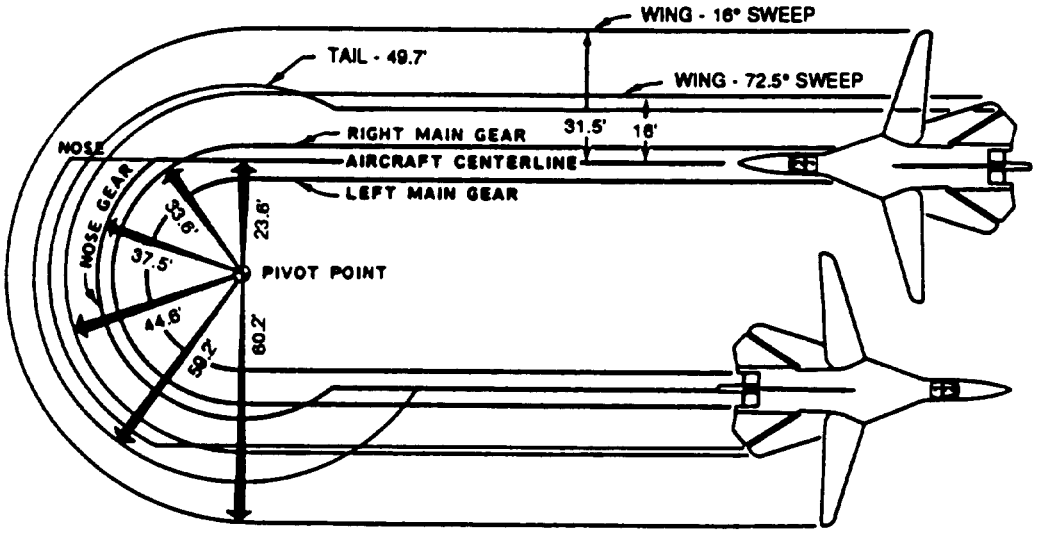


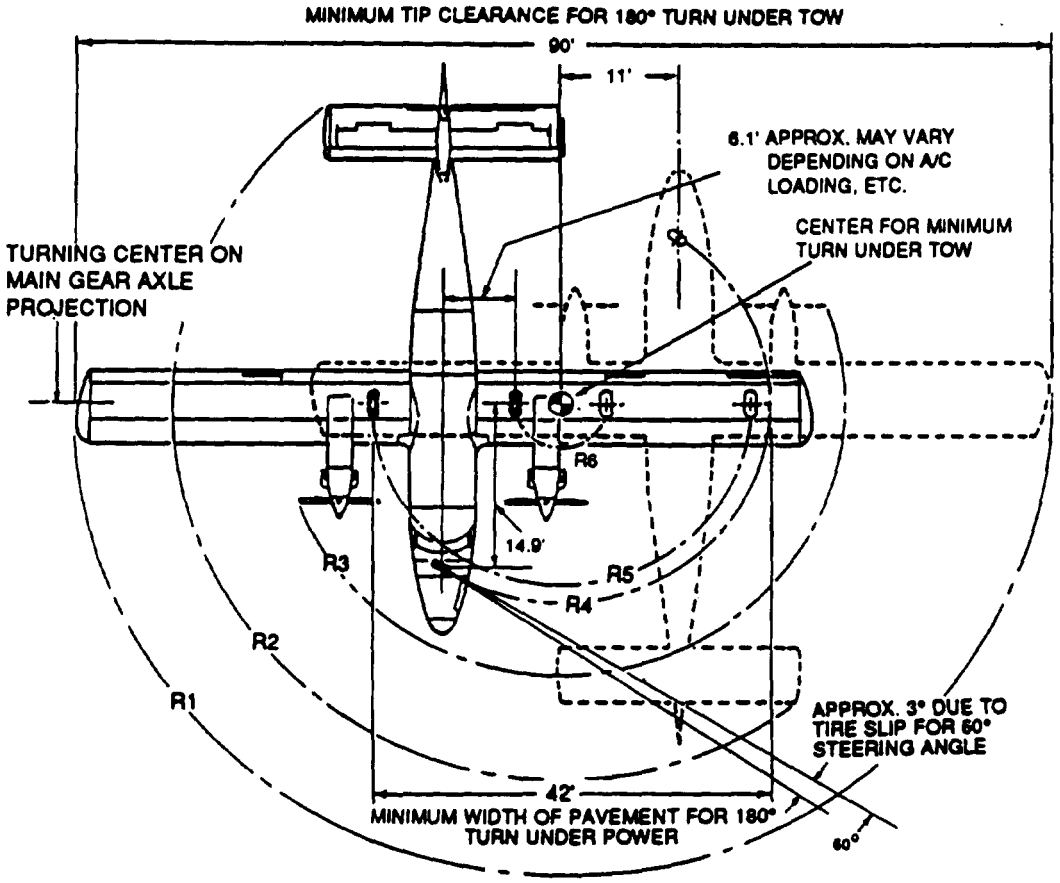
Figure D—46. F-106A/B, Minimum Turning Radii



NOTES: 1. PIVOT POINT BASED ON 40 DEGREES NOSE WHEEL STEERING.

2. TURNING DISTANCES ARE BASED ON MINIMUM TAXI SPEED OF 5 KNOTS.

Figure D—47. F-111A/D/E/F, Minimum Taxi Turn Radii



AIRCRAFT COMPONENT	TURNING RADII UNDER TOW, FEET (PIN REMOVED)	TURNING RADII UNDER POWER , FEET (NOSE WHEEL STEERING)
R1 WING TIP	45	48
R2 ELEVATOR TIP	36	39
R3 PROPELLER TIP	26	29
R4 NOSE WHEEL	19	22
R5 OUTER WHEEL	17	20
R6 INNER WHEEL	4	7

Figure D-48. DeHavilland Canada DHC-6,
Minimum Turning Radii

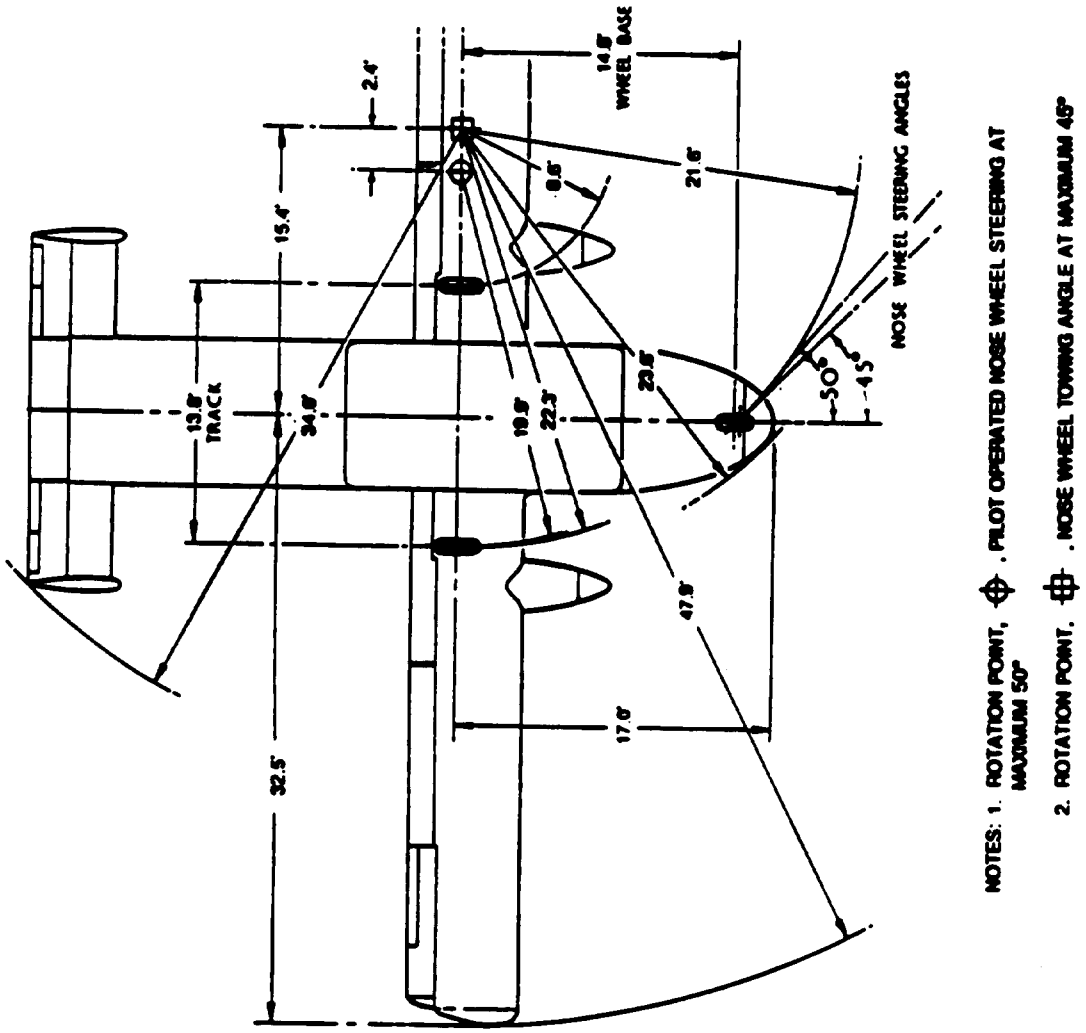


Figure D—49. Short Brothers SC.7 and SC.7-3M,
Minimum Turning Radii

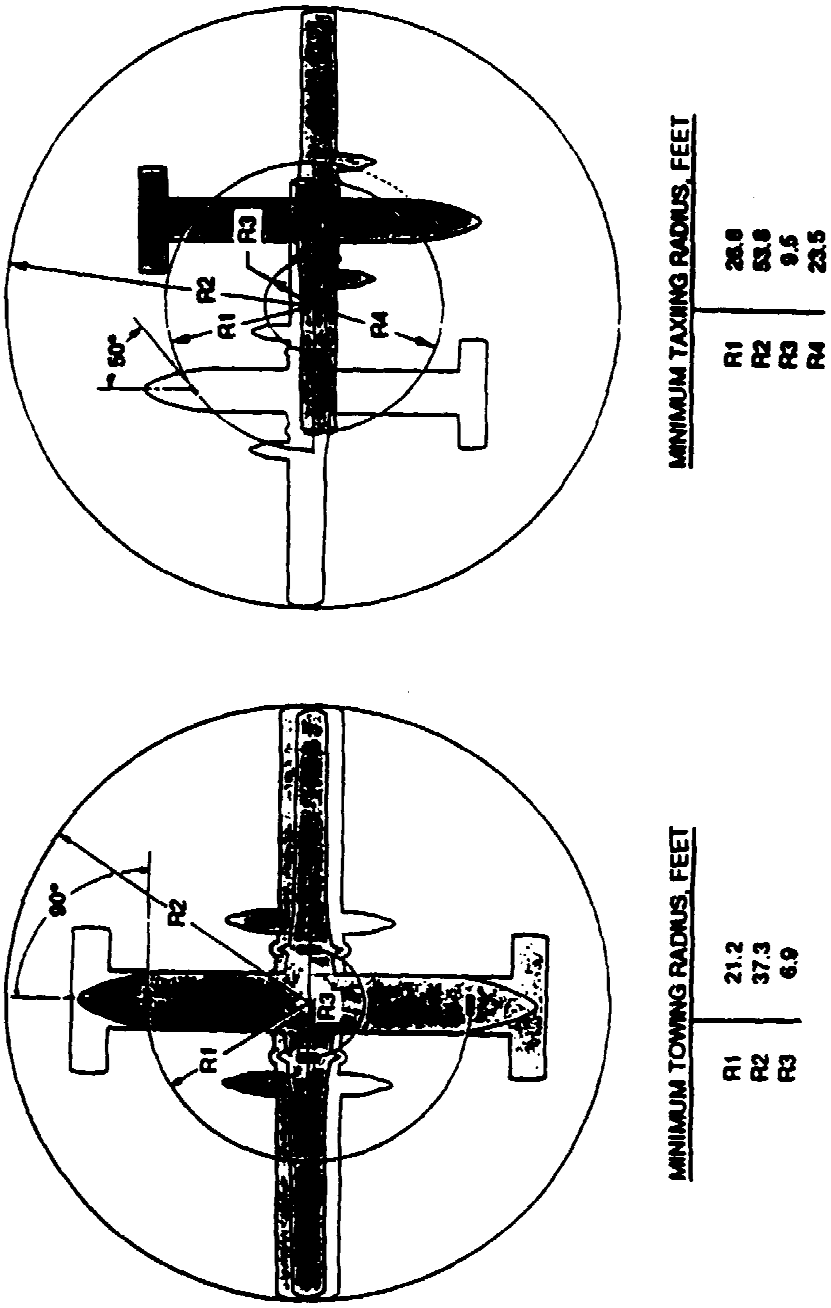


Figure D—50. Short Brothers 330 and 330—200,
Minimum Turning Radii

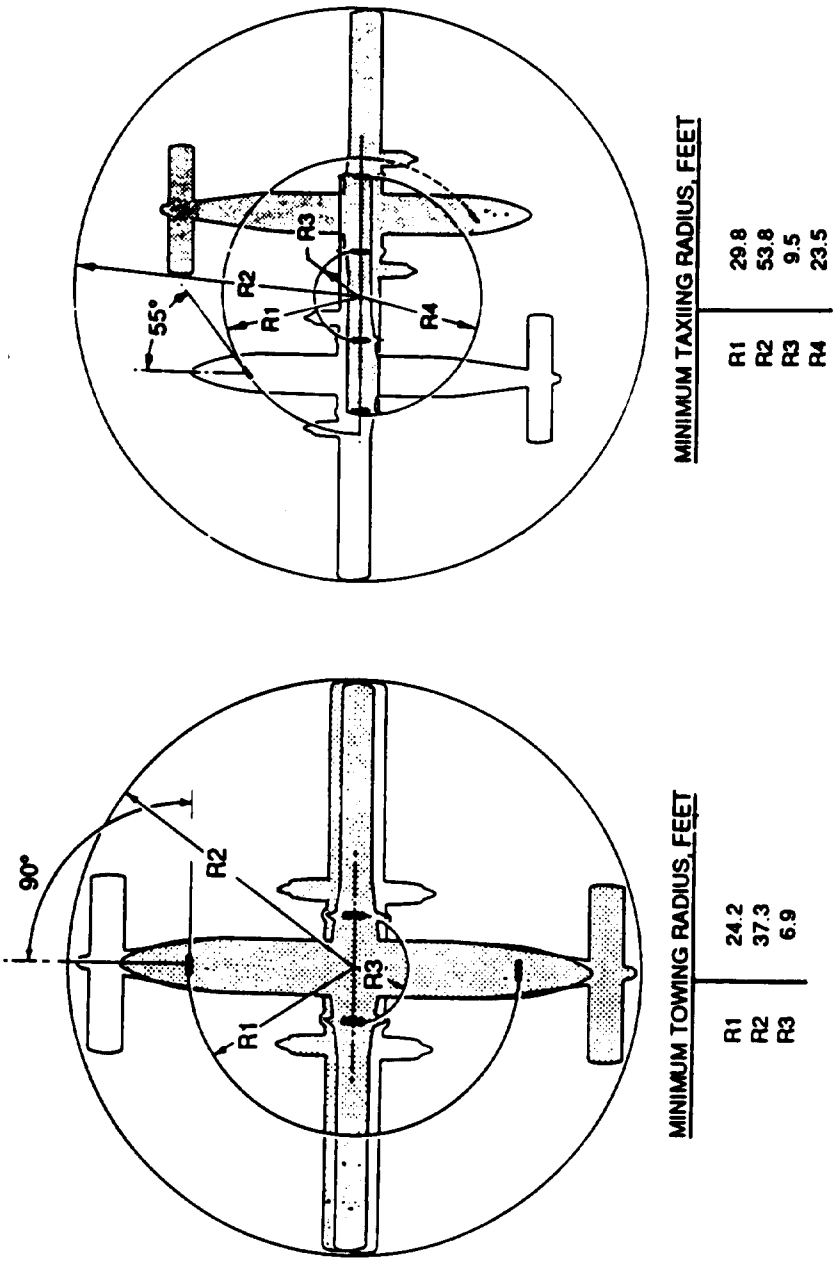


Figure D—51. Short Brothers 360,
Minimum Turning Radii

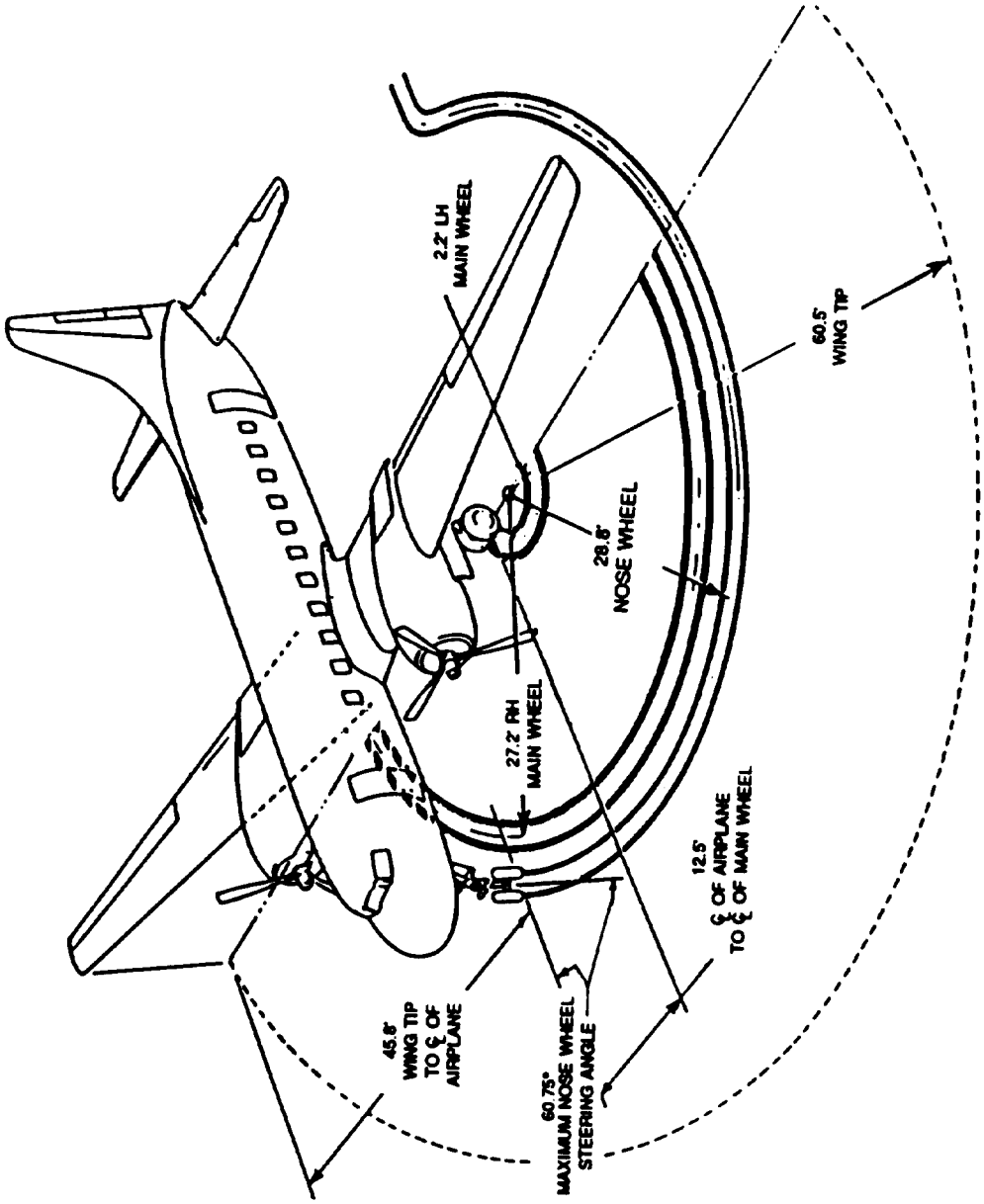


Figure D-52. Convair 240/600,
Minimum Turning Radii

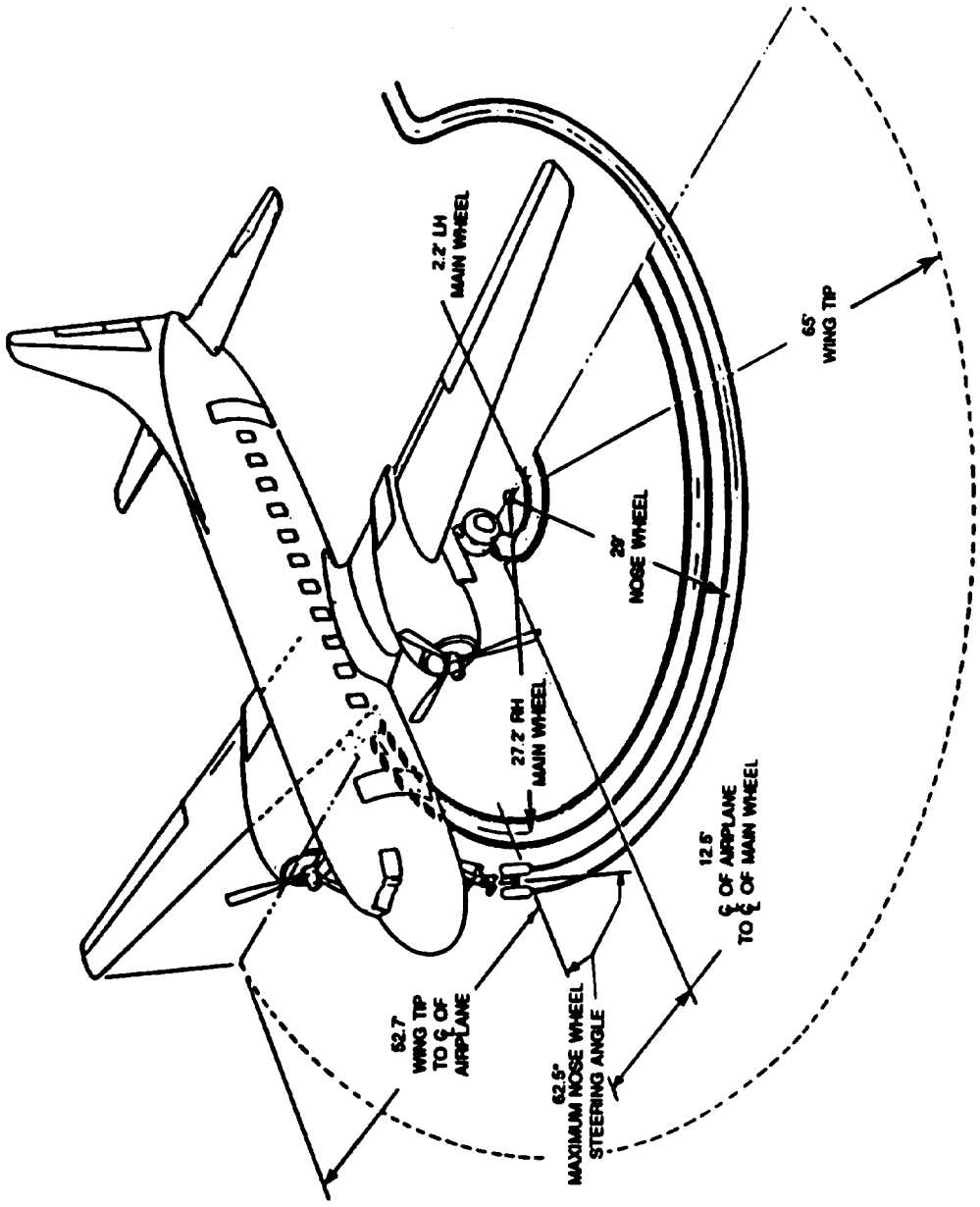
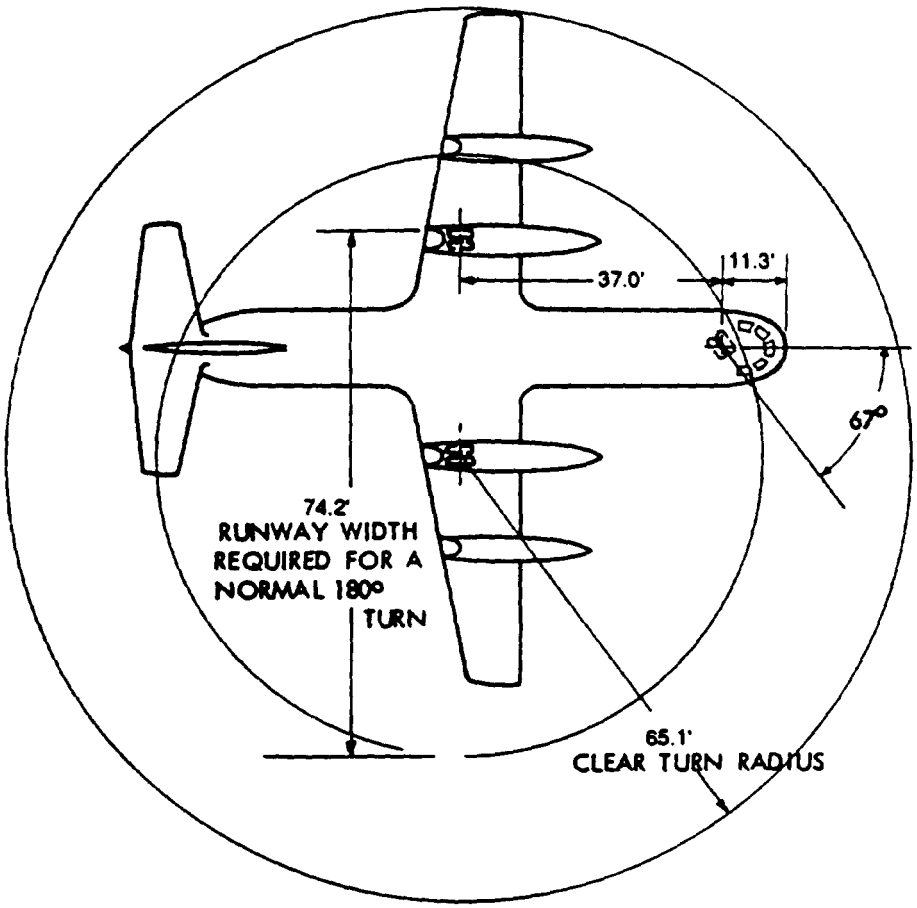
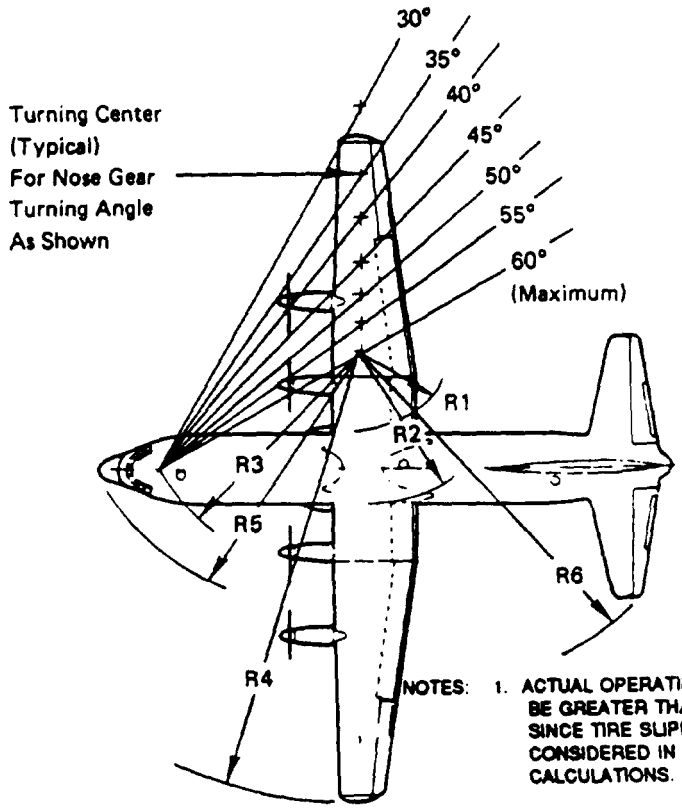


Figure D—53. Convair 340/440/580/640,
Minimum Turning Radii



NOTE: AIRCRAFT CAN PIVOT ABOUT ONE MAIN GEAR WITH MAXIMUM NOSE STEERING OF 67 DEGREES.

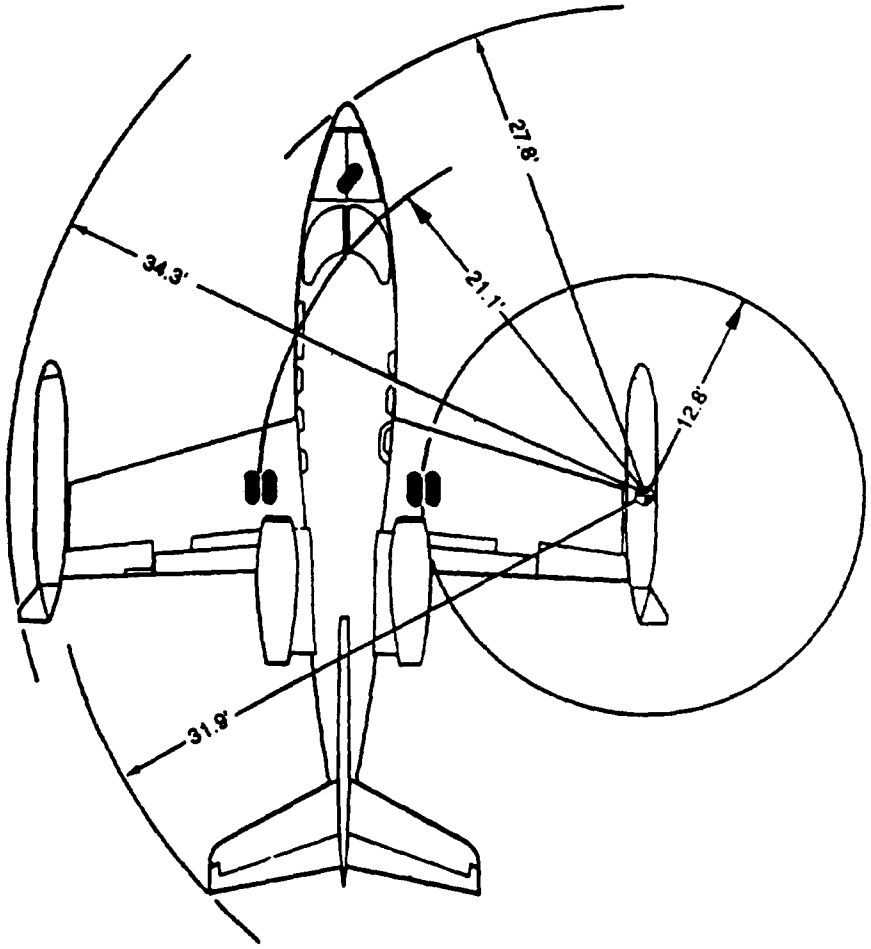
Figure D—54. Lockheed L-188,
Minimum Turning Radii



STEERING ANGLE (DEGREES)	W*	R1	R2	R3	R4	R5	R6
	PVT. WIDTH	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	158	63	77	81	136	88	111
35	135	51	65	71	124	78	100
40	108	41	56	63	114	71	92
45	105	33	48	57	107	66	86
50	94	27	41	53	101	62	81
55	85	21	35	50	95	59	77
60 (MAXIMUM)	77	16	30	47	90	57	74

*W = MINIMUM PAVEMENT WIDTH FOR 180° TURN.

Figure D-55. Lockheed L—382 (L—lOO—20 and L-100-30), Turning Radii — No Tire Slippage



NOTE: RADII REFLECT NORMAL NOSE WHEEL STEERING.

Figure D—56. Gates Learjet 24, Minimum Turning Radii

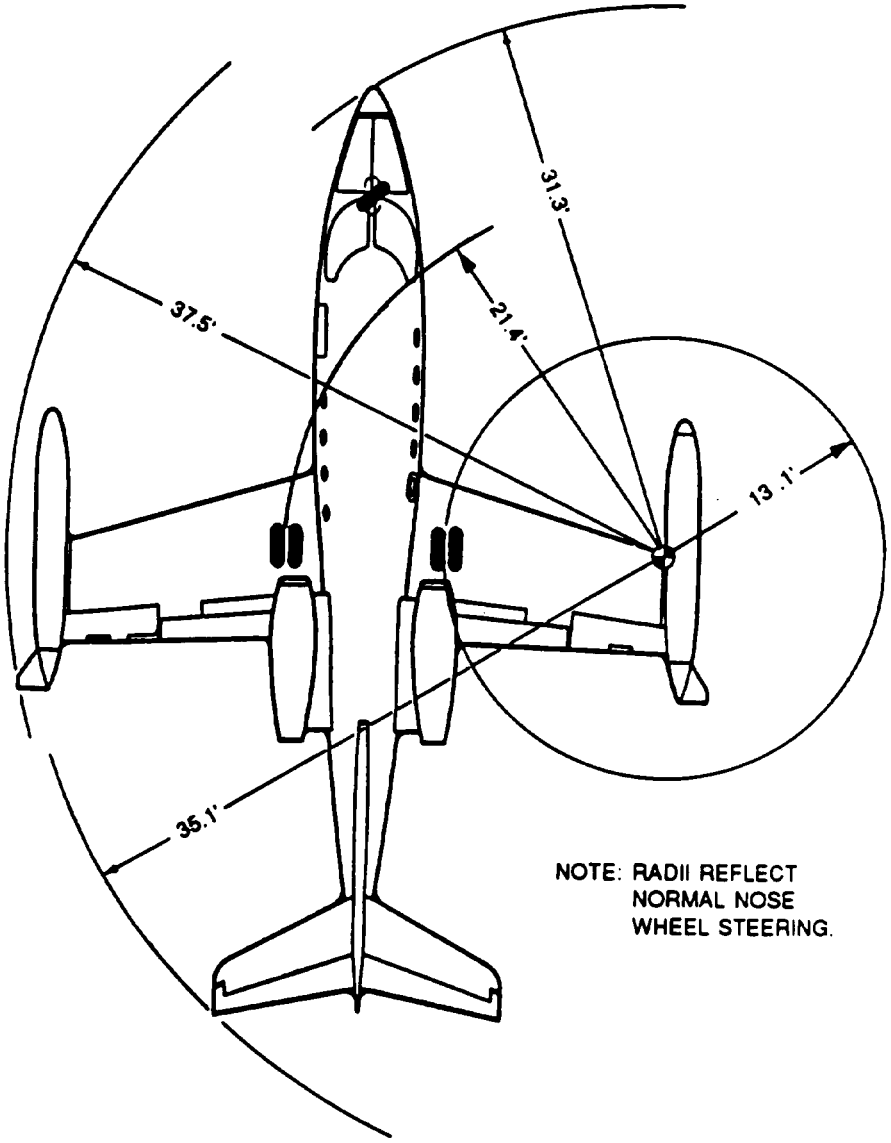
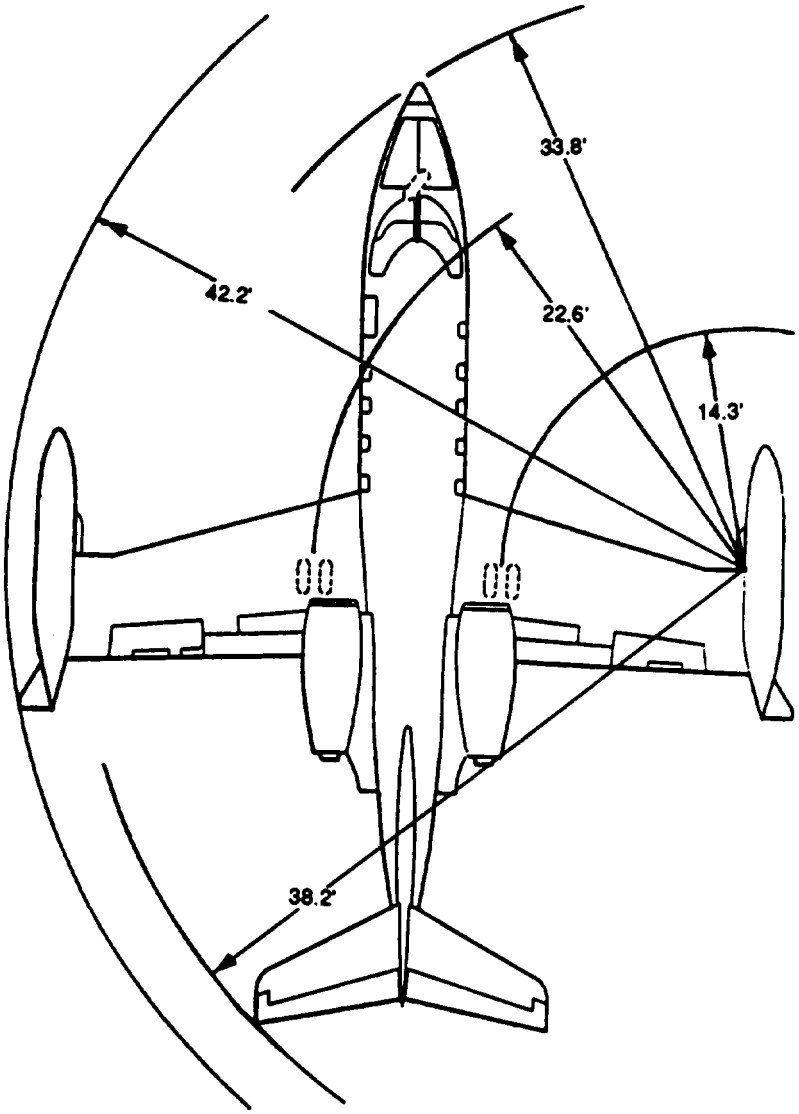
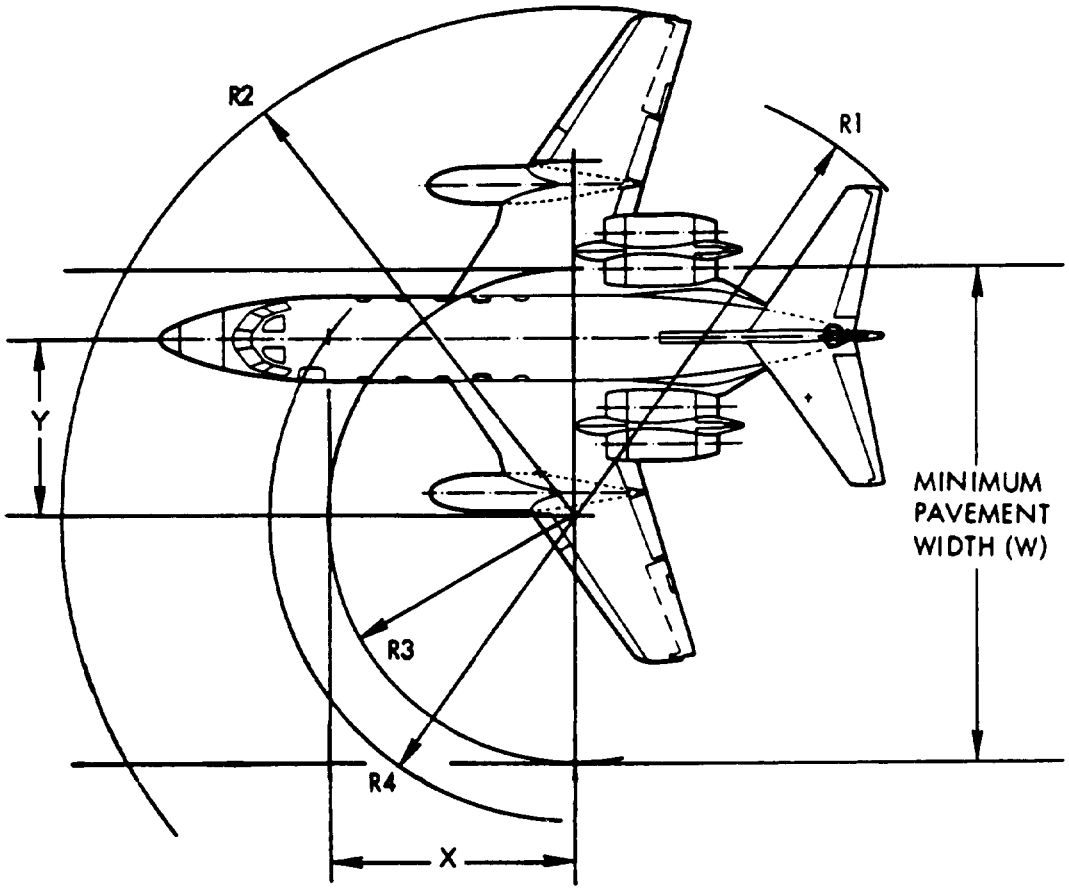


Figure D—57. Gates Learjet 25, Minimum Turning Radii



NOTE: RADII REFLECT NORMAL NOSE WHEEL STEERING.

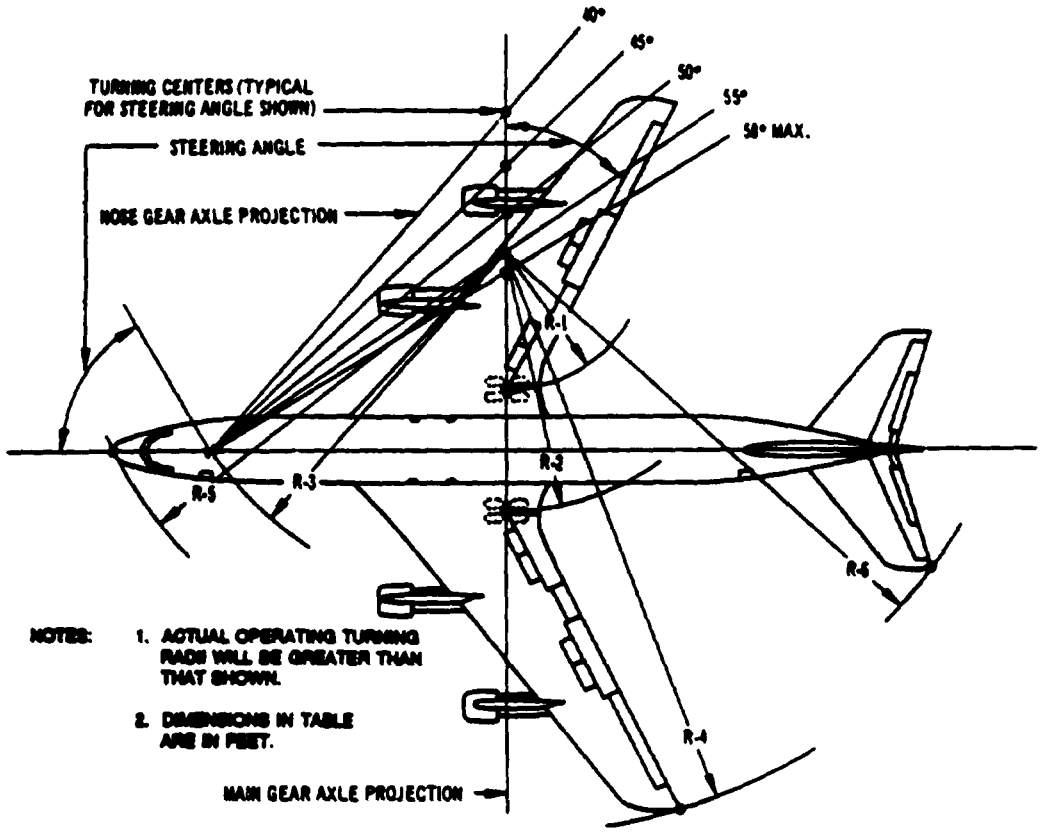
Figure D—58. Gates Learjet 35 and 36,
Minimum Turning Radii



TURN ANGLE	X	Y	R1	R2	R3	R4	W
53°	20.6	15.5	37.1	43.3	21.8	25.8	34.0

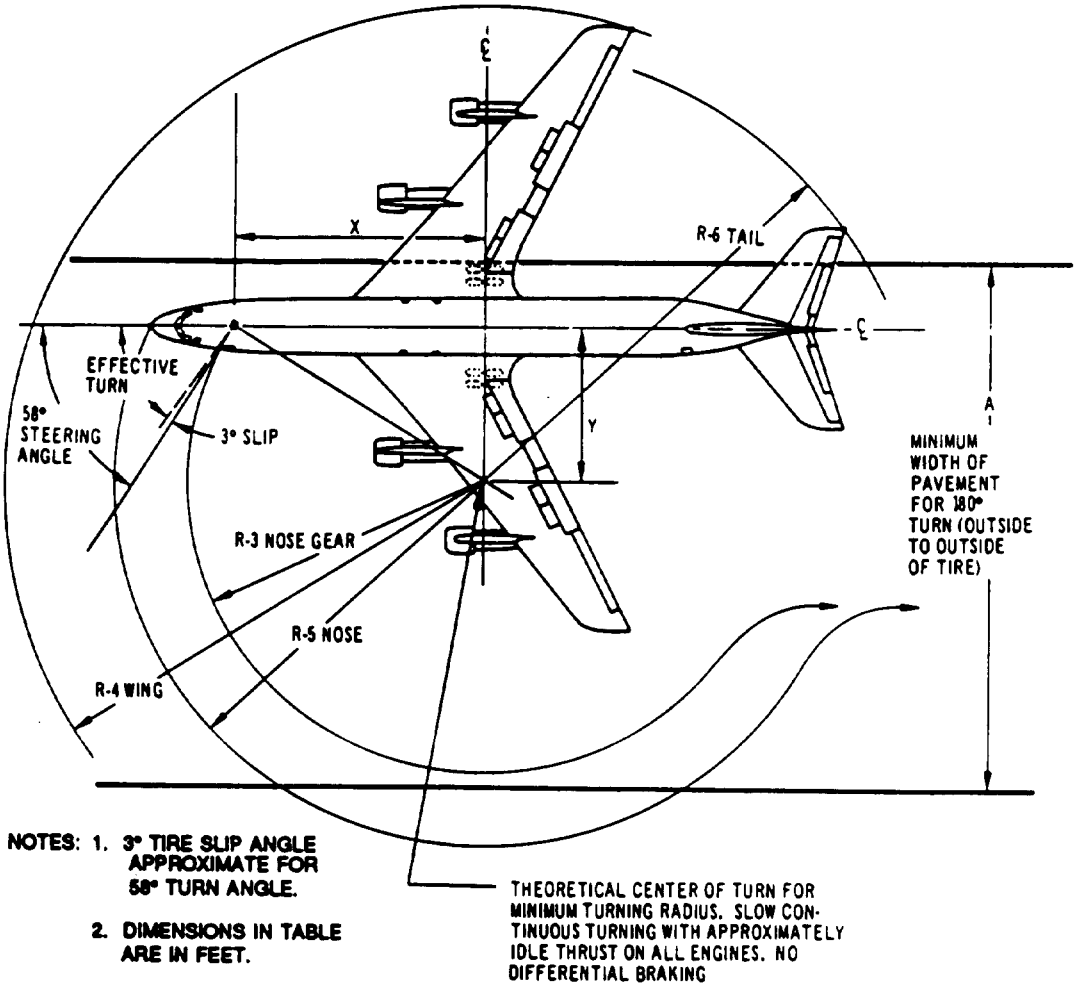
NOTE: DIMENSIONS ARE IN FEET.

Figure D-59. Lockheed 1329, Minimum Turning Radii



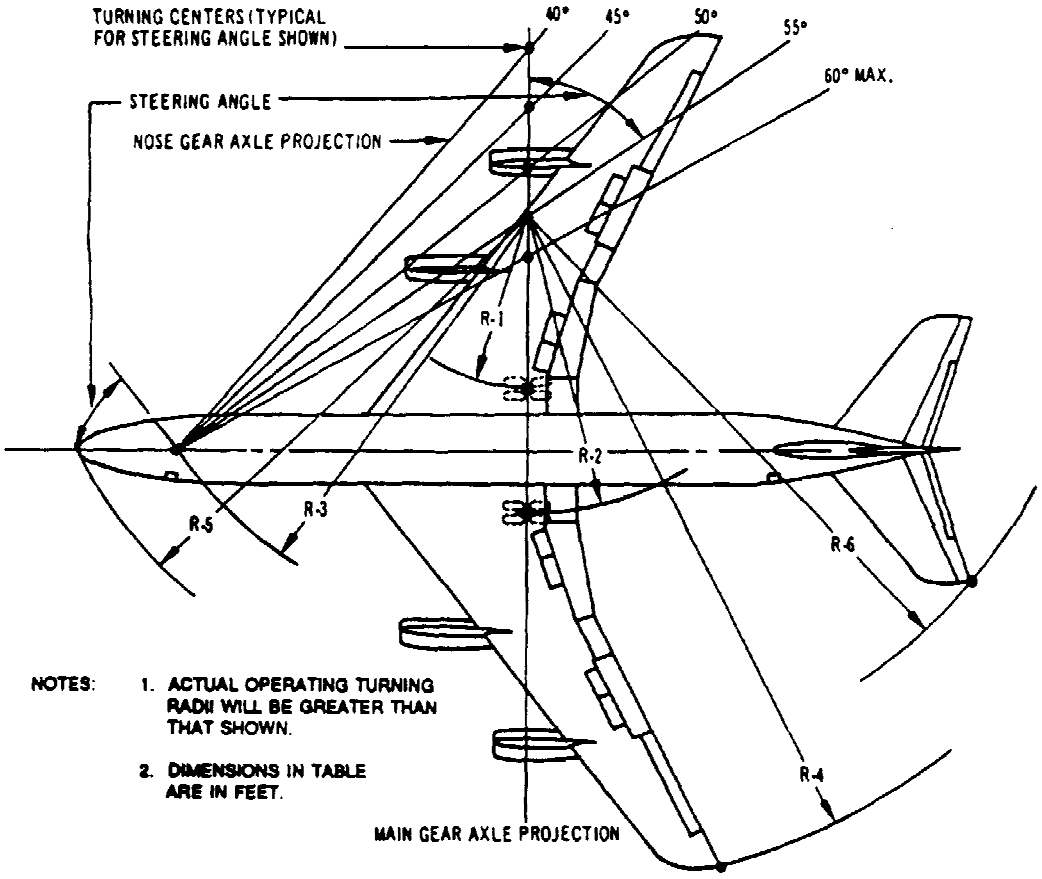
STEERING ANGLE (DEGREES)	R-1 INNER GEAR	R-2 OUTER GEAR	R-3 NOSE GEAR	R-4 WING TIP	R-5 NOSE	R-6 TAIL
30	80	102	105	159	114	136
35	64	86	91	143	102	123
40	51	73	82	132	94	113
45	41	63	74	122	87	106
50	33	55	68	113	82	100
55	26	48	66	107	79	96
58 (MAXIMUM)	22	44	63	106	77	90

Figure D-60. Boeing 707—1203, Turning Radii — No Slip Angle



FOR EFFECTIVE TURN ANGLE OF 55°						
X	Y	A	R-3	R-4	R-5	R-6
52.3	36.6	116.2	65.0	107.0	79.0	95.0

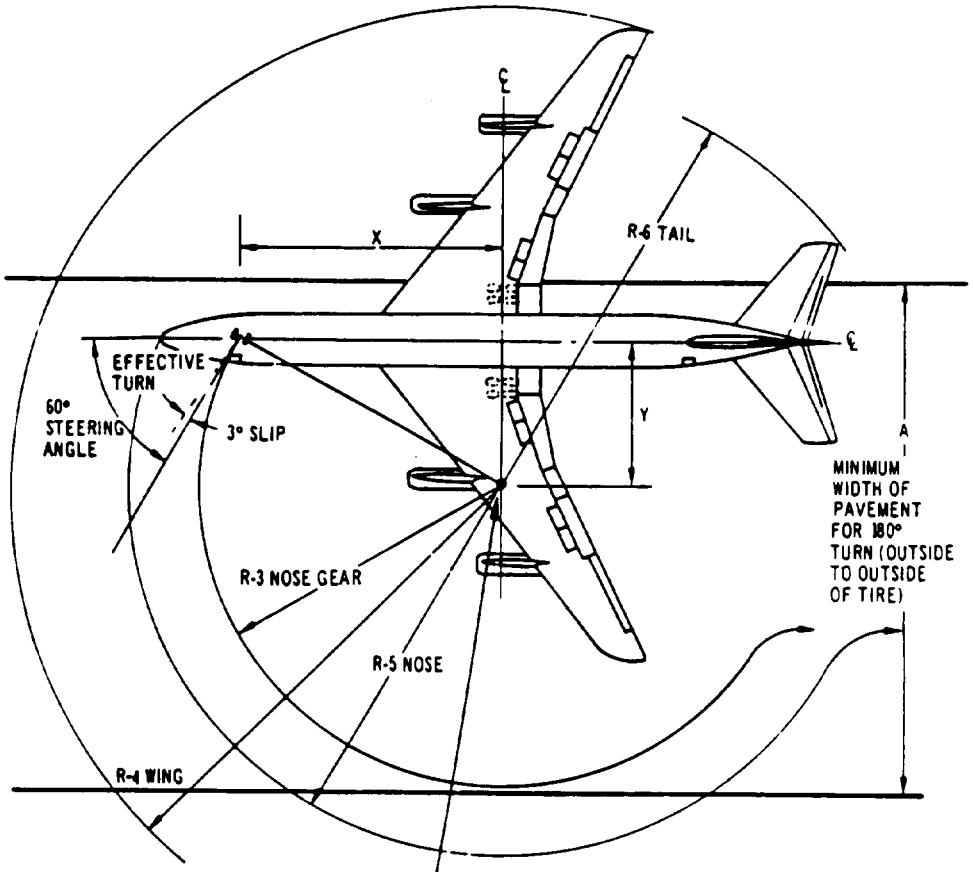
Figure D—61. Boeing 707—120B, Minimum Turning Radii — 3° Slip Angle



STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP*	NOSE	TAIL
30	91	113	118	177	127	147
35	74	96	103	159	114	132
40	60	82	92	145	104	121
45	48	70	84	134	97	112
50	39	61	77	125	91	106
55	30	52	71	117	87	100
60 (MAXIMUM)	23	45	68	110	84	96

*ADD 2 FEET FOR -320B AND -320C

Figure D—62. Boeing 707—320/—320B/—3200/—420,
Turning Radii — No Slip Angle



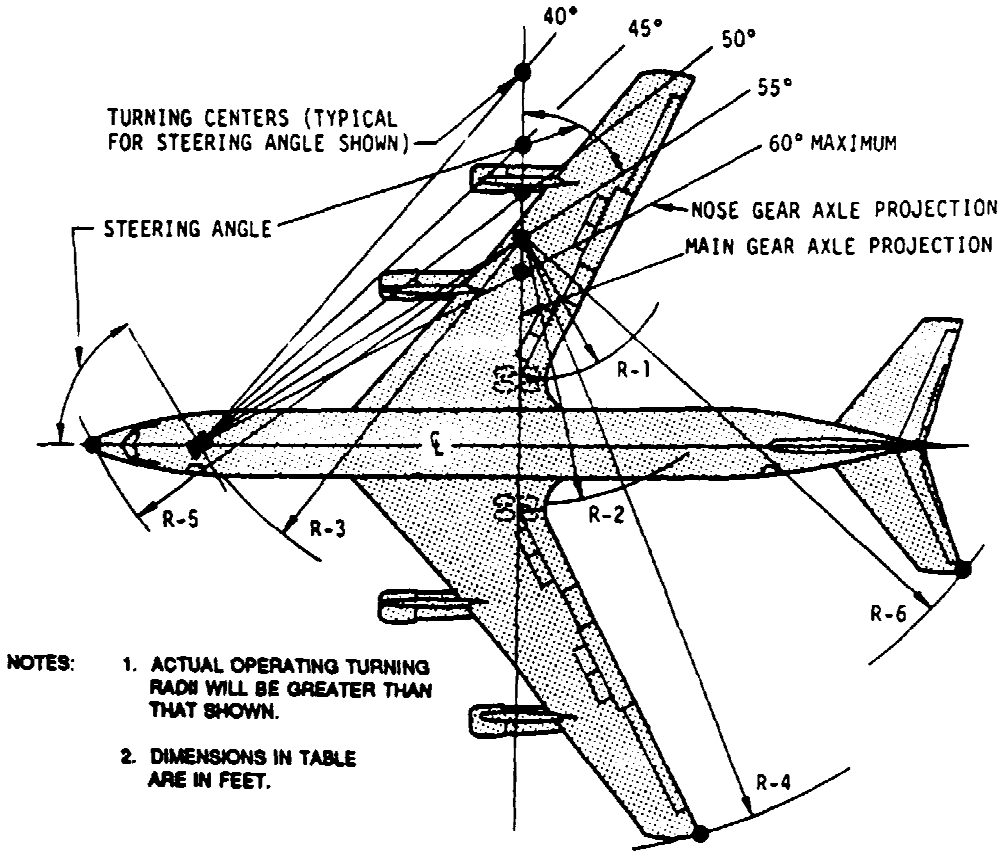
NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 60° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

FOR EFFECTIVE TURN ANGLE OF 57°						
X	Y	A	R-3	R-4*	R-5	R-6
59.0	38.3	123.4	70.5	114.0	85.5	98.0

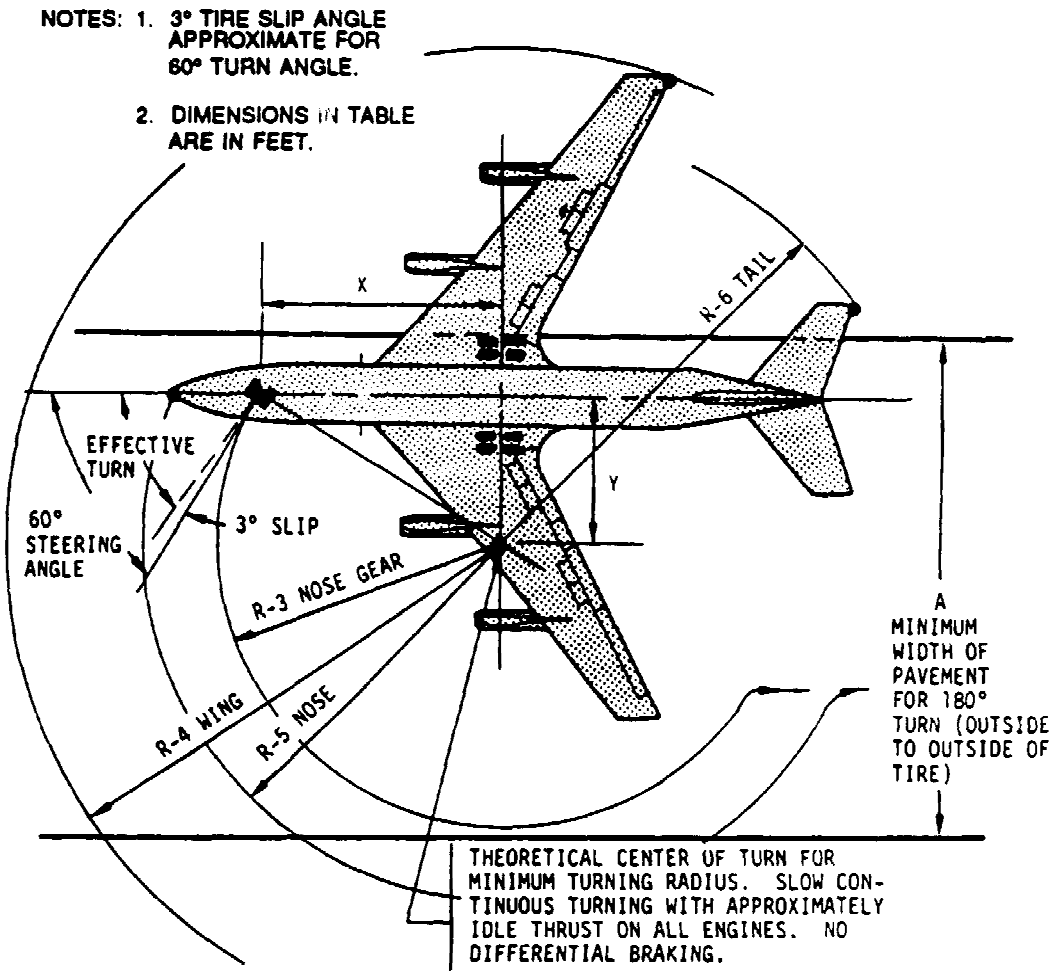
*ADD 2 FEET FOR -320B AND - 320C

Figure D-63. Boeing 707-302/-320B/-320C/-420, Minimum Turning Radii - 3° Slip Angle



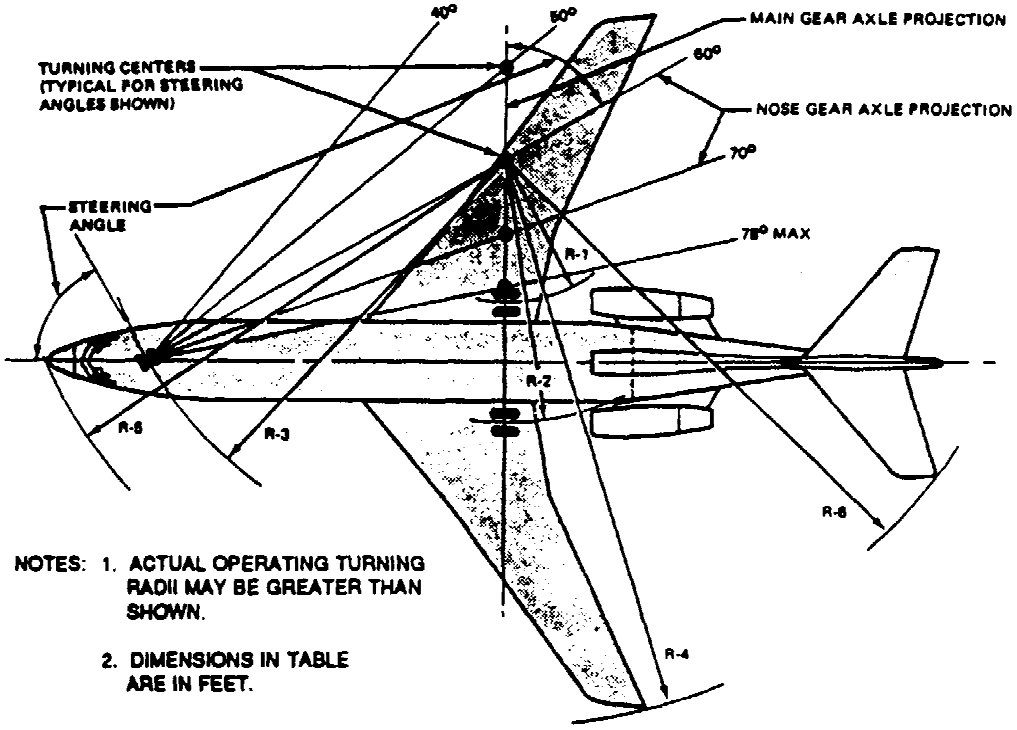
STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	77	99	102	157	112	130
35	62	84	89	142	100	117
40	50	72	79	129	91	107
45	40	62	72	120	85	100
50	32	54	66	112	80	94
55	25	47	62	105	77	90
60 (MAXIMUM)	18	40	59	99	74	86

Figure D-64. Boeing 720 and 720B,
Turning Radii - No Slip Angle



FOR EFFECTIVE TURN ANGLE OF 57°						
X	Y	A	R-3	R-4	R-5	R-6
50.6	32.8	107.7	60.4	102.4	75.4	88.0

Figure D—65. Boeing 720 and 720B, Minimum Turning Radii — 3° Slip Angle

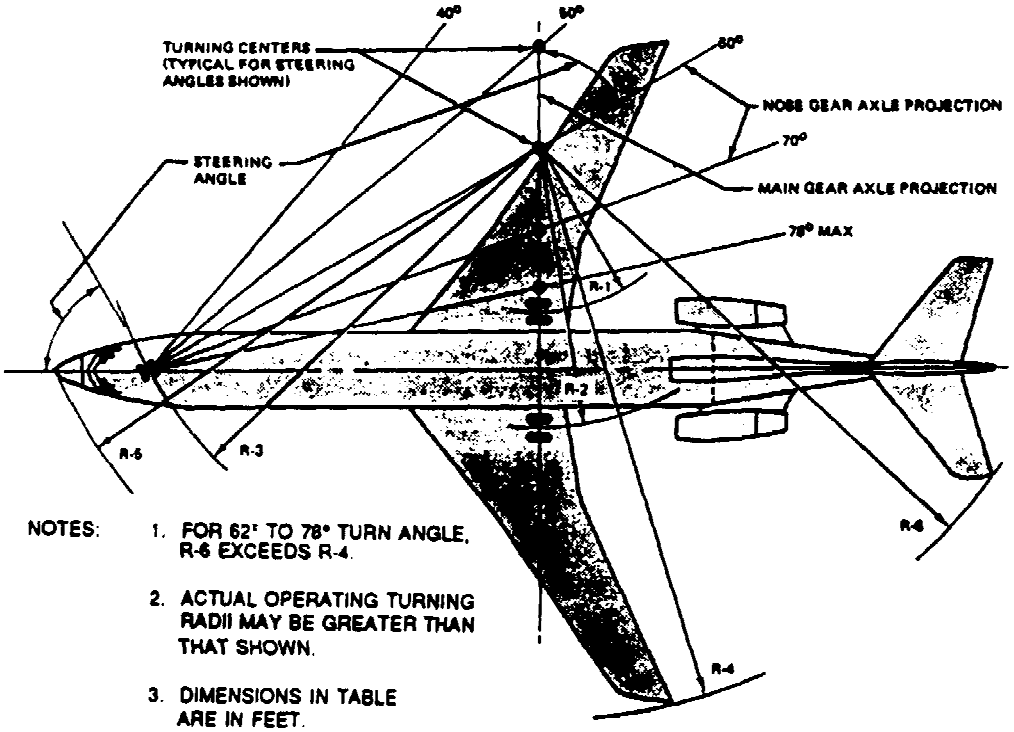


NOTES: 1. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	83	102	106	148	115	127
35	67	86	93	132	102	114
40	54	73	83	120	93	103
45	44	63	75	109	87	96
50	35	54	70	101	82	89
55	28	47	65	94	78	85
60	21	40	62	87	75	80
65	15	34	59	82	73	77
70	10	29	57	77	71	74
75	6	24	55	72	70	72
78 (MAXIMUM)	2	21	54	69	69	71

Figure D—66. Boeing 727-100/-100C,
Turning Radii — No Slip Angle

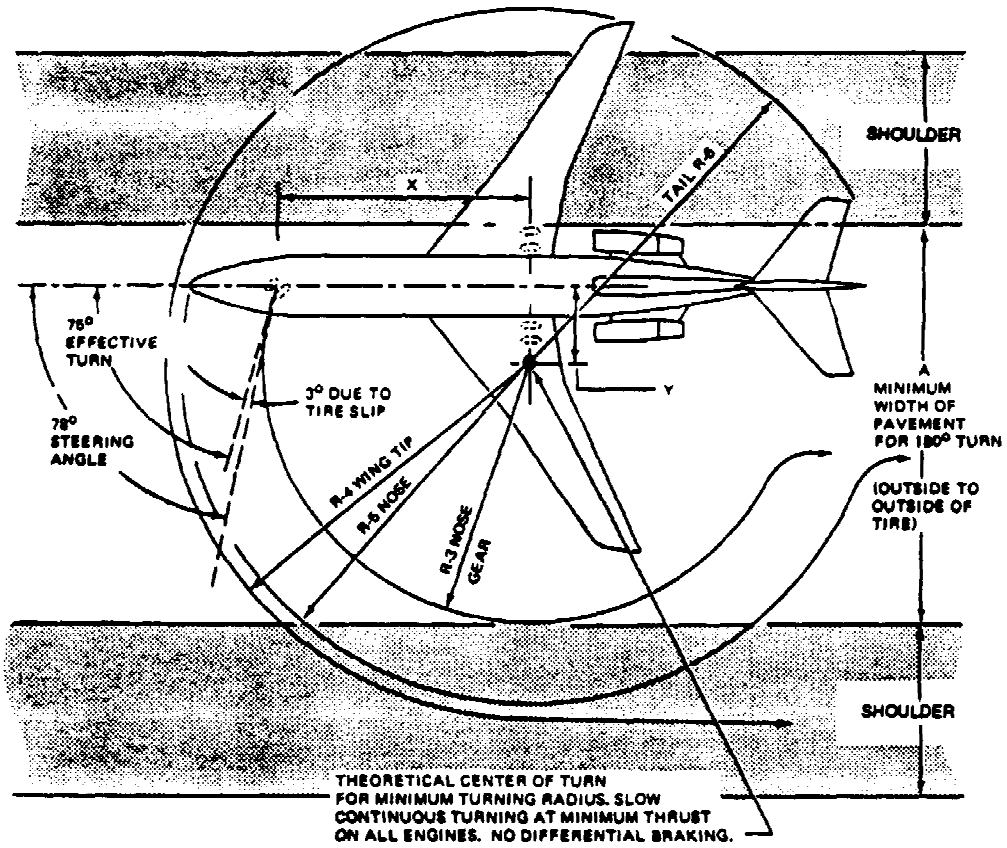


NOTES:

1. FOR 62° TO 78° TURN ANGLE, R-6 EXCEEDS R-4.
2. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN THAT SHOWN.
3. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	100	119	126	168	135	147
35	81	100	110	146	120	131
40	66	85	99	131	109	119
45	54	73	90	119	101	110
50	44	63	84	109	95	103
55	35	54	77	100	90	97
60	27	46	73	93	86	92
65	20	39	70	86	84	88
70	14	33	67	80	81	85
75	8	27	66	74	80	82
78 (MAXIMUM)	4	23	65	71	79.5	80

Figure D—67. Boeing 727—200, Turning Radii — No Slip Angle

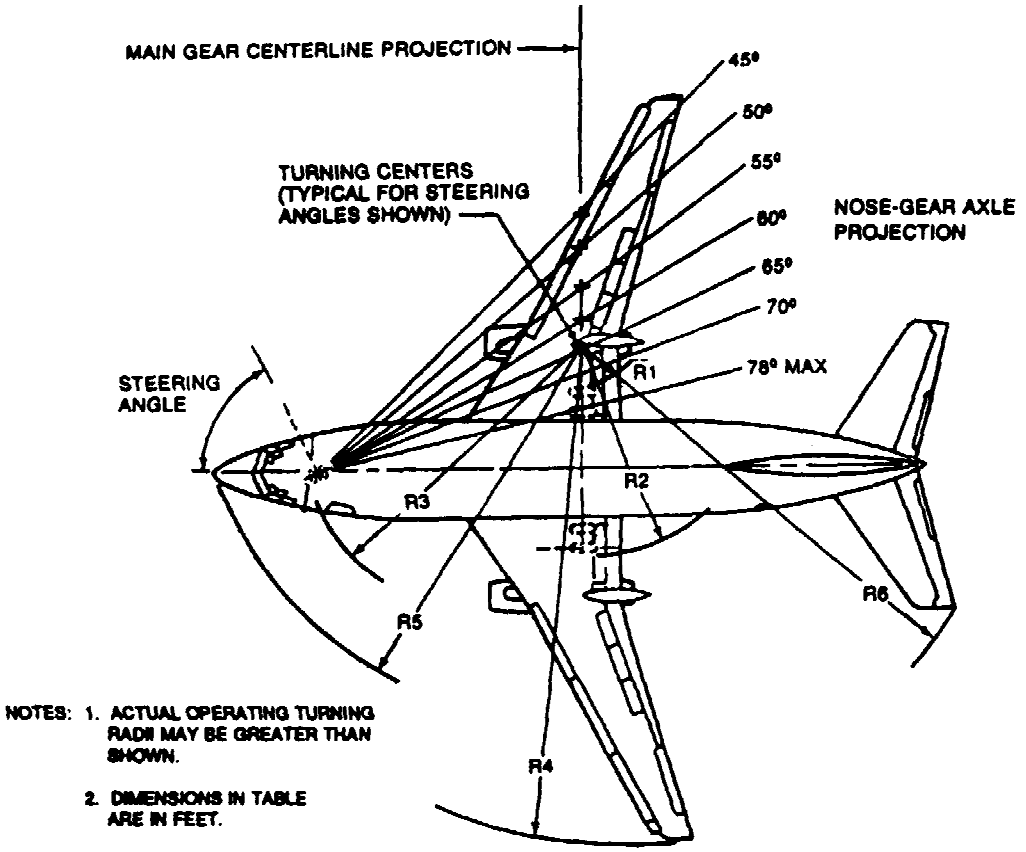


NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 78° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

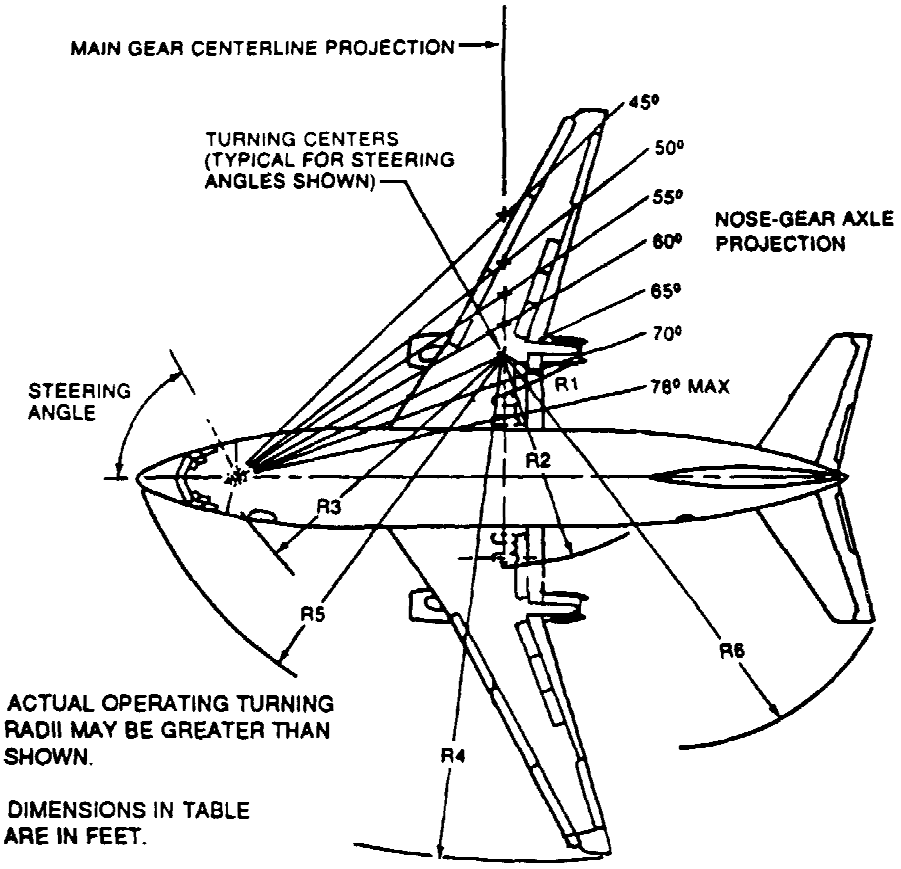
FOR AN EFFECTIVE TURN ANGLE OF 75°							
MODEL	X	Y	A	R-3	R-4	R-5	R-6
727-100 -100C	53.3	14.3	82.5	55.0	72.0	70.0	72.0
727-200	63.3	16.9	95.7	66.0	74.0	80.0	82.0

Figure D—68. Boeing 727-100/-100C/-200, Minimum Turning Radii — 3° Slip Angle



STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	48	70	70	107	76	90
45	24	45	50	82	58	70
50	18	39	46	76	55	66
55	13	35	43	72	53	63
60	9	30	41	68	51	60
65	6	26	39	64	50	58
70	2	23	37	60	49	56
78 (MAXIMUM)	-3	18	36	55	48	53

Figure D—69. Boeing 737-100, Turning Radii — No Slip Angle

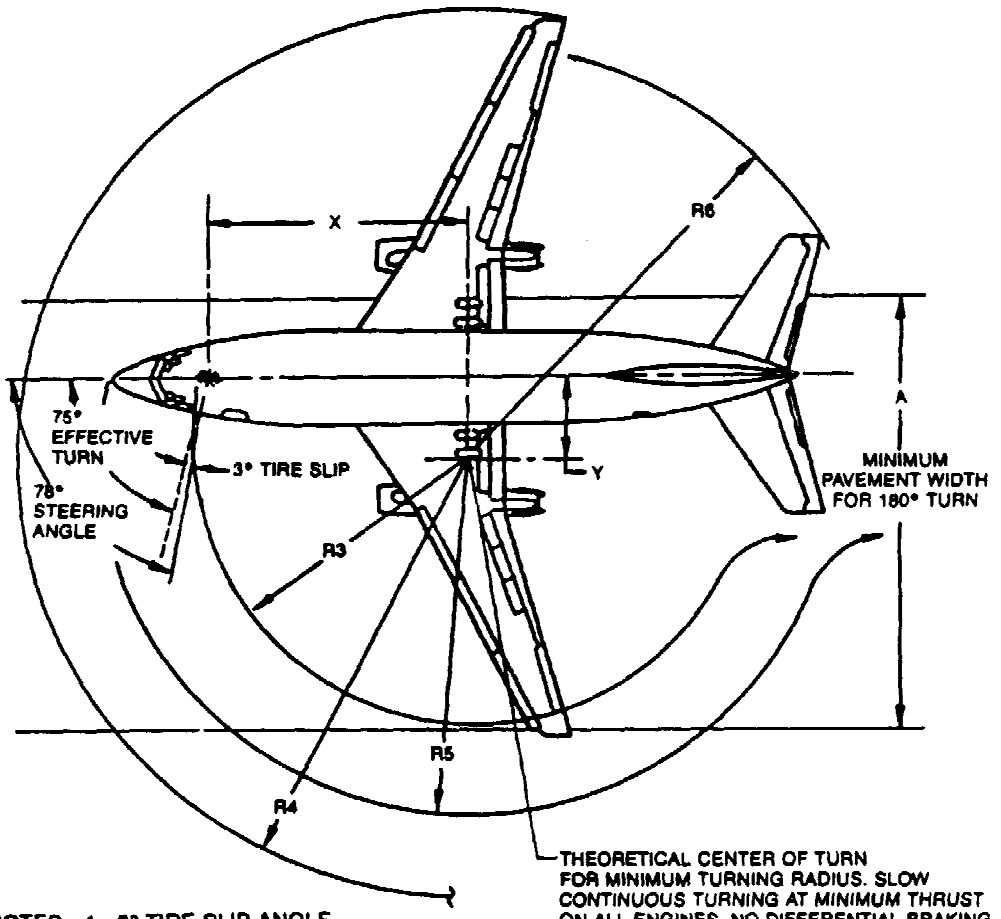


NOTES: 1. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	54	75	76	112	82	96
45	27	48	54	85	63	74
50	21	42	50	79	59	70
55	16	37	47	74	57	67
60	11	32	44	70	55	64
65	7	28	42	65	53	61
70	3	24	41	62	52	59
78 (MAXIMUM)	·3	18	39	56	51	56

Figure D—70. Boeing 737—200, Turning Radii — No Slip Angle

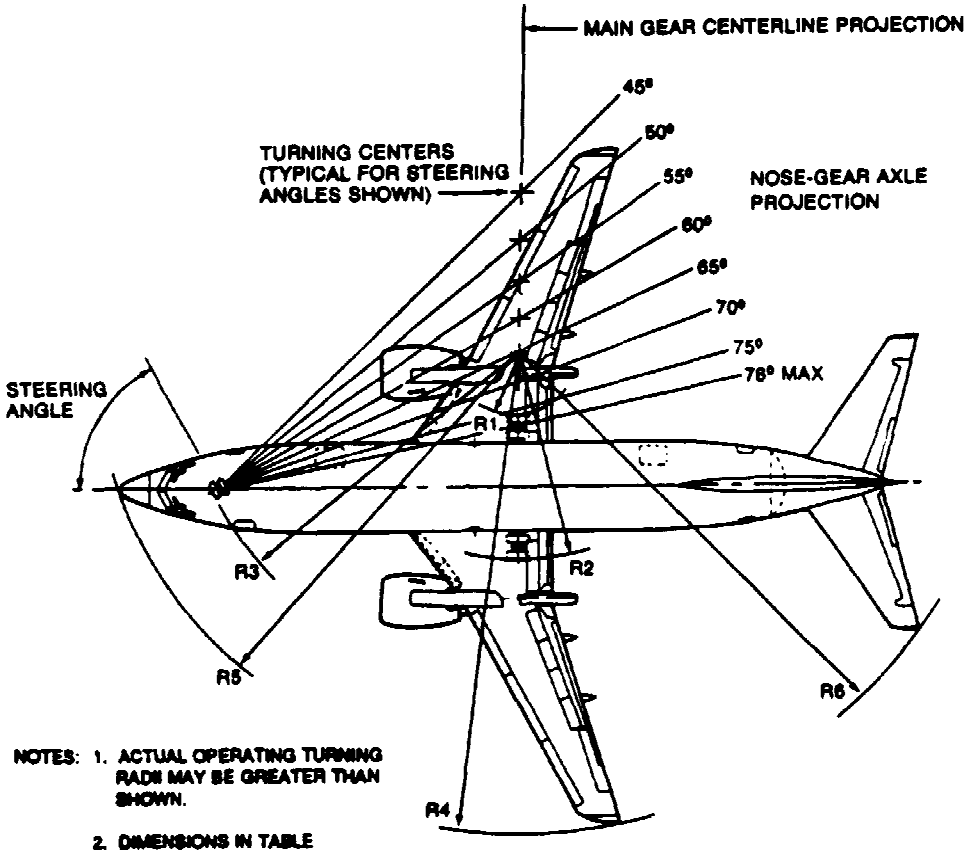


NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 78° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

MODEL	EFFECTIVE TURNING ANGLE	X	Y	A	R3	R4	R5	R6
737-100	75°	34.3	9.2	56.1	36.5	57.2	48.2	54.0
737-200	75°	37.3	10.0	60.0	39.6	58.2	51.3	57.0

Figure D—71. Boeing 737-100/-200, Minimum Turning Radii — 3° Slip Angle

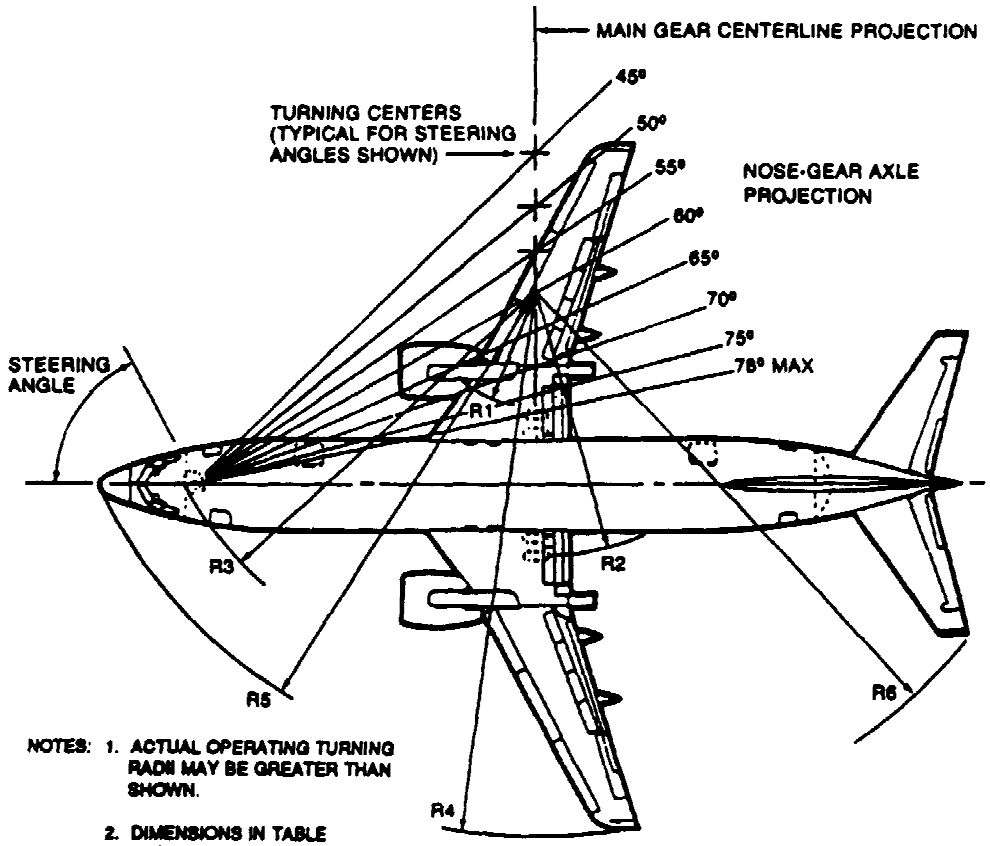


NOTES: 1. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.

2. DIMENSIONS IN TABLE ARE IN FEET.

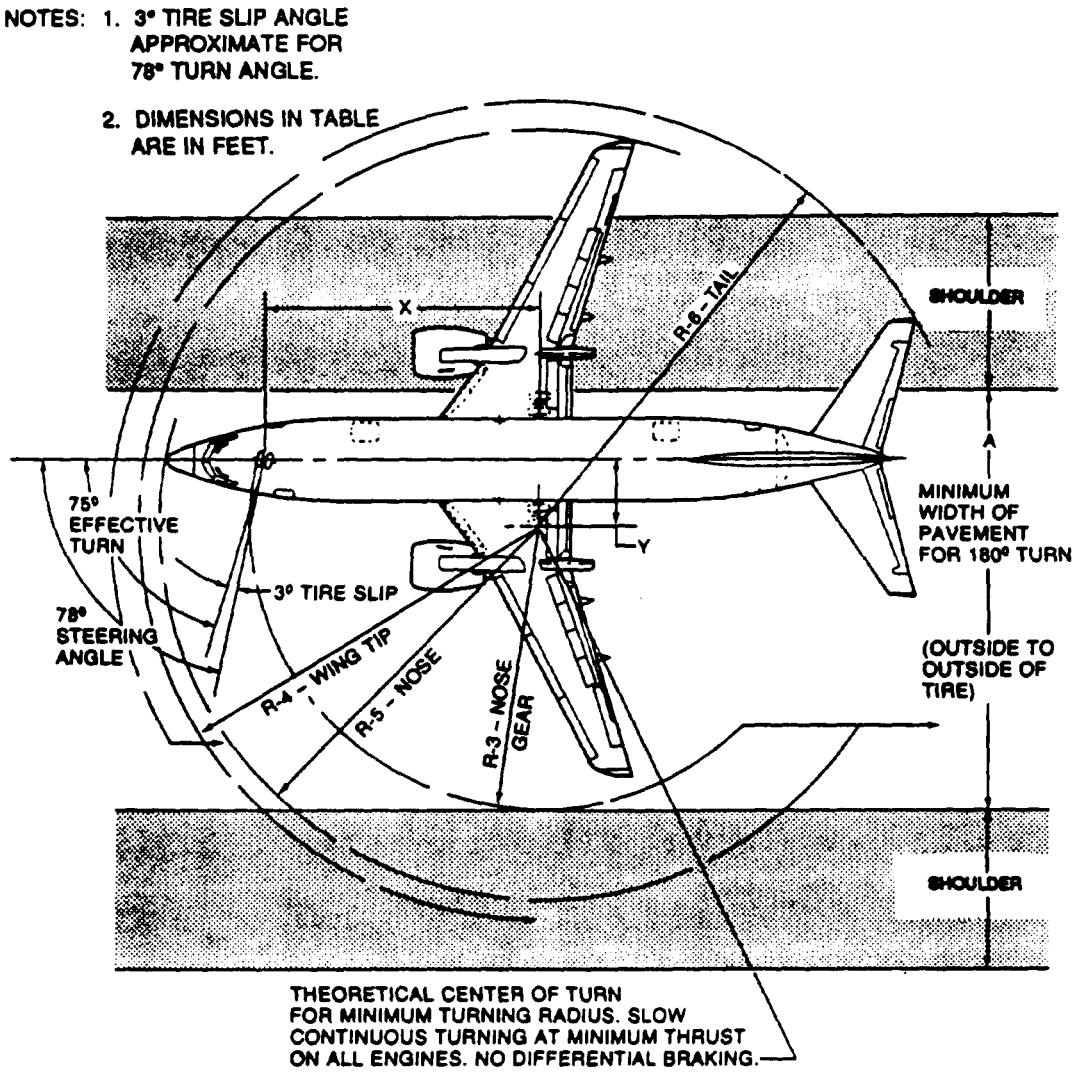
STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	60	81	83	119	89	107
45	30	51	59	90	68	83
50	24	45	54	83	64	78
55	18	39	51	77	61	74
60	13	34	48	73	59	71
65	9	30	46	68	57	68
70	4	25	44	64	56	66
78 (MAXIMUM)	-2	19	43	58	55	63

Figure D—72. Boeing 737—300, Turning Radii — No Slip Angle



STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	71	92	96	129	101	118
45	36	57	67	95	76	90
50	29	50	62	88	72	85
55	22	43	58	82	68	80
60	17	38	55	76	66	76
65	11	32	53	71	64	73
70	7	28	51	68	62	71
78 (MAXIMUM)	-1	20	49	59	61	67

Figure D—73. Boeing 737—400, Turning Radii — No Slip Angle



AIRPLANE MODEL	EFFECTIVE TURNING ANGLE	X	Y	A	R-3	R-4	R-5	R-6
737-300	75°	40.8	11.0	64.6	43.3	60.2	55.0	64.0
737-400	75°	46.8	12.5	72.4	49.4	61.8	61.3	68.3

FigureD—74. Boeing 737-300/-400, Minimum Turning Radii - 3° Slip Angle

X TURN RADIUS (FEET) [4]	RADIUS (FEET)										Z [3] MINIMUM WIDTH FOR 180° TURN (FEET)	
	A WING TIP		B [3] NOSE GEAR		C [3] WING GEAR		D TAIL TIP		E NOSE			
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
0	113	115	86	81	23	21	125	130	110	105	109	102
20	131	133	89	84	42	41	132	136	111	108	131	126
40	148	151	96	92	62	61	142	146	116	112	156	153
60	168	170	106	102	82	81	153	156	125	121	186	183
80	186	187	118	116	102	101	167	170	136	132	220	216
100	206	205	133	130	121	121	181	184	149	146	254	251
120	225	226	149	146	141	141	197	200	163	160	290	287
140	244	245	165	163	161	161	213	216	178	175	327	324
160	264	265	183	181	181	181	230	232	195	192	364	362

[1] BODY GEAR STEERING INOPERATIVE

[2] WITH BODY GEAR STEERING

[3] MEASURED TO OUTSIDE TIRE FACES

[4] WITH BODY GEAR OPERATING, TURN CENTER PASSES THROUGH WING LANDING GEAR. WITH BODY GEAR NOT OPERATING, TURN CENTER PASSES APPROXIMATELY HALFWAY BETWEEN WING GEAR AND BODY GEAR.

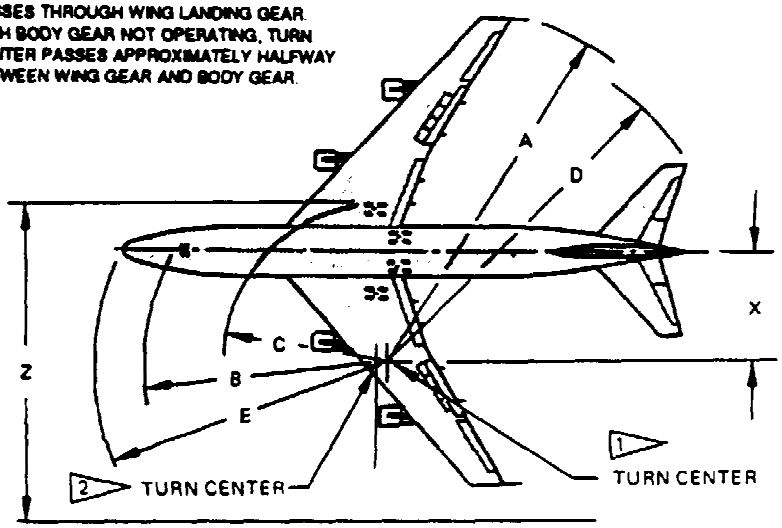


Figure D—75. Boeing 747-100B/-200B-Pass/-200C-Pass/ -200C-Cargo/-200F-Cargo/-300-Pass, Turning Radii

X TURN RADIUS (FEET)	RADIUS (FEET)										Z ③ MINIMUM WIDTH FOR 180° TURN (FEET)	
	A④ WING TIP		B③ NOSE GEAR		C③ WING GEAR		D TAIL TIP		E NOSE			
	①	②	①	②	①	②	①	②	①	②	①	②
40	157	159	96	91	61	61	142	146	117	112	156	152
60	176	177	106	102	81	81	154	158	125	120	187	183
80	196	196	119	115	101	101	167	171	136	132	219	216
100	214	215	133	130	121	121	182	186	148	145	254	251
120	233	234	149	146	141	141	197	200	162	159	290	287
140	253	254	166	163	161	161	213	216	176	175	327	324
160	272	273	183	181	181	181	230	233	194	191	364	362

① BODY GEAR STEERING INOPERATIVE

② WITH BODY GEAR STEERING

③ MEASURED TO OUTSIDE TIRE FACES

④ WINGSPAN AT 213 FT

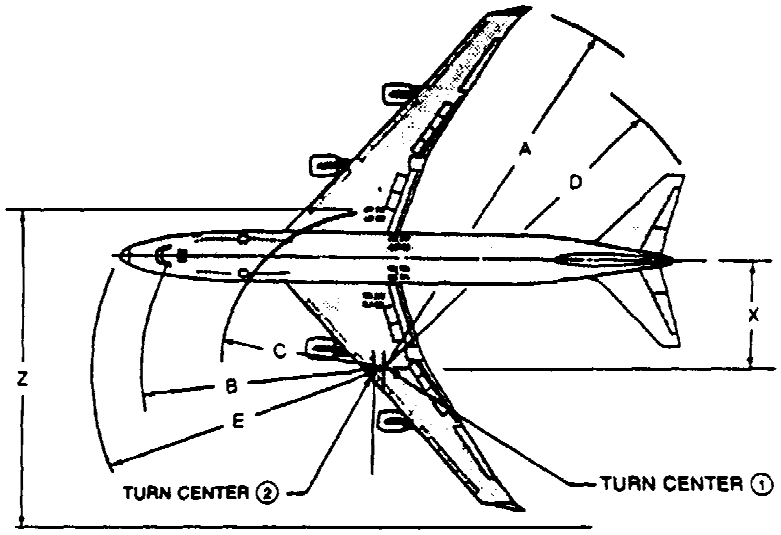


Figure D–76. Boeing 747–400, Turning Radii

X TURN RADIUS (FEET) [4]	RADIUS (FEET)										Z [3] MINIMUM WIDTH FOR 180° TURN (FEET)	
	A WING TIP		B [3] NOSE GEAR		C [3] WING GEAR		D TAIL TIP		E NOSE			
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
0	113	115	70	66	23	21	97	101	93	88	93	86
20	131	133	74	69	42	41	107	111	98	91	116	110
40	149	151	81	77	62	61	119	122	101	97	143	138
60	168	170	93	90	82	81	134	137	111	107	175	171
80	186	187	108	105	102	101	150	153	123	119	210	206
100	205	206	124	121	121	121	166	169	137	134	245	242
120	225	226	141	138	141	141	184	186	152	149	282	279
140	244	245	158	156	161	161	202	204	168	166	319	317
160	264	265	177	176	181	181	220	222	186	183	358	356

[1] BODY GEAR STEERING INOPERATIVE

[2] WITH BODY GEAR STEERING

[3] MEASURED TO OUTSIDE TIRE FACES

[4] WITH BODY GEAR OPERATING, TURN CENTER PASSES THROUGH WING LANDING GEAR. WITH BODY GEAR NOT OPERATING, TURN CENTER PASSES APPROXIMATELY HALFWAY BETWEEN WING GEAR AND BODY GEAR.

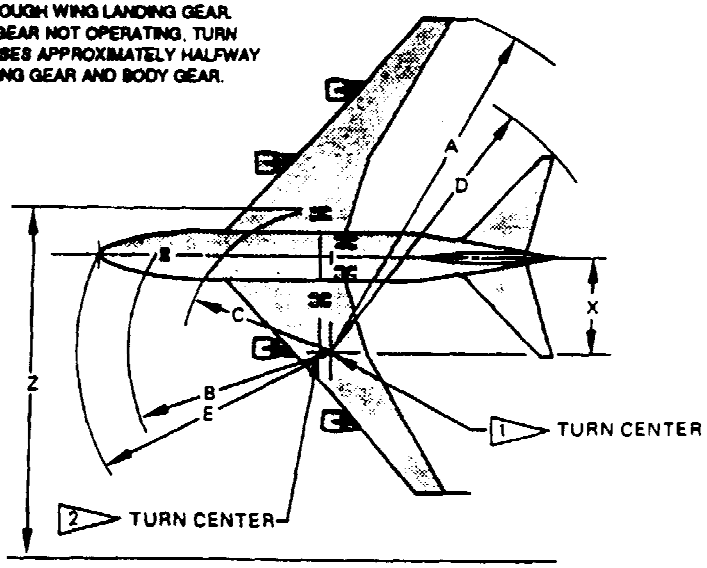
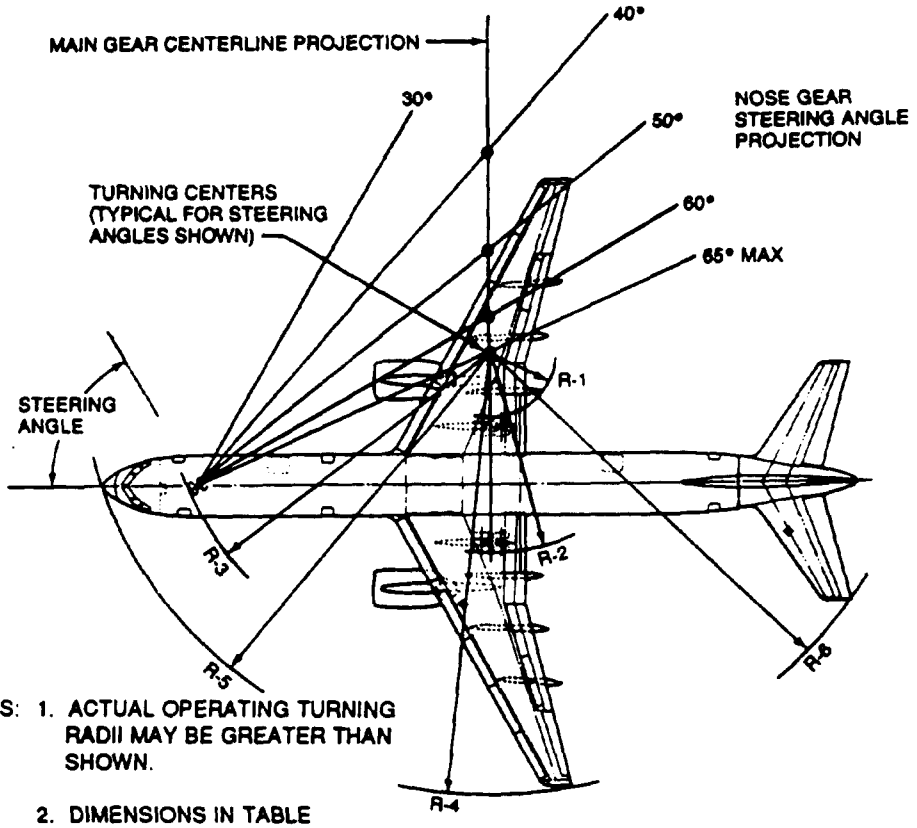


Figure D—77. Boeing 747SP, Turning Radii

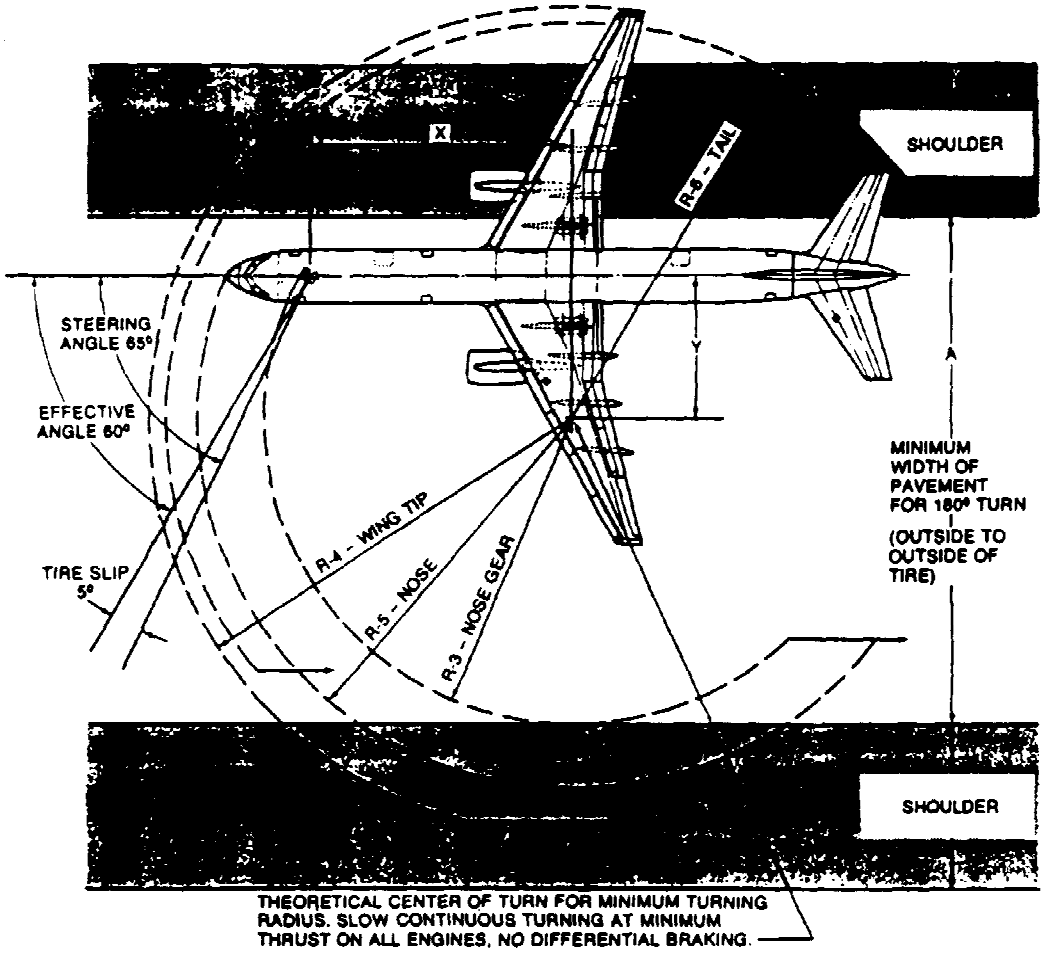


NOTES: 1. ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	90	118	122	167	131	149
35	72	100	106	149	117	133
40	58	86	95	135	107	121
45	46	74	86	124	99	112
50	36	64	80	114	94	105
55	28	56	75	106	90	100
60	21	49	71	98	87	95
65 (MAXIMUM)	14	42	68	92	84	91

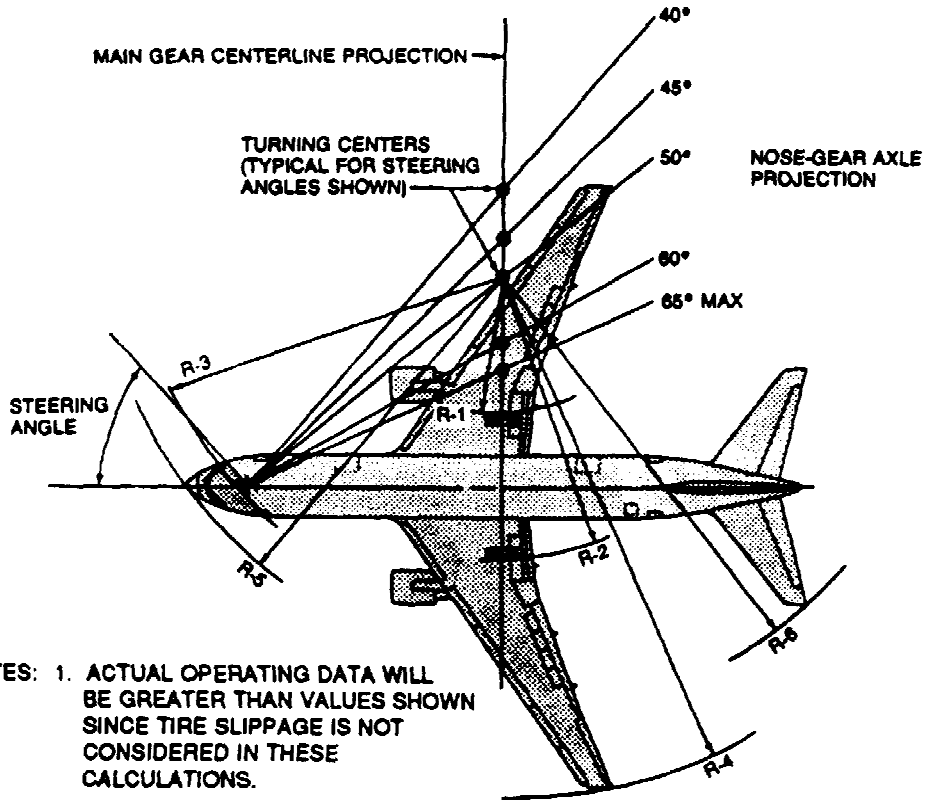
Figure D—78. Boeing 757-200, Turning Radii — No Slip Angle



EFFECTIVE TURNING ANGLE	X	Y	A	R-3	R-4	R-5	R-6
60°	60	35	120	71	98	87	95

NOTES: 1. 5° TIRE SLIP ANGLE APPROXIMATE FOR 65° TURN ANGLE.
2. DIMENSIONS IN TABLE ARE IN FEET.

Figure D-79. Boeing 757—200, Minimum Turning Radii — 5° Slip Angle

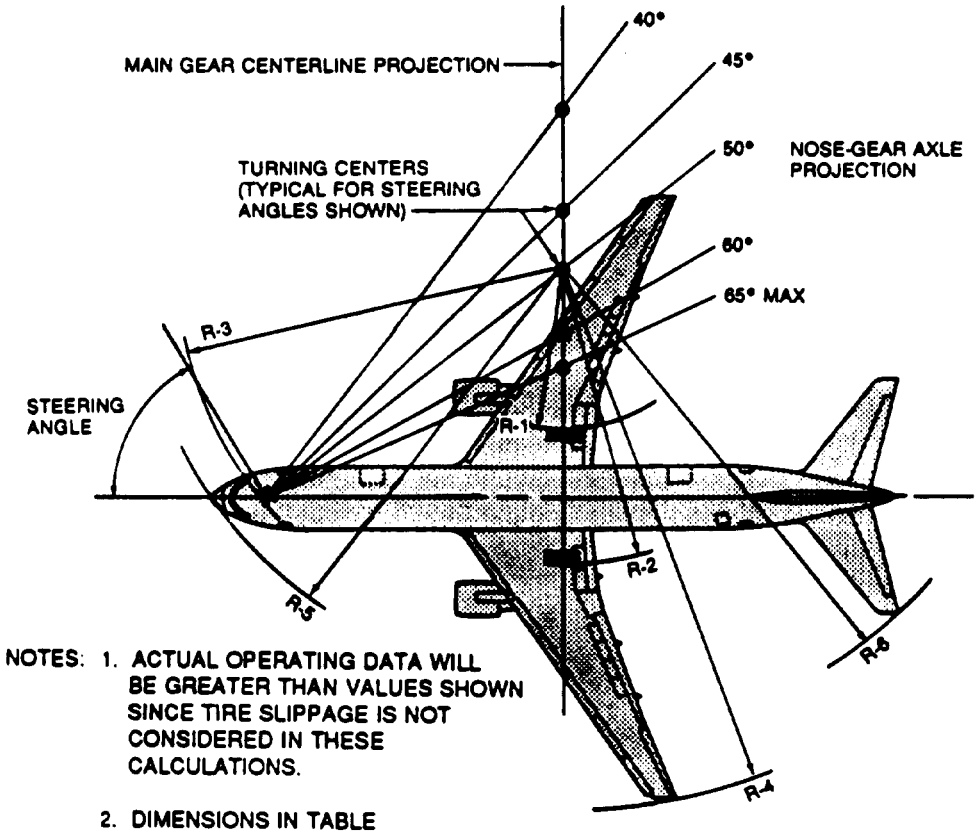


NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	94	130	131	192	137	162
35	74	110	114	173	122	145
40	58	95	102	158	111	132
45	47	83	93	146	102	122
50	36	72	86	135	96	114
55	27	63	81	127	92	108
60	19	55	76	119	88	102
65 (MAXIMUM)	12	48	73	112	86	98

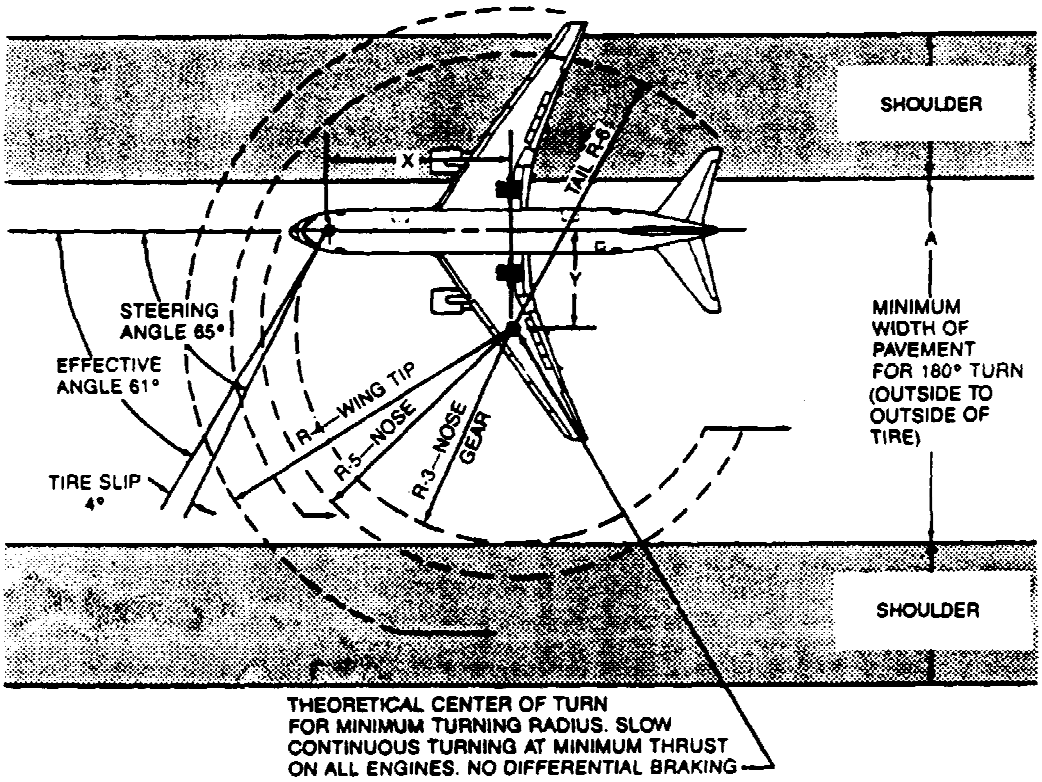
Figure D—80. Boeing 767-200/-200ER, Turning Radii — No Slip Angle



NOTES:
1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R-1	R-2	R-3	R-4	R-5	R-6
	INNER GEAR	OUTER GEAR	NOSE GEAR	WING TIP	NOSE	TAIL
30	112	147	151	209	157	182
35	89	125	132	187	139	162
40	71	107	118	168	126	148
45	57	93	107	155	117	136
50	45	81	99	144	109	127
55	34	70	93	133	104	120
60	25	61	88	124	99	114
65 (MAXIMUM)	17	53	84	116	96	108

Figure D—81. Boeing 767-300/-300ER, Turning Radii — No Slip Angle

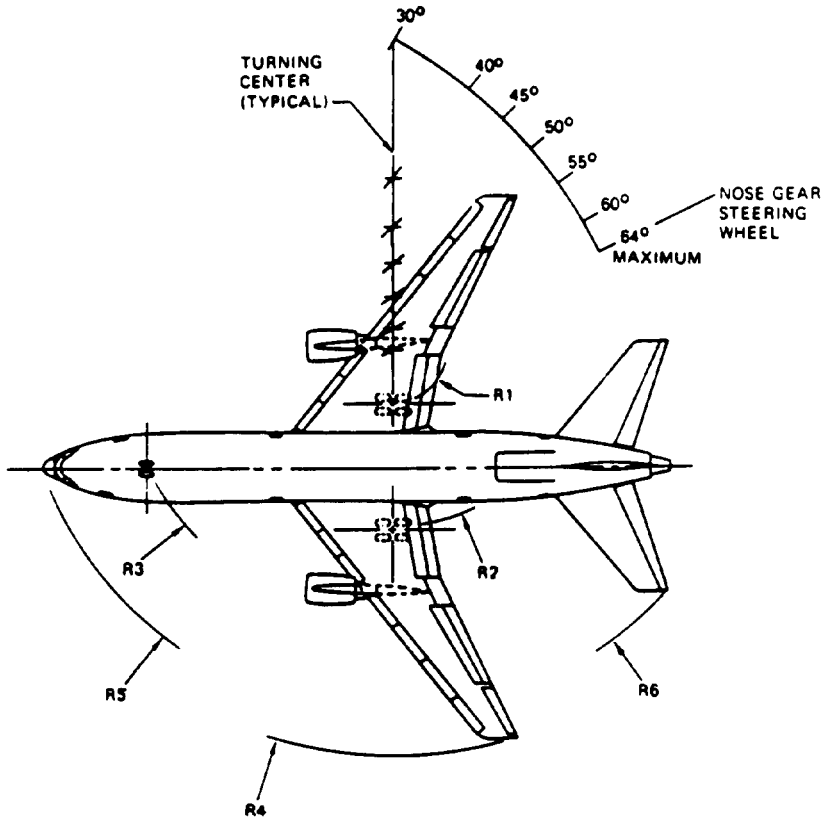


NOTES: 1. 4° TIRE SLIP ANGLE APPROXIMATE FOR 65° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

MODEL	EFFECTIVE TURNING ANGLE	X	Y	A	R-3	R-4	R-5	R-6
767-200, -200ER	61°	65	36	129	76	117	87	101
767-300, -300ER	61°	75	41	146	87	123	99	113

Figure D—82. Boeing 767-200/-200ER/-300/-300ER, Minimum Turning Radii — 4° Slip Angle

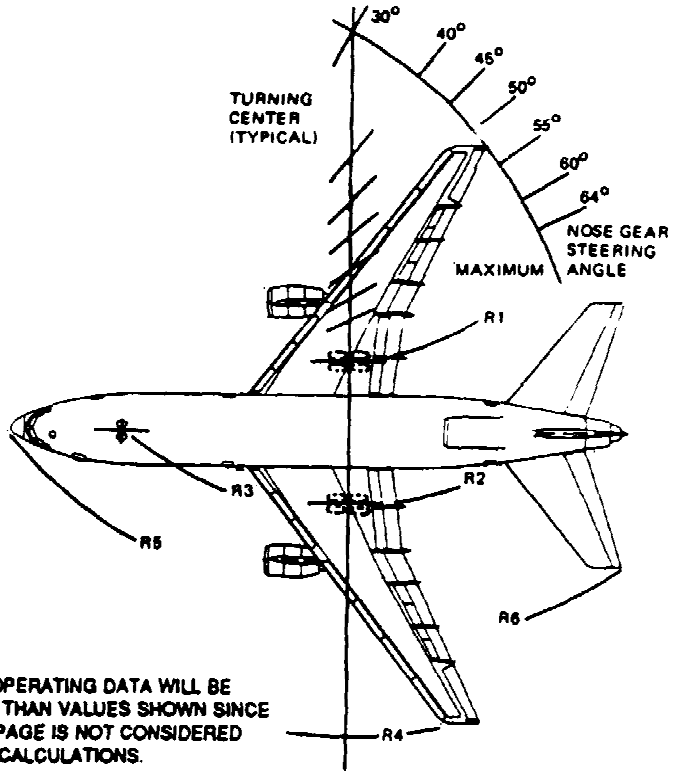


NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
30	103.3	139.3	140.0	201.7	167.0	174.6
40	65.4	101.4	108.9	164.6	130.0	141.6
45	52.0	88.0	99.0	151.4	121.8	130.5
50	40.8	76.8	91.3	140.5	115.8	121.5
55	31.0	67.0	85.4	131.1	111.2	114.2
60	22.4	58.4	80.8	122.8	107.6	107.9
64 (MAXIMUM)	16.0	52.0	77.9	116.8	105.4	103.5

Figure D—83. Lockheed L-1011-l/-l00/-200,
Turning Radii — No Slip Angle

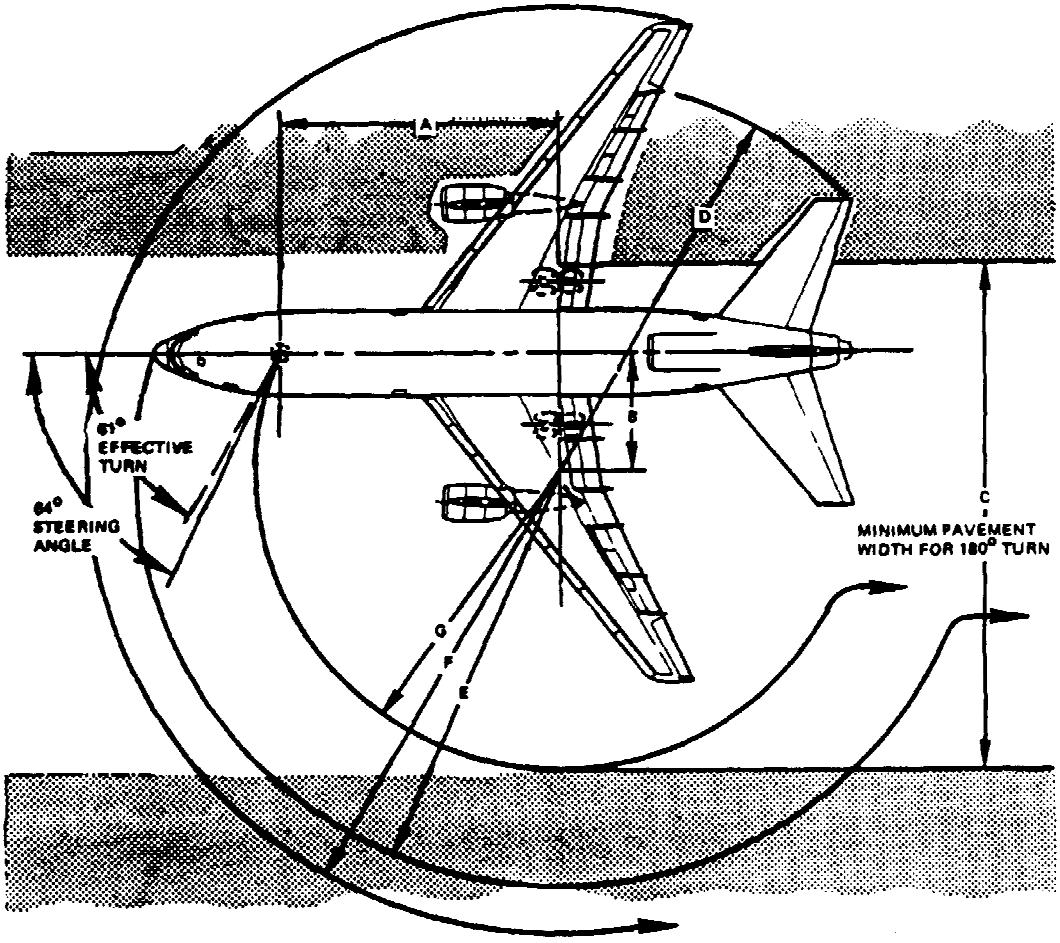


NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6	R4*
30	88.8	134.8	123.4	167.8	140.7	169.5	192.8
40	58.4	91.4	96.0	154.9	117.3	130.5	160.0
45	43.6	79.6	87.3	143.4	110.3	120.8	148.5
50	33.7	69.7	80.6	133.8	105.0	112.9	138.8
55	26.1	61.1	75.4	125.5	101.1	106.4	130.6
60	17.5	53.5	71.3	118.3	98.1	100.9	123.3
64 (MAXIMUM)	11.9	47.9	68.8	112.9	96.2	97.1	101.1

Figure D—84. Lockheed L-1011-500 and L-1011-500 Extended Wing, Turning Radii — No Slip Angle



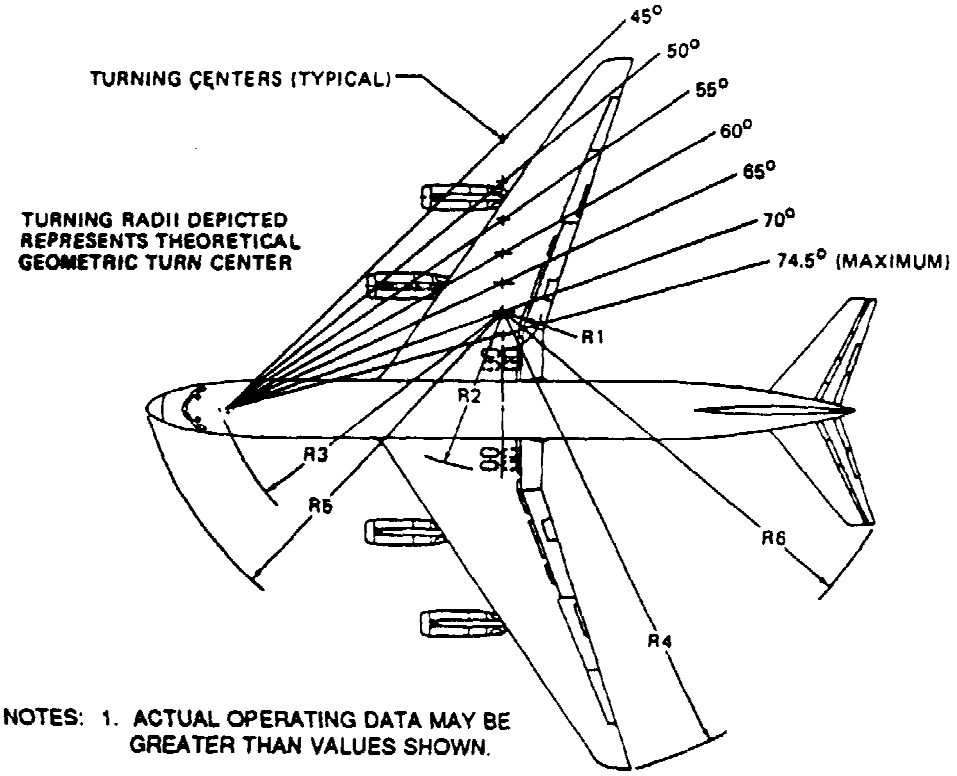
NOTES: 1. 3° TIRE SLIP ANGLE APPROXIMATE FOR 64° TURN ANGLE.

2. DIMENSIONS IN TABLE ARE IN FEET.

▷ THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. TURN INITIATED WITH AIRPLANE IN MOTION, APPROXIMATELY IDLE THRUST ON ALL ENGINES. NO DIFFERENTIAL BRAKING.

MODEL	A	B	C	D	E	F	G
L-1011-1 L-1011-100 L-1011-200	70.0	38.8	141.3	106.8	107.0	121.3	80.2
L-1011-500	61.7	34.0	127.5	99.9	97.6	116.8	70.7
L-1011-500 EXTENDED WING	61.7	34.0	127.5	99.9	97.6	122.0	70.7

Figure D—85. Lockheed L-1011-l/-100/-200/-500/-500 Extended Wing, Minimum Turning Radii — 3° Slip Angle

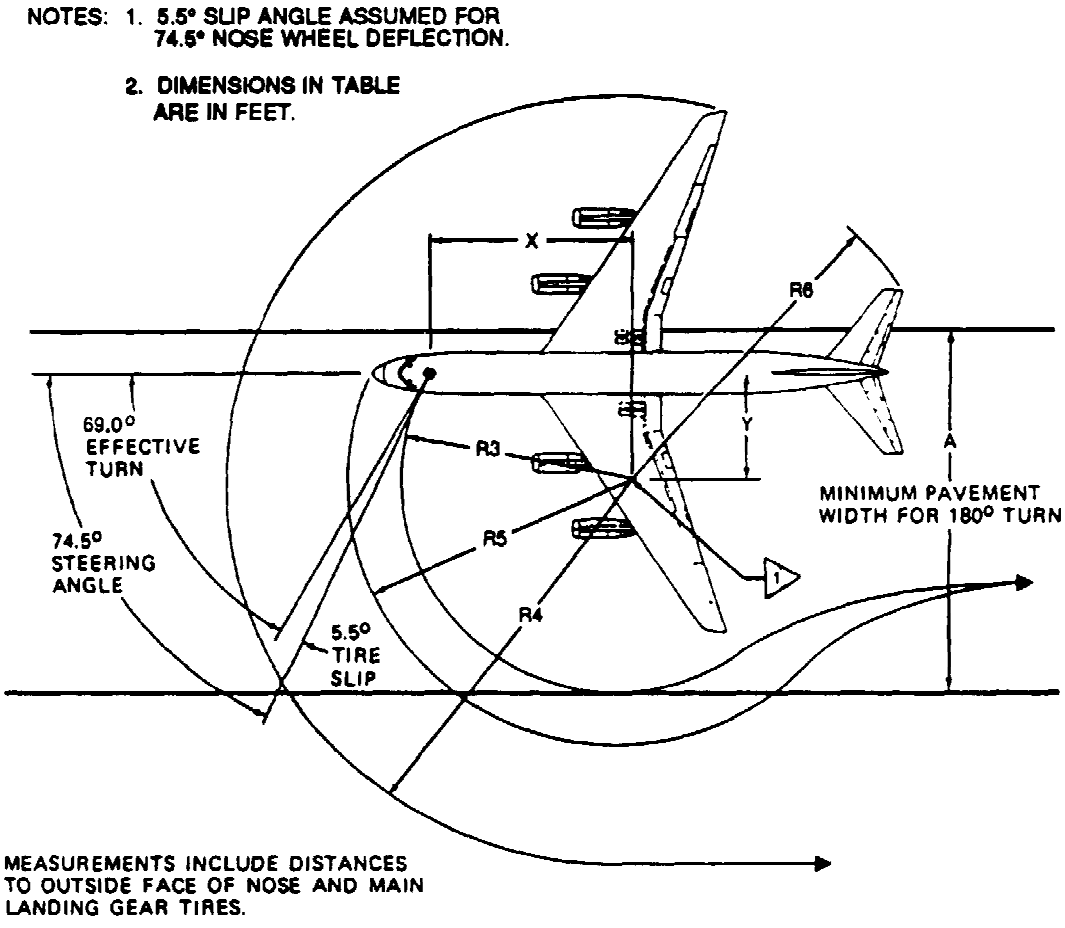


NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN.

2. DIMENSIONS IN TABLE ARE IN FEET.

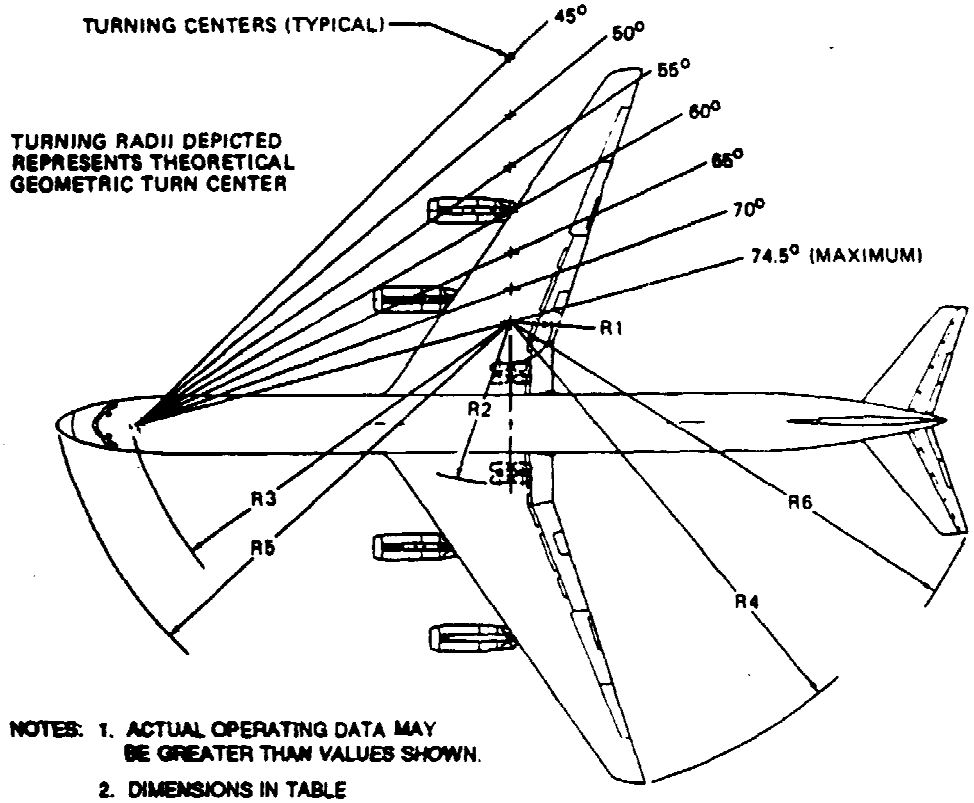
STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
30	87.3	111.9	115.0	172.7	123.7	145.5
35	69.8	84.4	100.2	156.5	110.1	131.1
40	56.2	80.9	88.5	142.1	100.4	120.4
45	45.2	69.8	81.3	131.3	93.2	112.1
50	35.9	60.6	75.0	122.2	87.6	105.6
55	27.9	52.6	70.2	114.4	83.7	100.3
60	20.9	45.5	66.4	107.6	80.6	96.0
65	14.5	39.1	63.4	101.4	78.2	92.4
70	8.6	33.3	61.2	95.7	76.3	89.3
74.5 (MAXIMUM)	3.6	28.3	59.7	90.9	75.1	86.9

Figure D—86. McDonnell Douglas DC-8-43/-55/-55F, Turning Radii — No Slip Angle



X	Y	A	R3	R4	R5	R6
57.5	22.1	97.2	62.8	96.8	76.6	89.9

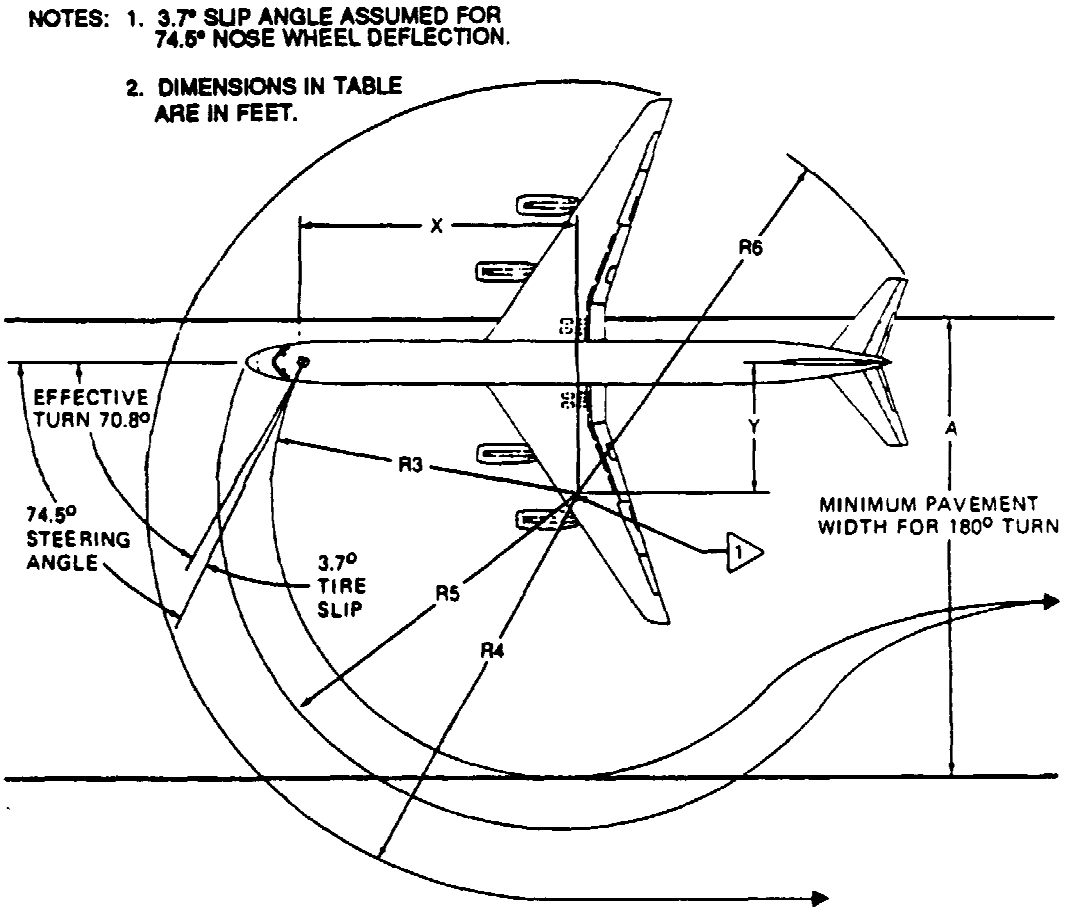
Figure D-87. McDonnell Douglas DC-8-43/-55/-55F,
Minimum Turning Radii — 5.5° Slip Angle



NOTES:
1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN.
2. DIMENSIONS IN TABLE ARE IN FEET.

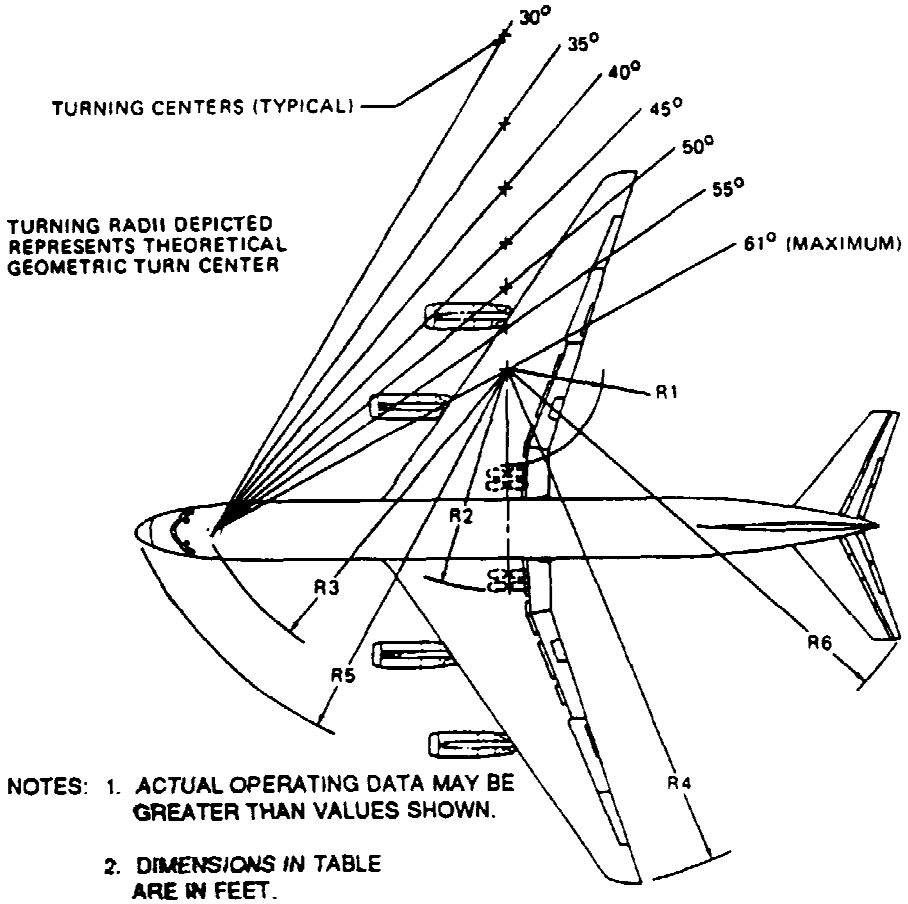
STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
30	121.9	146.6	186.0	207.0	163.5	183.8
35	96.3	123.0	136.1	183.7	144.9	163.9
40	80.0	104.7	120.4	165.6	131.4	149.3
45	66.2	88.8	109.5	151.0	121.4	138.0
50	57.7	77.4	101.0	138.8	113.7	129.2
55	41.9	66.6	94.5	128.3	107.9	122.1
60	32.4	57.1	88.4	118.9	103.6	116.2
65	23.8	48.5	85.4	110.5	100.0	111.4
70	15.9	40.5	82.4	102.9	97.5	107.4
74.5 (MAXIMUM)	9.2	33.8	80.3	96.5	95.9	104.3

Figure D—88. McDonnell Douglas DC-8-61/-61F/-71/-71F, Turning Radii — No Slip Angle



X	Y	A	R3	R4	R5	R6
77.4	27.0	122.5	83.2	101.8	97.1	106.9

Figure D-89. McDonnell Douglas DC-8-61/-61F/-71/-71F, Minimum Turning Radii — 3.7° Slip Angle



NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN.

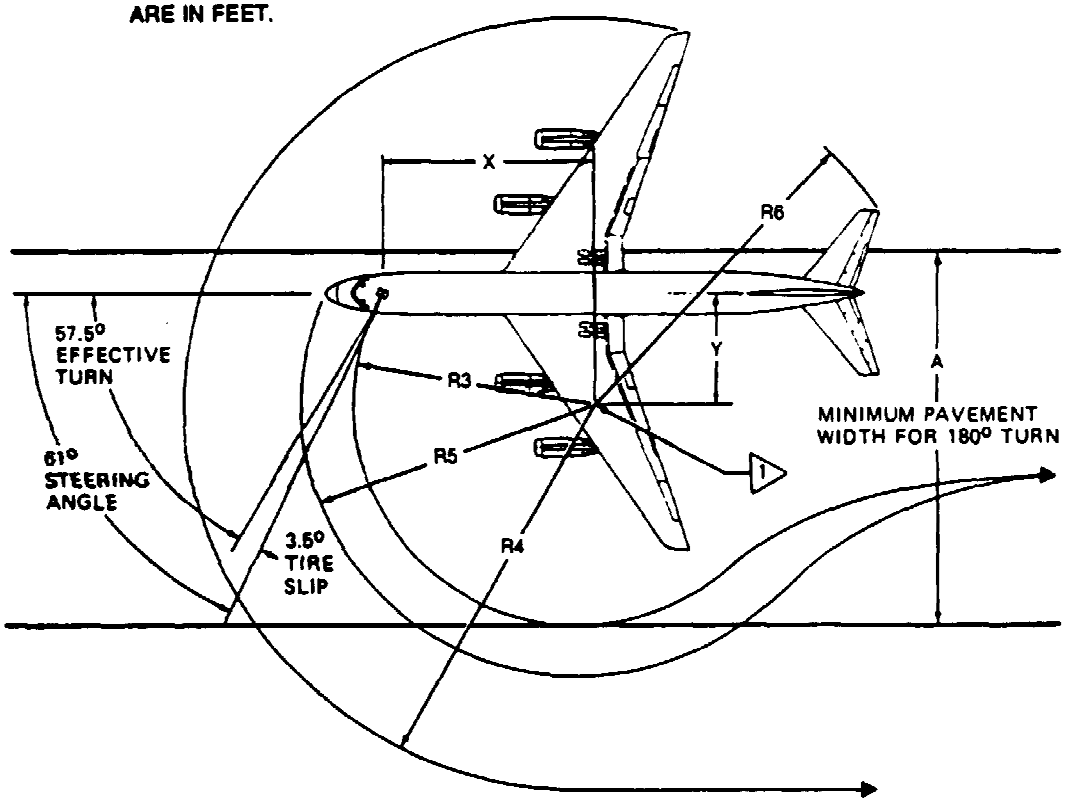
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
20	154.7	179.6	177.6	242.6	183.9	207.2
25	116.0	142.9	143.9	208.4	151.3	174.0
30	92.9	117.8	121.6	181.5	130.3	152.2
35	74.4	99.3	106.0	163.3	115.9	136.9
40	60.1	84.9	94.6	149.1	105.6	125.6
45	48.4	73.3	86.0	137.7	97.9	116.9
50	38.6	63.5	79.4	128.1	92.2	110.0
55	30.2	55.0	74.2	119.8	87.8	104.4
61 (MAXIMUM)	21.3	46.2	69.5	111.2	83.8	99.0

Figure D-90. McDonnell Douglas DC-8-62/-62F/-72/-72F, Turning Radii — No Slip Angle

NOTES: 1. 3.5° SLIP ANGLE ASSUMED FOR 61.0° NOSE WHEEL DEFLECTION.

2. DIMENSIONS IN TABLE ARE IN FEET.

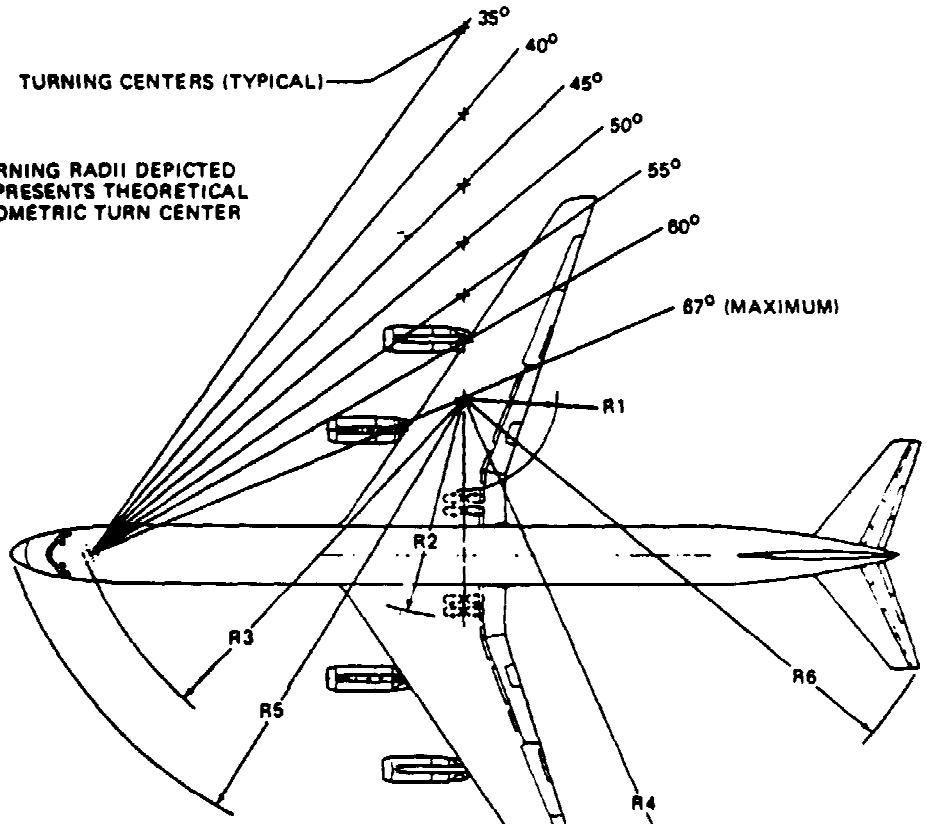


MEASUREMENTS INCLUDE DISTANCES TO OUTSIDE FACE OF NOSE AND MAIN LANDING GEAR TIRES.

1 THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. TURN INITIATED WITH AIRCRAFT IN MOTION, APPROXIMATELY IDLE THRUST ON ALL ENGINES WITH NO DIFFERENTIAL BRAKING.

X	Y	A	R3	R4	R5	R6
61.7	39.3	126.0	74.4	116.4	87.0	101.7

Figure D—91. McDonnell Douglas DC-8-62/-62F/-72/-72F, Minimum Turning Radii — 3.5° Slip Angle



NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN.

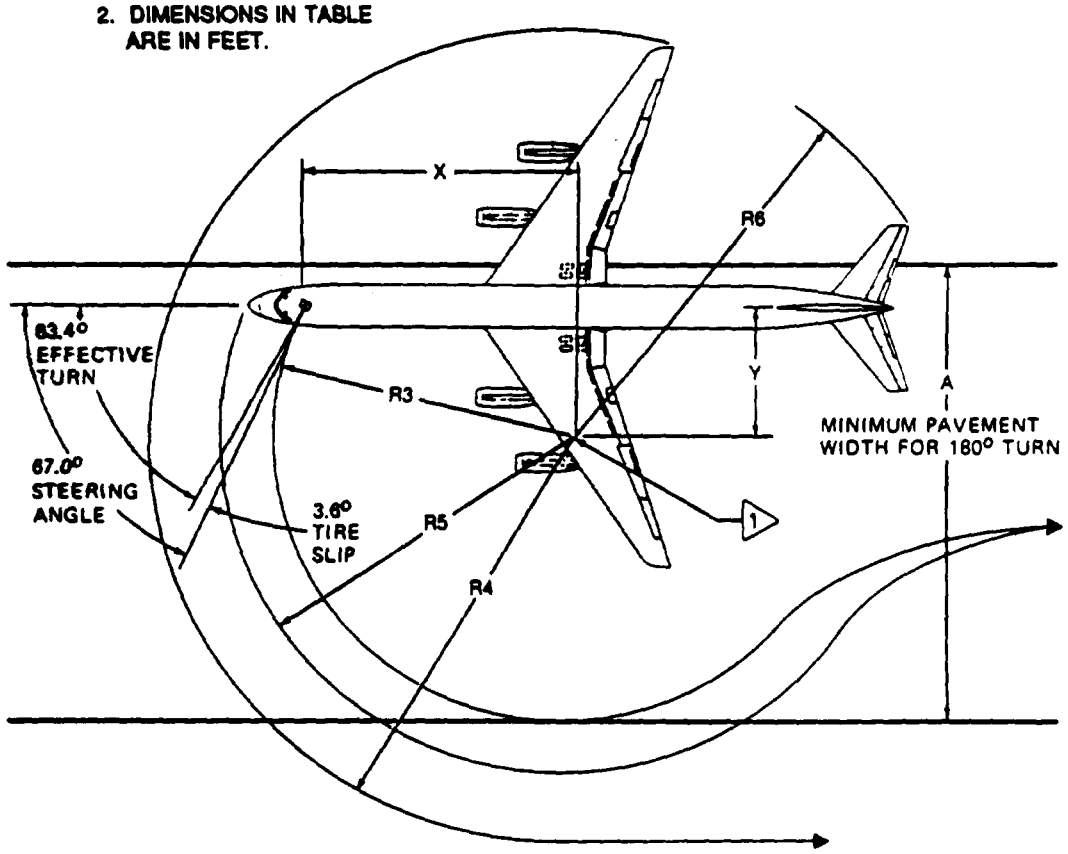
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
25	183.8	176.5	183.3	241.7	180.8	211.9
30	131.3	146.7	155.9	210.0	163.5	183.9
35	96.2	123.1	135.1	187.6	144.7	163.9
40	75.9	104.9	120.5	169.6	131.4	148.3
45	66.1	89.8	109.5	154.9	121.4	136.9
50	62.6	77.5	101.0	141.7	113.7	128.2
55	41.8	66.7	94.6	131.2	107.8	122.1
60	32.3	57.2	89.4	121.9	103.6	116.2
87 (MAXIMUM)	20.5	45.3	84.1	116.4	99.9	109.7

Figure D—92. McDonnell Douglas DC—8—63/—63F/—73/—73F, Turning Radii — No Slip Angle

NOTES: 1. 3.6° SLIP ANGLE ASSUMED FOR 67° NOSE WHEEL DEFLECTION.

2. DIMENSIONS IN TABLE ARE IN FEET.

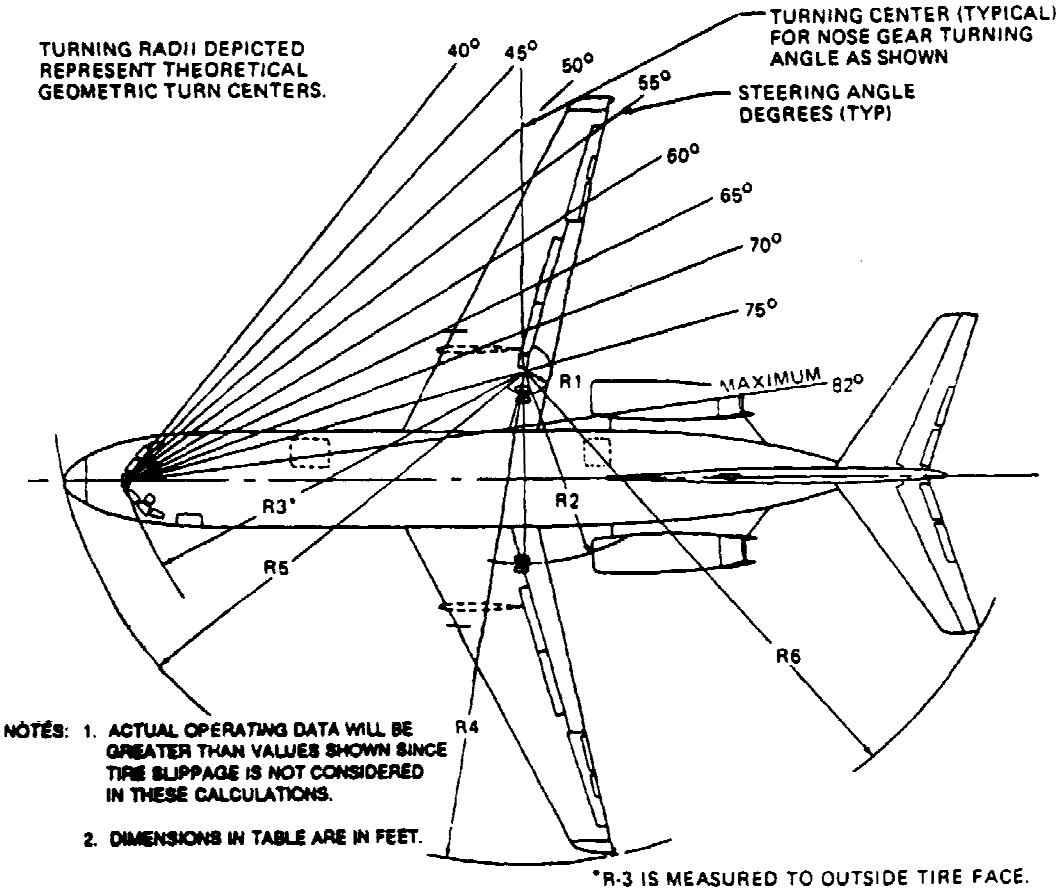


MEASUREMENTS INCLUDE DISTANCES TO OUTSIDE FACE OF NOSE AND MAIN LANDING GEAR TIRES.

1 THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. TURN INITIATED WITH AIRCRAFT IN MOTION, APPROXIMATELY IDLE THRUST ON ALL ENGINES WITH NO DIFFERENTIAL BRAKING.

X	Y	A	R3	R4	R5	R6
77.4	38.8	139.0	87.8	116.1	101.0	113.0

Figure D—93. McDonnell Douglas DC-8-63/-63F/-73/-73F, Minimum Turning Radii — 3.6° Slip Angle



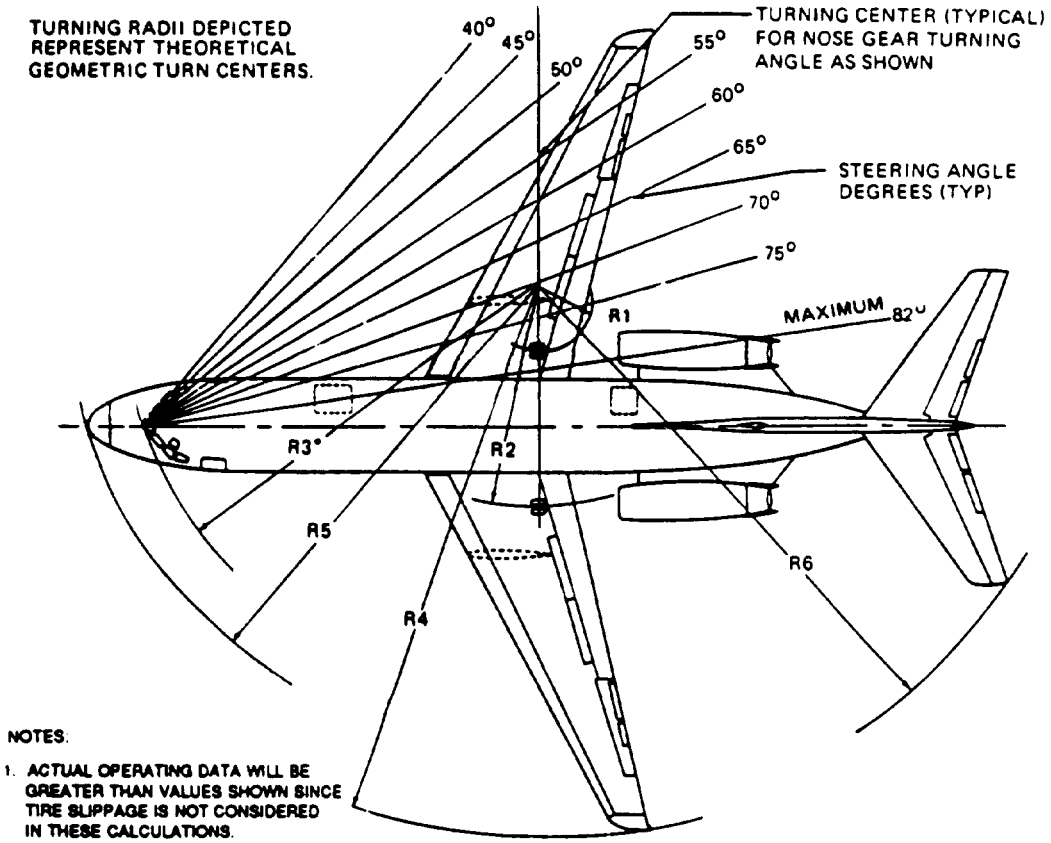
NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

*R-3 IS MEASURED TO OUTSIDE TIRE FACE.

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	67.5	83.8	88.1	120.9	91.4	108.0
45	35.5	51.8	62.6	89.2	67.3	81.7
50	28.5	44.8	57.8	82.2	63.0	76.5
55	22.4	38.7	54.1	76.2	59.7	72.3
60	17.0	33.4	51.2	70.9	57.1	68.8
65	12.2	28.5	48.0	66.1	55.1	65.8
70	7.7	24.1	47.3	61.8	53.7	63.3
75	3.5	19.9	46.0	57.7	52.6	61.1
82 (MAXIMUM)	-2.0	14.3	44.9	52.2	51.6	58.5

Figure D—94. McDonnell Douglas DC-9-15/-15F,
Turning Radii — No Slip Angle



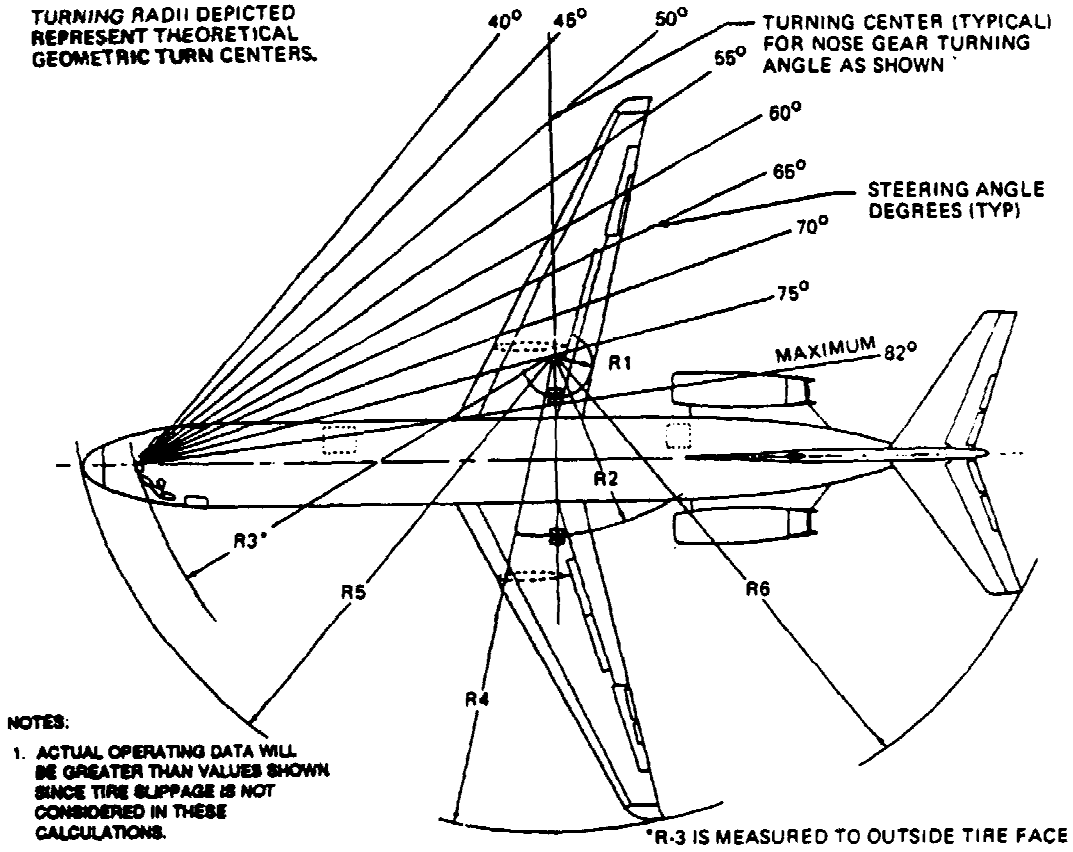
NOTES:

1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET.

*R-3 IS MEASURED TO OUTSIDE TIRE FACE

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	67.5	83.8	88.1	122.9	91.4	108.0
45	35.5	51.8	62.6	91.2	67.3	81.7
50	28.5	44.8	57.8	84.2	63.0	76.5
55	22.4	38.8	54.1	78.2	59.7	72.3
60	17.0	33.4	51.2	72.8	57.1	68.7
65	12.2	28.5	49.0	68.2	55.1	65.8
70	7.7	24.1	47.3	63.8	53.7	63.2
75	3.5	19.9	46.0	59.7	52.6	61.1
82 (MAXIMUM)	-2.0	14.3	44.9	54.2	51.6	58.5

Figure D-95. McDonnell Douglas DC-9-21, Turning Radii — No Slip Angle

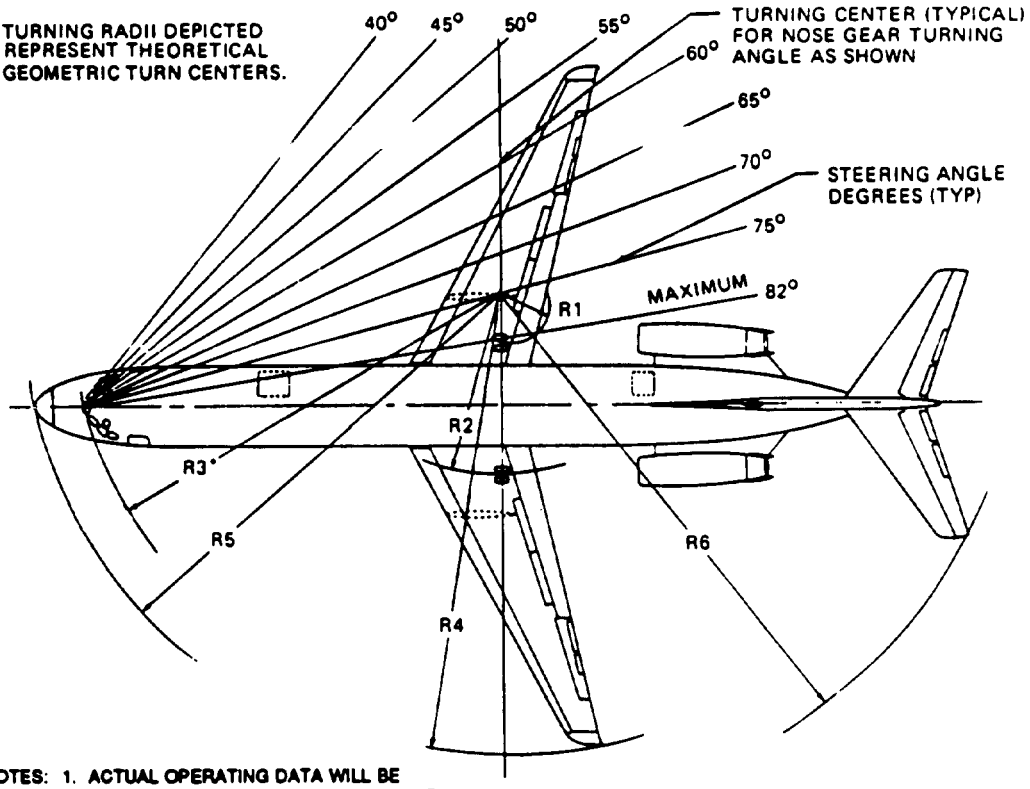


NOTES:

1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.
2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	83.9	100.3	107.1	139.3	110.3	125.0
45	45.9	61.3	78.0	100.6	80.7	92.5
50	36.4	52.8	70.2	92.1	75.4	86.0
55	29.1	45.4	65.7	84.8	71.2	80.6
60	22.5	38.9	62.2	78.3	68.1	76.4
65	16.6	33.0	59.5	72.5	65.6	72.9
70	11.2	27.6	57.4	67.2	63.6	69.7
75	6.1	22.4	55.8	62.2	62.4	67.0
82 (MAXIMUM)	-0.7	15.6	54.5	55.5	61.2	64.0

Figure D—96. McDonnell Douglas DC-9-32/-33F,
Turning Radii — No Slip Angle



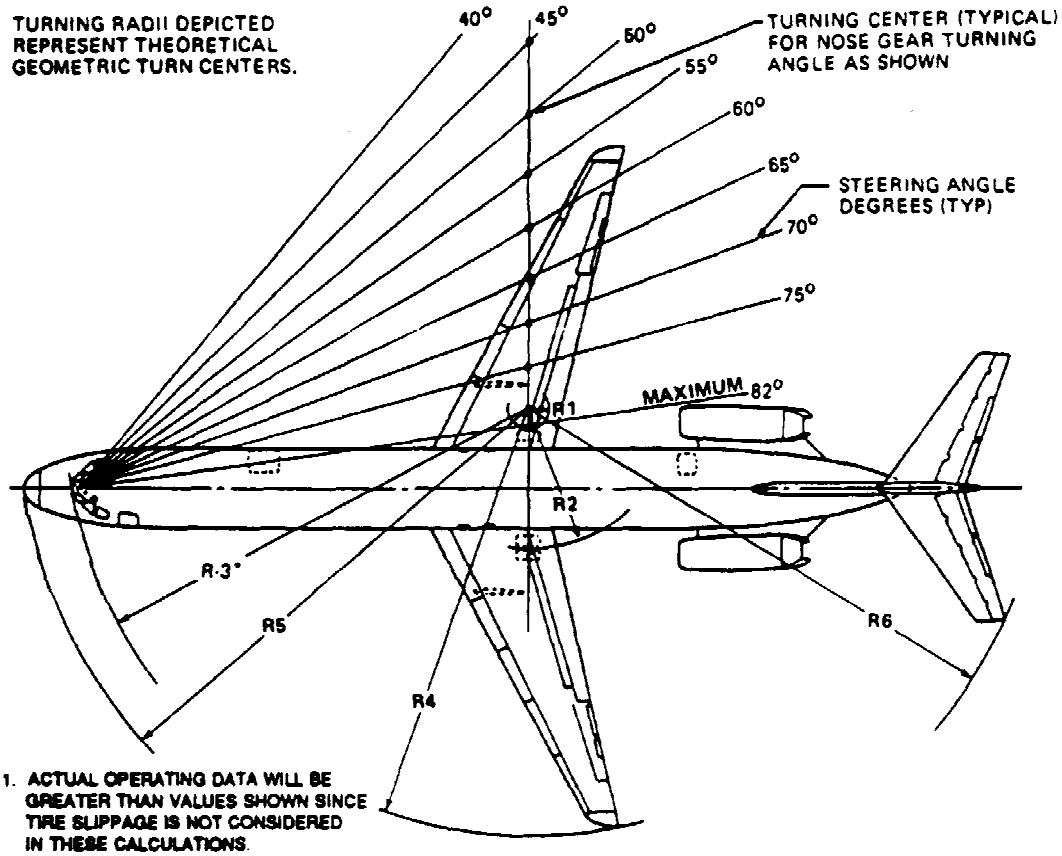
NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

*R-3 IS MEASURED TO OUTSIDE TIRE FACE

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	89.3	105.3	113.2	144.5	116.4	131.2
45	48.2	64.2	80.3	103.6	85.0	96.9
50	39.1	55.2	74.2	94.6	79.3	90.1
55	31.3	47.4	69.4	86.9	74.9	84.6
60	24.4	40.4	65.7	80.1	71.6	80.1
65	18.2	34.2	62.8	73.9	68.9	76.3
70	12.4	28.5	60.6	68.3	67.0	73.0
75	7.1	23.1	59.0	63.0	65.5	70.3
82 (MAXIMUM)	-0.1	15.9	57.5	56.0	64.3	67.2

Figure D—97. McDonnell Douglas DC-9-41,
Turning Radii — No Slip Angle



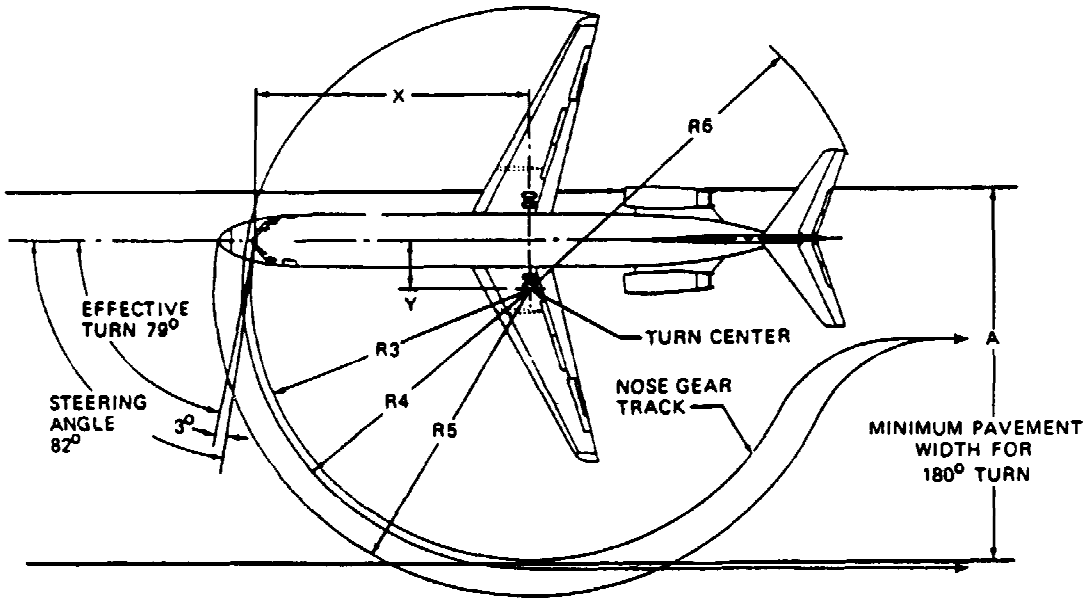
NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

*R-3 IS MEASURED TO OUTSIDE TIRE FACE

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	97.5	113.5	122.7	153.8	125.8	140.0
45	52.9	68.9	87.0	109.0	91.6	102.6
50	43.1	59.1	80.4	100.3	85.4	95.3
55	34.6	50.6	75.2	92.1	80.7	88.3
60	27.2	43.2	71.2	84.8	77.0	84.3
65	20.4	36.4	68.1	78.3	74.1	80.2
70	14.2	30.2	65.7	72.4	72.0	76.7
75	8.3	24.3	63.8	66.9	70.4	73.8
82 (MAXIMUM)	0.6	16.6	62.4	59.6	69.0	70.5

Figure D-98. McDonnell Douglas DC-9-51,
Turning Radii — No Slip Angle



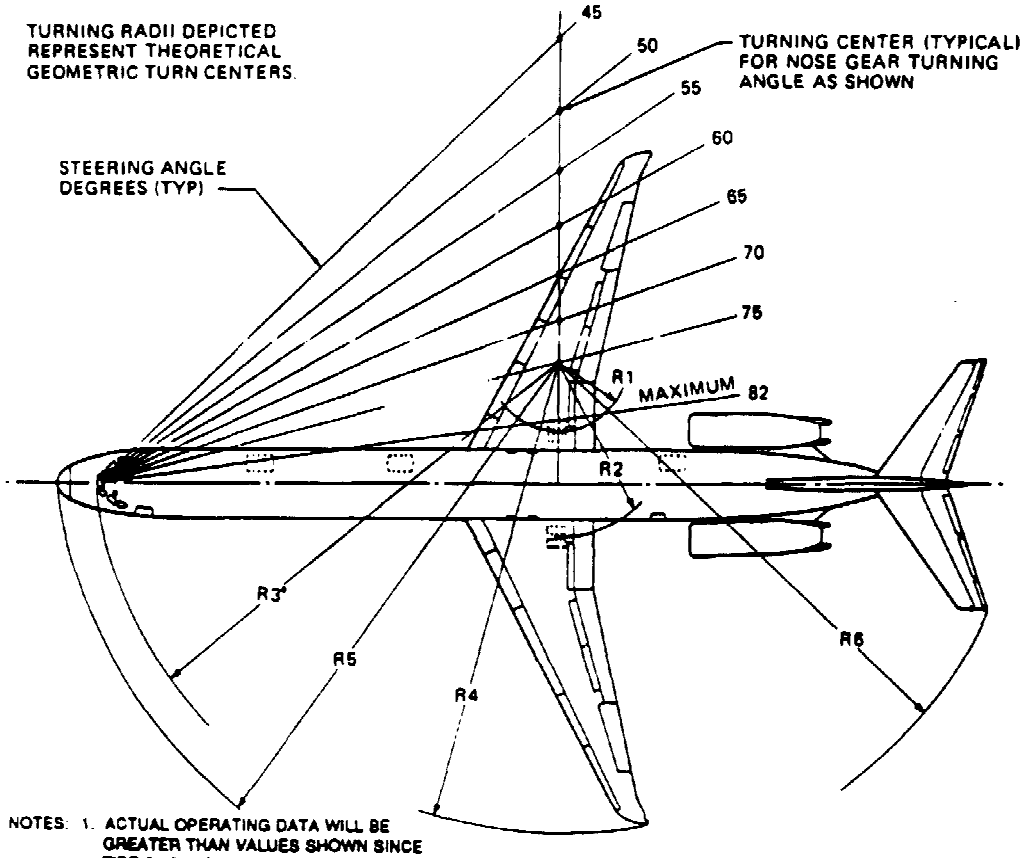
NOTES: 1. 3° TIRE SLIP ANGLE ASSUMES 82° NOSE WHEEL DEFLECTION DURING VERY SLOW TURNING.

2. NO DIFFERENTIAL BRAKING OR UNSYMMETRICAL THRUST.

3. DIMENSIONS IN TABLE ARE IN FEET.

DC-9	EFFECTIVE TURNING ANGLE	X	Y	A	R3	R4	R5	R6
-15, -15F	79°	43.7	8.5	63.7	45.4	54.5	51.9	59.6
-21	79°	43.7	8.5	63.7	45.4	56.5	51.9	59.5
-32, -33F	79°	53.2	10.3	75.2	55.1	58.3	61.6	65.2
-41	79°	56.2	10.9	78.9	58.2	58.9	64.7	68.5
-51	79°	60.9	11.8	84.5	62.0	59.8	69.5	71.8

Figure D—99. McDonnell Douglas DC-9-15/-15F/-21/-32/-33F/-41/-51, Minimum Turning Radii — 3° Slip Angle

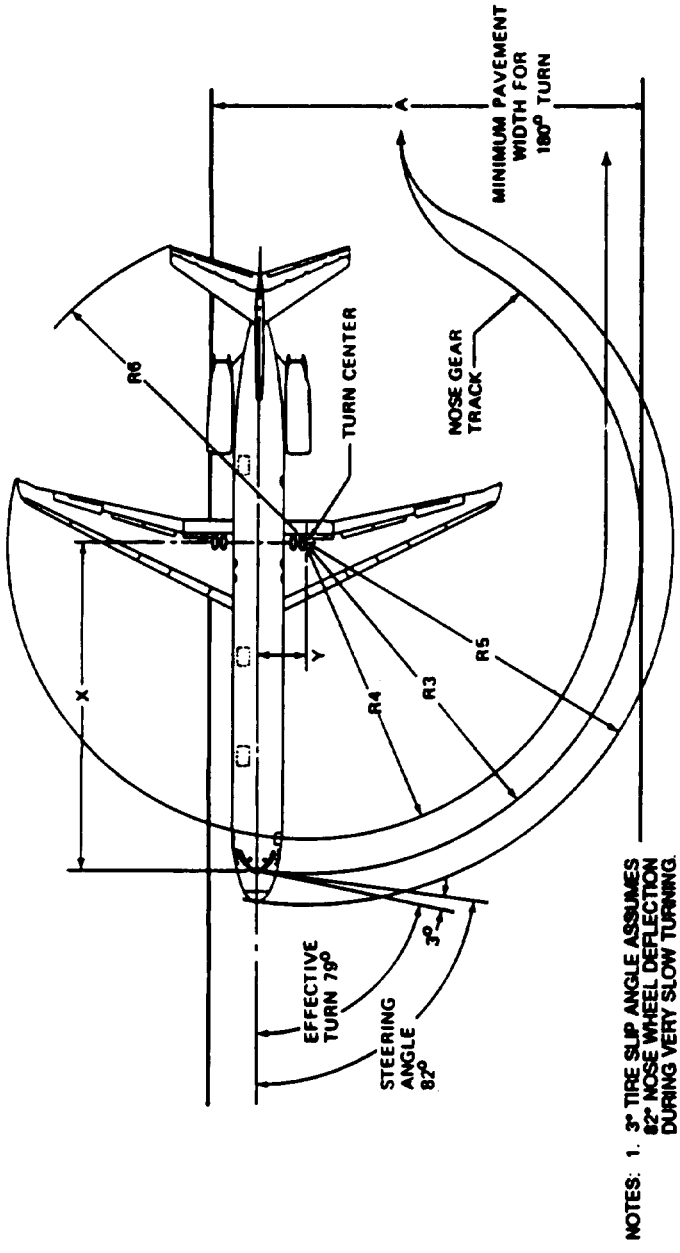


NOTES: 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET. *R-3 IS MEASURED TO OUTSIDE TIRE FACE.

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	117.1	133.8	145.7	180.0	148.8	160.6
45	64.1	80.8	103.3	127.3	107.9	114.7
50	52.4	69.1	95.4	115.7	100.8	105.6
55	42.4	59.0	89.3	106.7	94.7	98.1
60	33.5	50.1	84.5	97.0	90.3	91.8
65	25.4	42.1	80.8	89.0	86.8	86.6
70	18.0	34.7	78.0	81.7	84.2	82.2
75	11.1	27.7	75.9	74.9	82.3	78.5
82 (MAXIMUM)	1.9	18.5	74.0	65.9	80.7	74.3

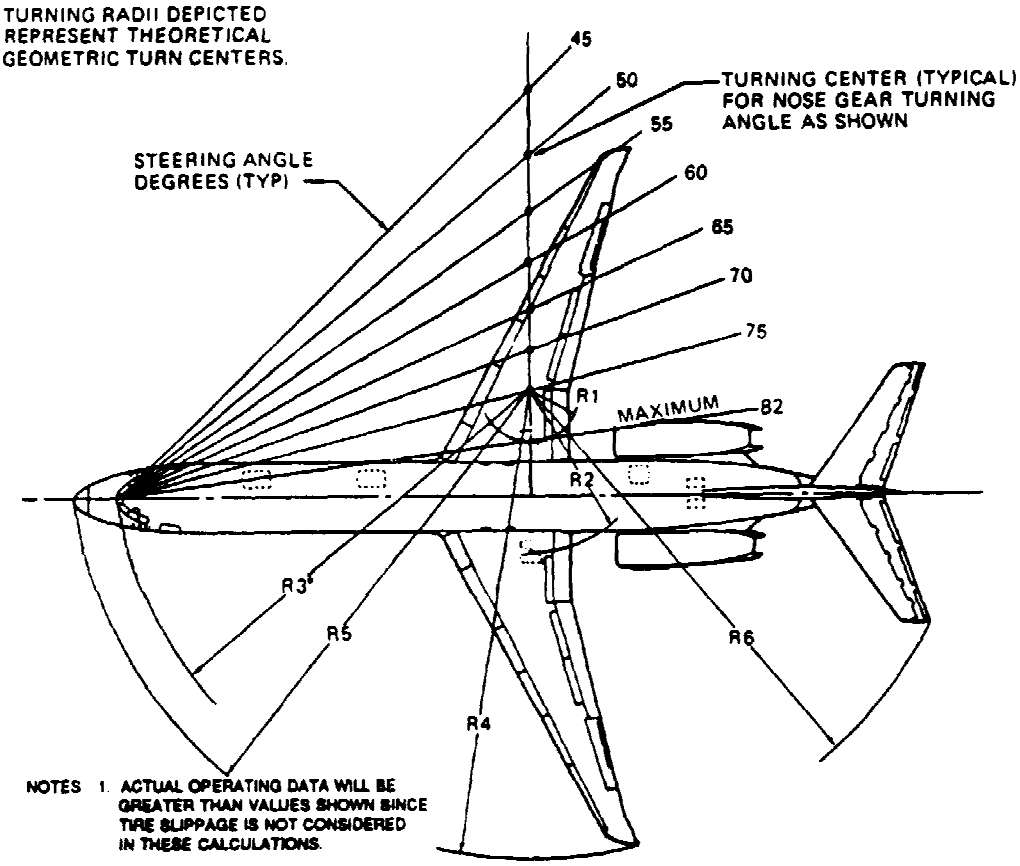
Figure D—100. McDonnell Douglas MD-81/-82/-83/-88,
Turning Radii — No Slip Angle



EFFECTIVE TURNING ANGLE	X	Y	A	R3	R4	R5	R6
79°	72.4	14.0	98.8	73.6	69.6	81.2	75.9

NOTES:
1. 3° TIRE SLIP ANGLE ASSUMES 82° NOSE WHEEL DEFLECTION DURING VERY SLOW TURNING.
2. NO DIFFERENTIAL BRAKING OR UNSYMMETRICAL THRUST.
3. DIMENSIONS IN TABLE ARE IN FEET.

Figure D-101. McDonnell Douglas MD-81/-82/-83/-88,
Minimum Turning Radii — 3° Slip Angle



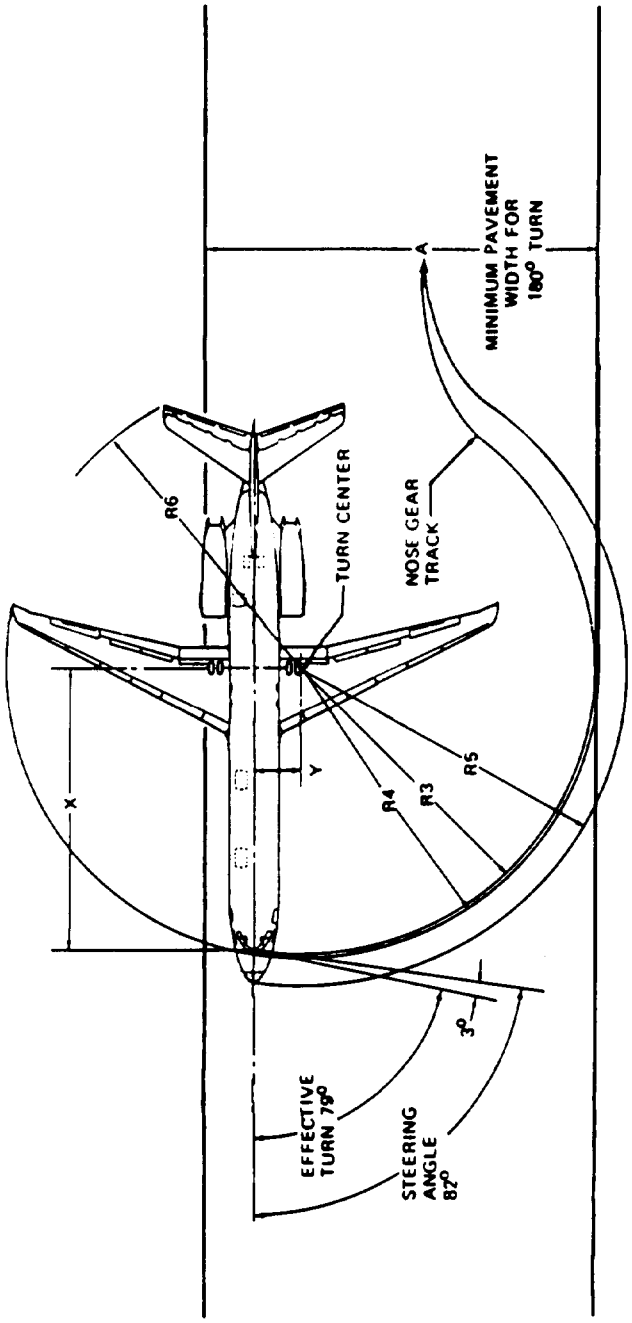
NOTES 1. ACTUAL OPERATING DATA WILL BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

*R-3 IS MEASURED TO OUTSIDE TIRE FACE.

STEERING ANGLE (DEGREES)	R1	R2	R3*	R4	R5	R6
30	100.6	117.3	126.7	163.6	129.8	142.3
45	54.6	71.3	89.8	117.8	94.5	102.4
50	44.5	61.1	83.0	107.7	88.1	94.4
55	35.7	52.4	77.7	99.1	83.1	87.8
60	28.0	44.7	73.5	91.4	79.3	82.3
65	21.0	37.7	70.3	84.6	76.4	77.7
70	14.6	31.3	67.8	78.2	74.2	73.8
75	8.5	25.3	66.0	72.2	72.5	70.4
82 (MAXIMUM)	0.5	17.2	64.4	64.5	71.1	66.6

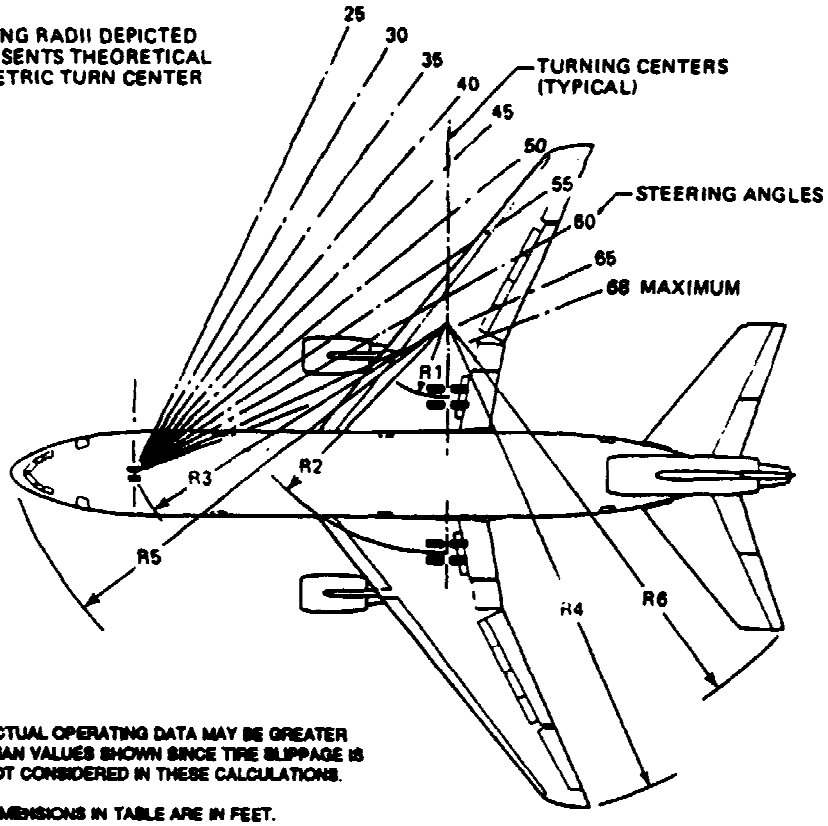
Figure D—102. McDonnell Douglas MD-87,
Turning Radii — No Slip Angle



EFFECTIVE TURNING ANGLE	X	Y	A	R3	R4	R5	R6
79°	62.9	12.2	87.4	64.1	67.7	71.6	68.1

NOTES:
1. 3° TIRE SLIP ANGLE ASSUMES 82° NOSE WHEEL DEFLECTION DURING VERY SLOW TURNING.
2. NO DIFFERENTIAL BRAKING OR UNSYMMETRICAL THRUST.
3. DIMENSIONS IN TABLE ARE IN FEET.

Figure D-l03. McDonnell Douglas MD-87, Minimum Turning Radii — 3° Slip Angle

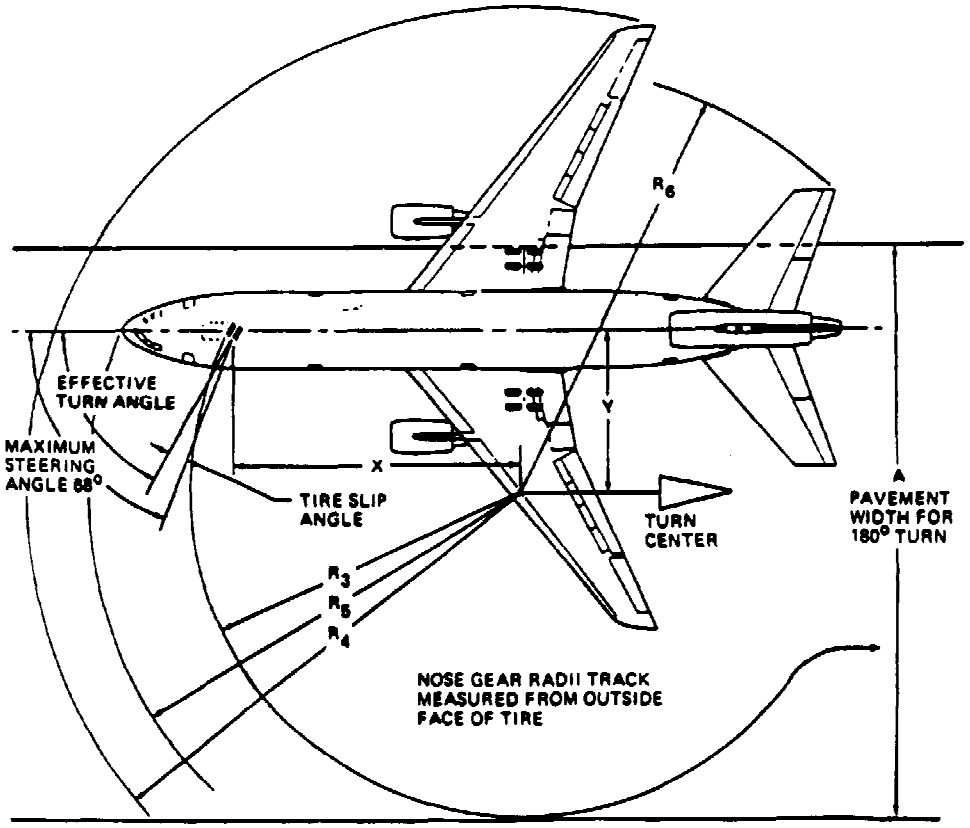


NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6
25	198.2	172.9	171.8	236.7	196.1	206.2
30	108.3	142.9	146.0	206.2	160.8	178.8
35	82.2	120.9	126.4	184.5	144.2	159.2
40	69.1	103.8	112.8	167.7	132.5	144.5
45	56.2	89.9	102.6	154.1	123.8	133.0
50	43.5	78.2	94.7	142.8	117.4	123.7
55	33.4	68.1	86.8	133.0	112.5	116.9
60	24.5	59.2	83.7	124.4	108.8	109.5
65	16.5	51.2	80.0	116.7	105.9	104.0
68 (MAXIMUM)	12.0	46.6	78.2	112.4	104.6	101.0

Figure D-104. McDonnell Douglas DC-10-10,
Turning Radii — No Slip Angle



1 MAXIMUM STEERING:
SYMMETRICAL THRUST AND NO DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAX GROSS WEIGHT

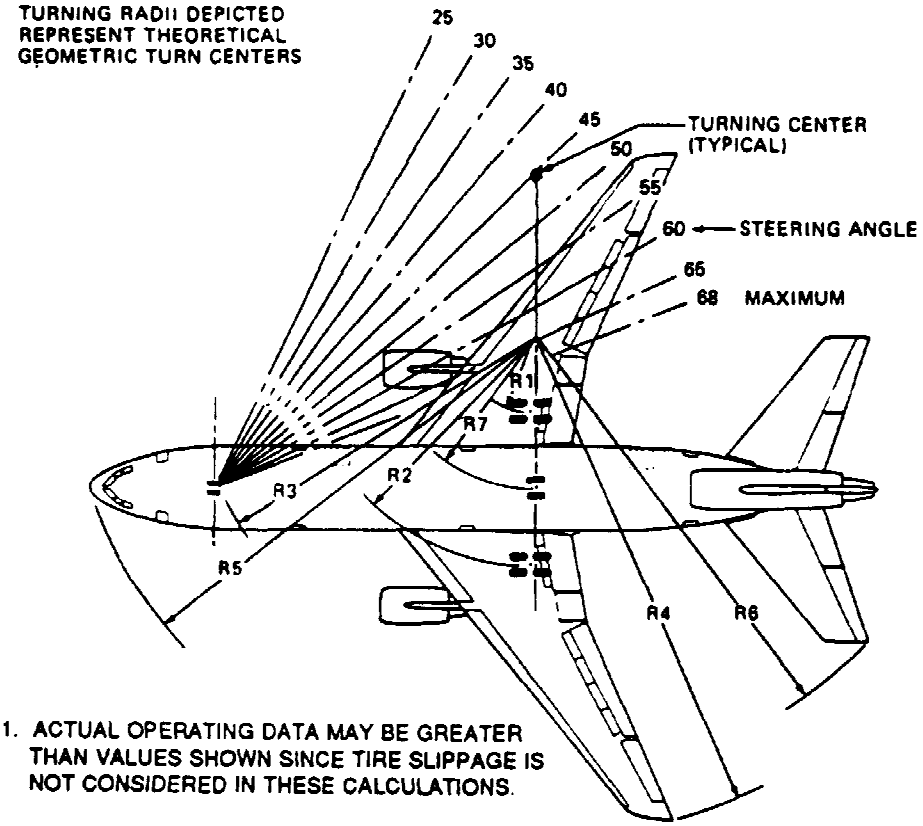
2 MAXIMUM STEERING:
UNSYMMETRICAL THRUST AND LIGHT DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAX GROSS WEIGHT

3 MINIMUM RADIUS TURN RECOMMENDED FOR NORMAL, ROUTINE OPERATIONS. LIMITED TO AVOID EXCESSIVE TIRE WEAR AND REDUCTION OF LANDING GEAR FATIGUE LIFE.

TYPE OF TURN	EFFECTIVE TURN ANGLE	TIRE SLIP ANGLE	X	Y	A	R_3	R_4	R_5	R_6
1	61.7°	6.3°	72.5	39.0	143.5	83.9	121.7	107.6	107.5
2	89.6°	-1.5°	72.5	27.0	126.5	78.8	110.4	103.8	99.7
3	·	·	72.5	39.5	144.3	84.1	122.2	108.0	107.9

NOTE: DIMENSIONS ARE IN FEET.

Figure D-105. McDonnell Douglas DC-10-10,
Minimum Turning Radii — With Slip Angle

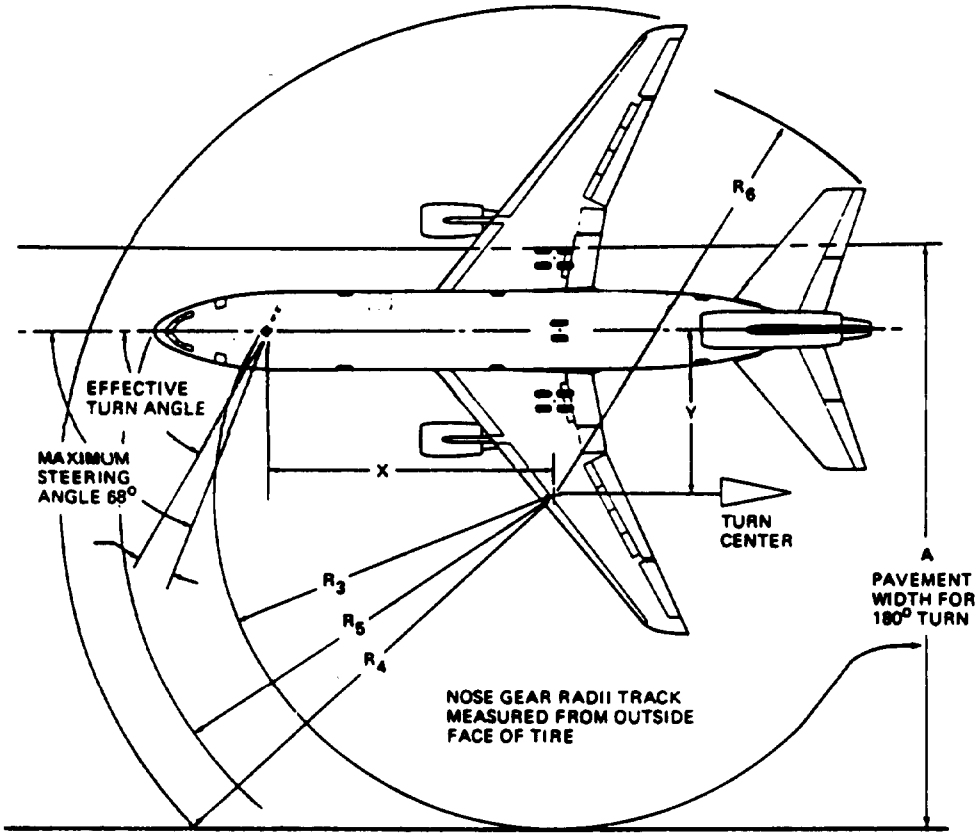


NOTES: 1. ACTUAL OPERATING DATA MAY BE GREATER THAN VALUES SHOWN SINCE TIRE SLIPPAGE IS NOT CONSIDERED IN THESE CALCULATIONS.

2. DIMENSIONS IN TABLE ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6	R7
25	138.9	173.9	172.6	241.9	186.1	206.9	156.4
30	108.9	143.8	145.9	212.3	161.6	179.3	126.3
35	86.7	121.7	127.2	190.5	145.0	159.5	104.2
40	69.4	104.4	113.6	173.6	133.1	144.7	86.9
45	55.4	90.4	103.1	159.9	124.4	133.1	73.0
50	43.7	78.7	95.2	148.5	117.9	123.7	61.2
55	33.6	68.6	89.0	138.8	113.0	115.9	51.1
60	24.6	59.6	84.2	130.1	109.2	109.4	42.2
65	16.5	51.5	80.6	122.4	106.4	103.8	34.1
68 (MAXIMUM)	12.0	47.0	78.7	118.1	105.0	100.8	29.5

Figure D—106. McDonnell Douglas DC-10-30 and DC-10-40, Turning Radii — No Slip Angle



1 MAXIMUM STEERING:
SYMMETRICAL THRUST AND NO DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAX GROSS WEIGHT

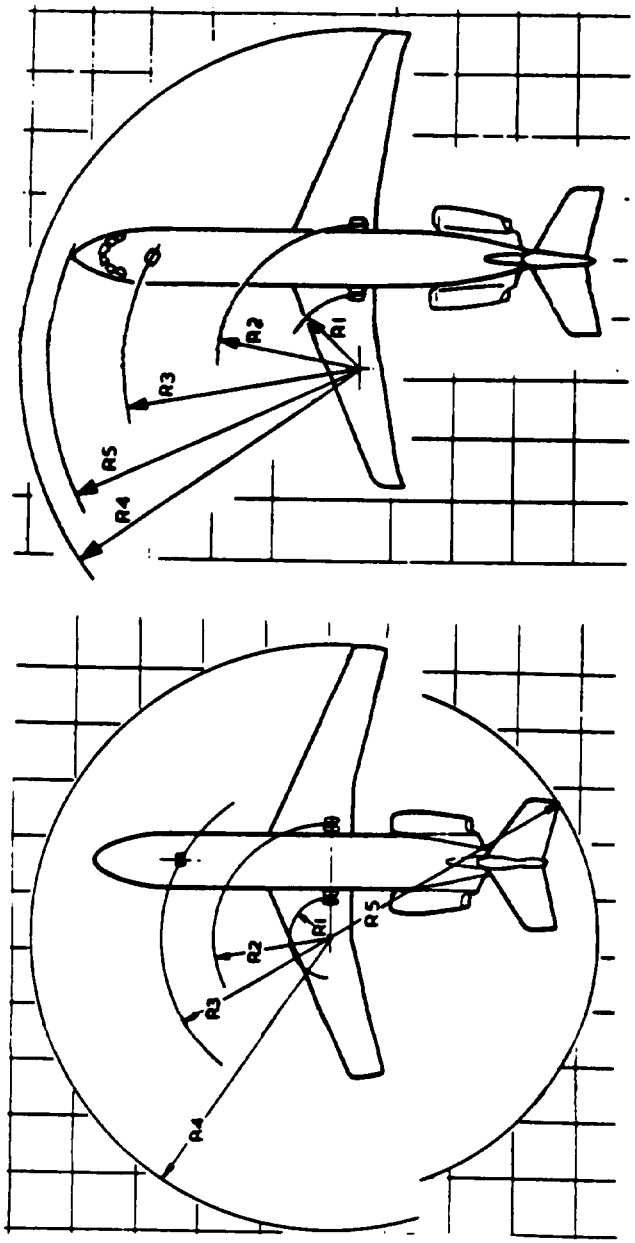
2 MAXIMUM STEERING:
UNSYMMETRICAL THRUST AND LIGHT DIFFERENTIAL BRAKING
SLOW CONTINUOUS TURN
AFT CENTER OF GRAVITY
MAX GROSS WEIGHT

3 MINIMUM RADIUS TURN RECOMMENDED FOR NORMAL, ROUTINE OPERATIONS. LIMITED TO AVOID EXCESSIVE TIRE WEAR AND REDUCTION OF LANDING GEAR FATIGUE LIFE.

TYPE OF TURN	EFFECTIVE TURN ANGLE	TIRE SLIP ANGLE	X	Y	A	R_3	R_4	R_5	R_6
1	62.9°	5.1°	72.9	37.2	141.4	83.5	125.3	107.5	105.9
2	68.3°	-1.3°	72.9	27.6	128.0	79.8	116.1	104.7	99.5
3	.	.	72.9	42.7	149.5	85.2	130.5	109.6	109.8

NOTE: DIMENSIONS ARE IN FEET.

Figure D-107. McDonnell Douglas DC-10-30 and DC-10-40, Minimum Turning Radii — With Slip Angle



NOTE: MAXIMUM NOSE WHEEL STEERING ANGLE 78°

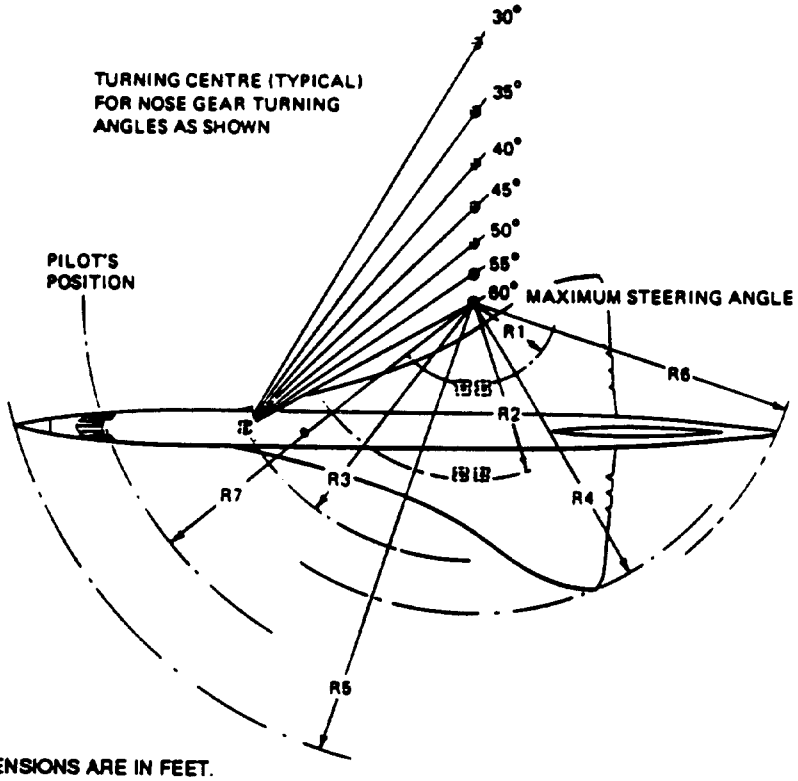
ONE-ELEVEN MODEL 500

R1	3 FEET
R2	16 FEET
R3	41 FEET
R4	57 FEET
R5	55 FEET

ONE-ELEVEN MODEL 200 & 400

R1	2 FEET
R2	15 FEET
R3	33 FEET
R4	51 FEET
R5	48 FEET

Figure D—108. B.A.C. One—Eleven Model 200, 400, and 500, Minimum Turning Radii

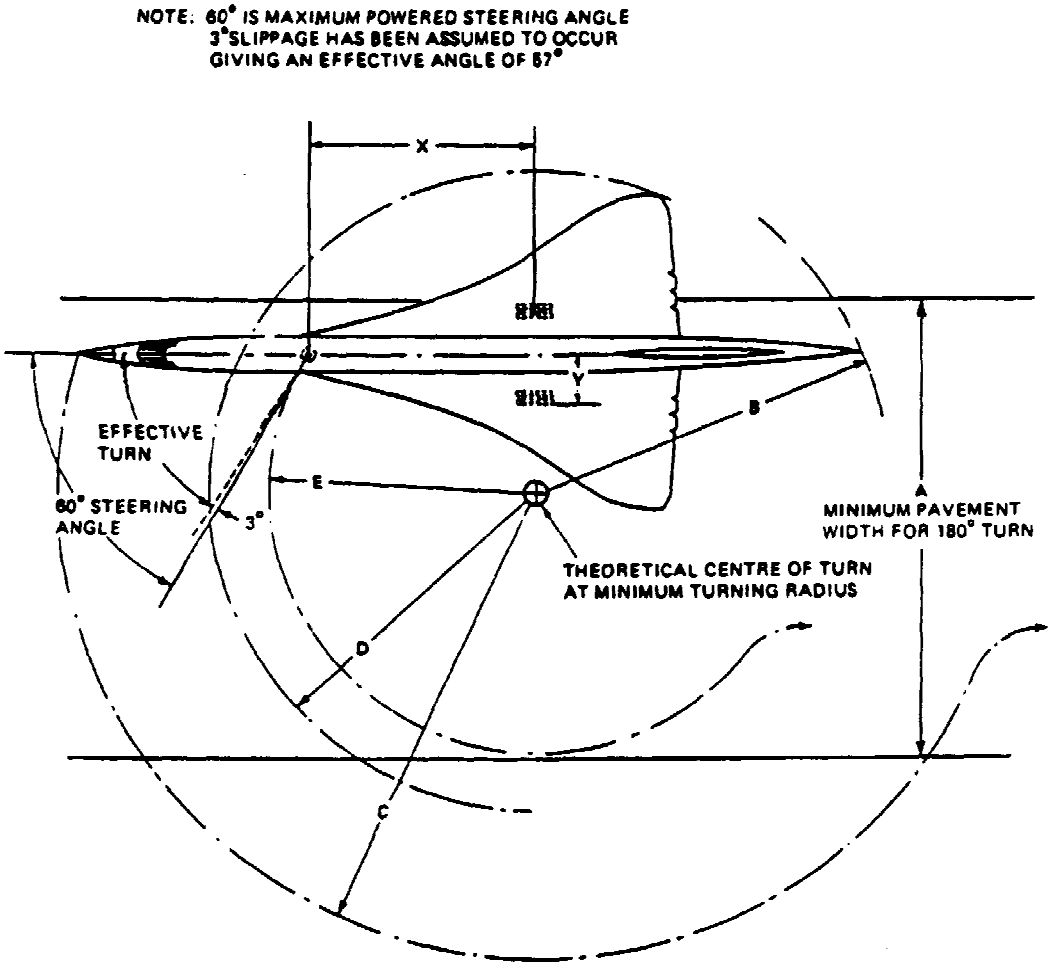


NOTE: DIMENSIONS ARE IN FEET.

STEERING ANGLE (DEGREES)	R1	R2	R3	R4	R5	R6	R7
	INNER MAIN WHEEL	OUTER MAIN WHEEL	NOSE WHEELS	OUTER WING TIP	NOSE *	TAIL	PILOT
30	90.6	116	119	149	159	132	142
35	72.5	97.8	104	132	148	118	130
40	58.4	83.7	92.7	119	140	108	121
45	47.0	72.3	84.3	107	135	101	114
50	37.3	62.7	77.8	98.7	131	96.4	110
55	29.0	54.4	72.7	91.0	128	92.3	106
60 (MAXIMUM)	22.6	47.1	68.8	84.4	126	89.3	103

*NOSE FULLY RAISED: PROBE NOT INCLUDED.

Figure D—109. B.A.C./SNIAS Concorde,
Turning Radii — No Slip Angle



NOTES: 1. DIMENSIONS IN TABLE ARE IN FEET.

2. EFFECTIVE TURN ANGLE OF 57°

X	Y	A	B	C*	D	E
59.7	14.5	127	91	127	88	71

*NOSE FULLY RAISED: PROBE NOT INCLUDED.

Figure D-110. B.A.C./SNIAS Concorde, Minimum Turning Radii — 3° Slip Angle

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT ENGINE BLAST RELATIONSHIPS

E-l. This appendix presents engine blast relationships for US Army, US Air Force, and selected civil and comercial fixed-wing aircraft. Velocities and temperatures from engine exhausts are capable of causing bodily injury to personnel and damage to air-field equipment or facilities. These blast relationships should be beneficial to planners and civil engineers in the layout and design of airfield systems.

E-2. Blast relationships are arranged in figure format for various military, civil, and comercial fixed-wing aircraft (figs E-l to E-141). Velocity versus distance graphs (figs E-l to E-83) and temperature versus distance graphs (figs E-84 to E-141) present blast data at various thrust power settings. Some distances presented in the blast relationships are measured from the jet engine nozzle and other distances are measured from the rear of the aircraft. Blast data are based on information provided by Air Logistic Center managers and aircraft manufacturers.

E-3. Velocity versus distance relationships are grouped by military aircraft (figs E-l to E-43) and civil and commercial aircraft (figs E-44 to E-83). Military aircraft are further sub-grouped as follows:

a. Bomber Aircraft.

Figure	Aircraft
E-l	B-1B
E-2	B-52G
E-3	B-52H
E-4	FB-111A

b. Cargo/Transport Aircraft.

Figure	Aircraft
E-5	C-5A/B
E-6	C-9A
E-7	C-21A
E-8	C-22B
E-9	C-130B/E/H
E-10	C-135B
E-11	KC-135R
E-12	C-137B/C
E-13	C-140A/B
E-14	C-141A/B
E-15	KC-10A
E-16	VC-25A

c. Special-Duty Aircraft.

Figure	Aircraft
E-17	E-3A/B/C
E-18	E-4A/B
E-19	EC-18B
E-20	EC-130E/H, MC-130E/H and WC-130E/H
E-21	EC-135A/G/L
E-22	EC-135C/E/H/J/K/P/Y, RC-135S/U/V/W, and WC-135B
E-23	EF-111A
E-24	OA-37B
E-25	OV-1B/C/D
E-26	RF-4C

d. Tactical Aircraft.

Figure	Aircraft
E-27	A-7D/K
E-28	A-10A
E-29	A-37B
E-30	AC-130A/H/U
E-31	F-4C/D/E
E-32	F-5E/F
E-33	F-15A/B/C/D/E
E-34	F-16A/B
E-35	F-16C/D
E-36	F-100
E-37	F-101B
E-38	F-104G
E-39	F-105D/F/G
E-40	F-106A/B
E-41	F-111A/E
E-42	F-111D
E-43	F-111F

E-4. Velocity versus distance relationships for civil and commercial aircraft are as follows:

Figure	Aircraft
E-44	Lockheed L-382 (L-100-20 and L-100-30)
E-45	Gates Learjet 24/25
E-46	Gates Learjet 35/36
E-47	Gruman Gulfstreaa II
E-48	Lockheed 1329
E-49	Rockwell NA-265-40 and NA-265-60
E-50	Rockwell NA-265-75A
E-51	Avions Marcel Dassault Mystere 20
E-52	Hamburger- Flugzeubau HFB- 320
E-53	Israel Aircraft 1121
E-54	Boeing 707-120B/ -320B/-320C
E-55	Boeing 707-320/-420
E-56	Boeing 720
E-57	Boeing 720B
E-58	Boeing 727-100/-100C
E-59	Boeing 727-200

Figure	Aircraft
E-60	Boeing 737-100
E-61	Boeing 737-200
E-62	Boeing 737-300/-400
E-63	Boeing 747-1008/ -200B-Pass/-200C-Cargo/ -200C-Pass/-200F-Cargo/ -300-Pass
E-64	Boeing 747-400
E-65	Boeing 747SF
E-66	Boeing 757-200
E-67	Boeing 767-200/-200ER/ -300 with PW-JT9D-7R4E Engines
E-68	Boeing 767-200ER/-300 with GE-CF6-80A2
E-69	Boeing 767-300ER
E-70	General Dynamics/Convair 880
E-71	General Dynamics/Convair 990
E-72	Lockheed L-1011-1 and L-1011-100
E-73	Lockheed L-1011-200/-500/ -500 Ex. Wing

Figure	Aircraft
E-74	McDonnell Douglas DC-8-43/ -55/-55F/-61/-61F/-62/ -6 2F/ -63/-63 F
E-75	McDonnell Douglas DC-8-71/ -71F/-72/-72F/-73/-73F
E-76	McDonnell Douglas DC-9-15/ -15F/-21/-32/-33F/-41/-51
E-77	McDonnell Douglas MD-81/-82/ -83/-87/-88
E-78	McDonnell Douglas DC-10-10
E-79	McDonnell Douglas DC-10-30
E-80	McDonnell Douglas DC-10-40
E-81	B.A.C. One-Eleven Model 400
E-82	B.A.C. One-Eleven Model 500
E-83	B.A.C./SNIAS Concorde

E-5. Temperature versus distance relationships are grouped by military aircraft (figs E-84 to E-122) and civil and commercial aircraft (figs E-123 to E-141). Military aircraft are further subgrouped as follows:

a. Bomber Aircraft.

Figure	Aircraft
E-84	B-lB
E-85	B-52G
E-86	B-52H
E-87	FB-111A

b. Cargo/Transport Aircraft.

Figure	Aircraft
E-88	C-5A/B
E-89	C-9A
E-90	C-21A
E-91	C-22B
E-92	C-135B
E-93	KC-135R
E-94	C-137B/C
E-95	C-140A/B
E-96	C-141A/B
E-97	KC-10A

c. Special-Duty Aircraft.

Figure	Aircraft
E-98	E-3A/B/C
E-99	E-4A/B
E-100	EC-18B
E-101	EC-135A/G/L
E-102	EC-135C/E/H/J/K/P/Y, RC-135S/U/V/W, and WC -1351
E-103	EF-111A
E-104	OA-37B
E-105	OV-1B/C/D
E-106	RF-4C

d. Tactical Aircraft.

Figure	Aircraft
E-107	A-7D/K
E-108	A-10A
E-109	A-37B
E-110	F-4C/D/E
E-111	F-5E/F
E-112	F-15A/B/C/D/E
E-113	F-16A/B
E-114	F-16C/D
E-115	F-100
E-116	F-101B
E-117	F-104G
E-118	F-105D/F/G
E-119	F-106A/B
E-120	F-111A/E
E-121	F-111D
E-122	F-111F

E-6. Temperature versus distance relationships for civil and commercial aircraft are as follows:

Figure	Aircraft
E-123	Gates Learjet 35/36
E-124	Lockheed 1329
E-125	Rockwell NA-265-40 and NA-265-60
E-126	Rockwell NA-265-75A
E-127	Avions Marcel Dassault Mystere 20
E-128	Boeing 727-100/-100C
E-129	Boeing 727-200
E-130	Boeing 737-100
E-131	Boeing 737-200
E-132	Boeing 747-100B/-200B-Pass/ -200C-Cargo/-200C-Pass/ -200F-Cargo/-300-Pass
E-133	Boeing 747SF
E-134	General Dynamics/Convair 880
E-135	General Dynamics/Convair 990
E-136	Lockheed L-1011-l and L-1011-100
E-137	Lockheed L-1011-200/-500/ -500 Ex. Wing

Figure	Aircraft
E-138	McDonnell Douglas DC-9-15/ -15F/-21/-32/-33F/-41/-51
E-139	B.A.C. One-Eleven Model 400
E-140	B.A.C. One-Eleven Model 500
E-141	B.A.C./SNIAS Concord.

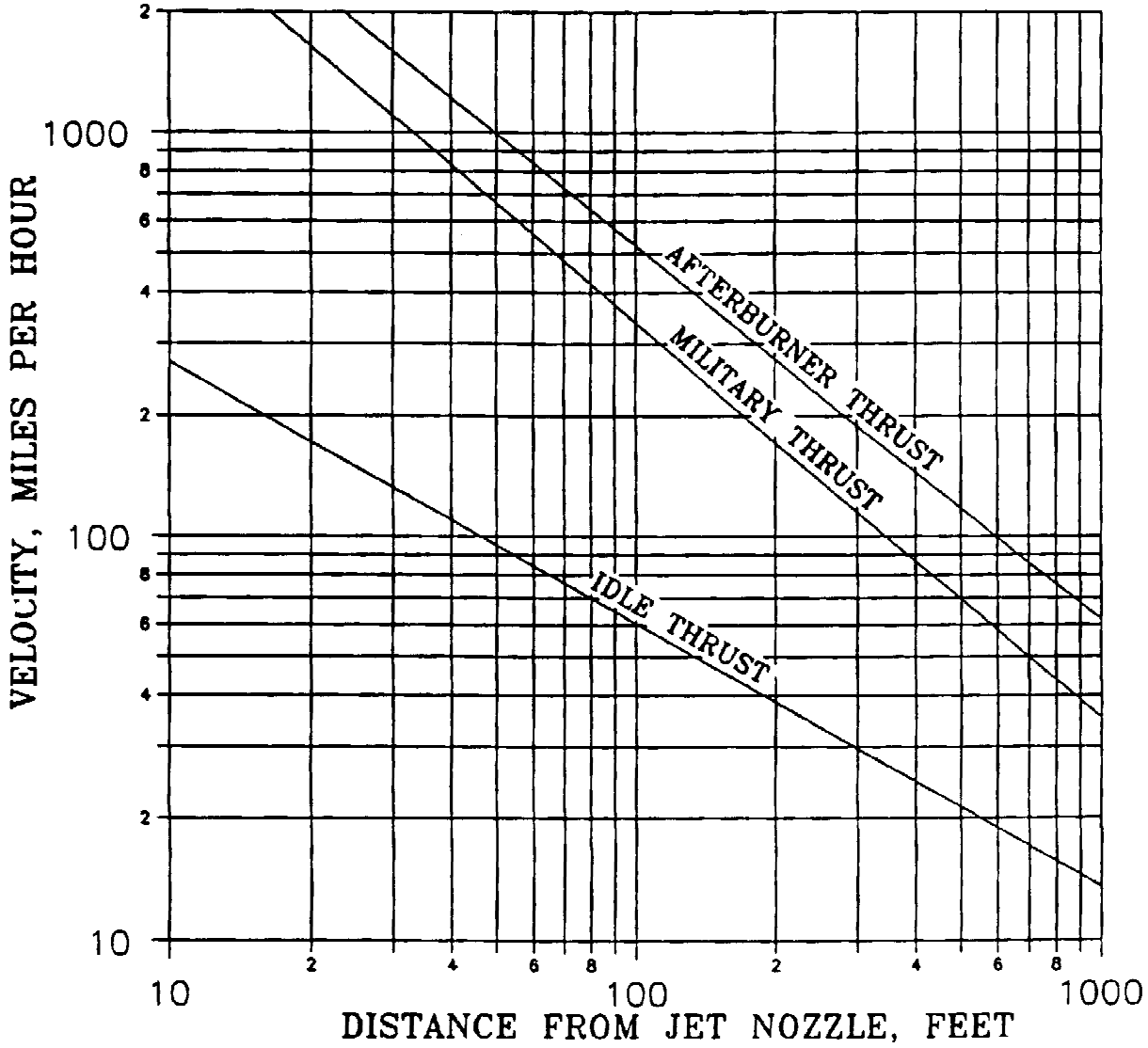


Figure E-1. B-1B, Velocity - Distance Curves

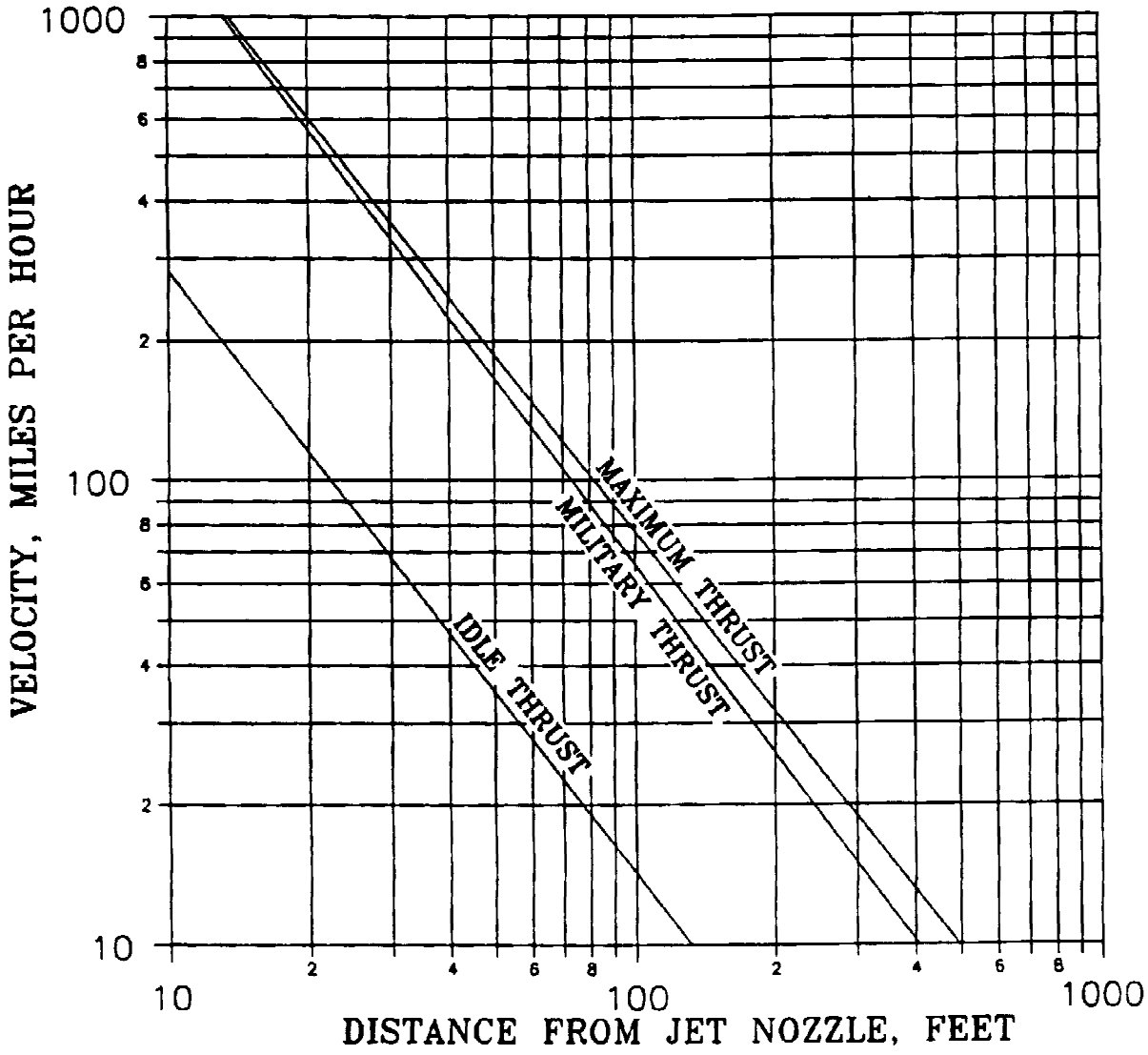


Figure E-2. B-52G, Velocity - Distance Curves

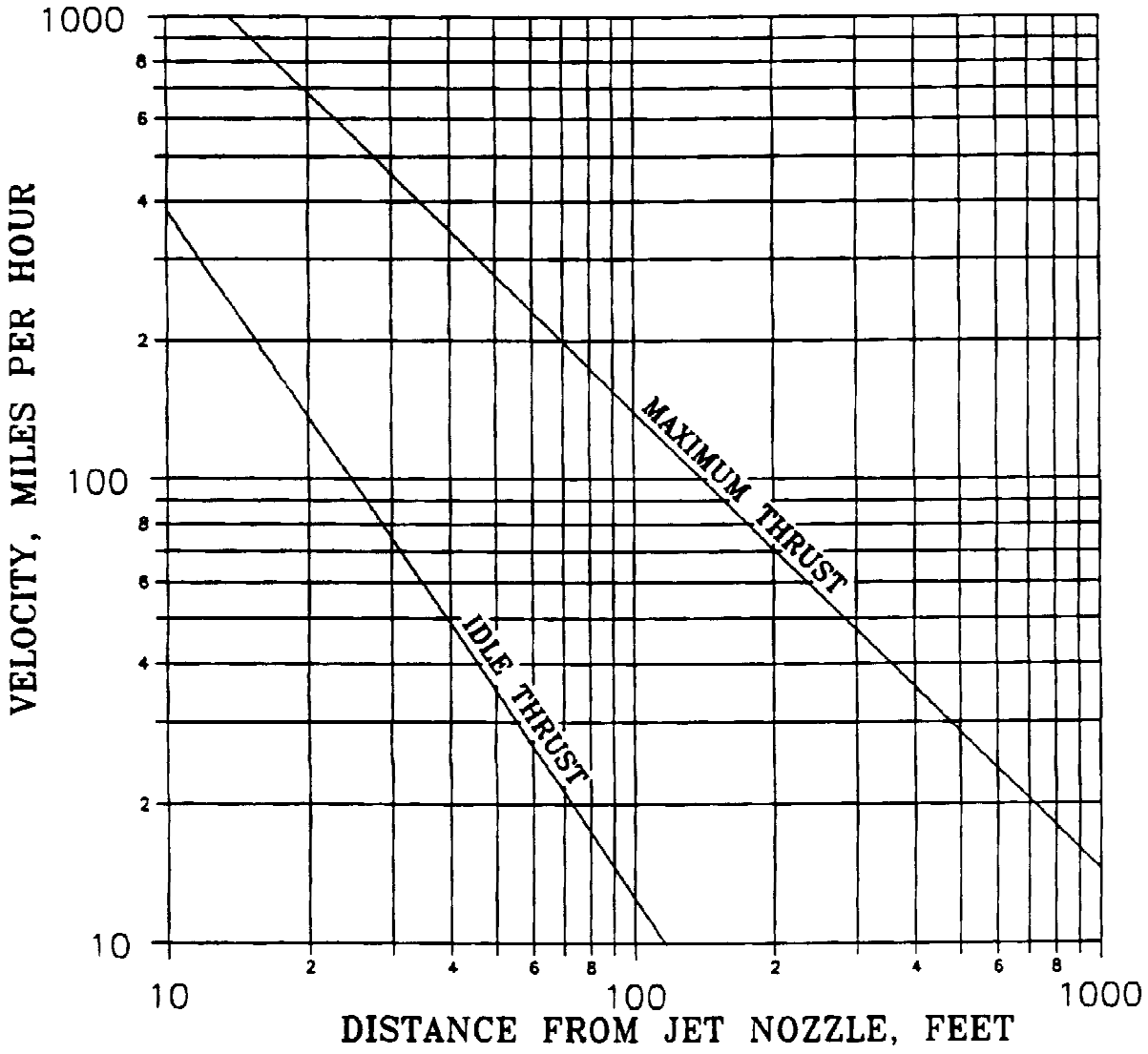


Figure E-3. B-52H, Velocity - Distance Curves

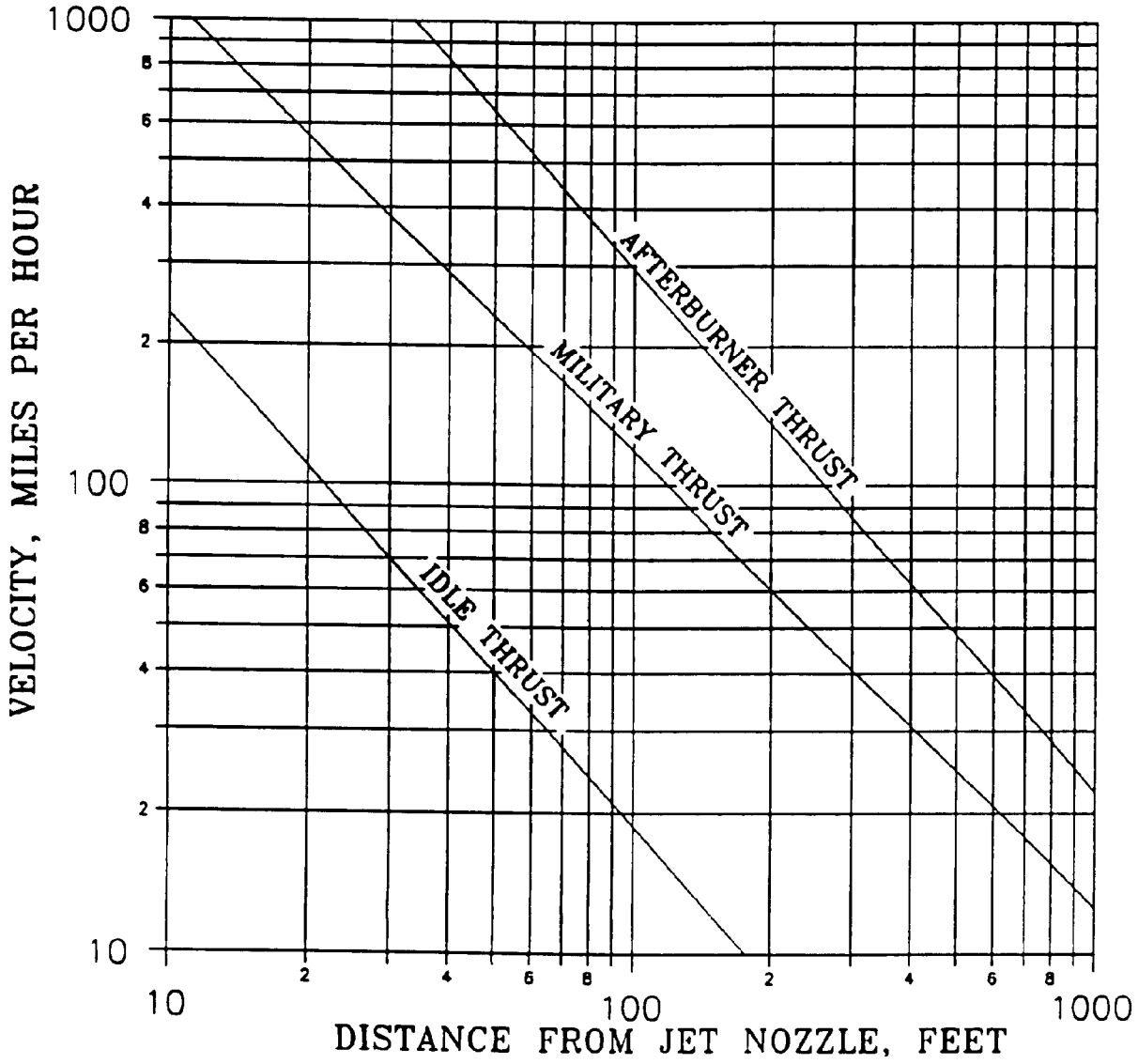


Figure E-4. FB-111A, Velocity - Distance Curves

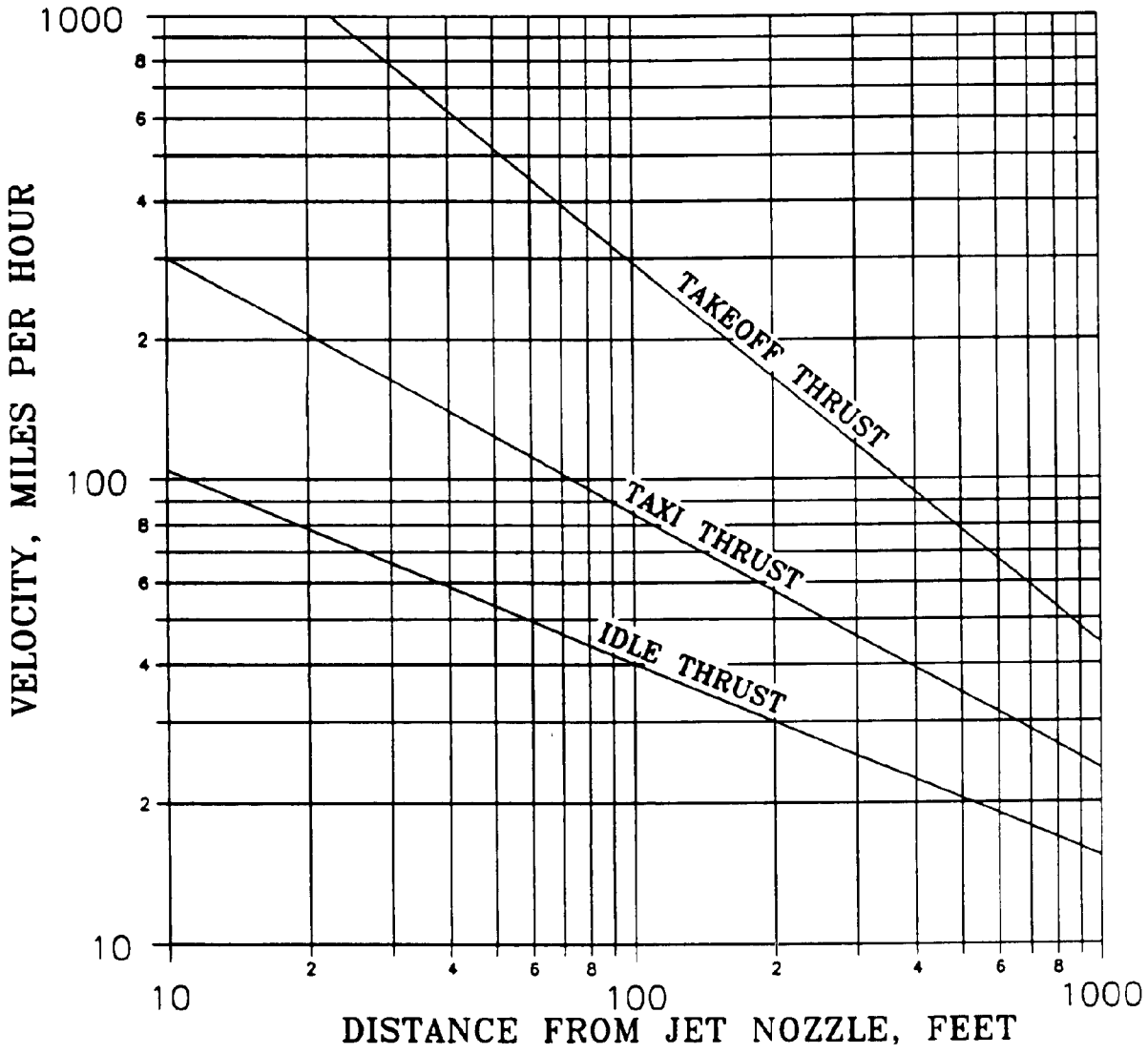


Figure E-5. C-5A/B, Velocity - Distance Curves

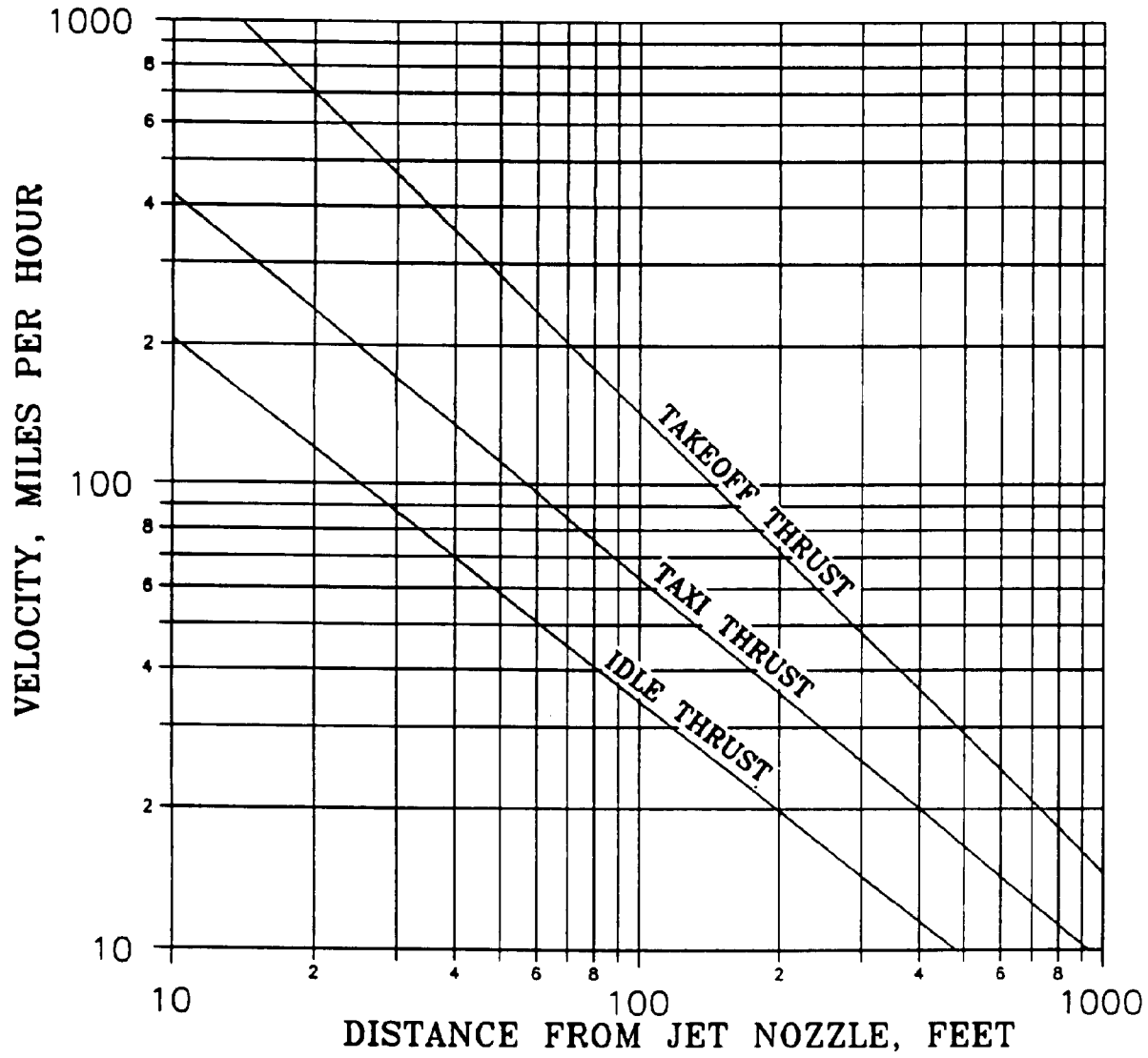


Figure E-6. C-9A, Velocity - Distance Curves

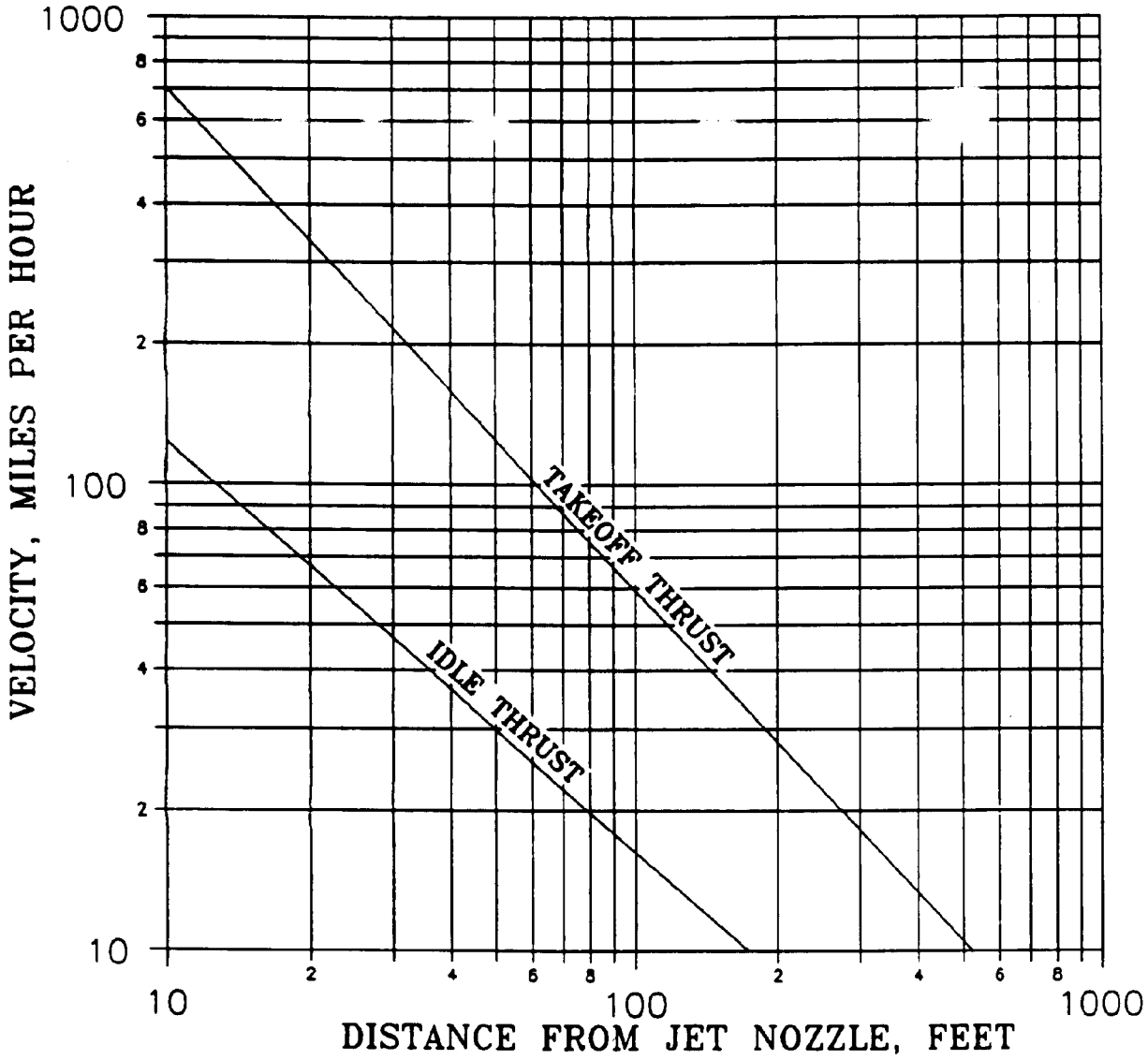


Figure E-7. C-21A, Velocity - Distance Curves

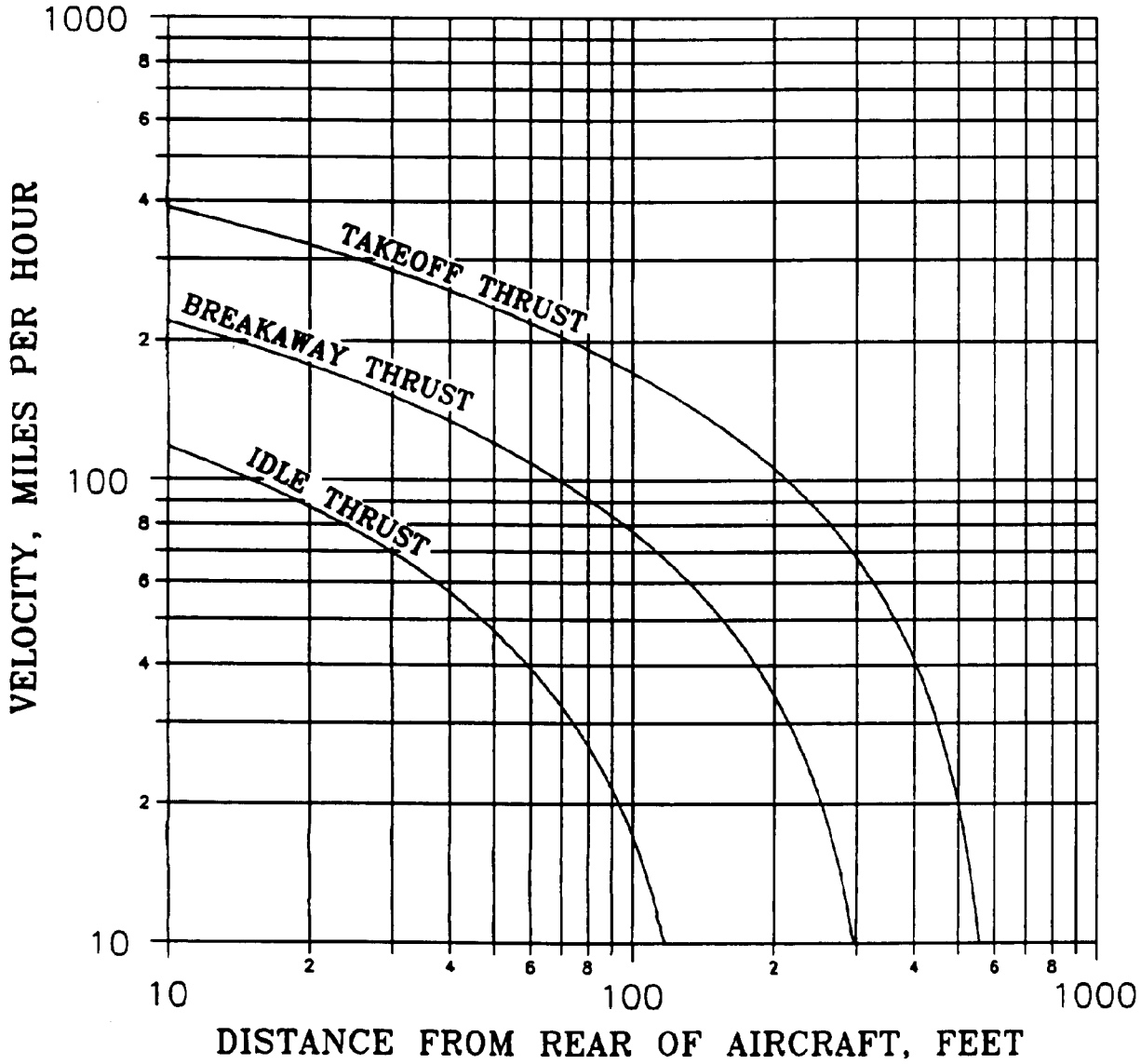


Figure E-8. C-22B, Velocity - Distance Curves

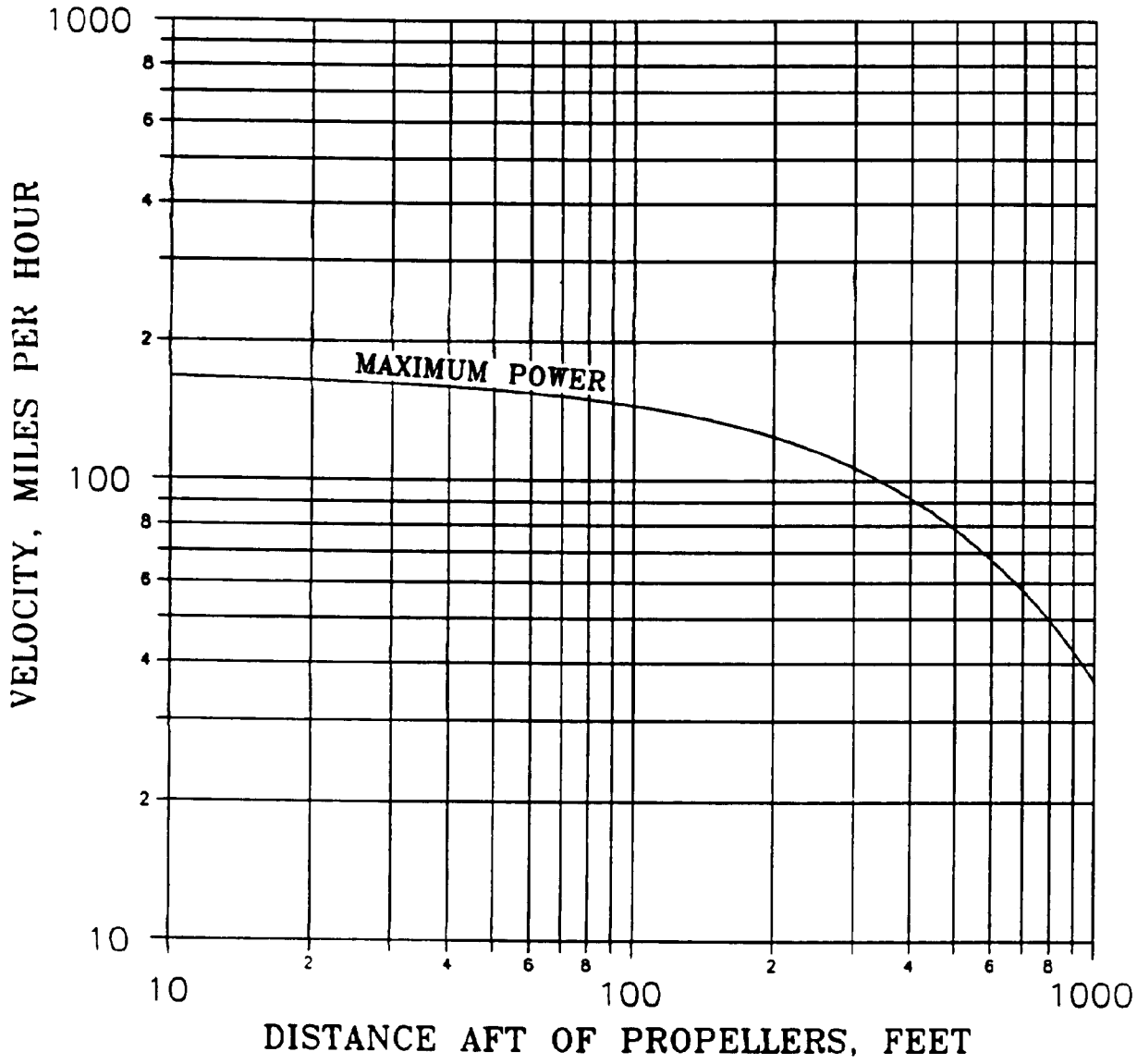


Figure E-9. C-130B/E/H, Velocity - Distance Curve

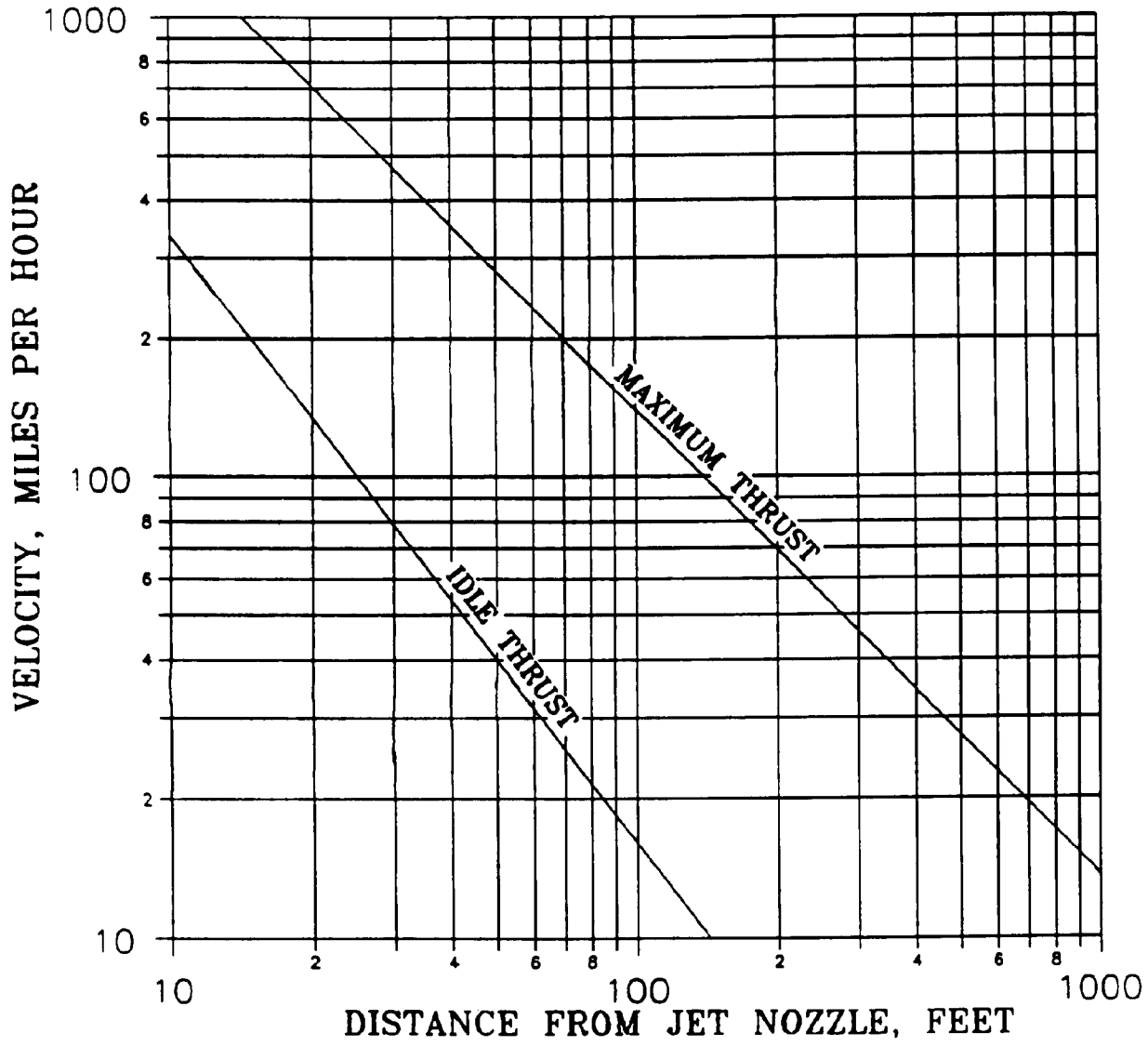


Figure E-10. C-135B, Velocity - Distance Curves

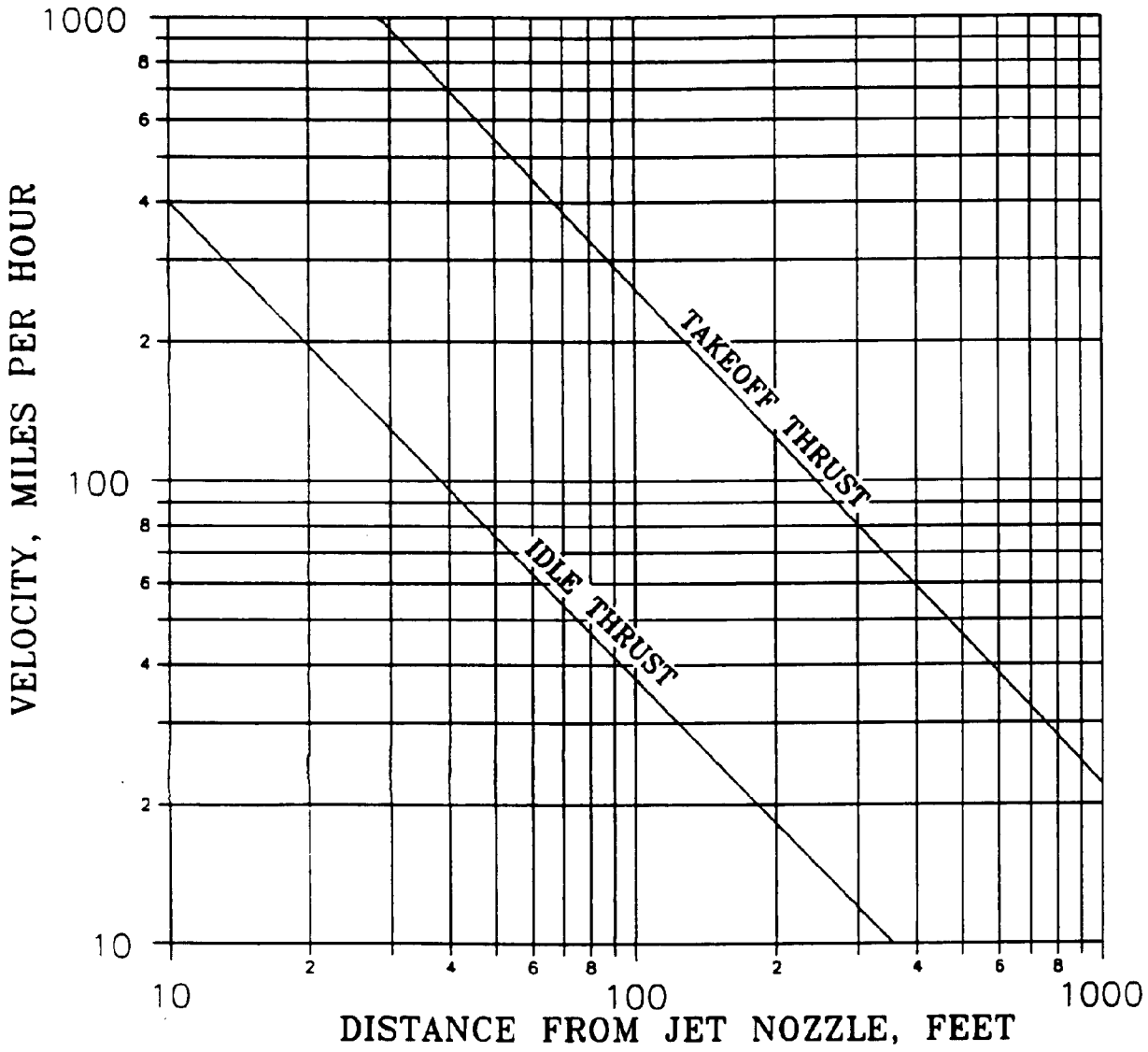


Figure E-11. KC-135R, Velocity - Distance Curves

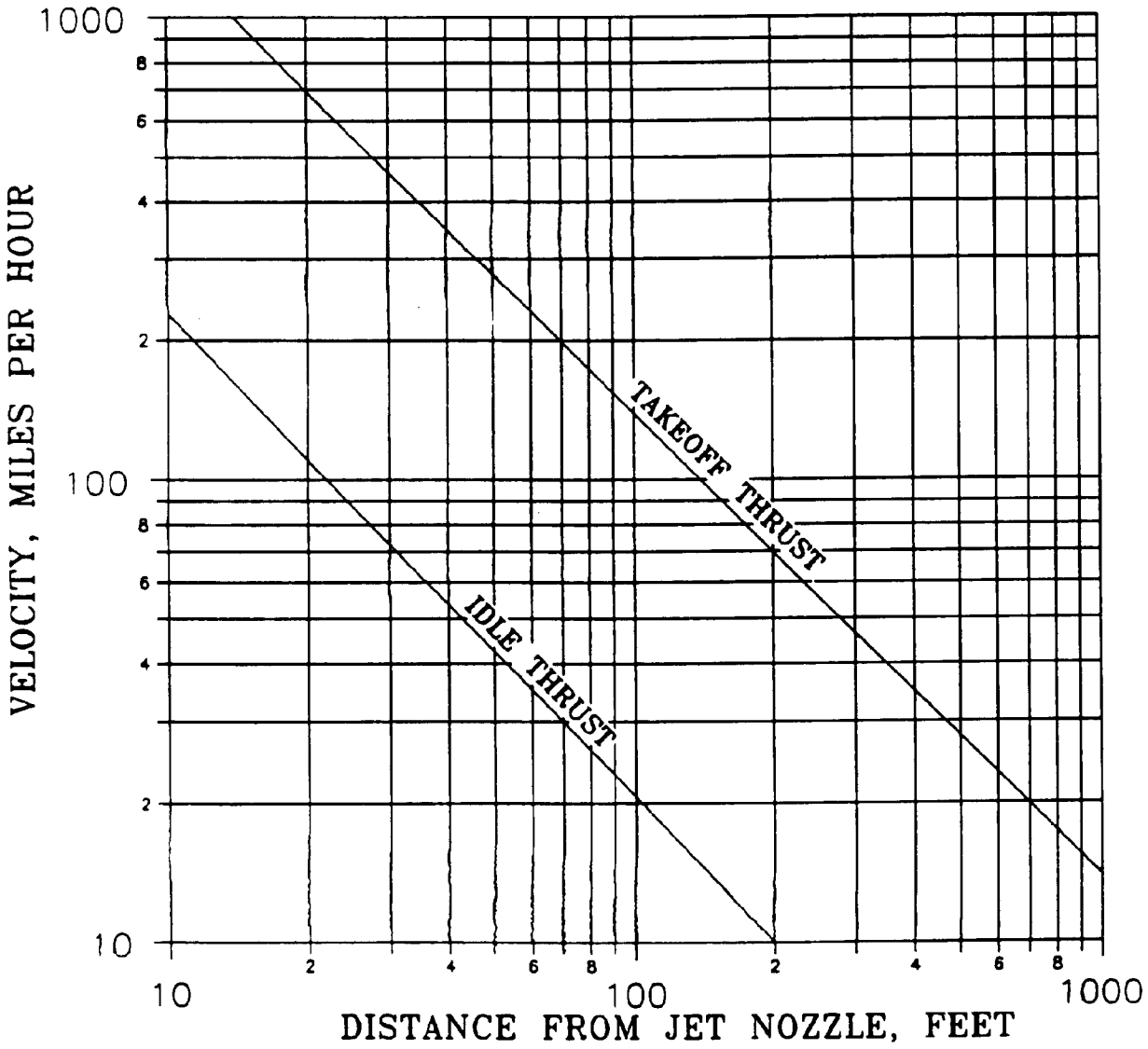


Figure E-12. C-137B/C, Velocity - Distance Curves

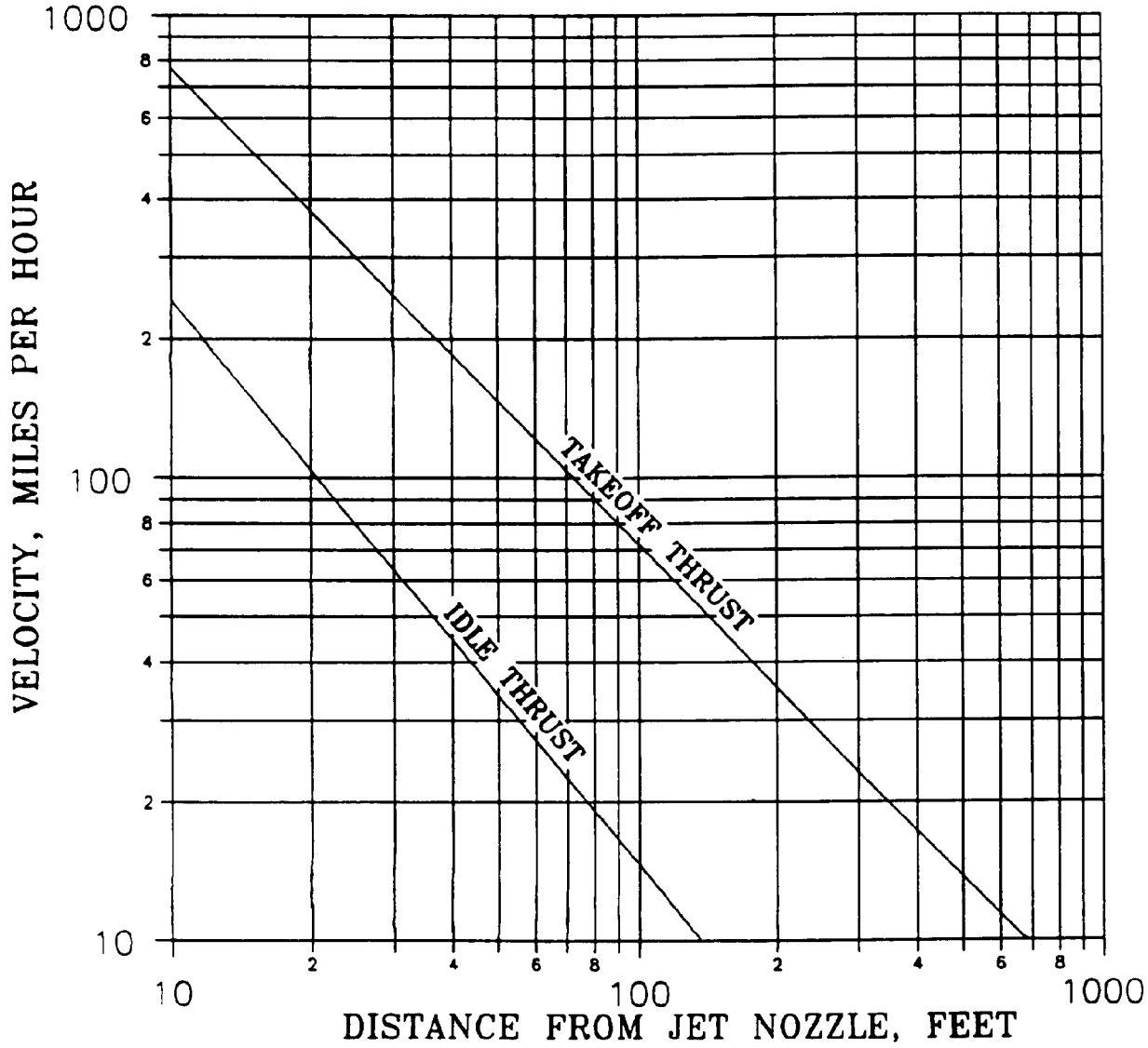


Figure E-13. C-140A/B, Velocity - Distance Curves

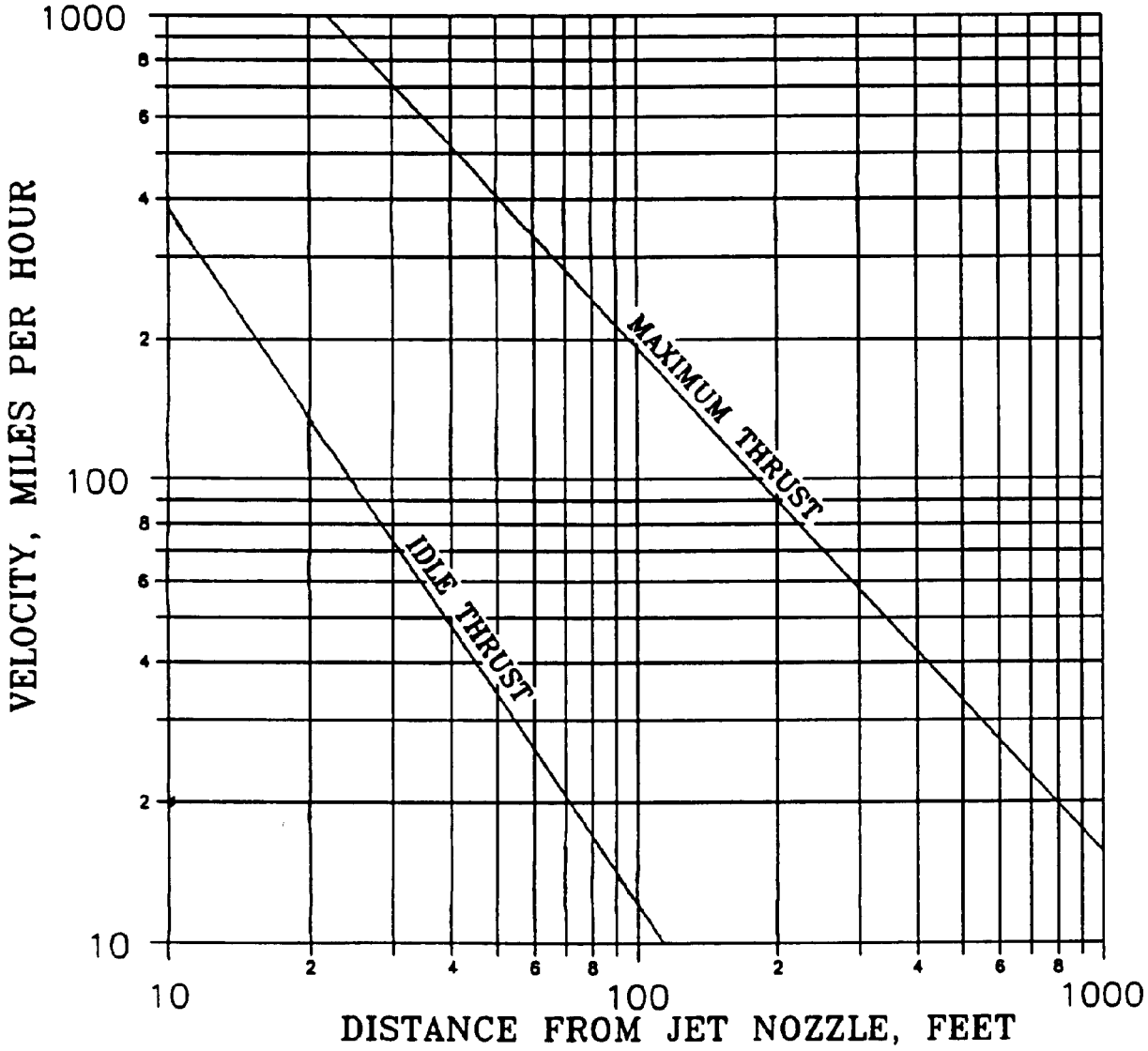


Figure E-14. C-141A/B, Velocity - Distance Curves

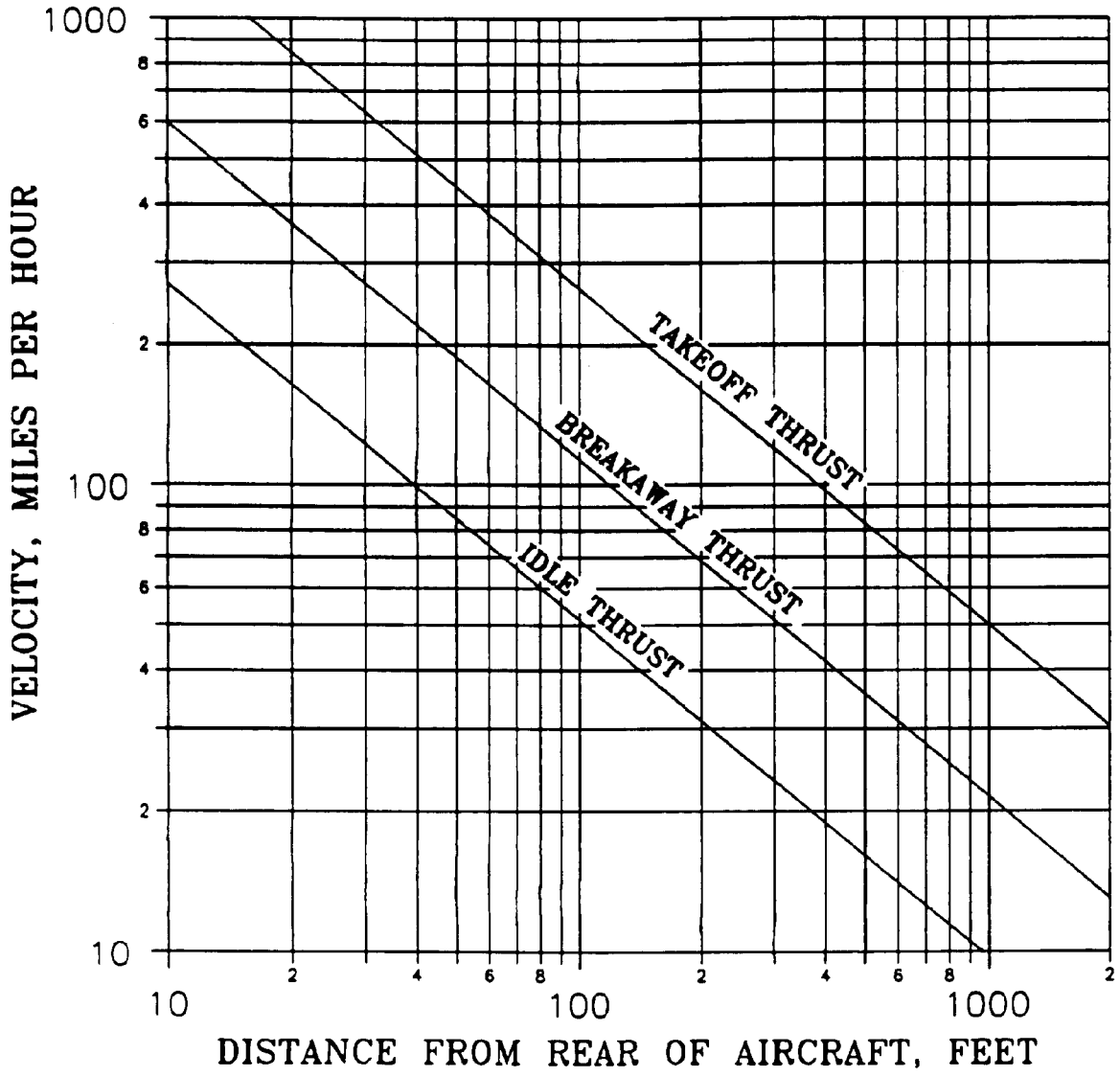


Figure E-15. KC-10A, Velocity - Distance Curves

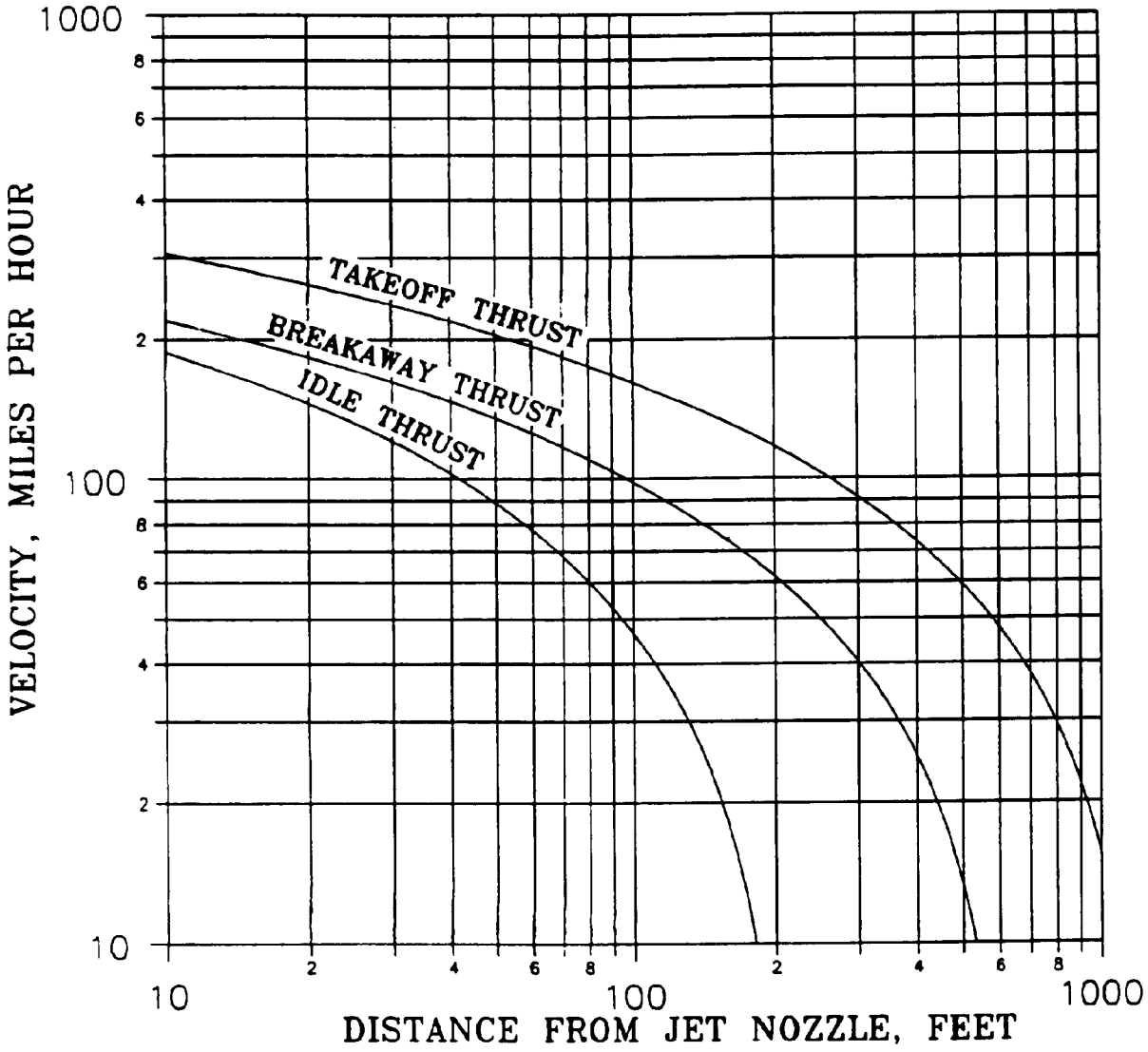


Figure E-16. VC-25A, Velocity - Distance Curves

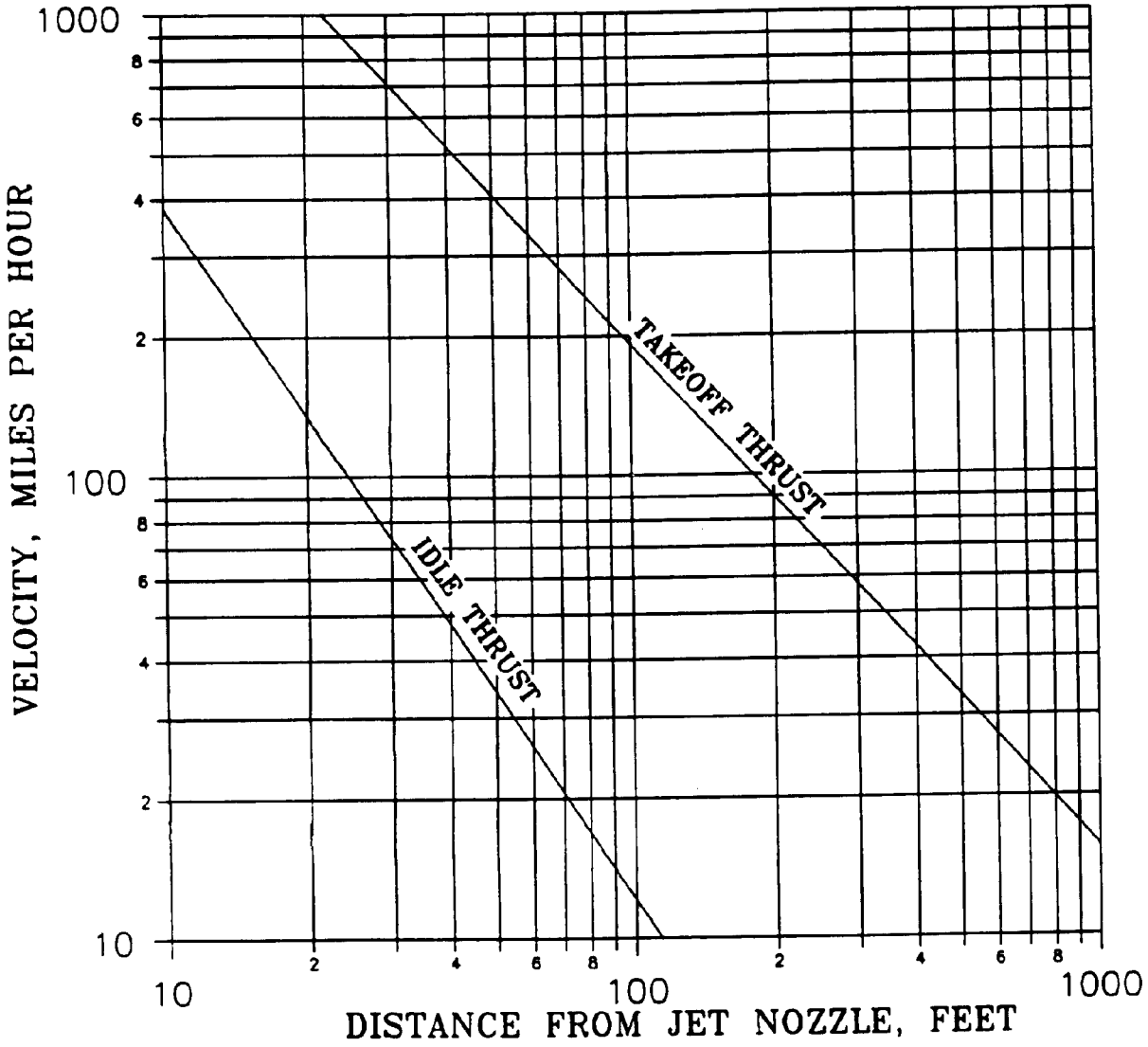


Figure E-17. E-3A/B/C, Velocity - Distance Curves

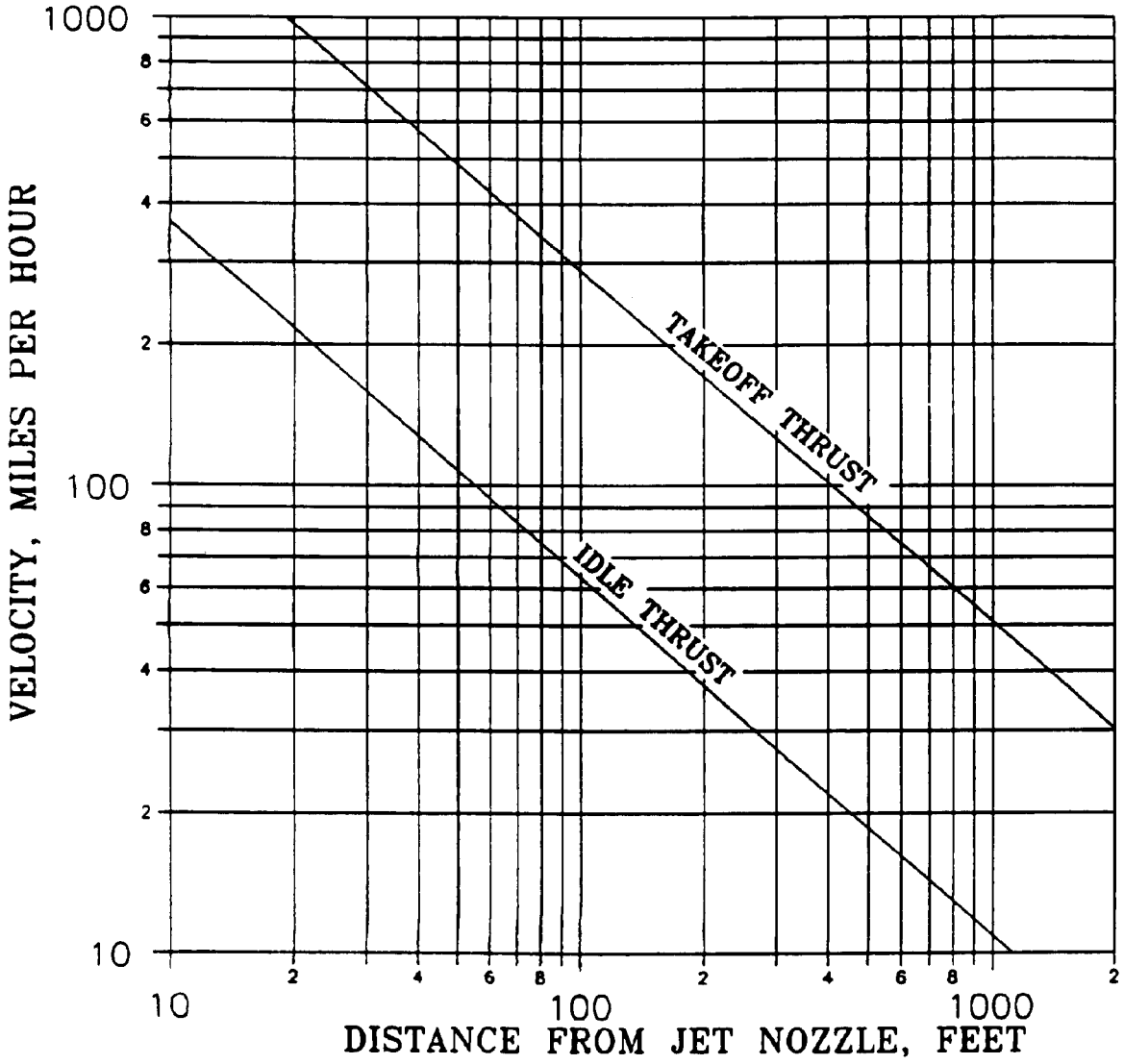


Figure E-18. E-4A/B, Velocity - Distance Curves

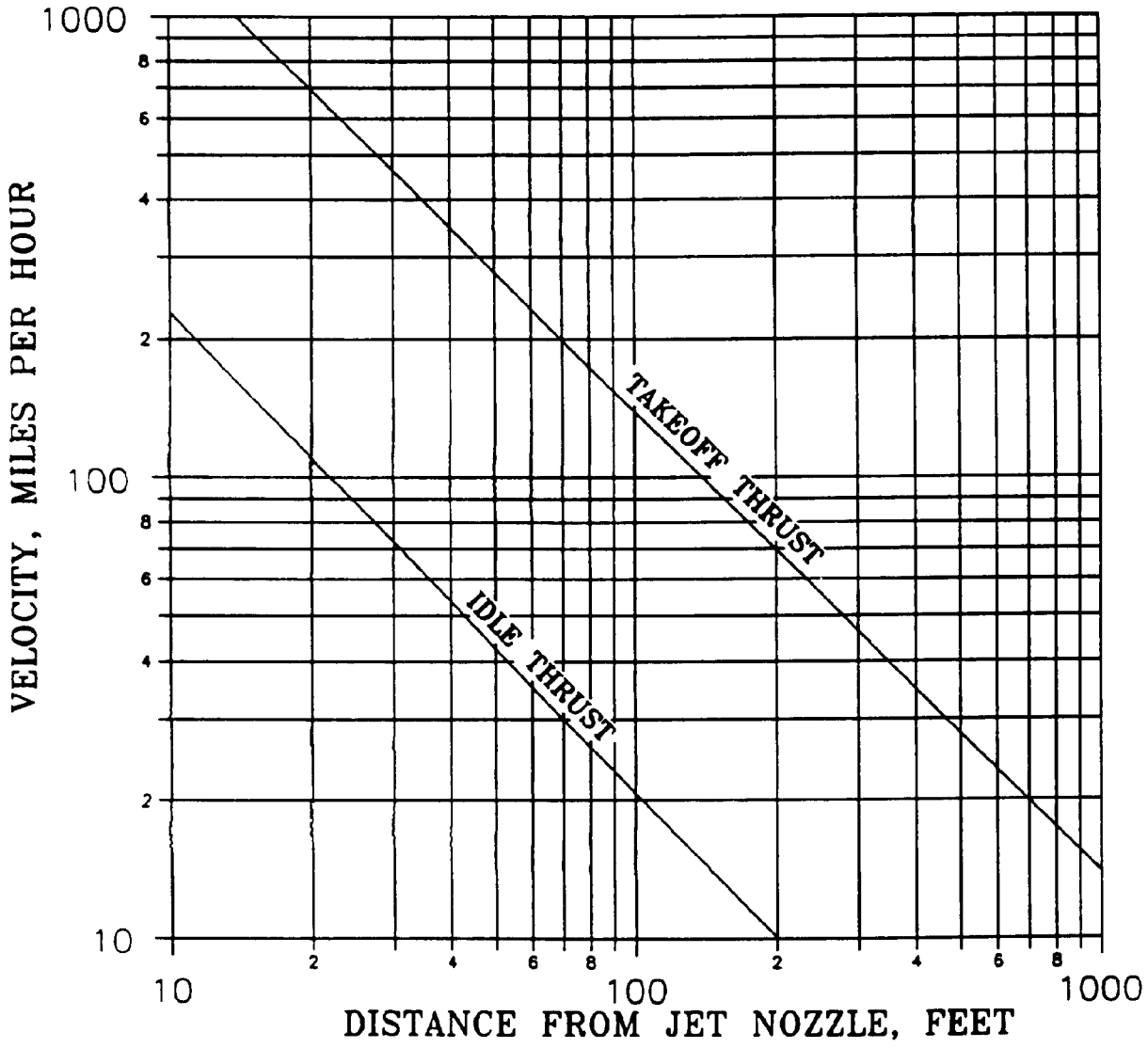


Figure E-19. EC-18B, Velocity - Distance Curves

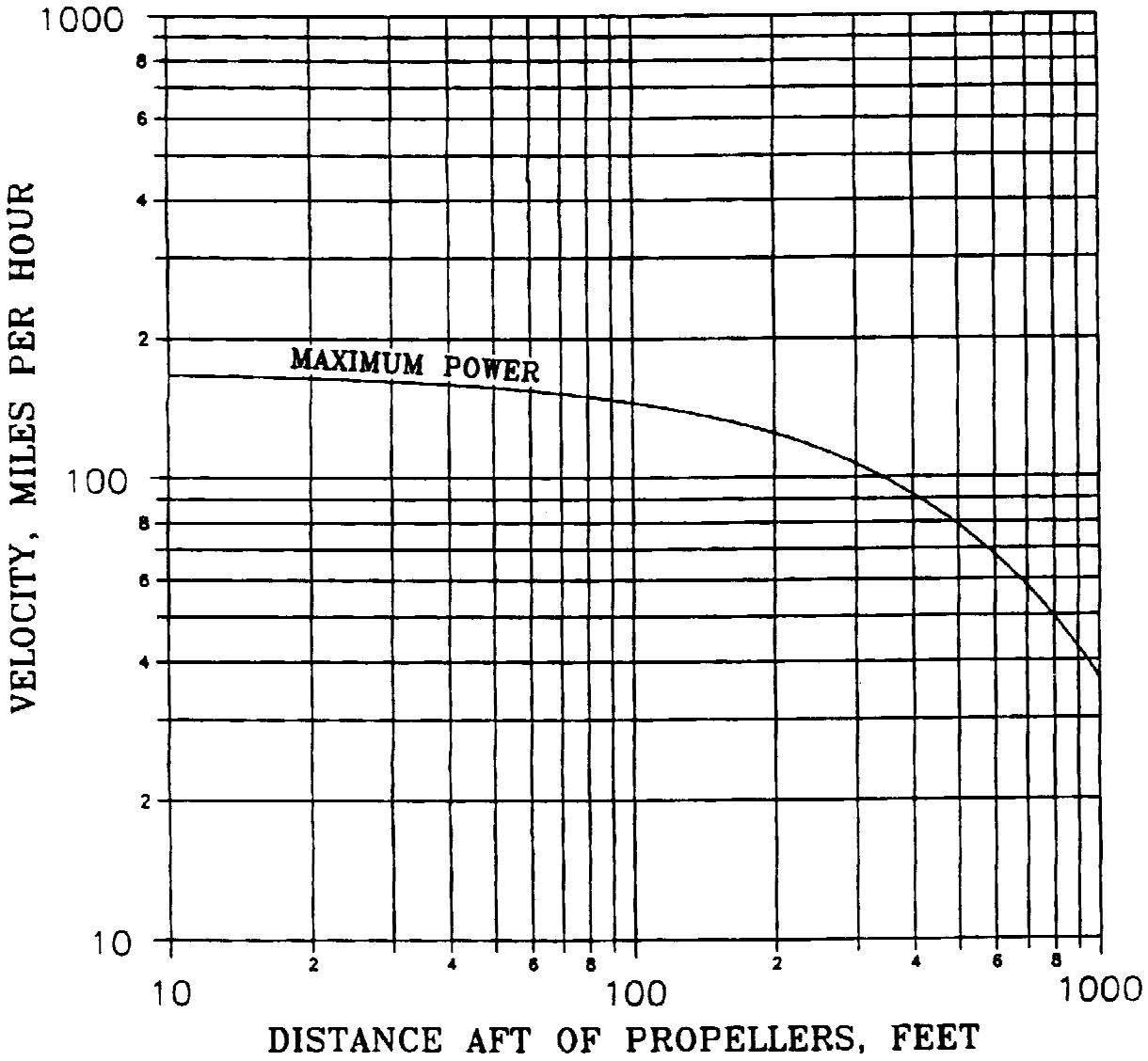


Figure E-20. EC-130E/H, MC-130E/H, and WC-130E/H,
Velocity - Distance Curve

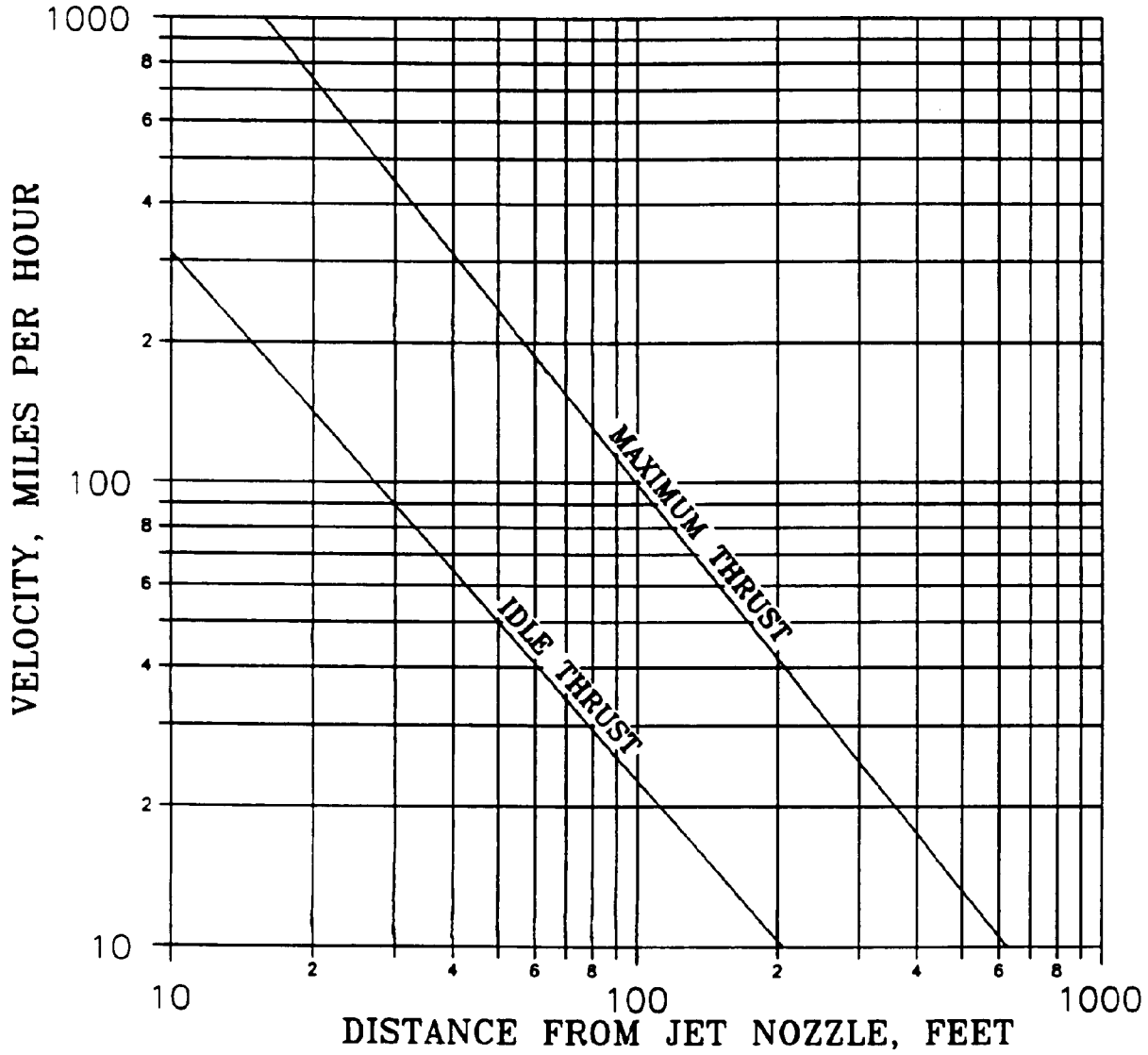


Figure E-21. EC-135A/G/L, Velocity - Distance Curves

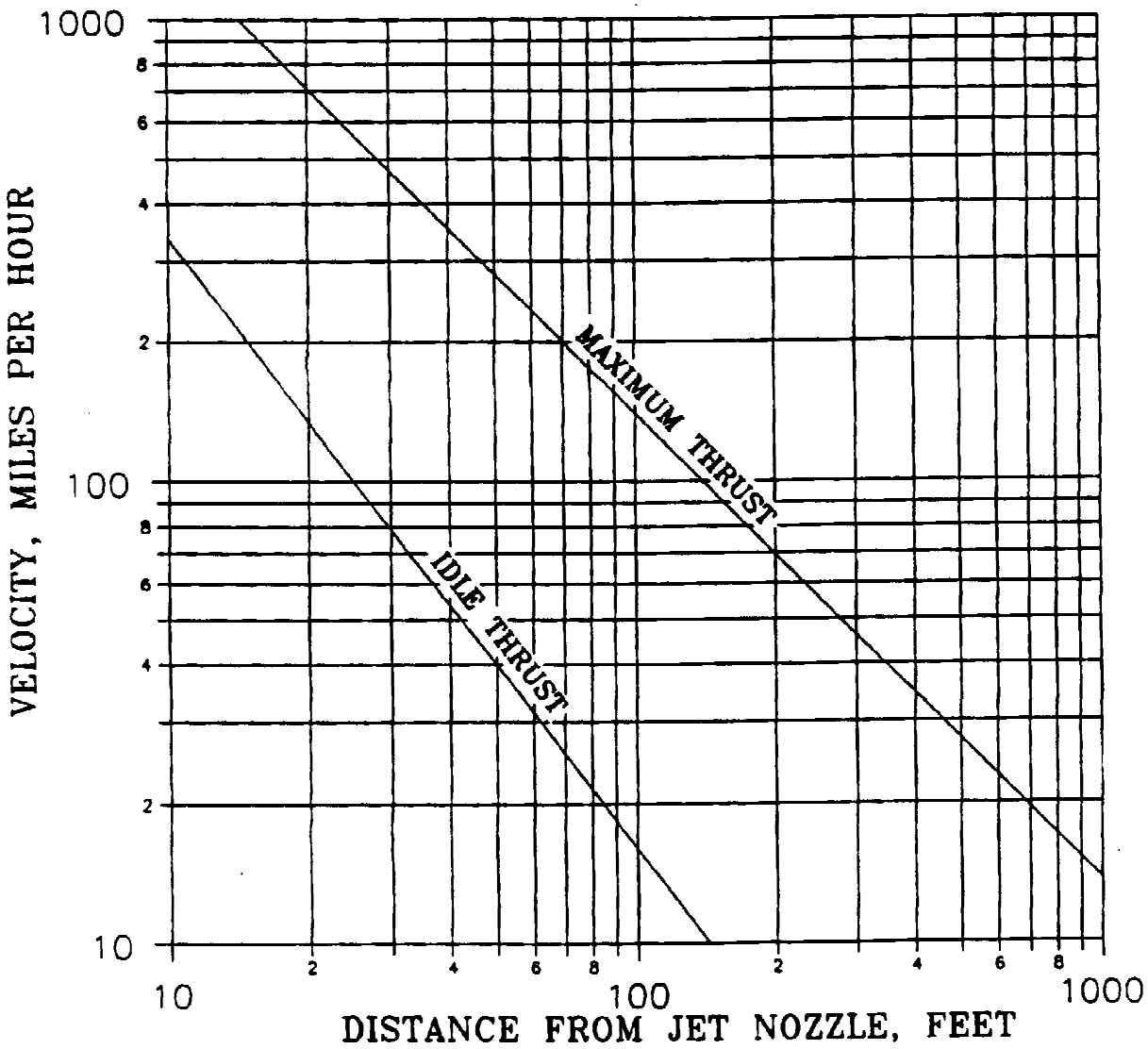


Figure E-22. EC-135C/E/H/J/K/P/Y, RC-135S/U/V/W, and WC-135B, Velocity - Distance Curves

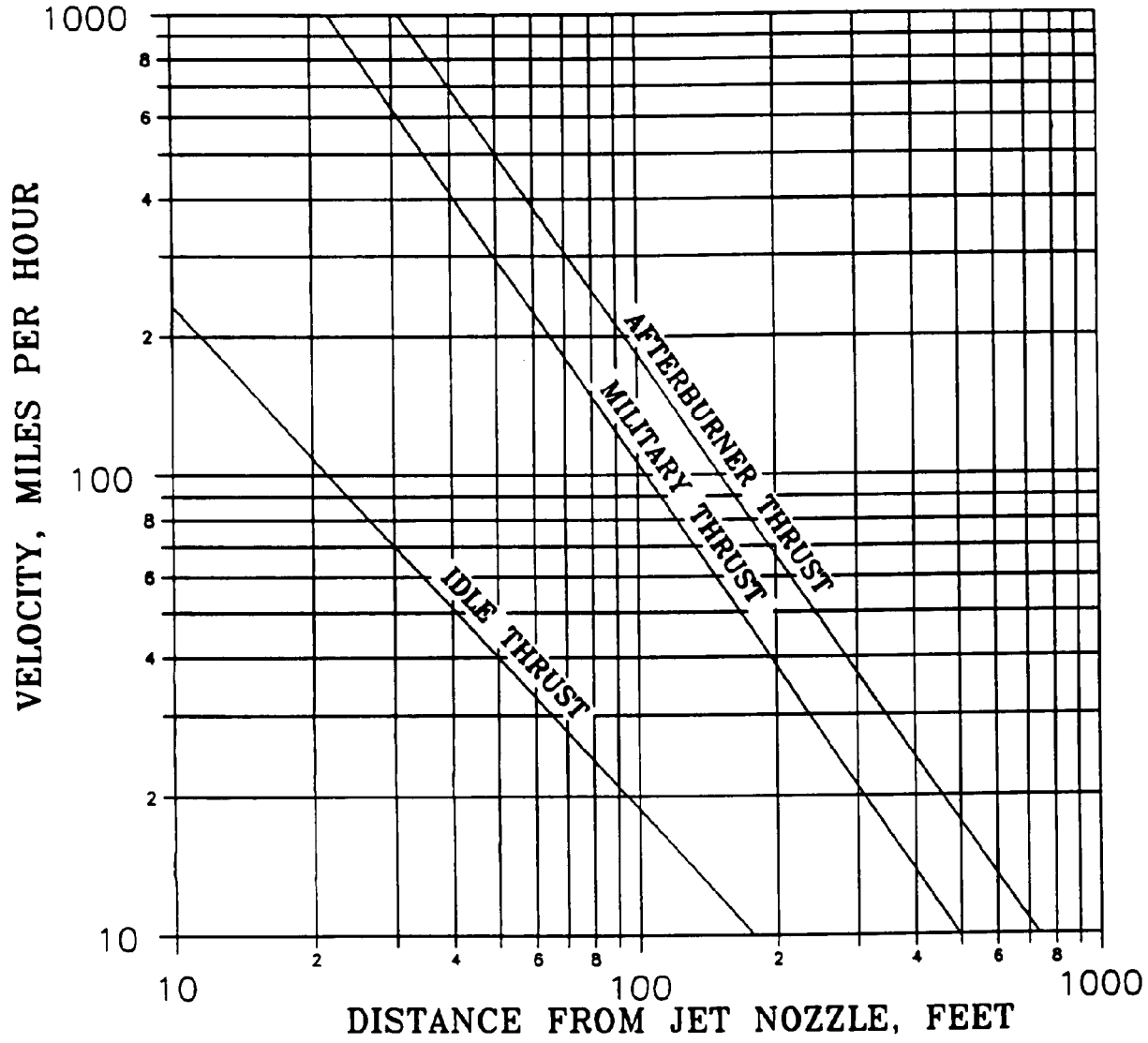


Figure E-23. EF-111A, Velocity - Distance Curves

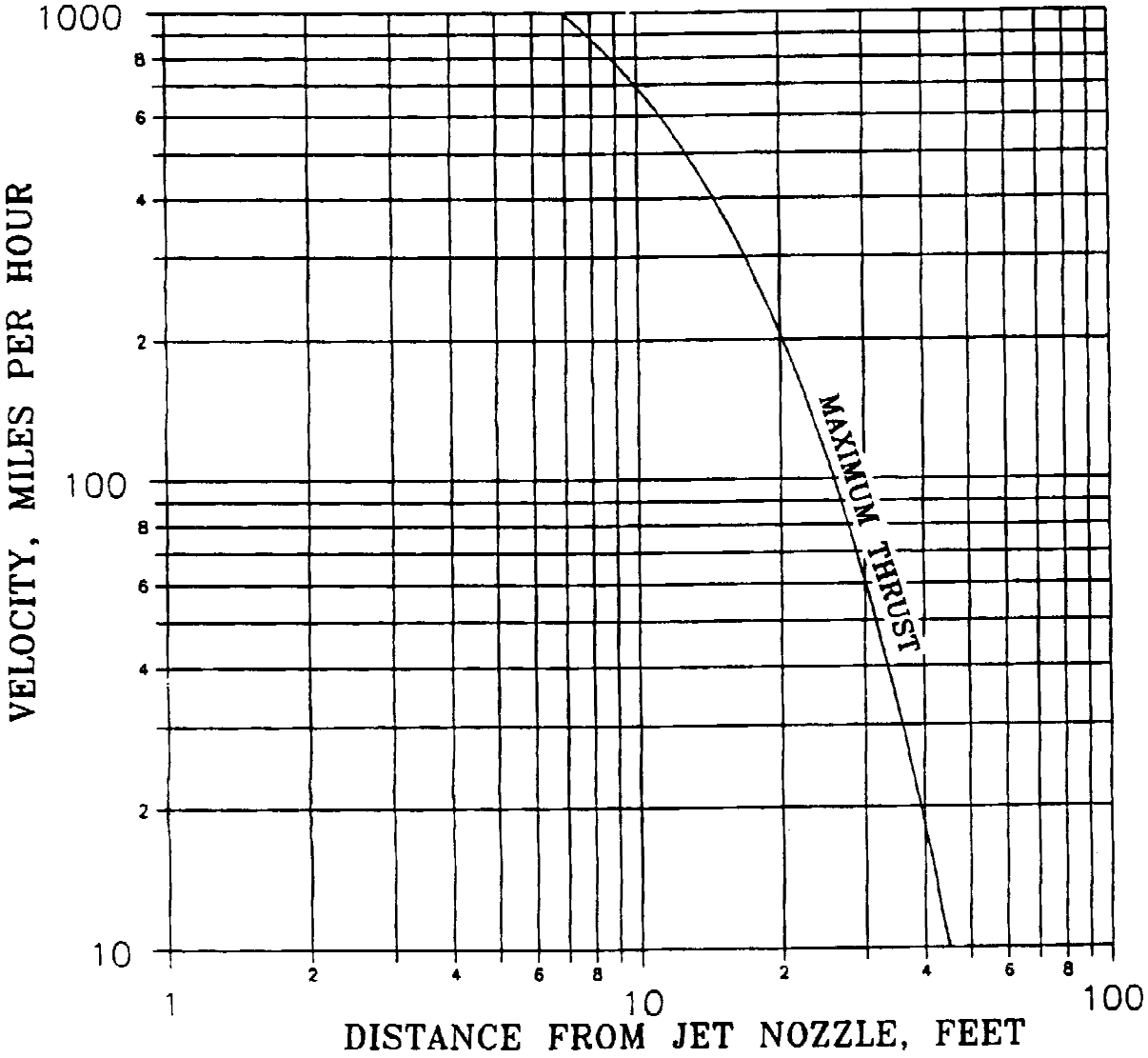


Figure E-24. OA-37B, Velocity - Distance Curve

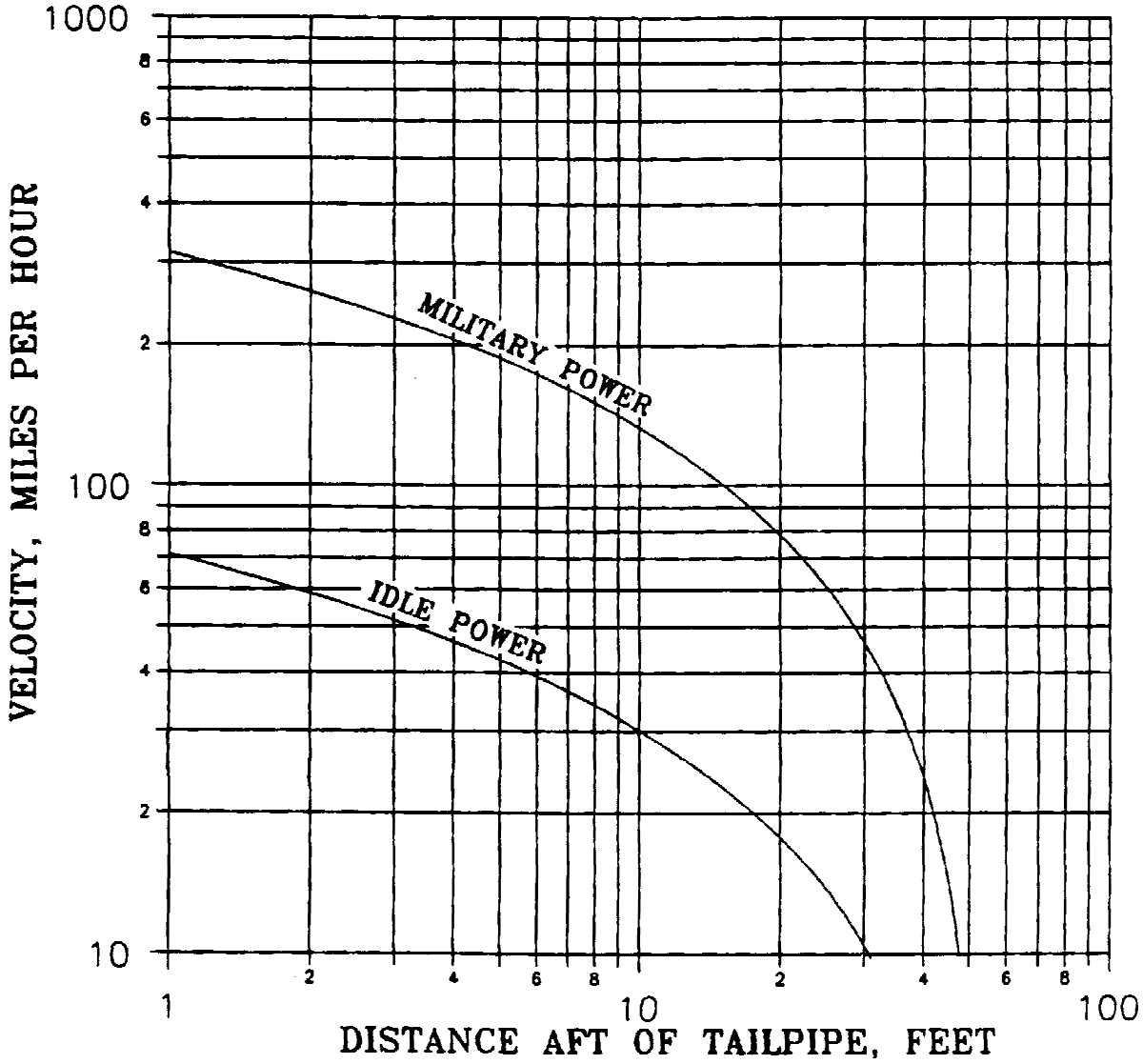


Figure E-25. OV-1B/C/D, Velocity - Distance Curves

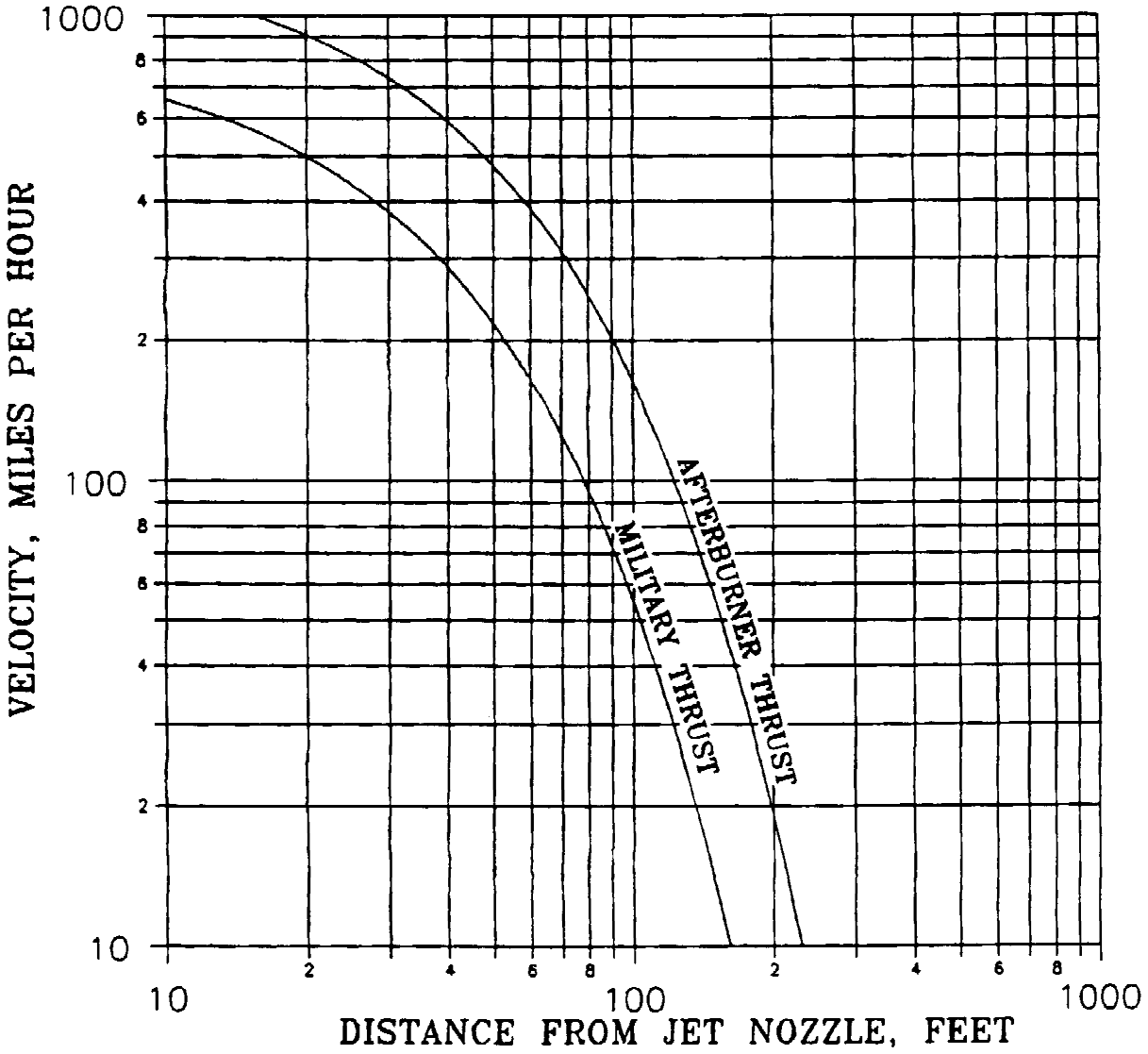


Figure E-26. RF-4C, Velocity - Distance Curves

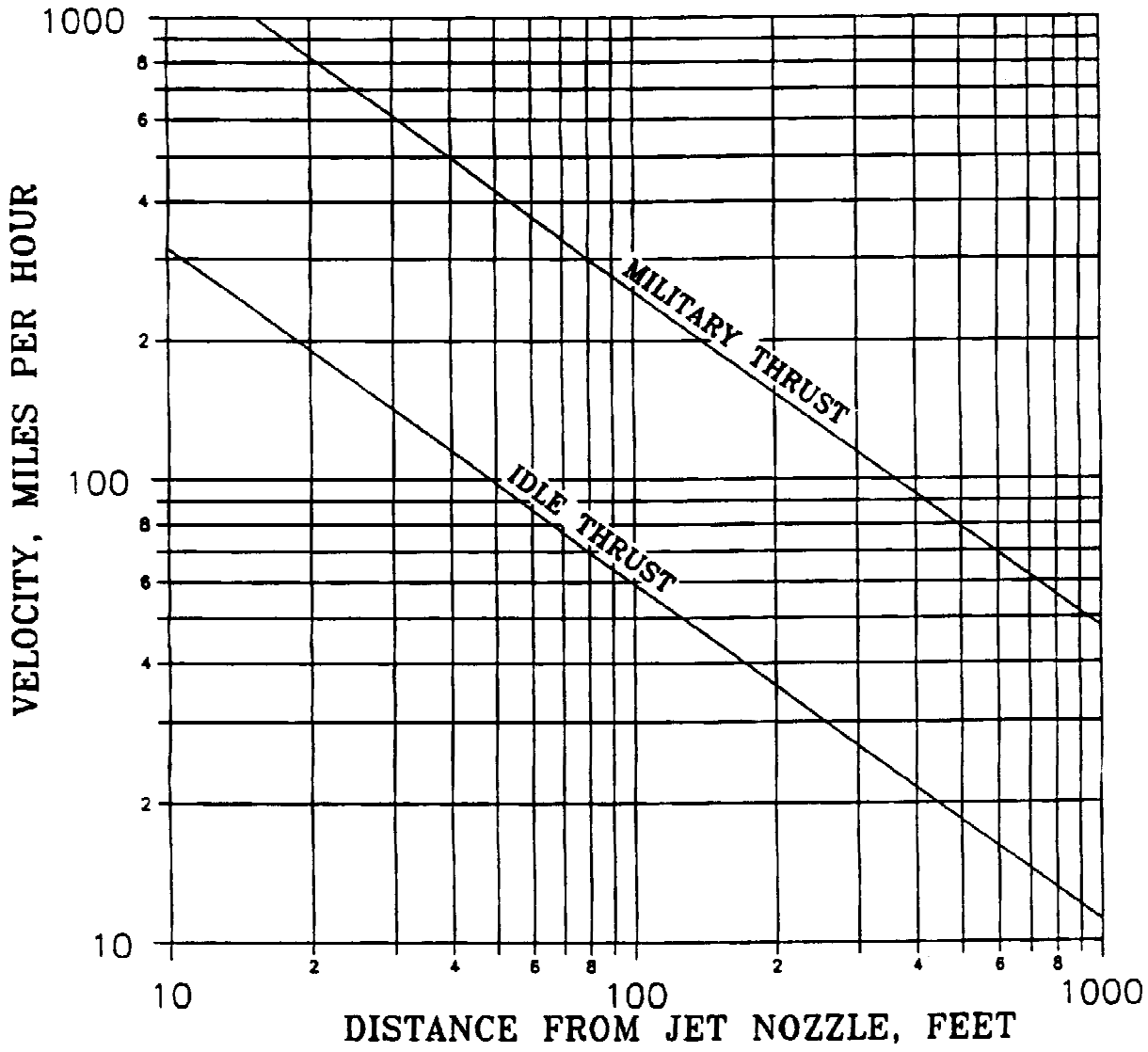


Figure E-27. A-7D/K, Velocity - Distance Curves

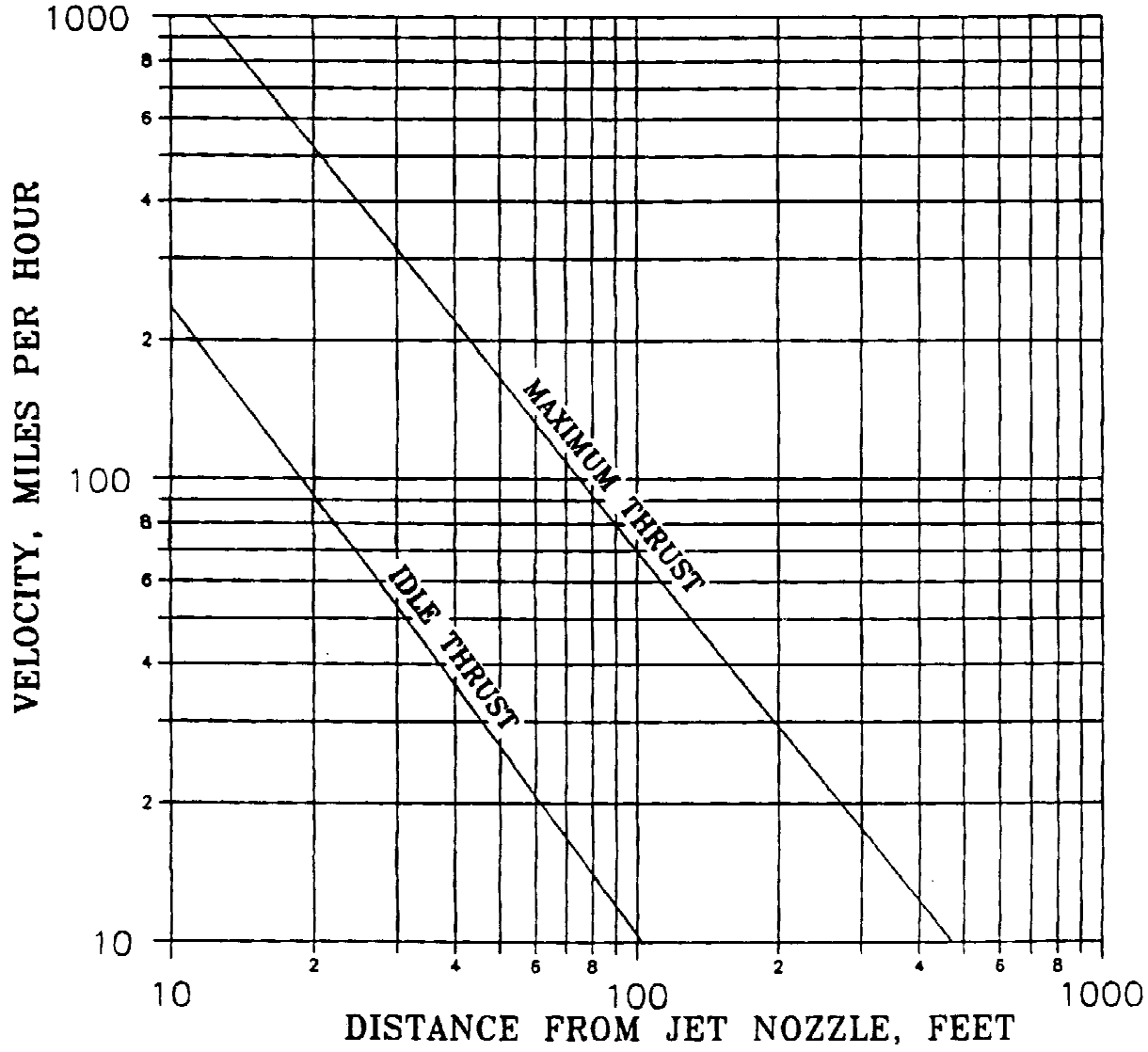


Figure E-28. A-10A, Velocity - Distance Curves

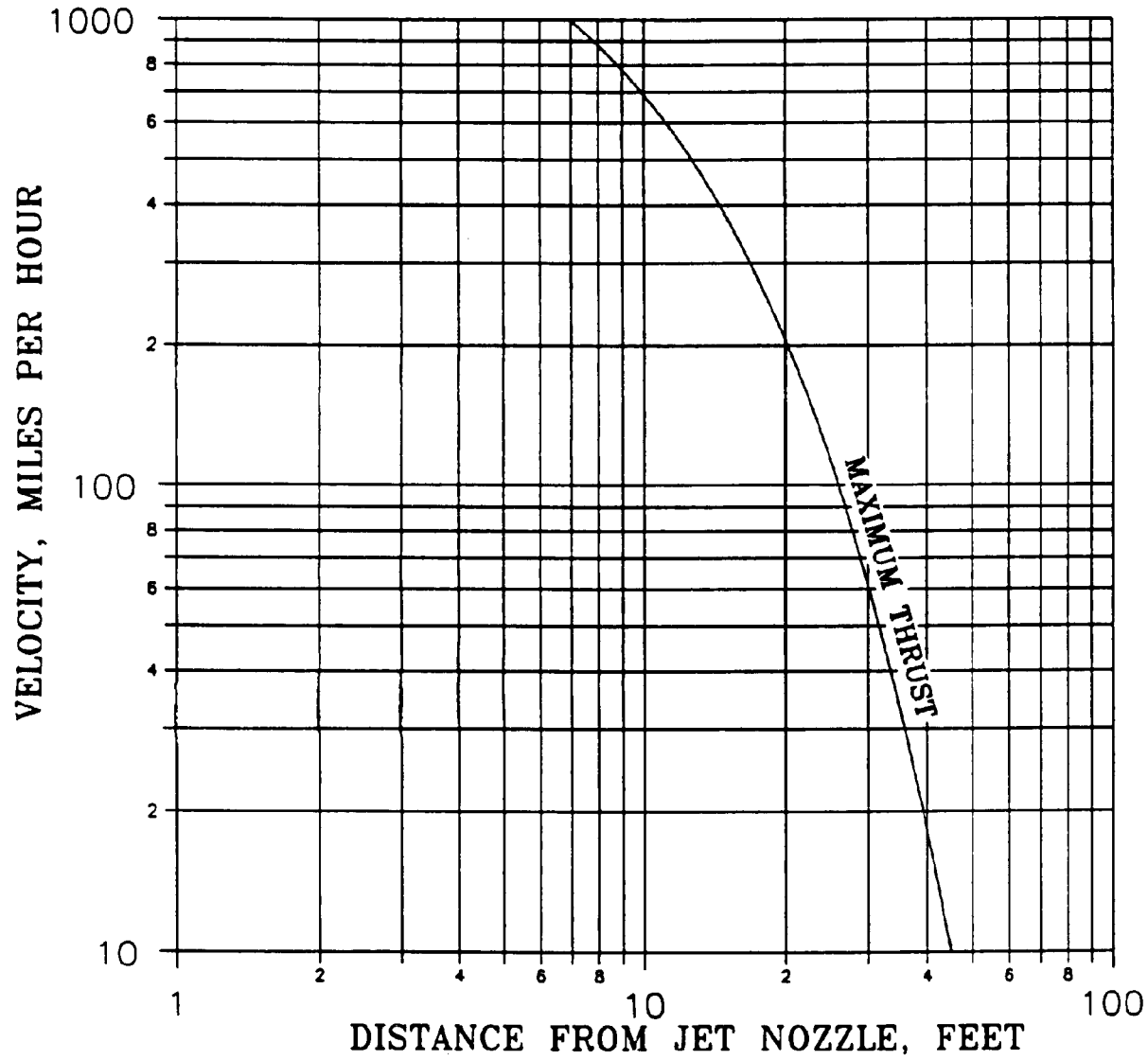


Figure E-29. A-37B, Velocity - Distance Curve

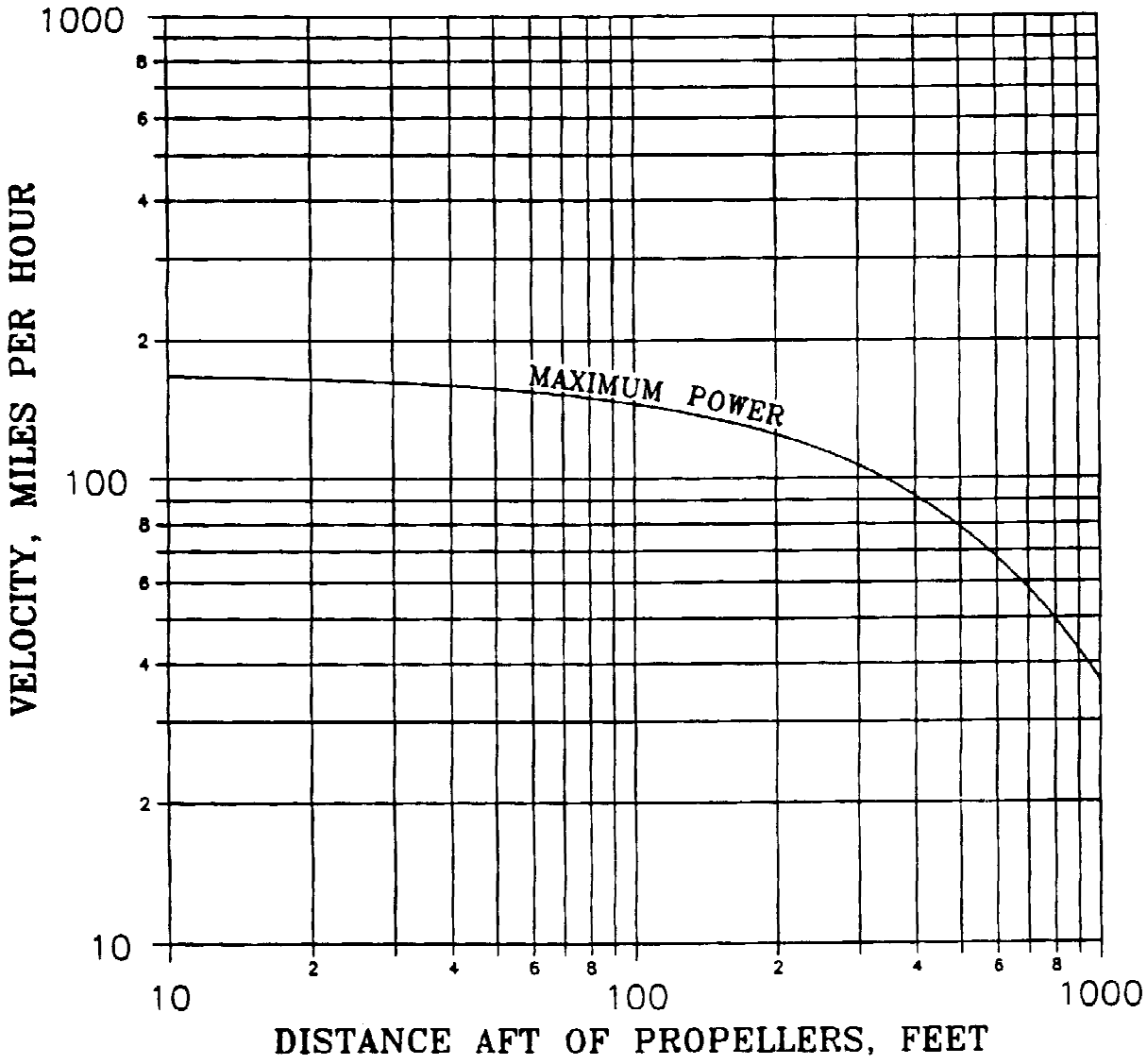


Figure E-30. AC-130A/H/U, Velocity - Distance Curve

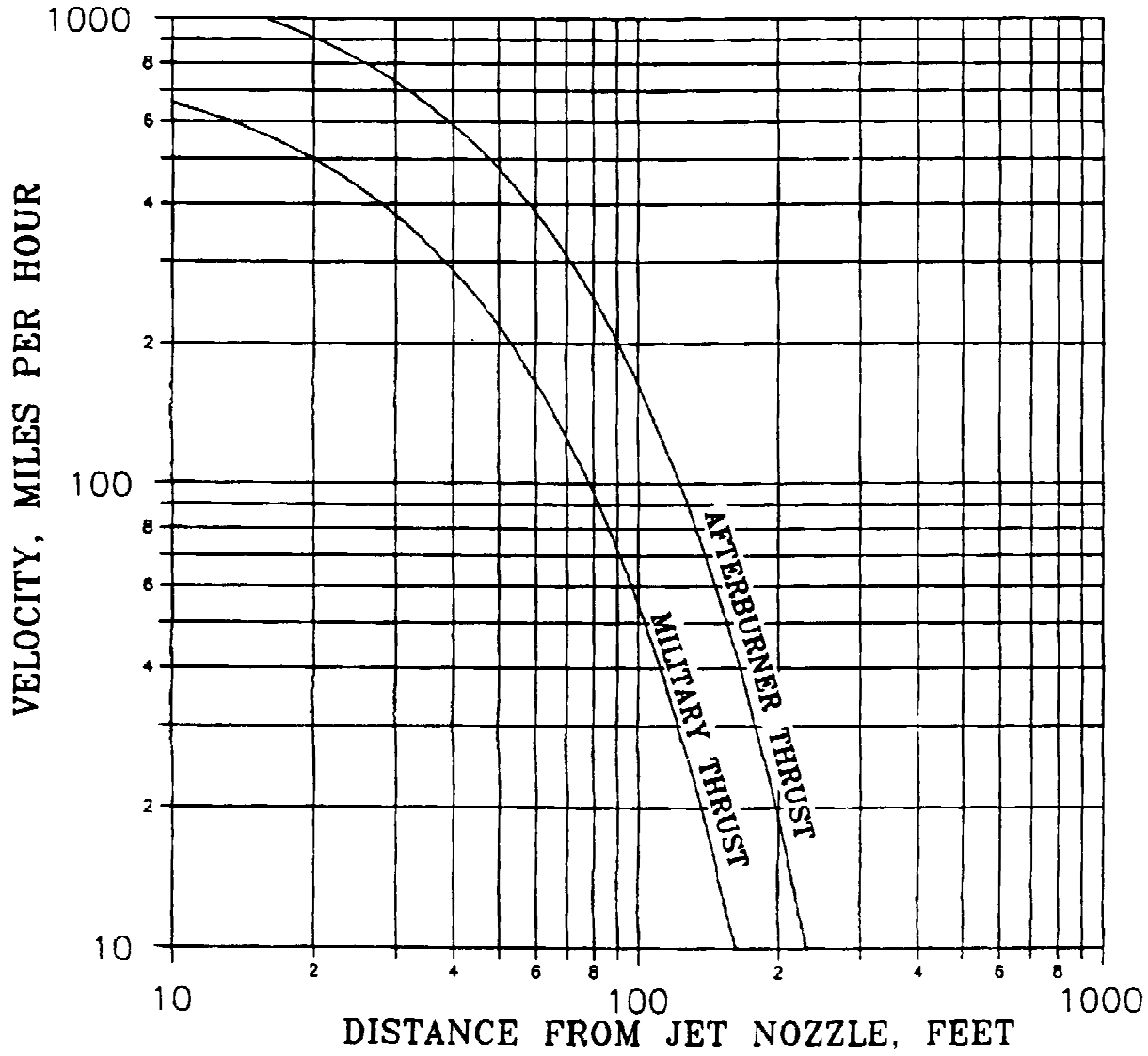


Figure E-31. F-4C/D/E, Velocity - Distance Curves

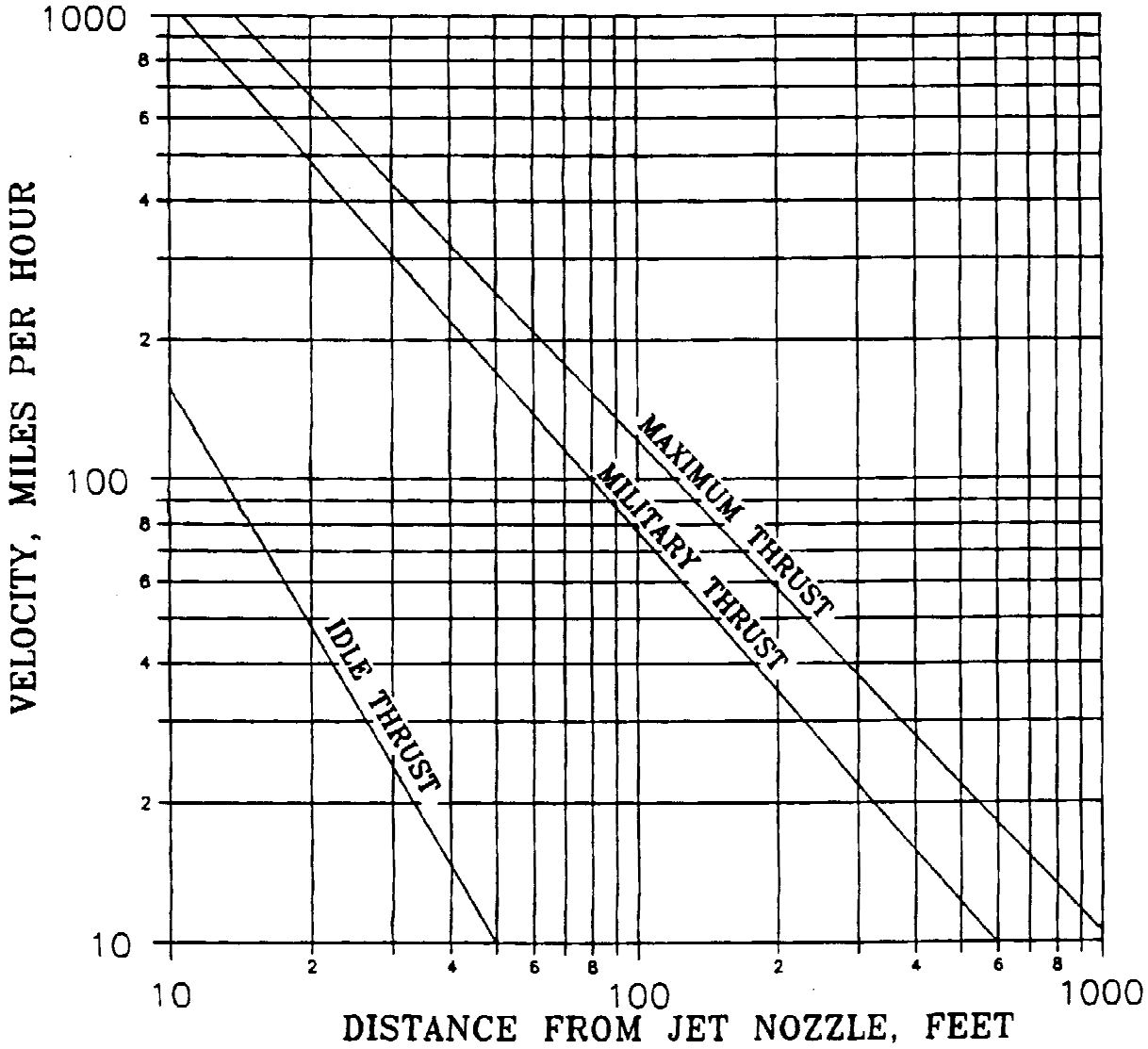


Figure E-32. F-5E/F, Velocity - Distance Curves

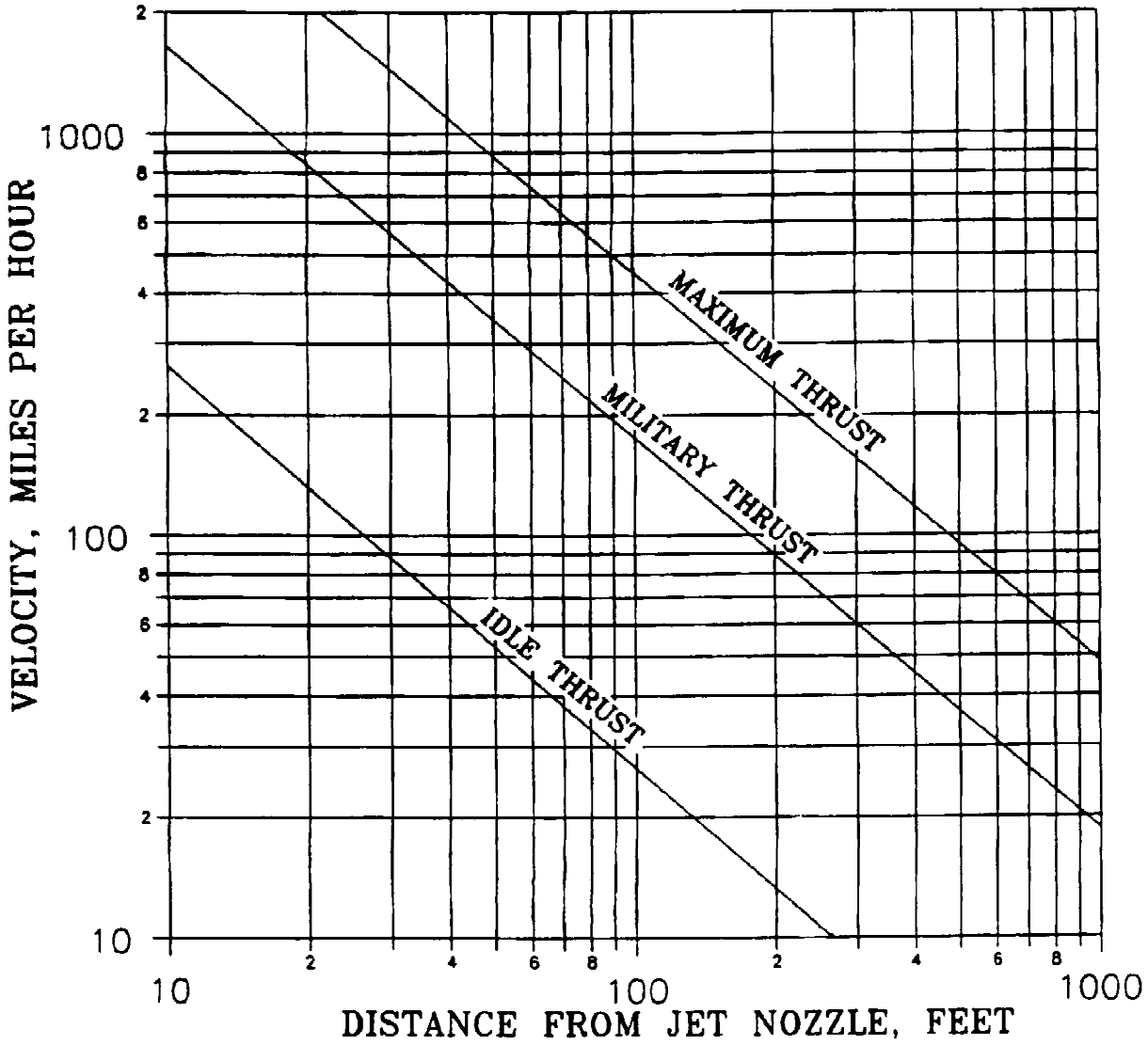


Figure E-33. F-15A/B/C/D/E, Velocity - Distance Curves

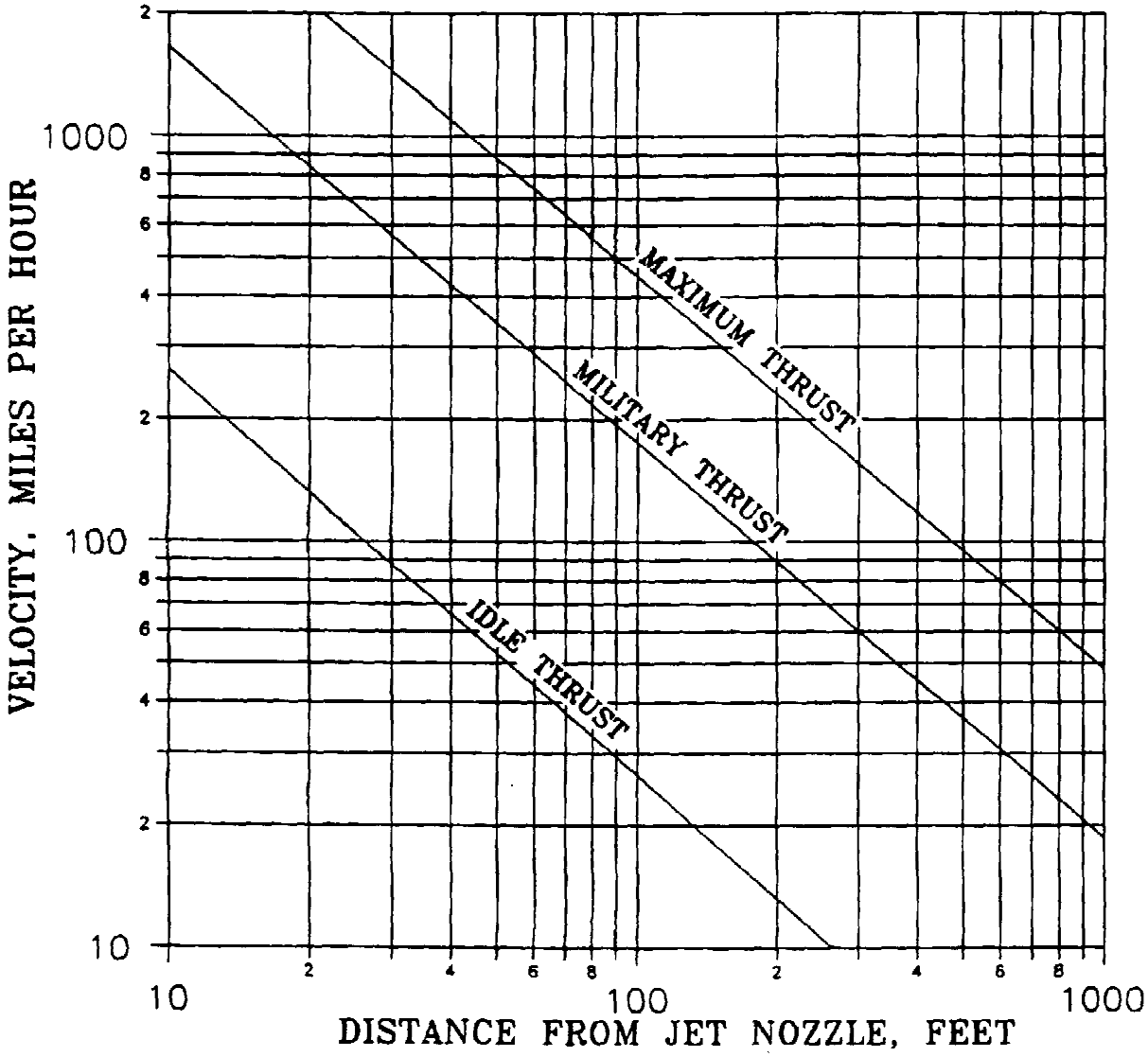


Figure E-34. F-16A/B, Velocity - Distance Curves

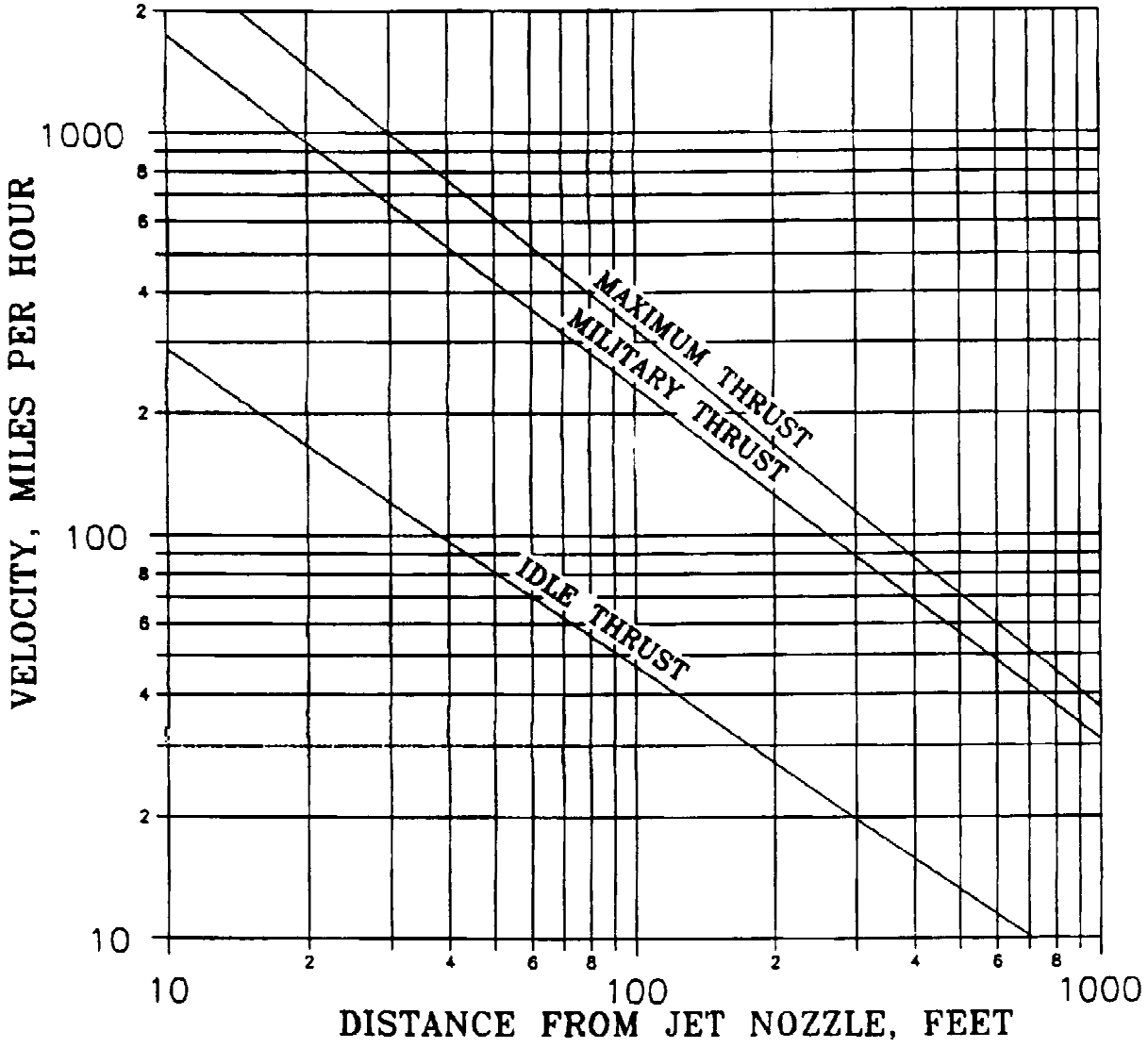


Figure E-35. F-16C/D, Velocity - Distance Curves

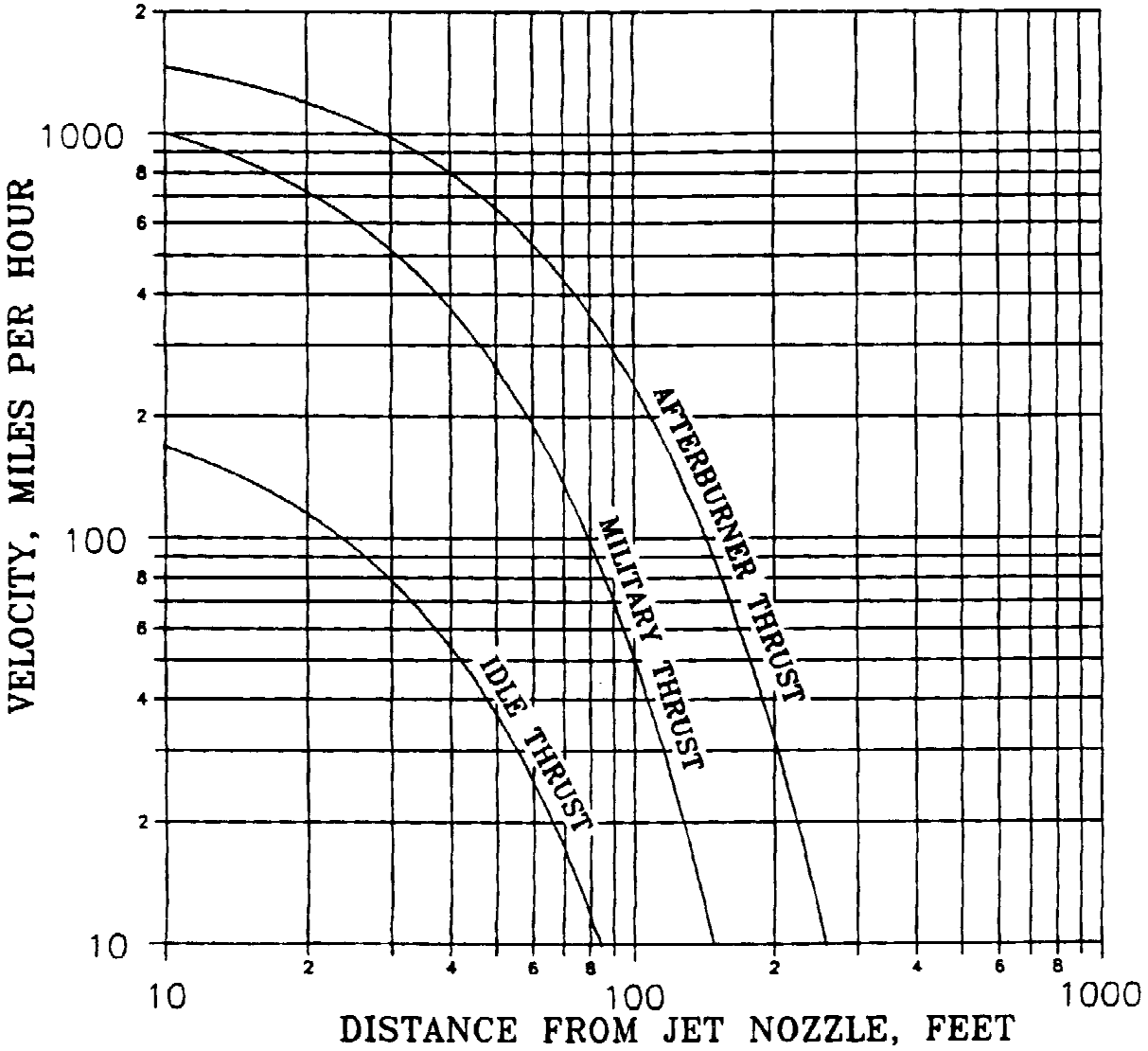


Figure E-36. F-100, Velocity - Distance Curves

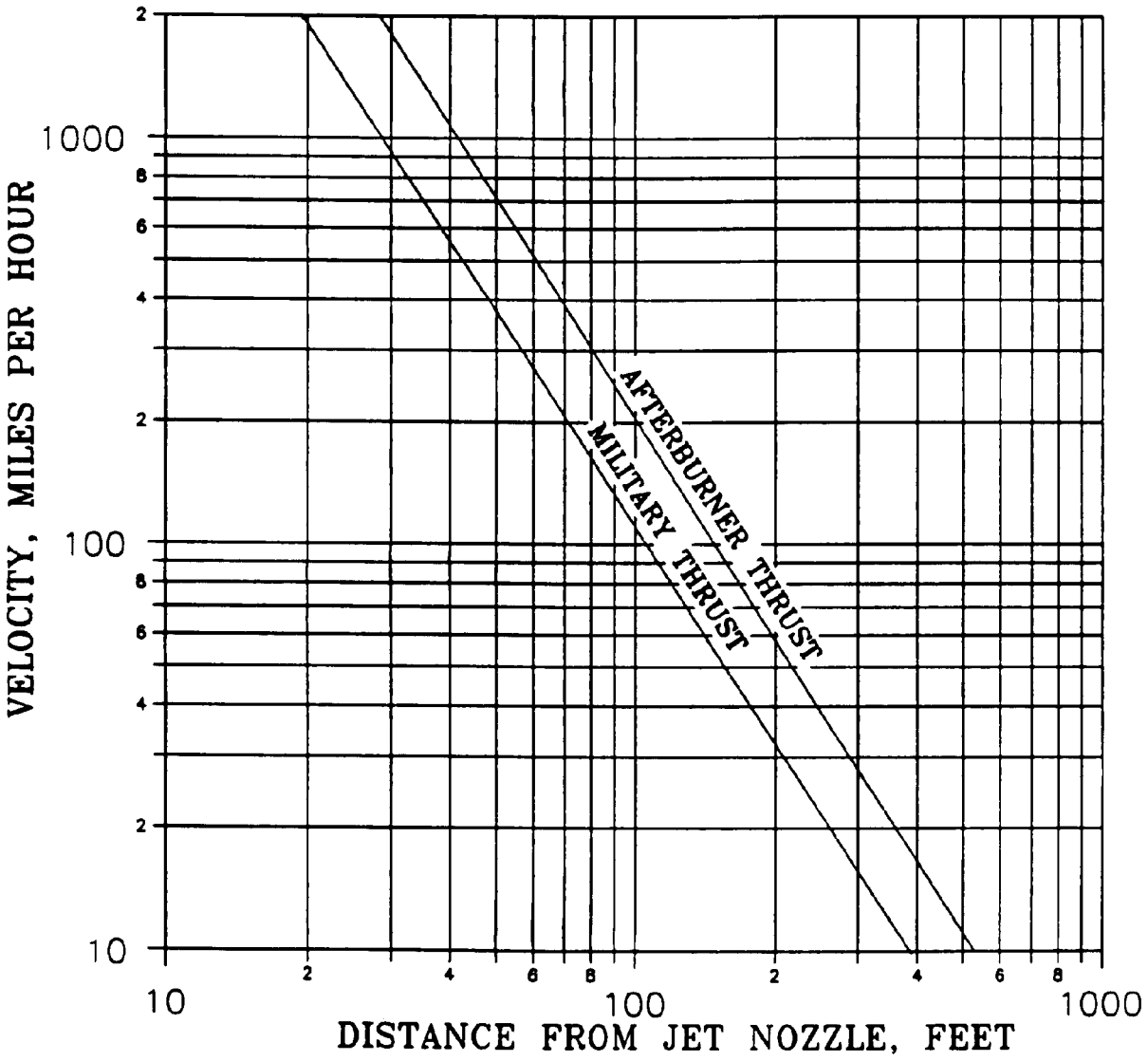


Figure E-37. F-101B, Velocity - Distance Curves

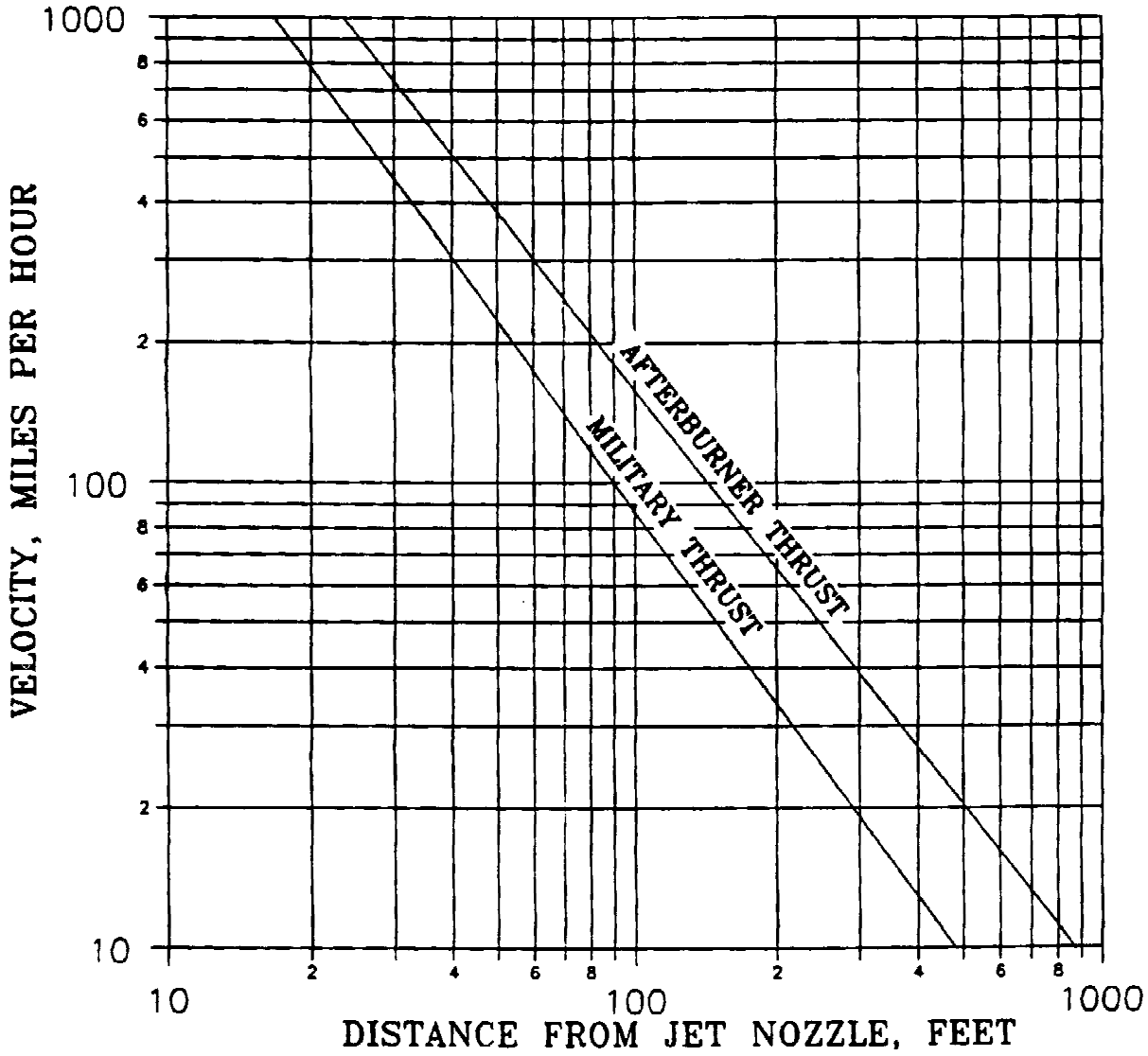


Figure E-38. F-104G, Velocity - Distance Curves

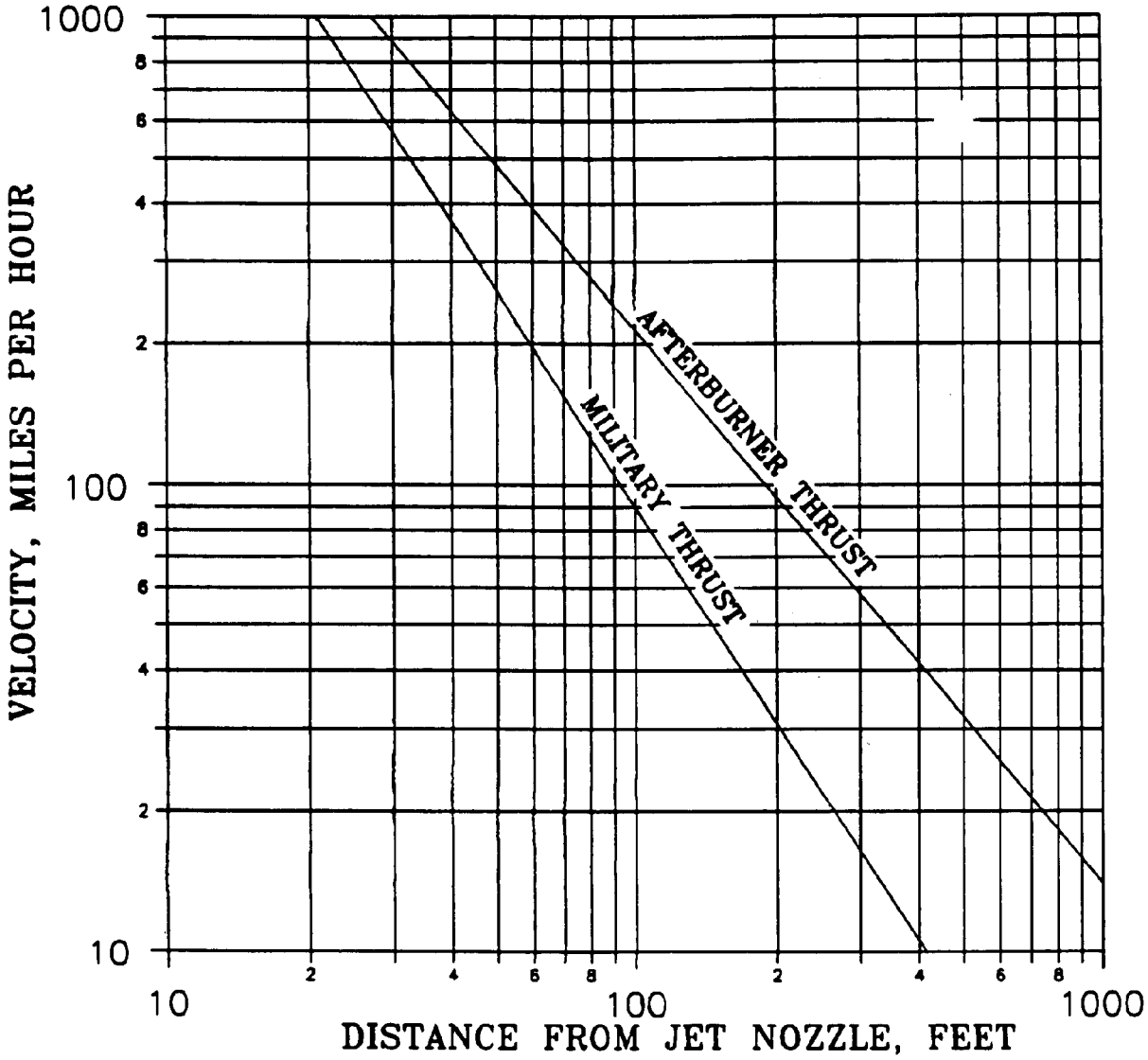


Figure E-39. F-105D/F/G, Velocity - Distance Curves

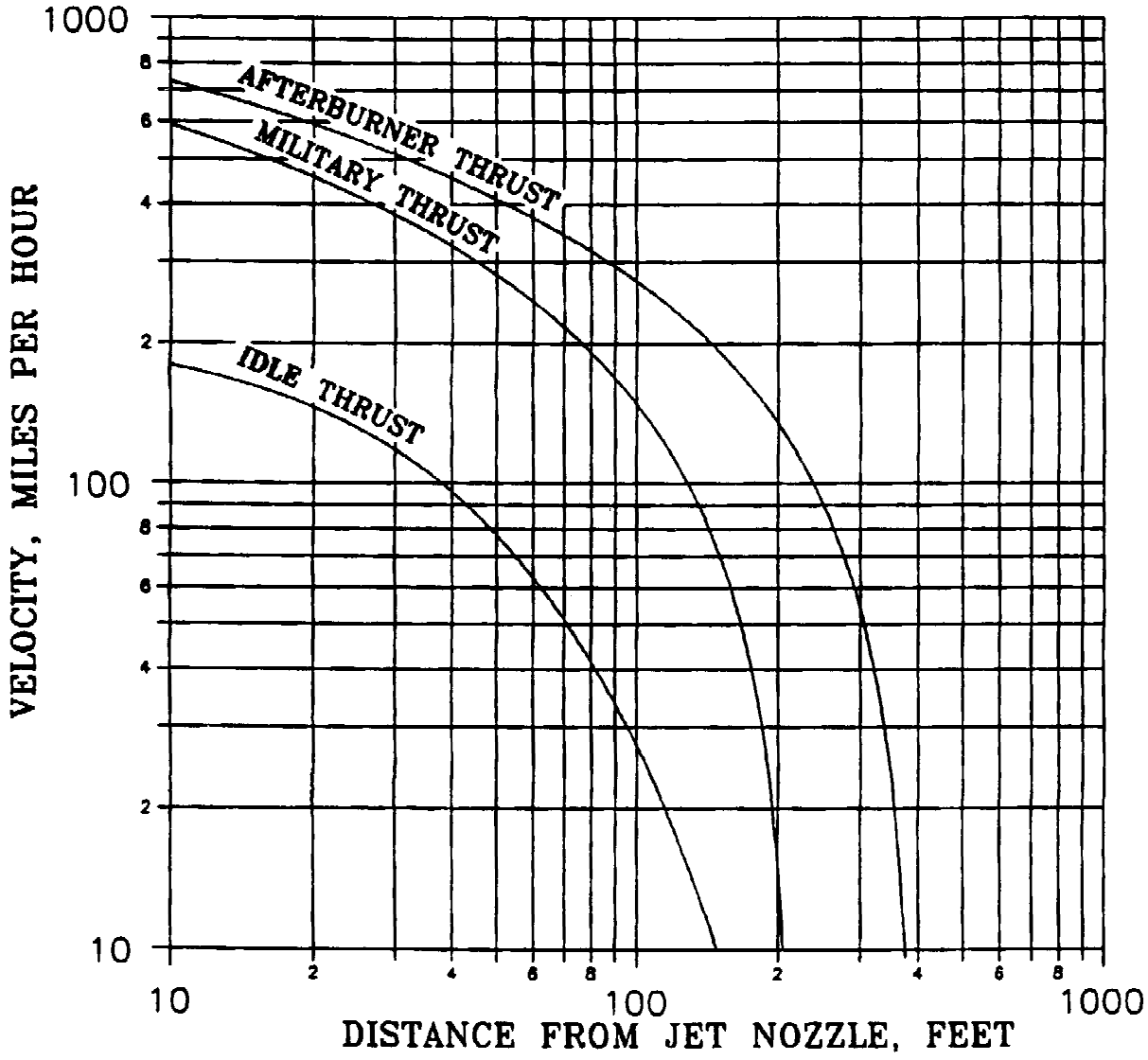


Figure E-40. F-106A/B, Velocity - Distance Curves

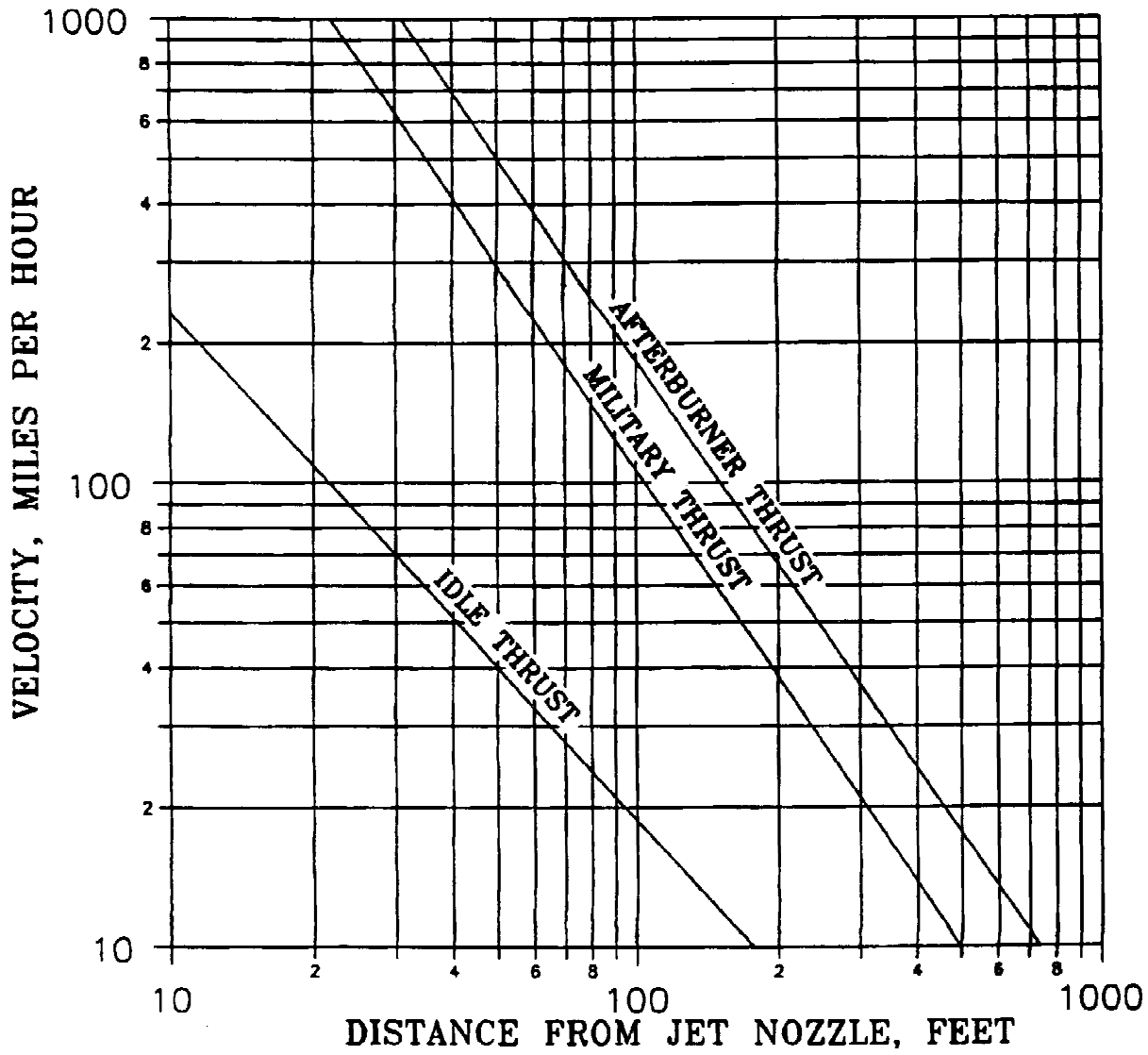


Figure E-41. F-111A/E, Velocity - Distance Curves

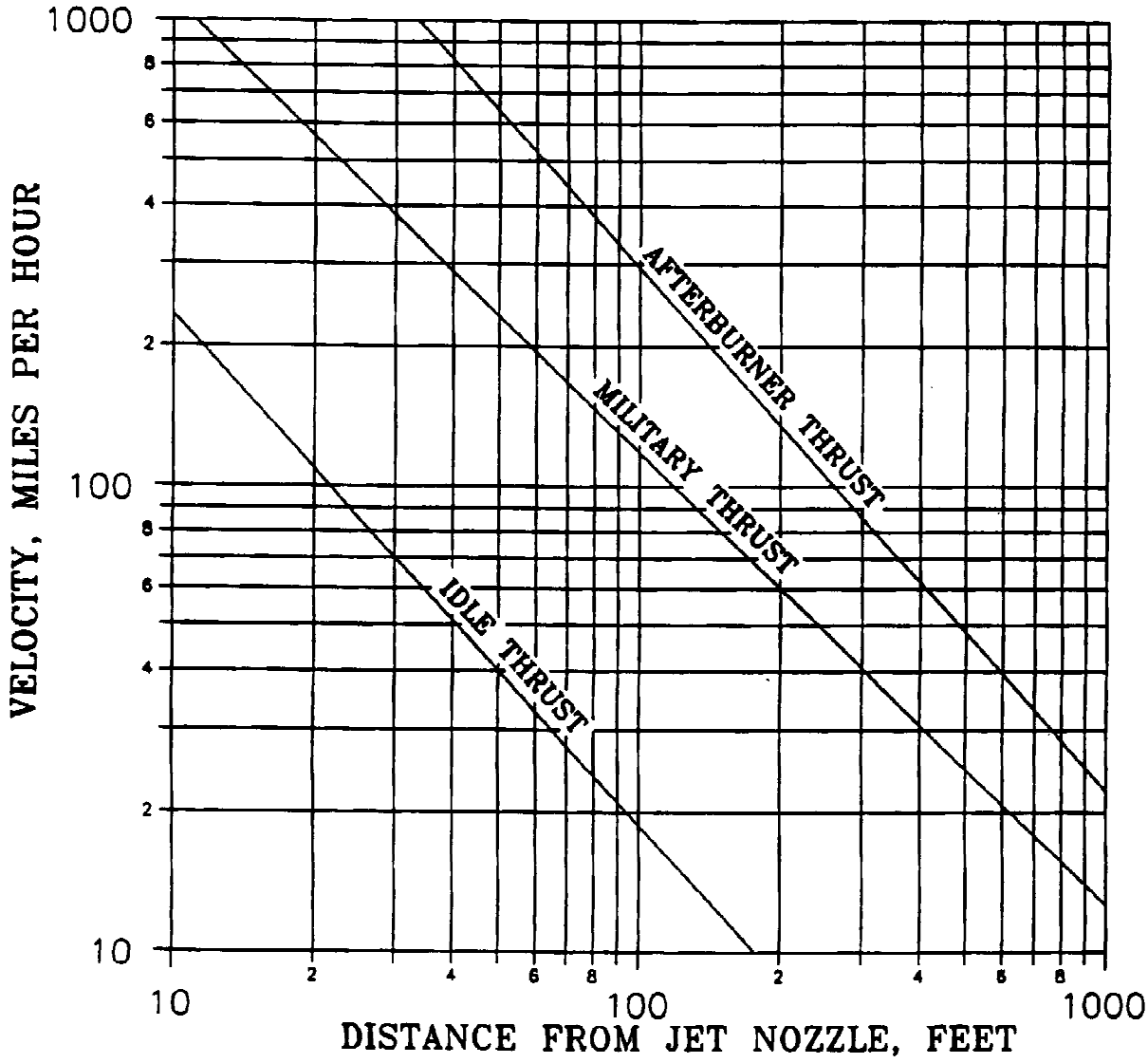


Figure E42. F-111D, Velocity - Distance Curves

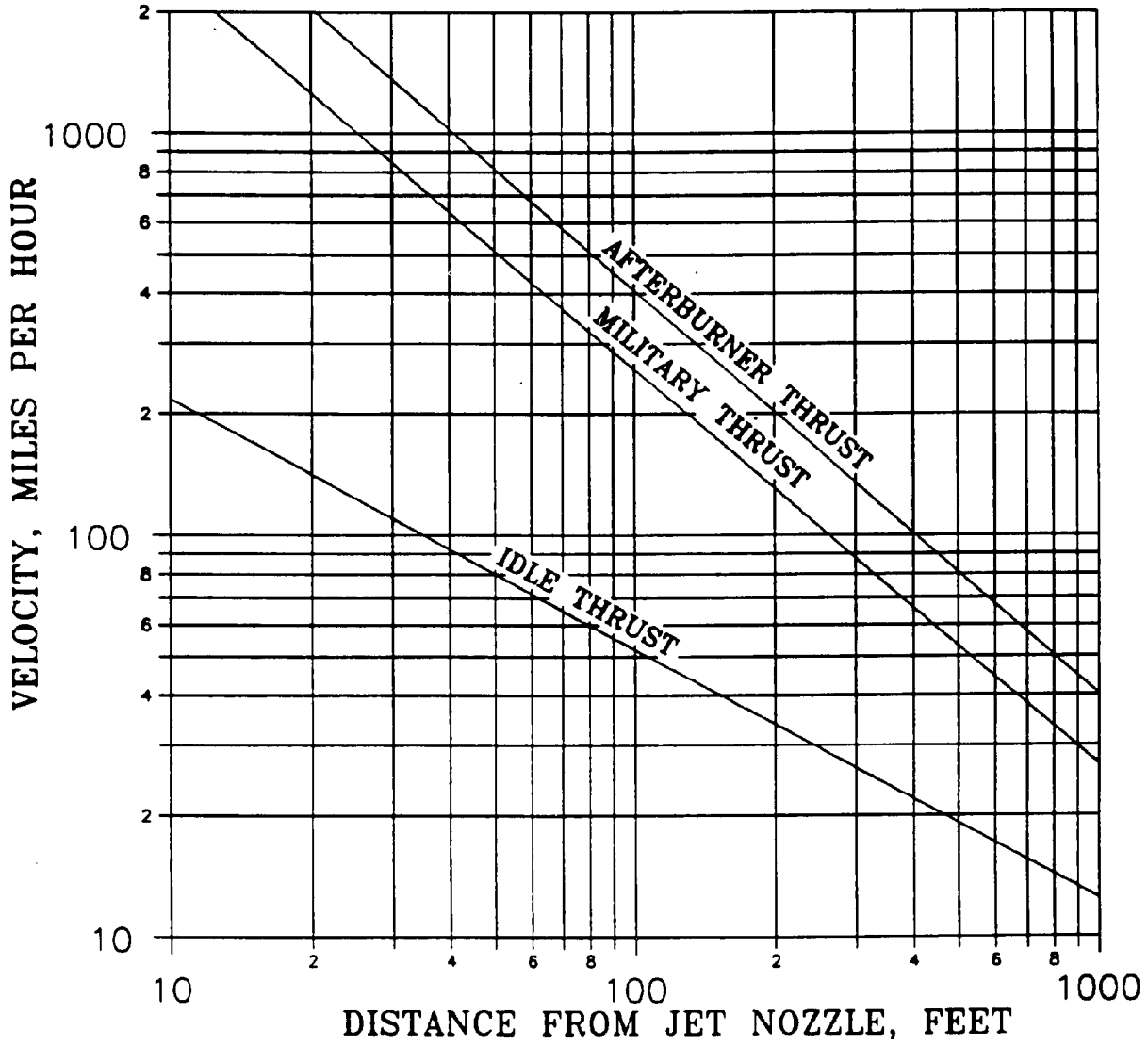


Figure E-43. F-111F, Velocity - Distance Curves

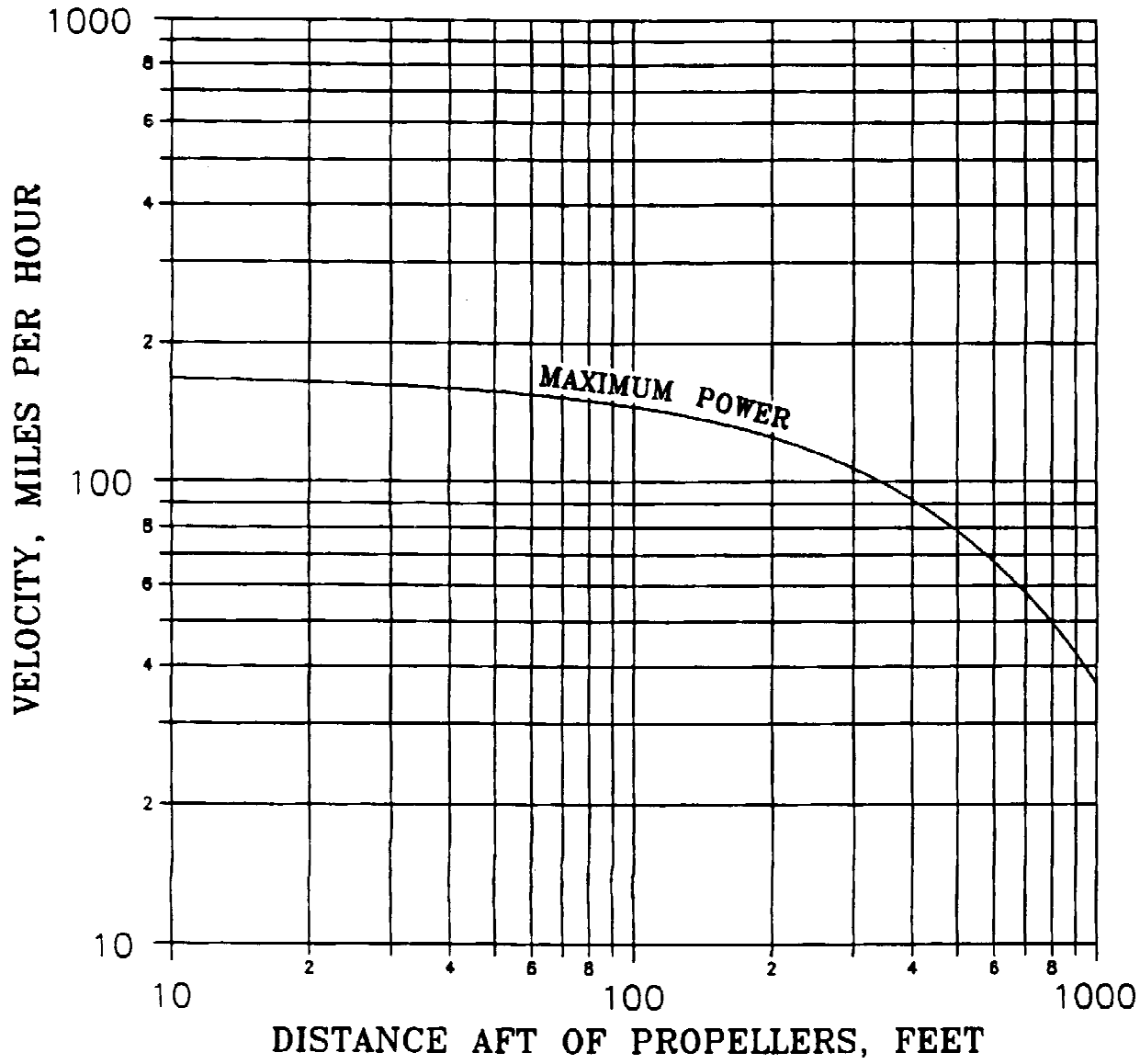


Figure E-44. Lockheed L-382 (L-100-20 & L-100-30),
Velocity - Distance Curve

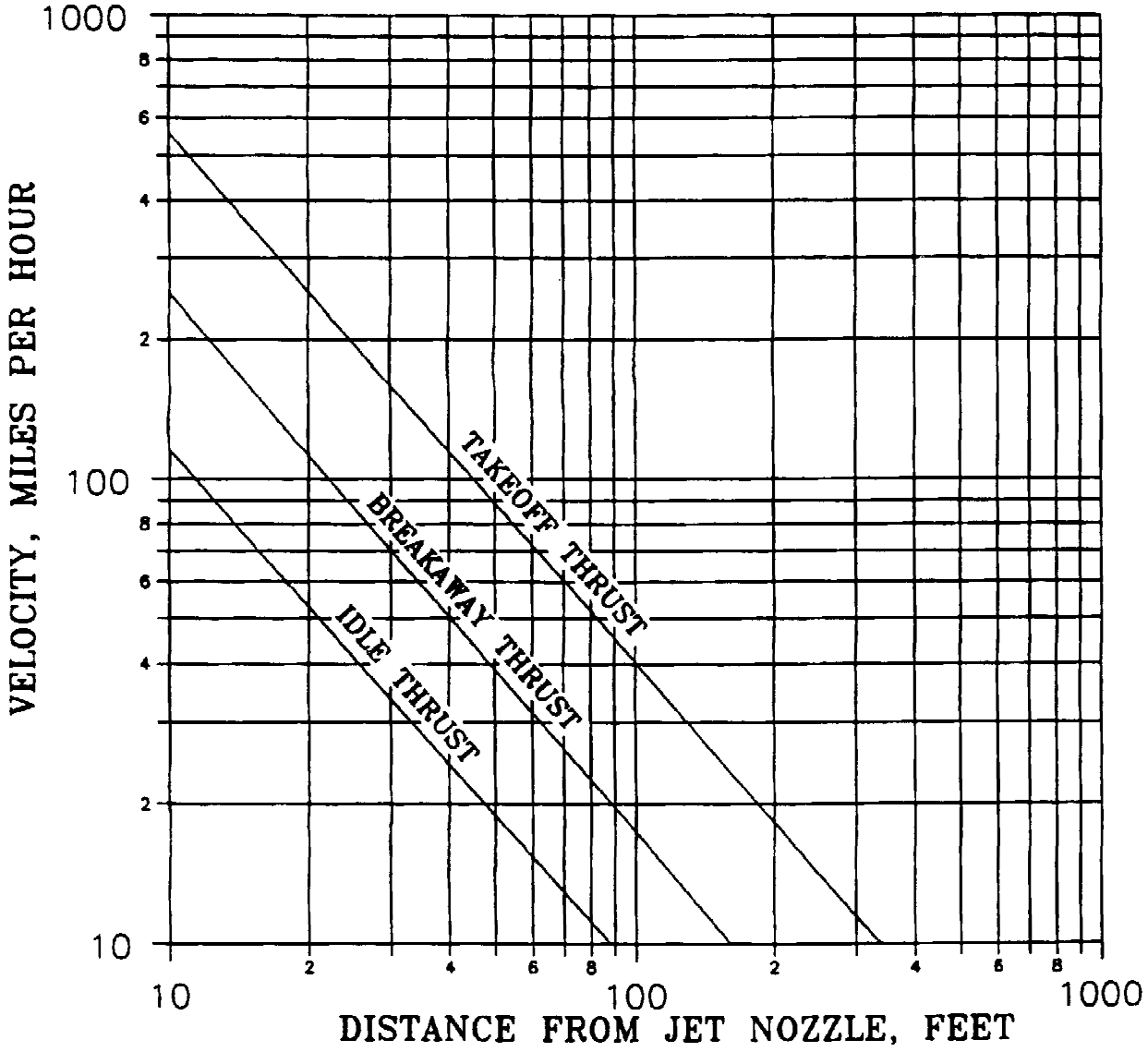


Figure E-45. Gates Learjet 24/25, Velocity - Distance Curves

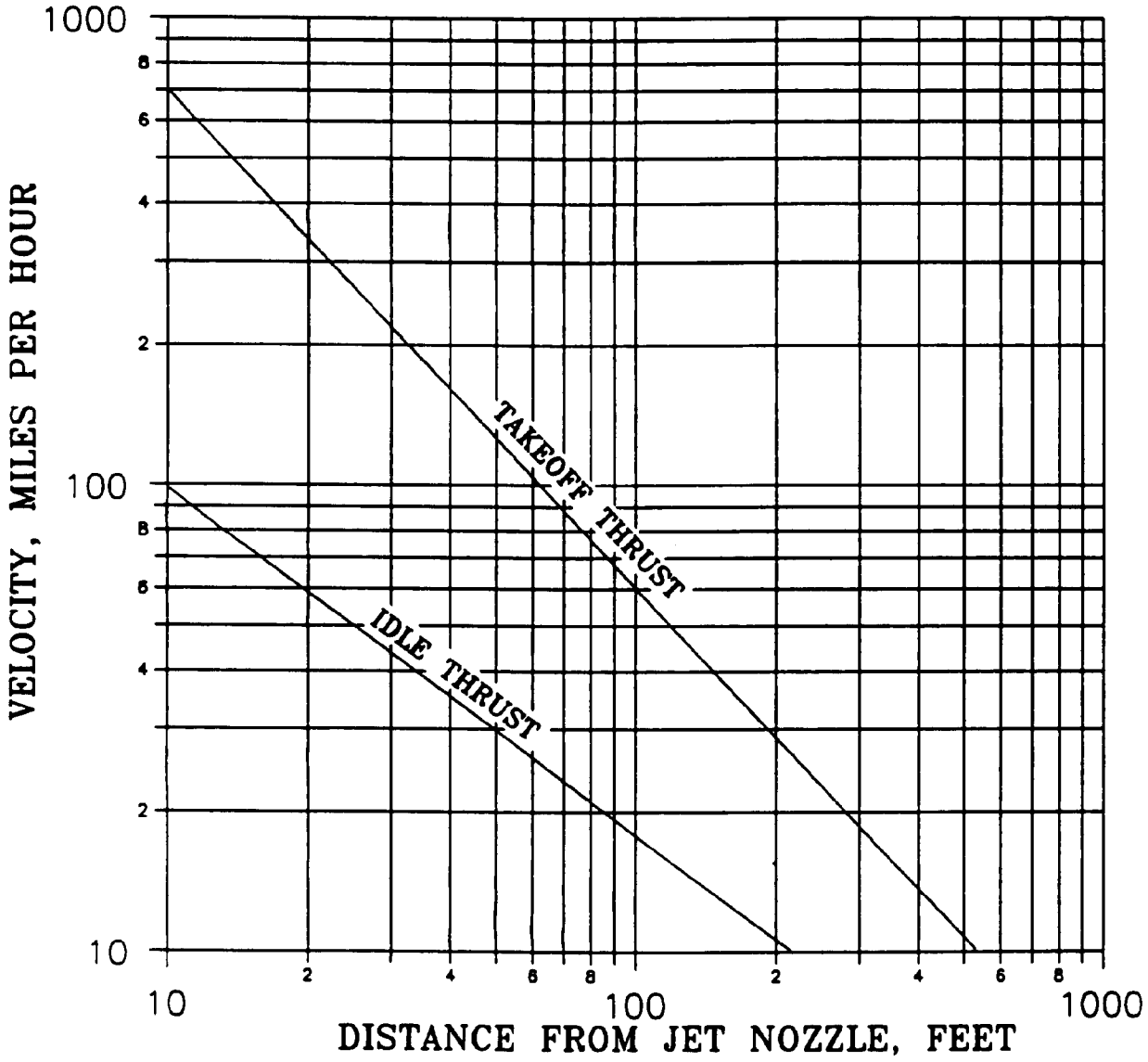


Figure E-46. Gates Learjet 35/36, Velocity - Distance Curves

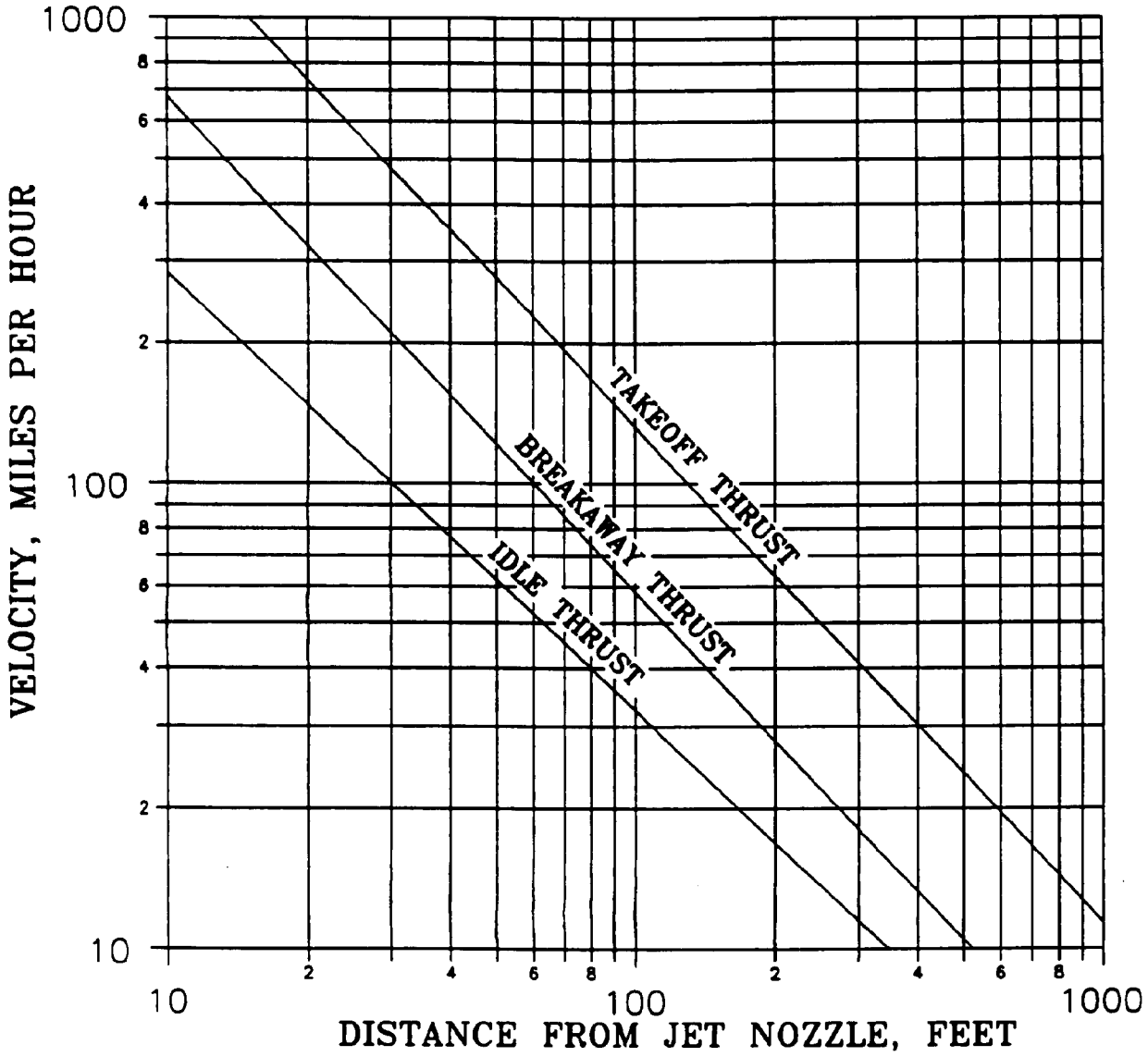


Figure E-47. Grumman Gulfstream II, Velocity - Distance Curves

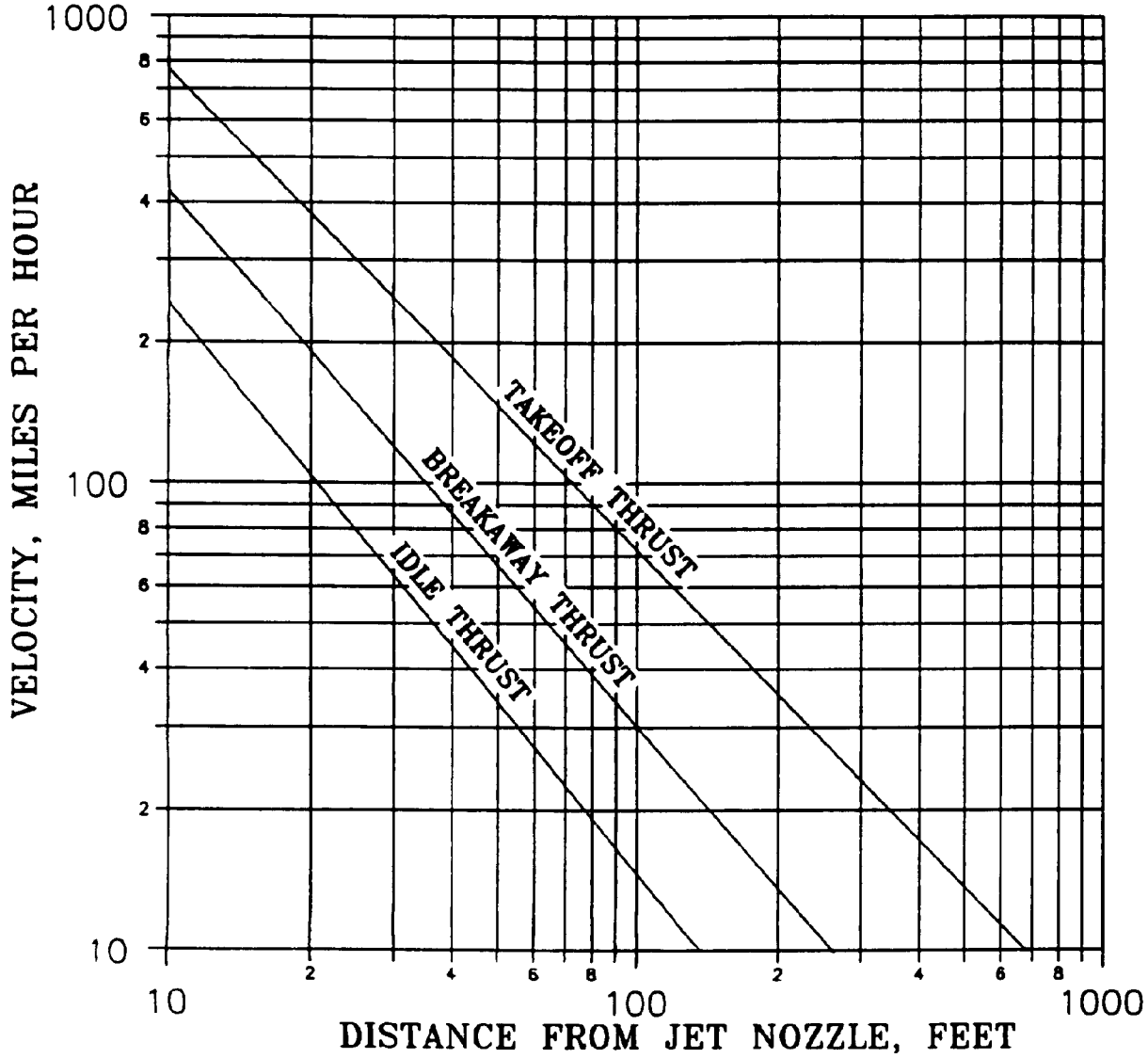


Figure E-48. Lockheed 1329, Velocity - Distance Curves

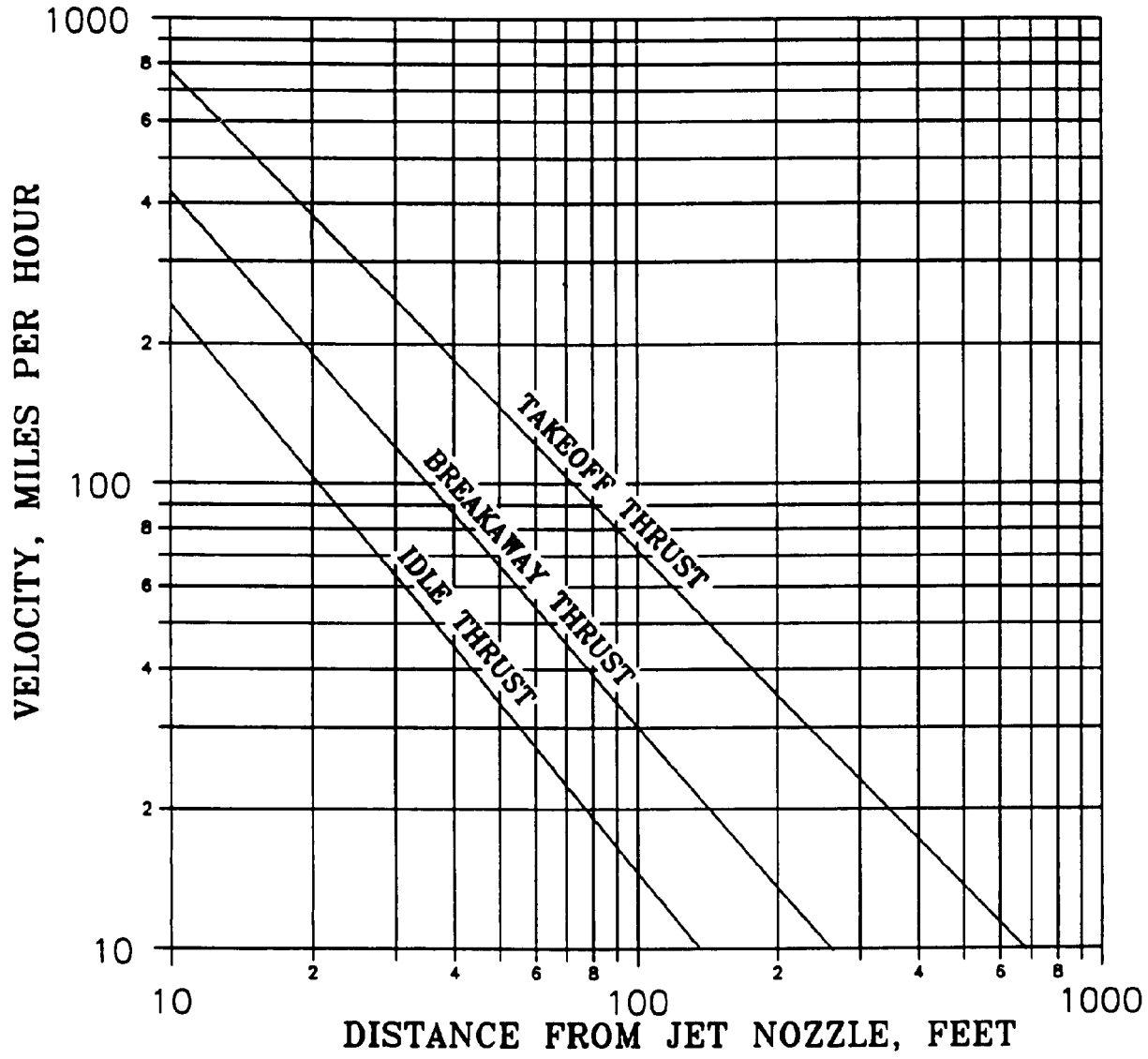


Figure E-49. Rockwell NA-265-40 and NA-265-60,
Velocity - Distance Curves

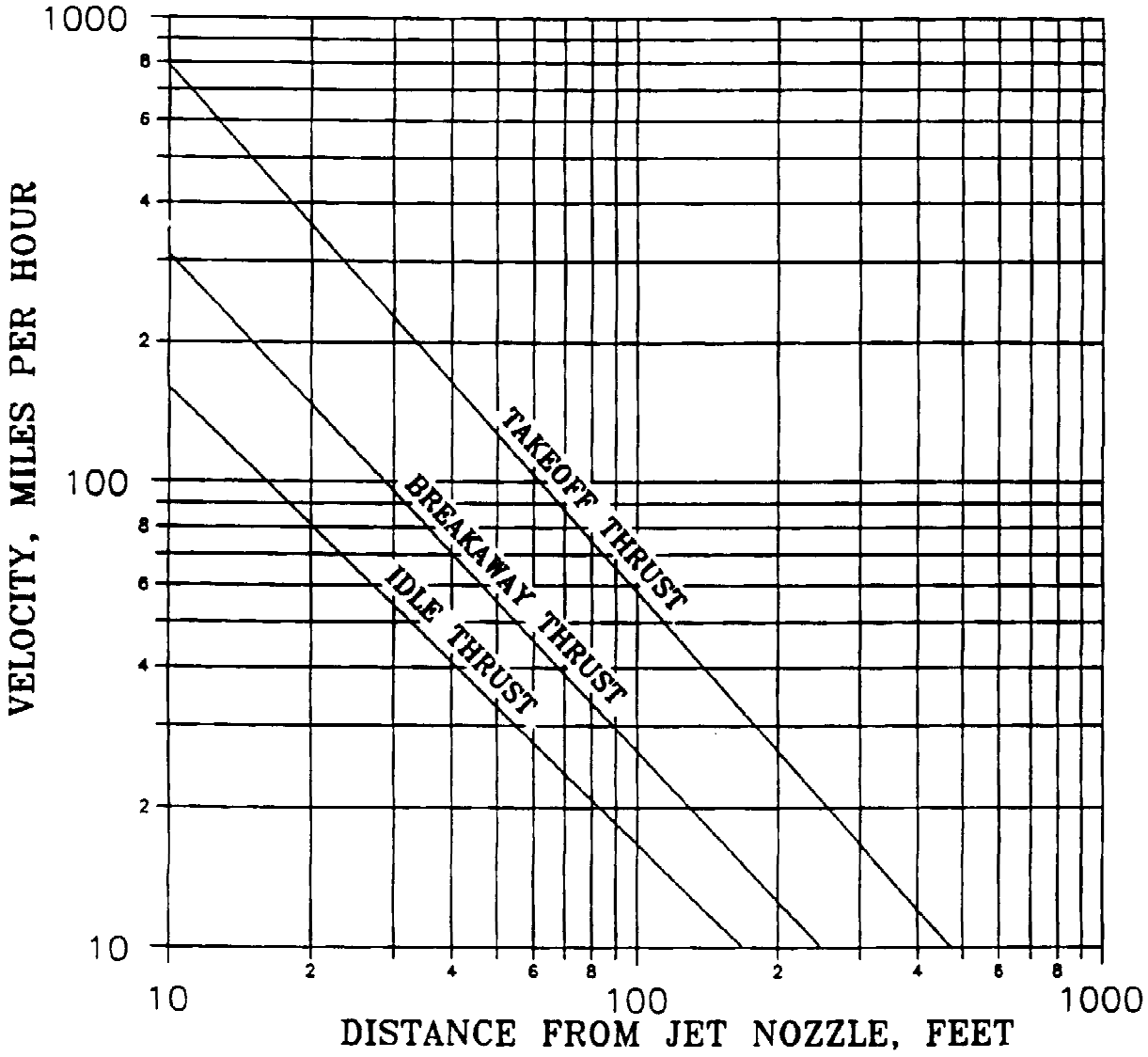


Figure E-50. Rockwell NA-265-75A, Velocity - Distance Curves

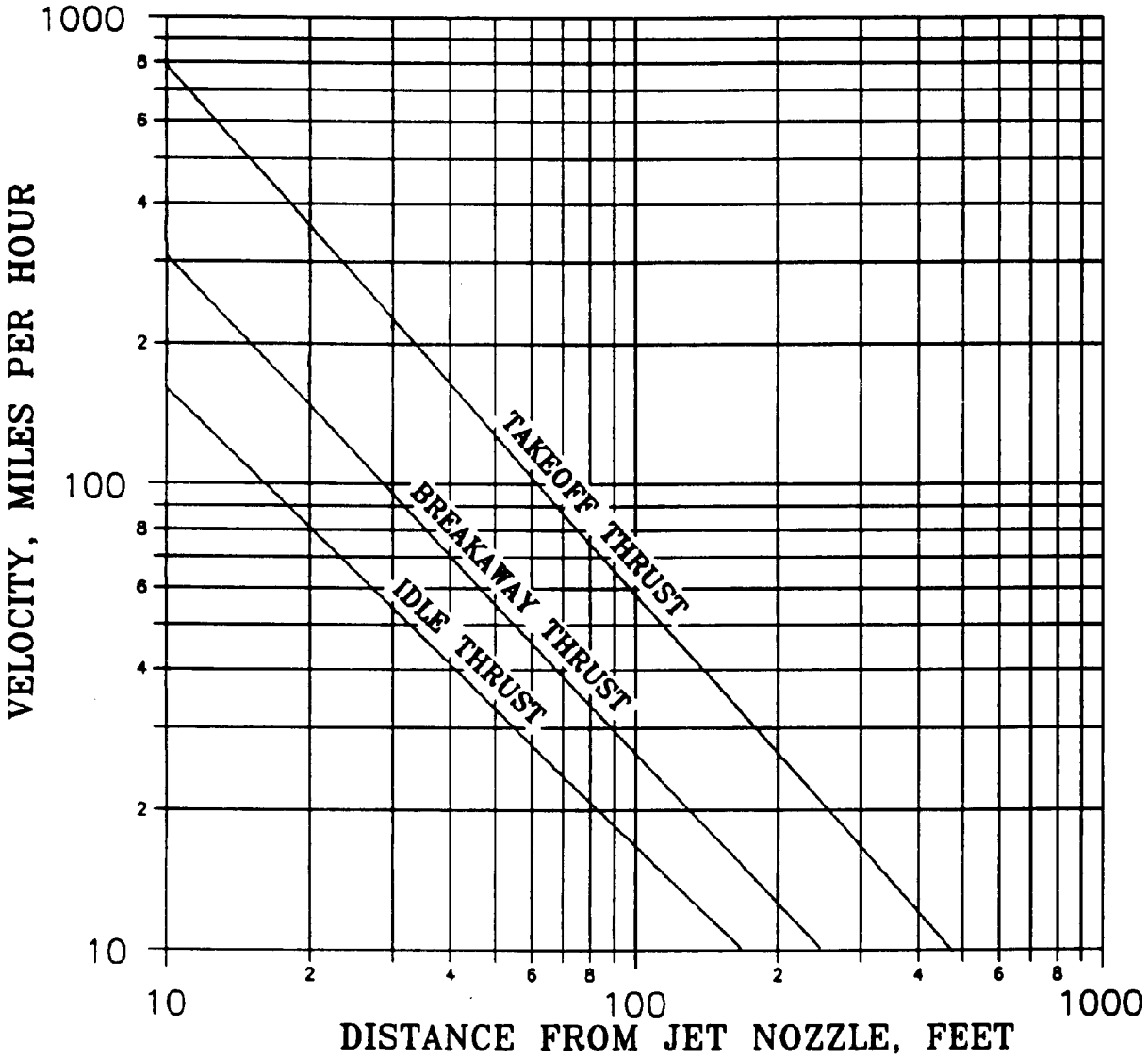


Figure E-51. Avions Marcel Dassault Mystere 20,
Velocity - Distance Curves

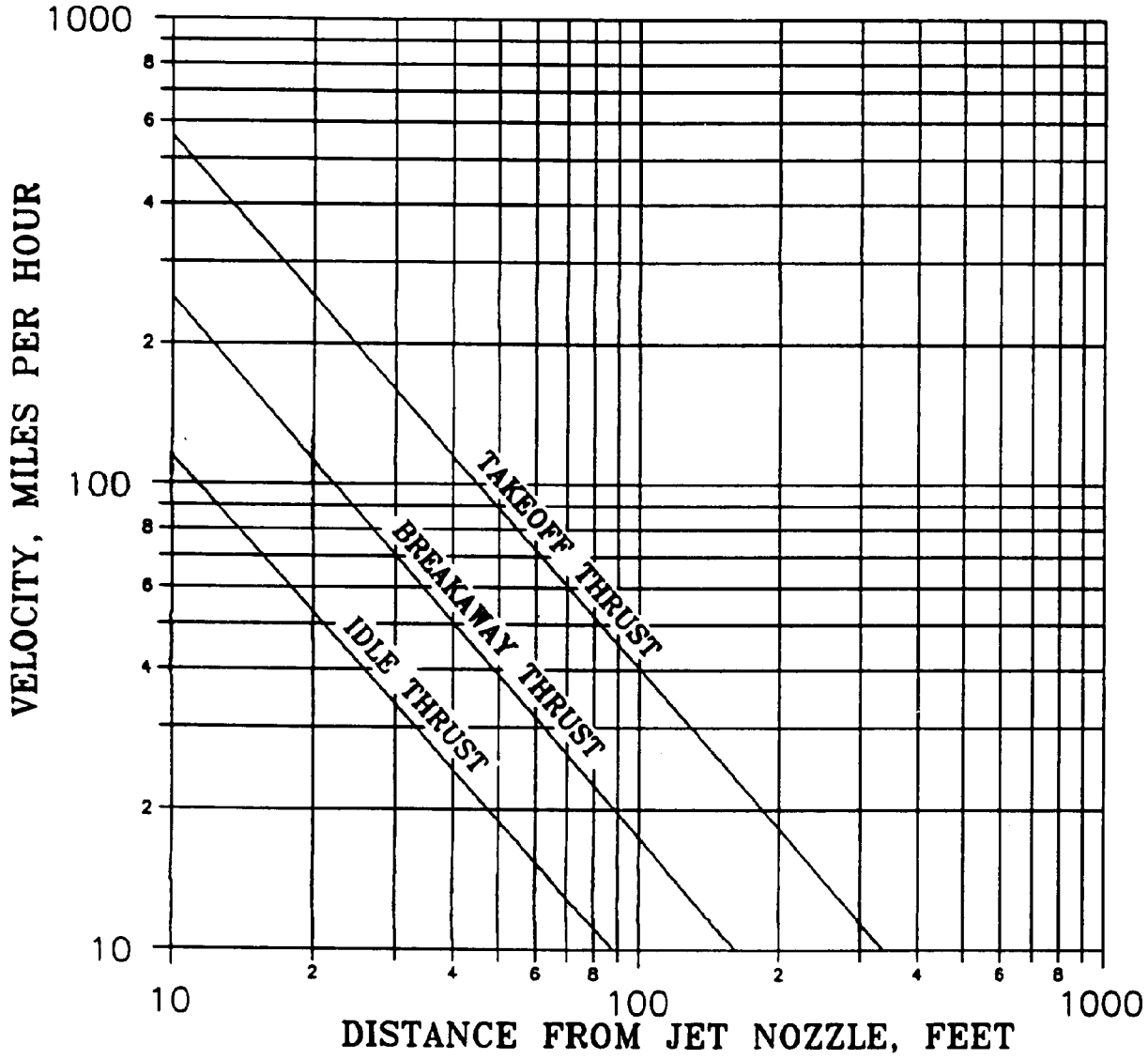


Figure E-52. Hamburger - Flugzeugbau HFB-320,
Velocity - Distance Curves

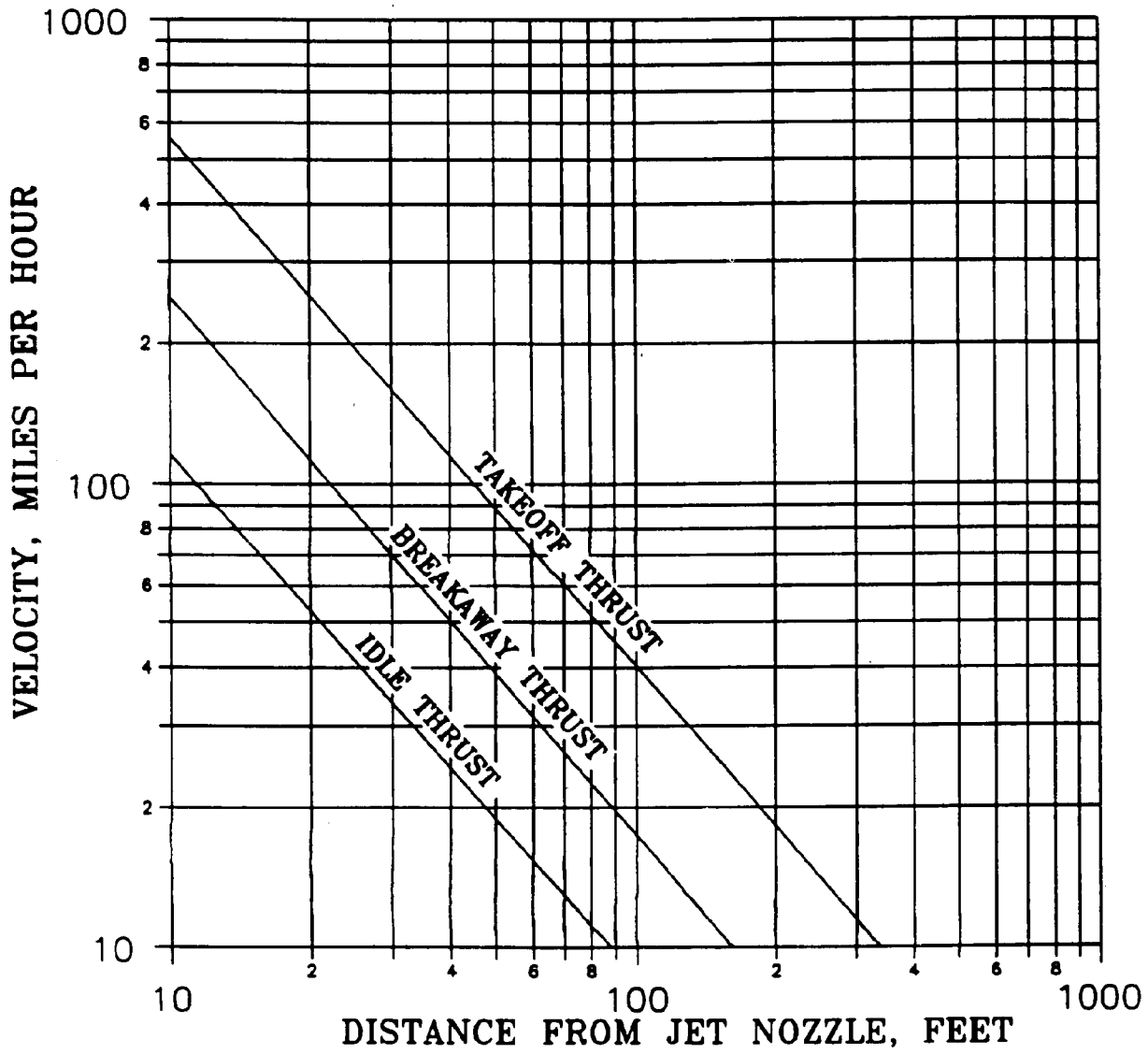


Figure E-53. Israel Aircraft 1121, Velocity - Distance Curves

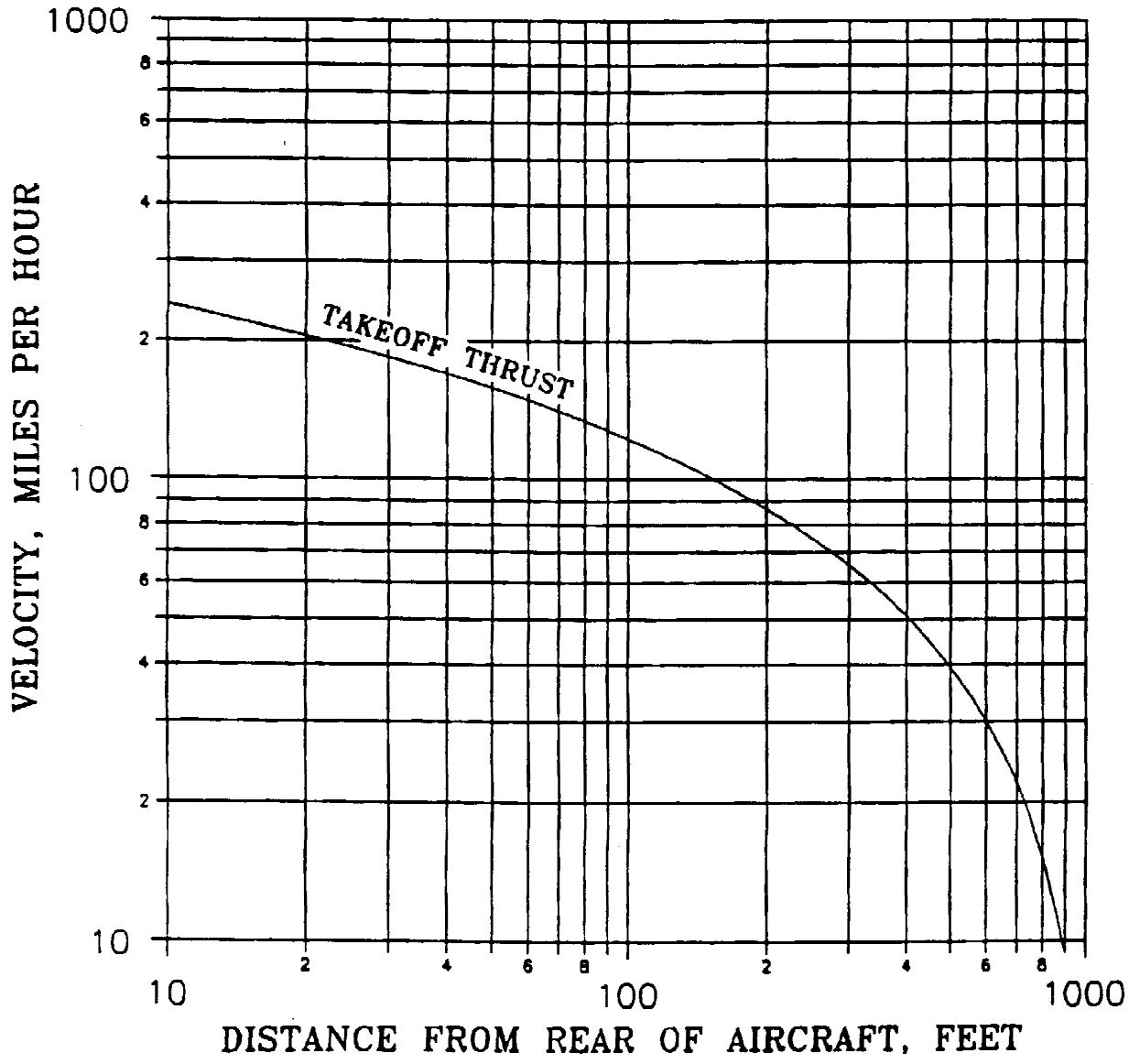


Figure E-54. Boeing 707-120B/-320B/-320C,
Velocity - Distance Curve

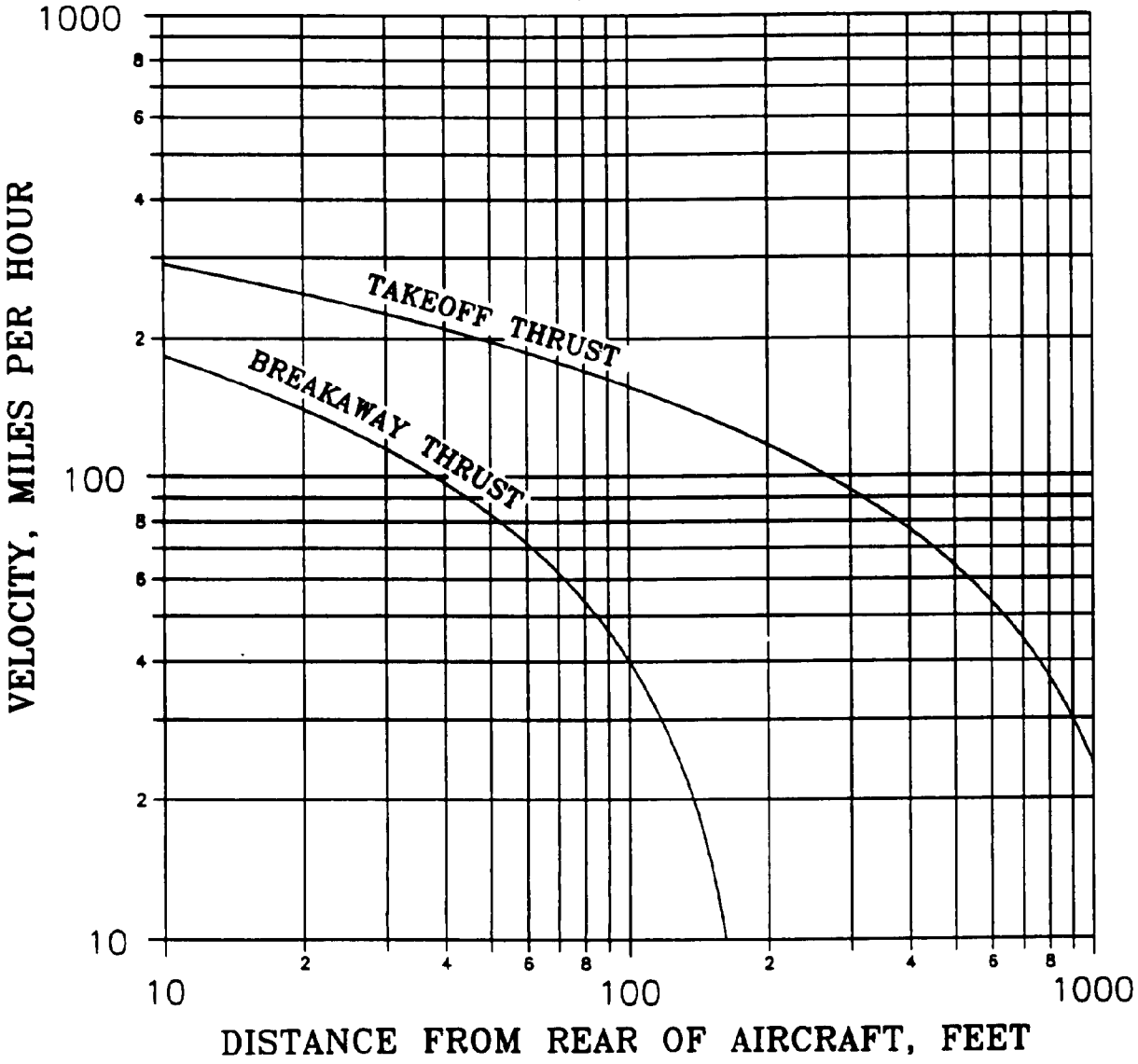


Figure E-55. Boeing 707-320/-420, Velocity - Distance Curves

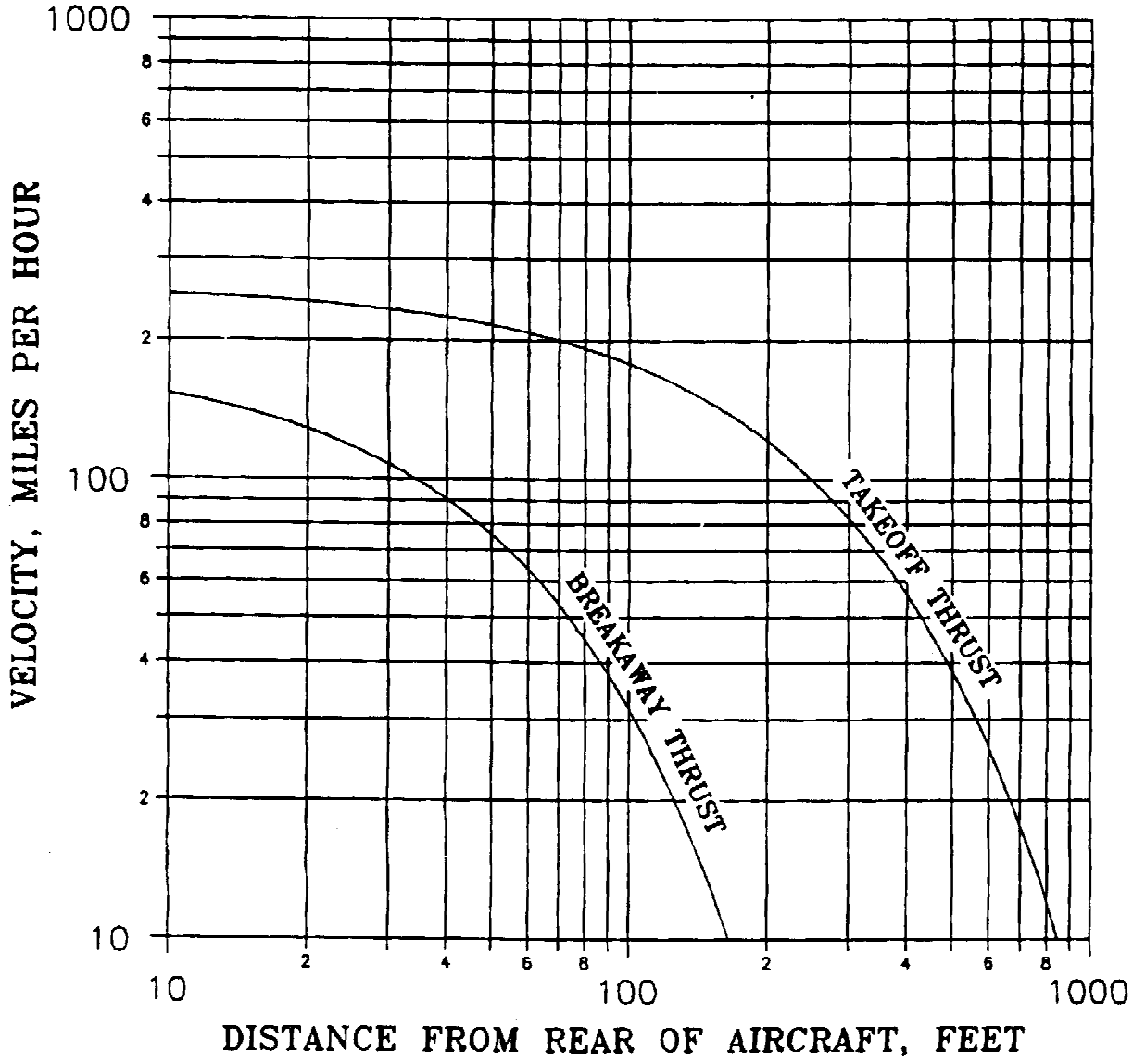


Figure E-56. Boeing 720, Velocity - Distance Curves

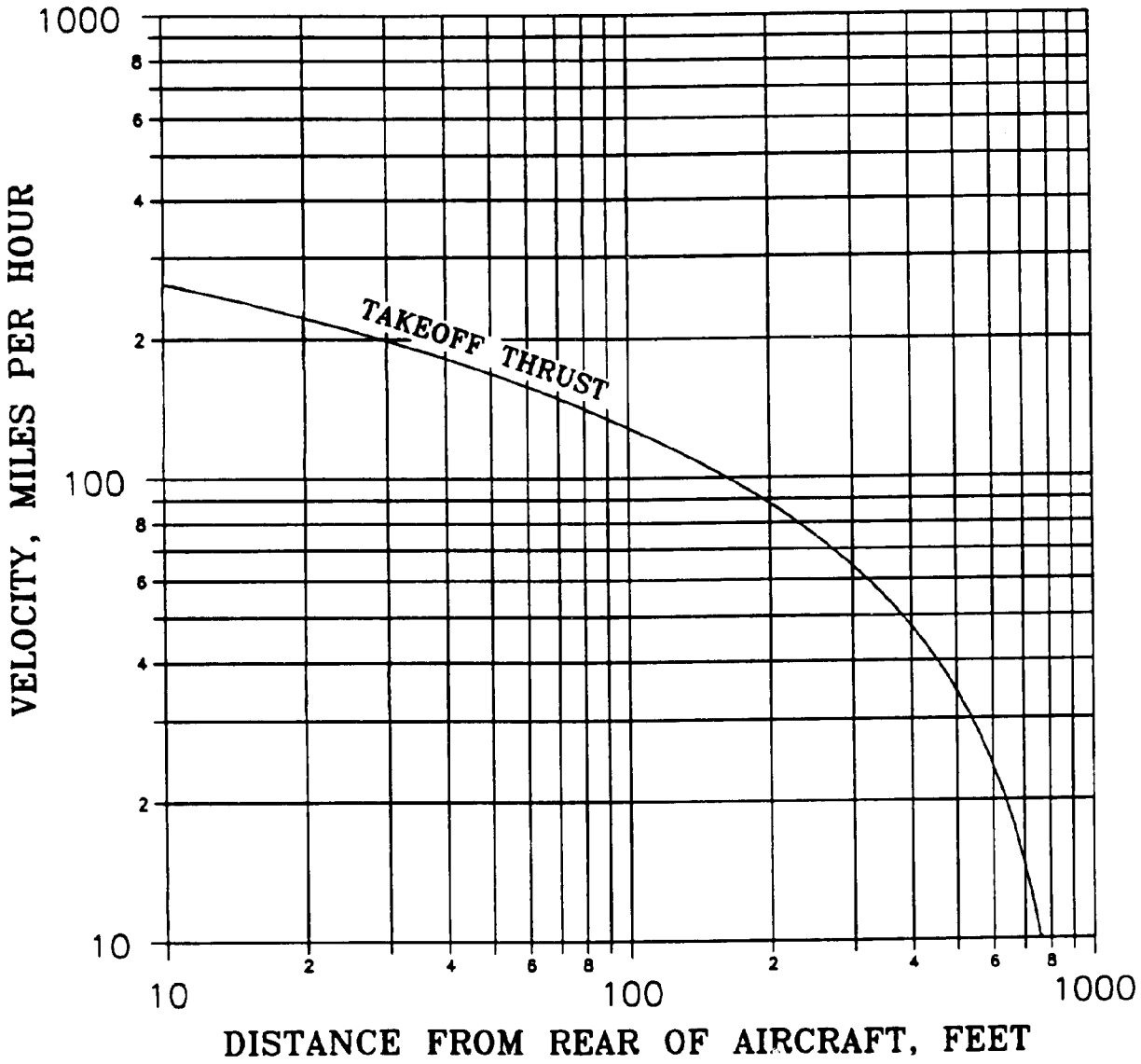


Figure E-57. Boeing 720B, Velocity - Distance Curve

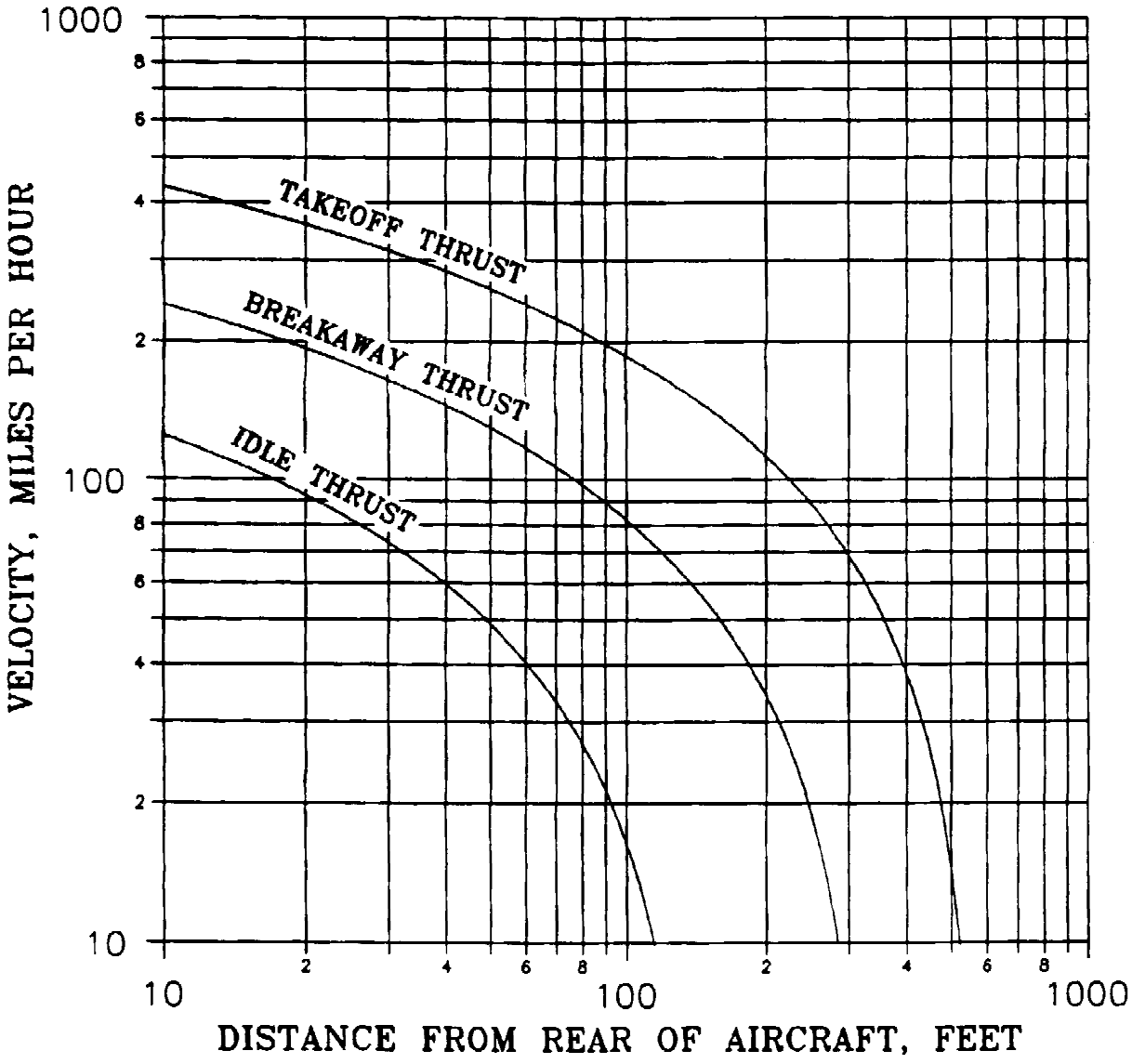


Figure E-58. Boeing 727-100/-100C,
Velocity - Distance Curves

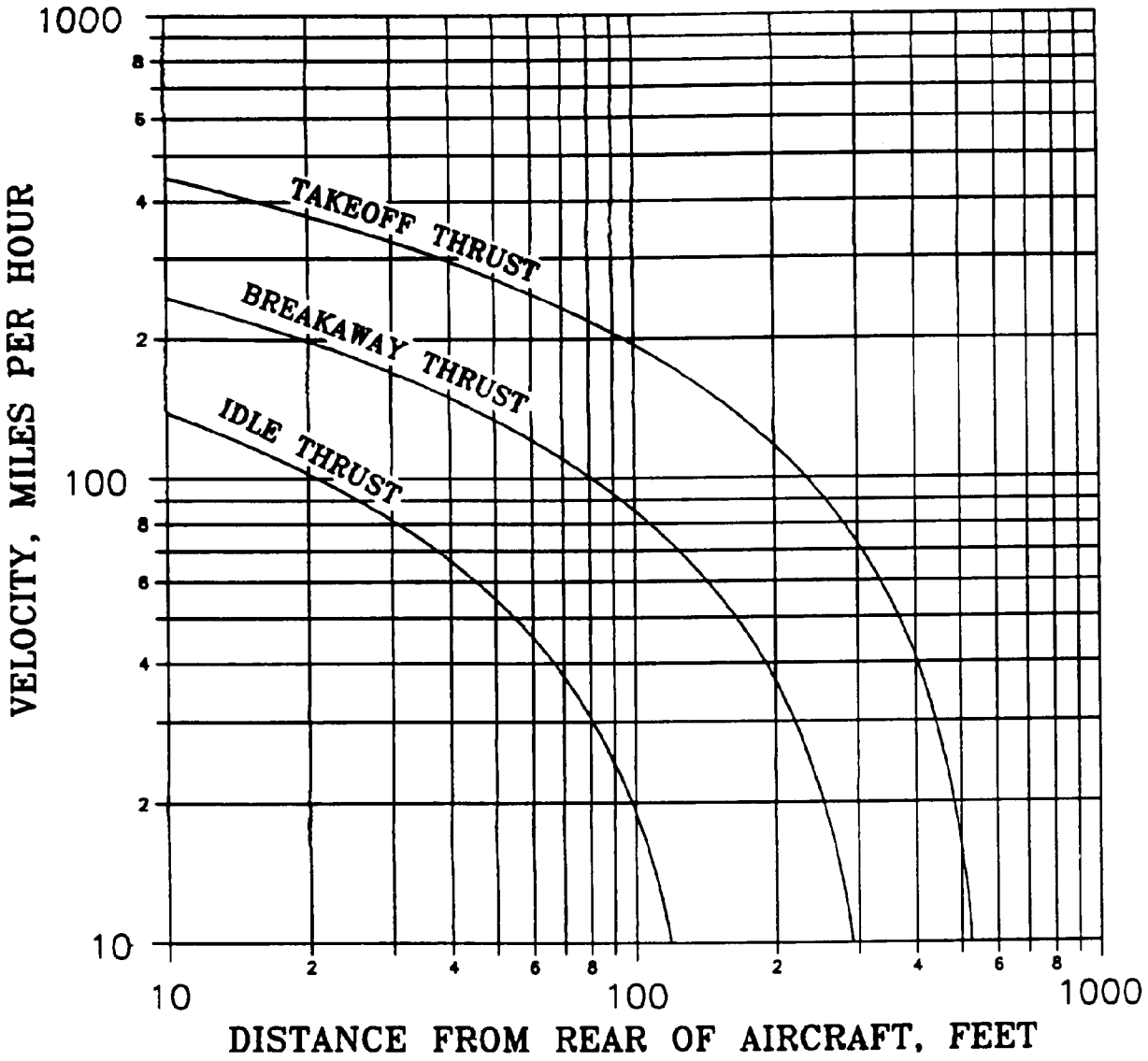


Figure E-59. Boeing 727-200, Velocity - Distance Curves

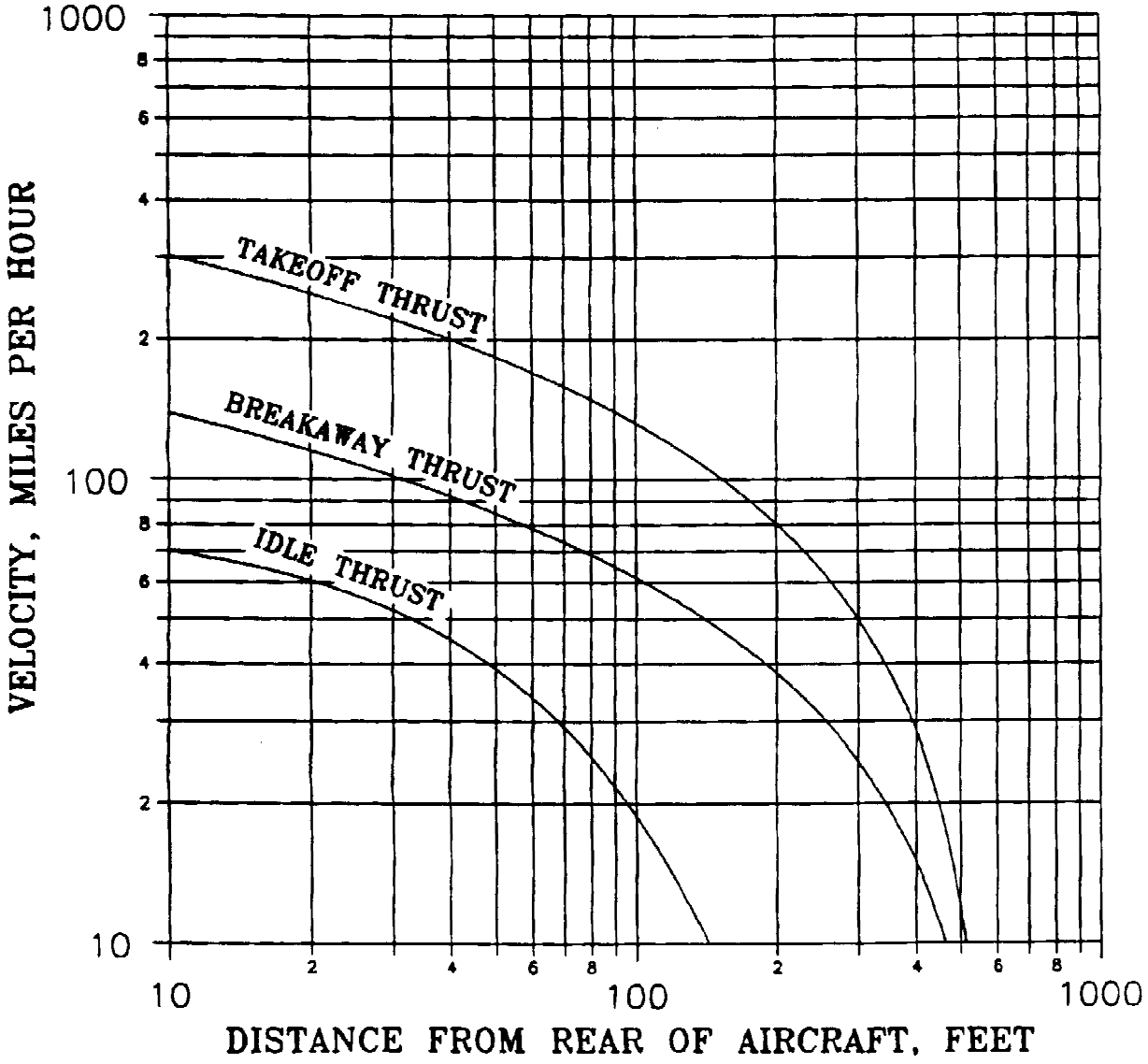


Figure E-60. Boeing 737-100, Velocity - Distance Curves

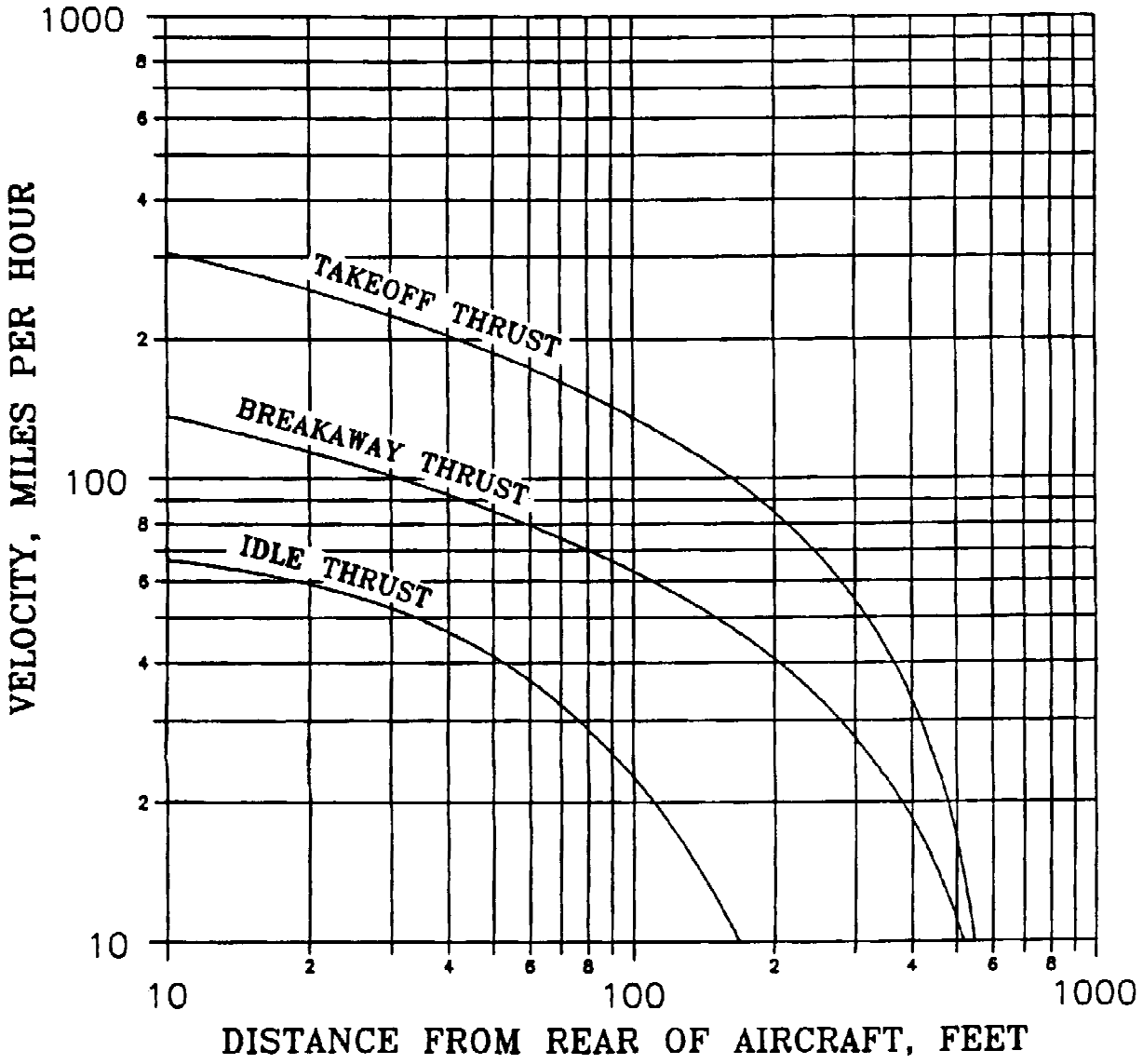


Figure E-61. Boeing 737-200, Velocity - Distance Curves

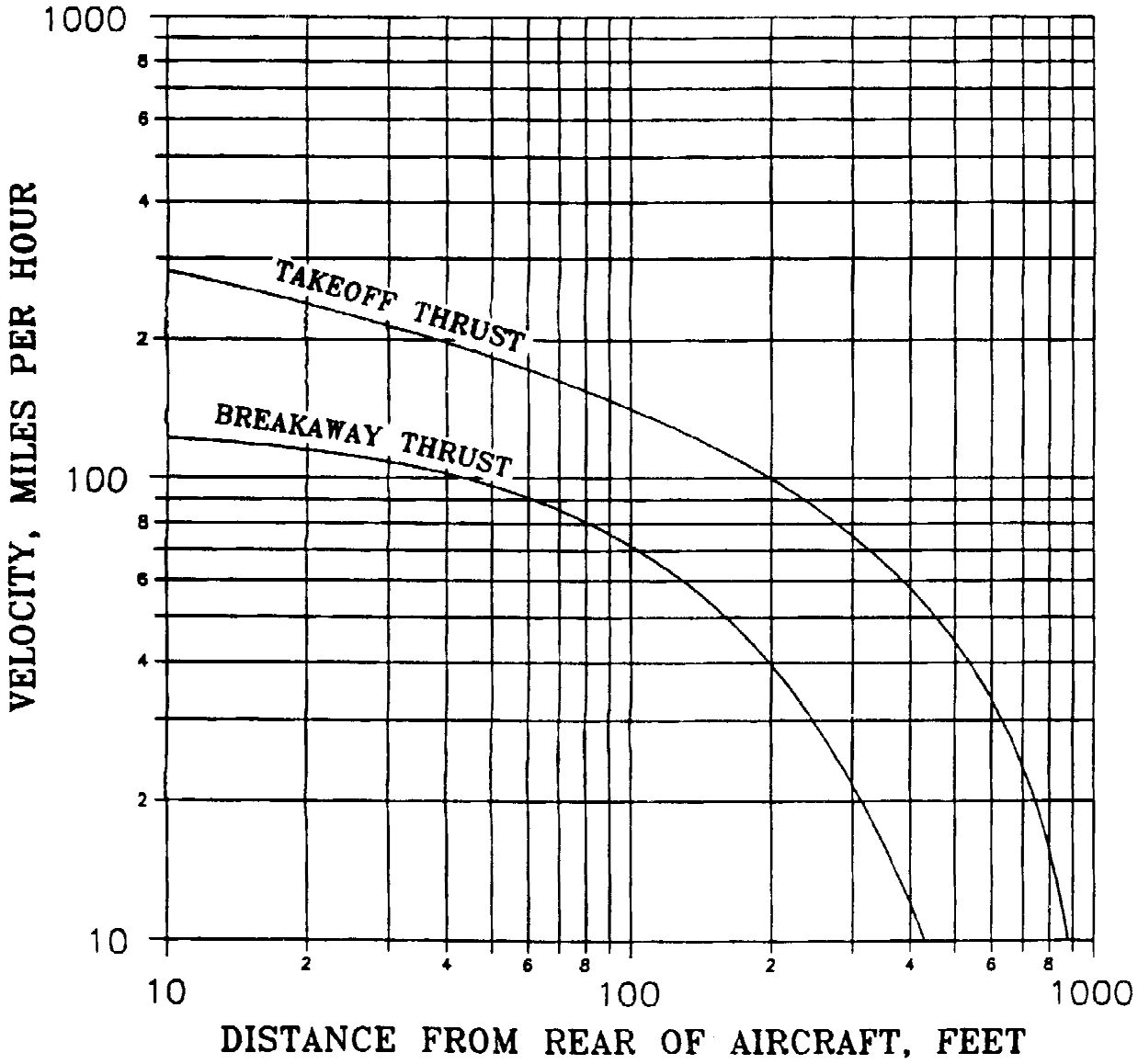


Figure E-62. Boeing 737-300/-400, Velocity - Distance Curves

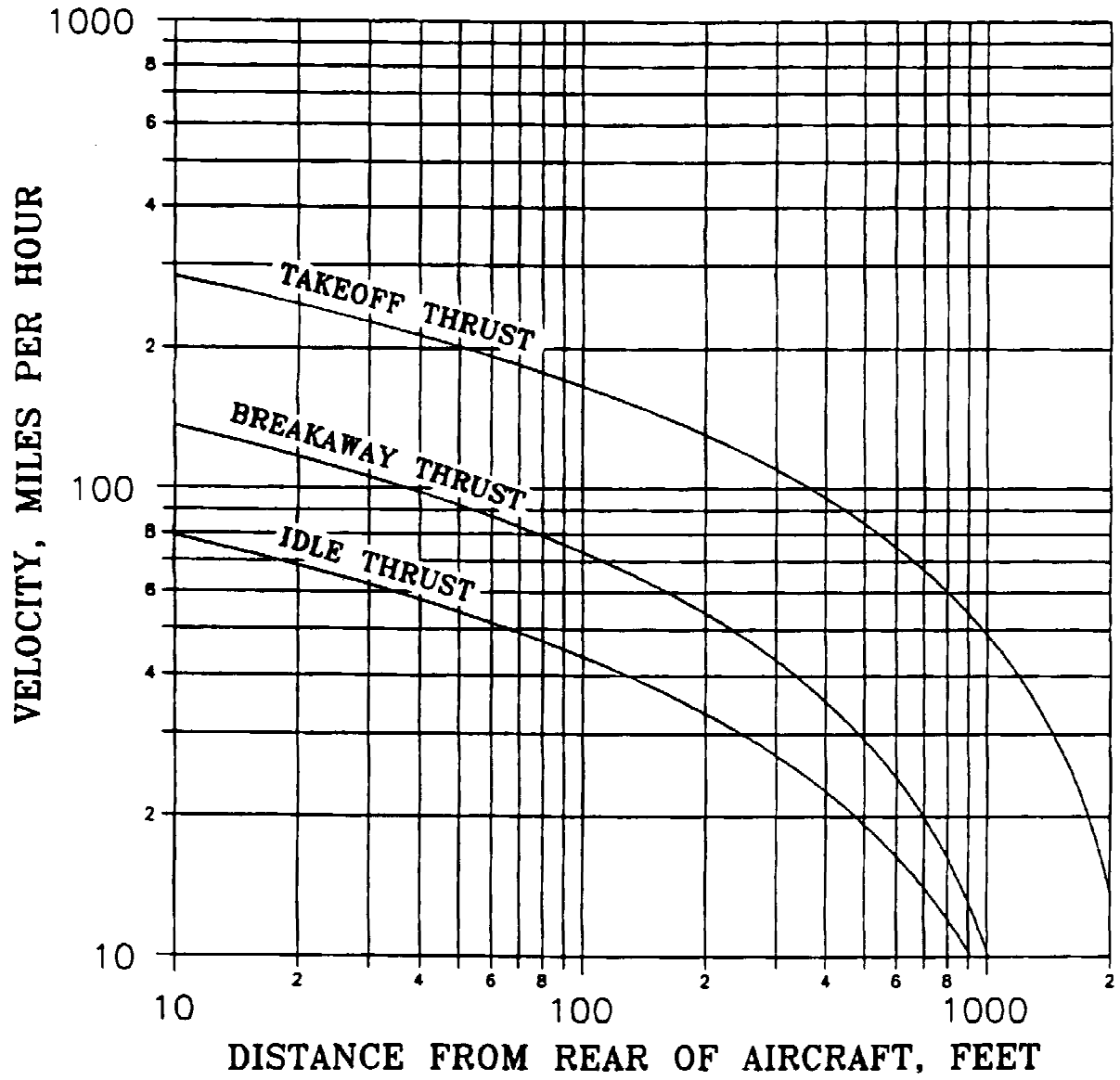


Figure E-63. Boeing 747-100B/-200B-Pass/-200C-Cargo/-200C-Pass/
-200F-Cargo/-300-Pass, Velocity - Distance Curves

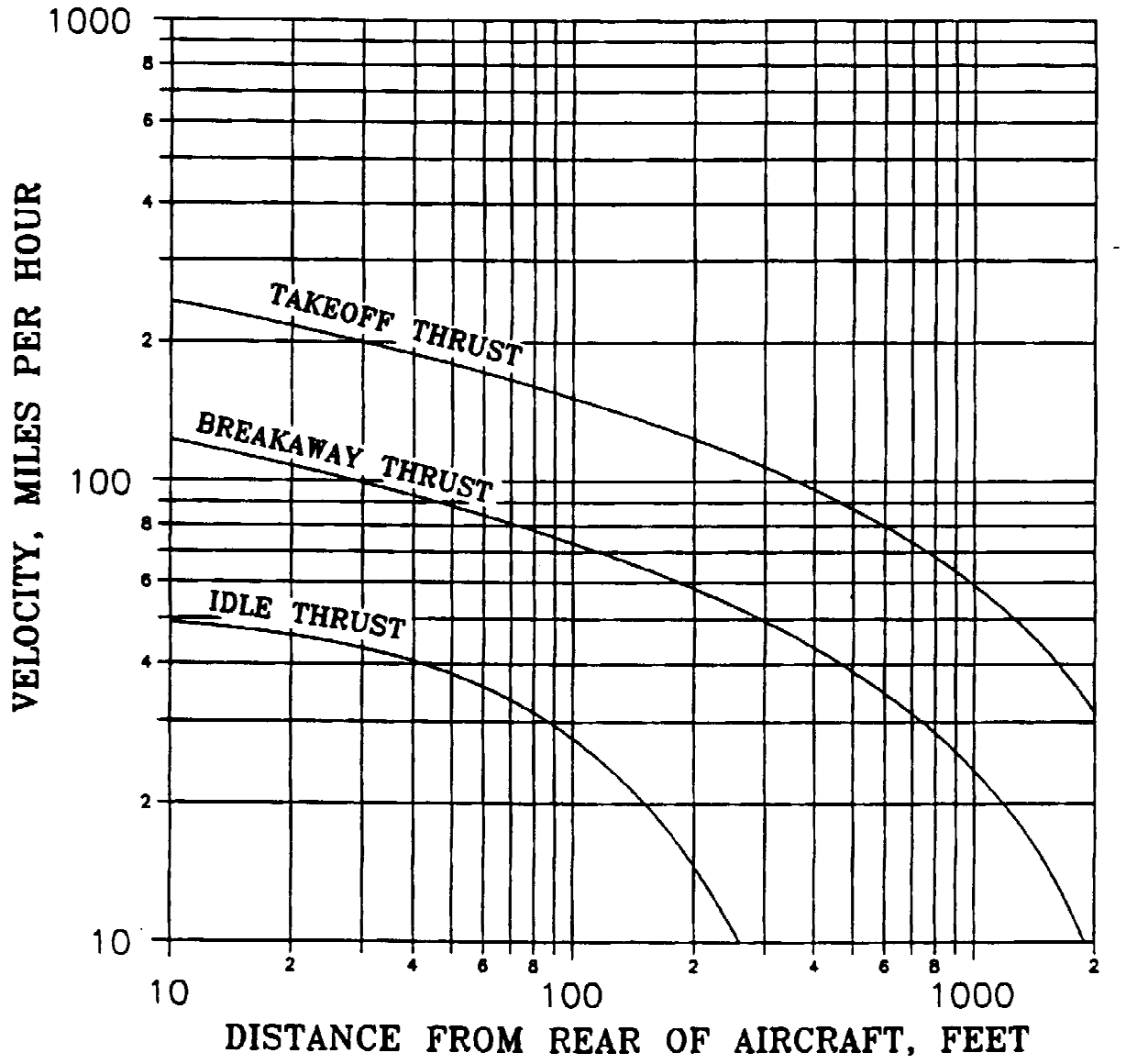


Figure E-64. Boeing 747-400, Velocity - Distance Curves

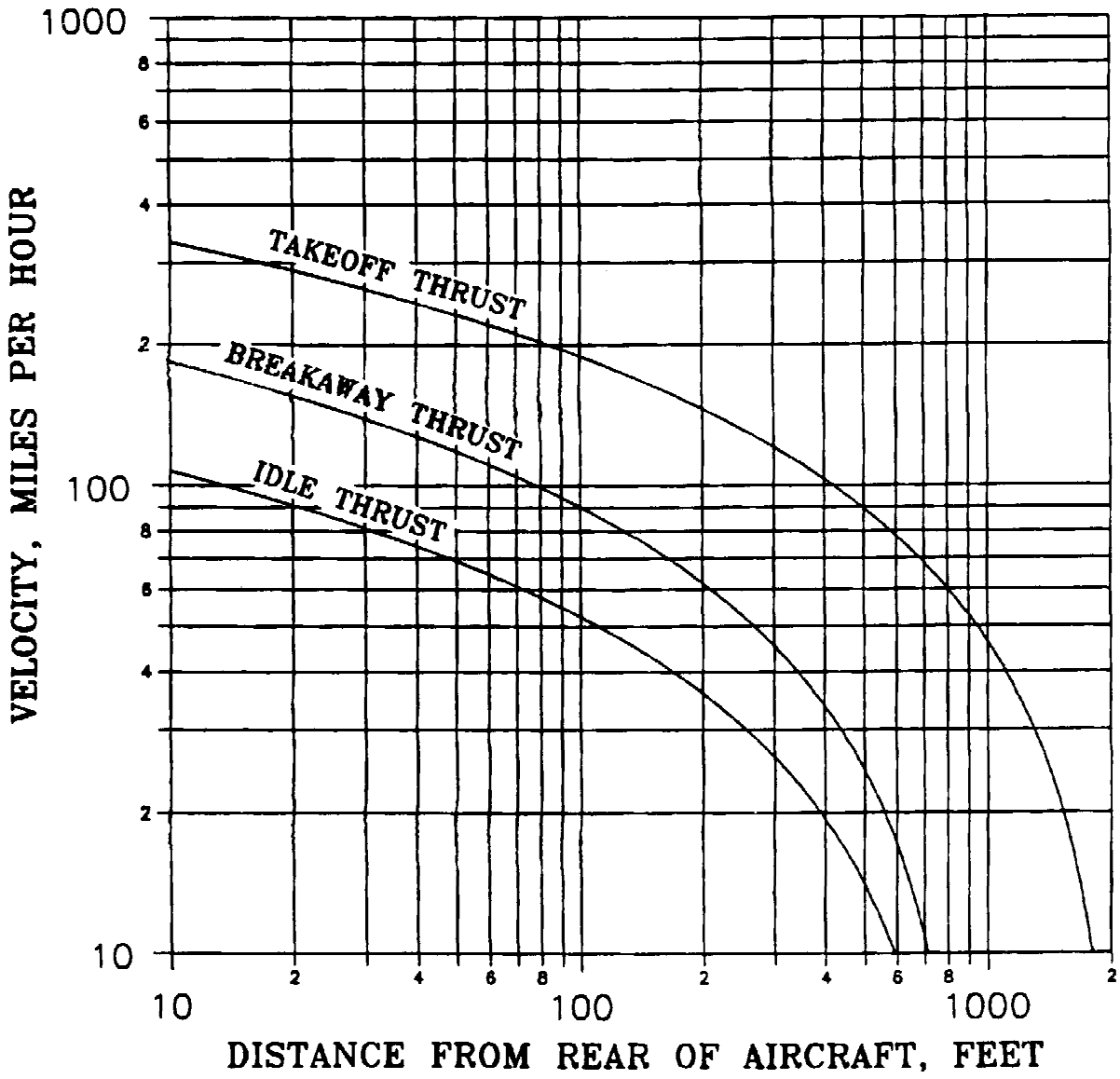


Figure E-65. Boeing 747SP, Velocity - Distance Curves

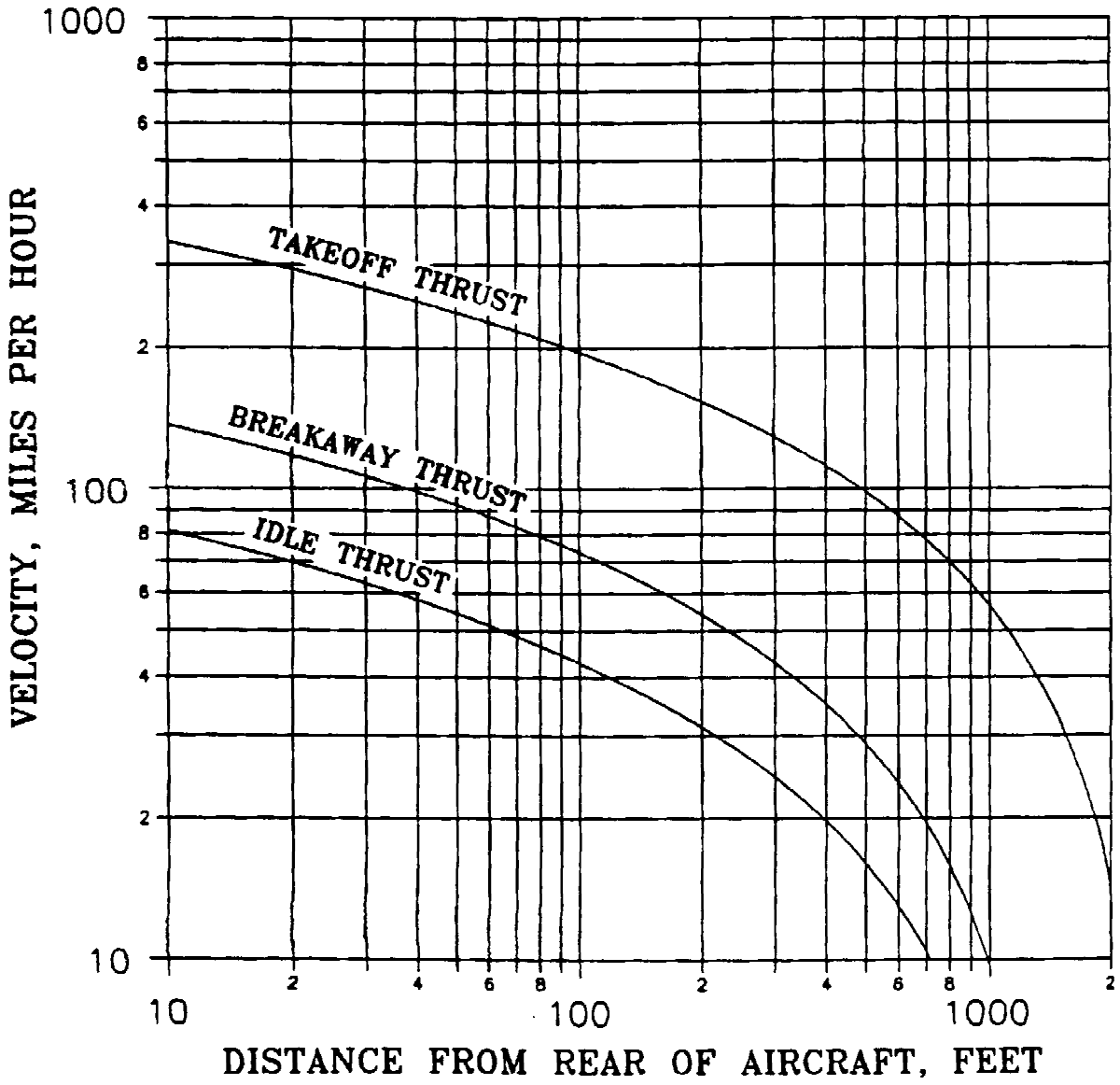


Figure E-66. Boeing 757-200, Velocity - Distance Curves

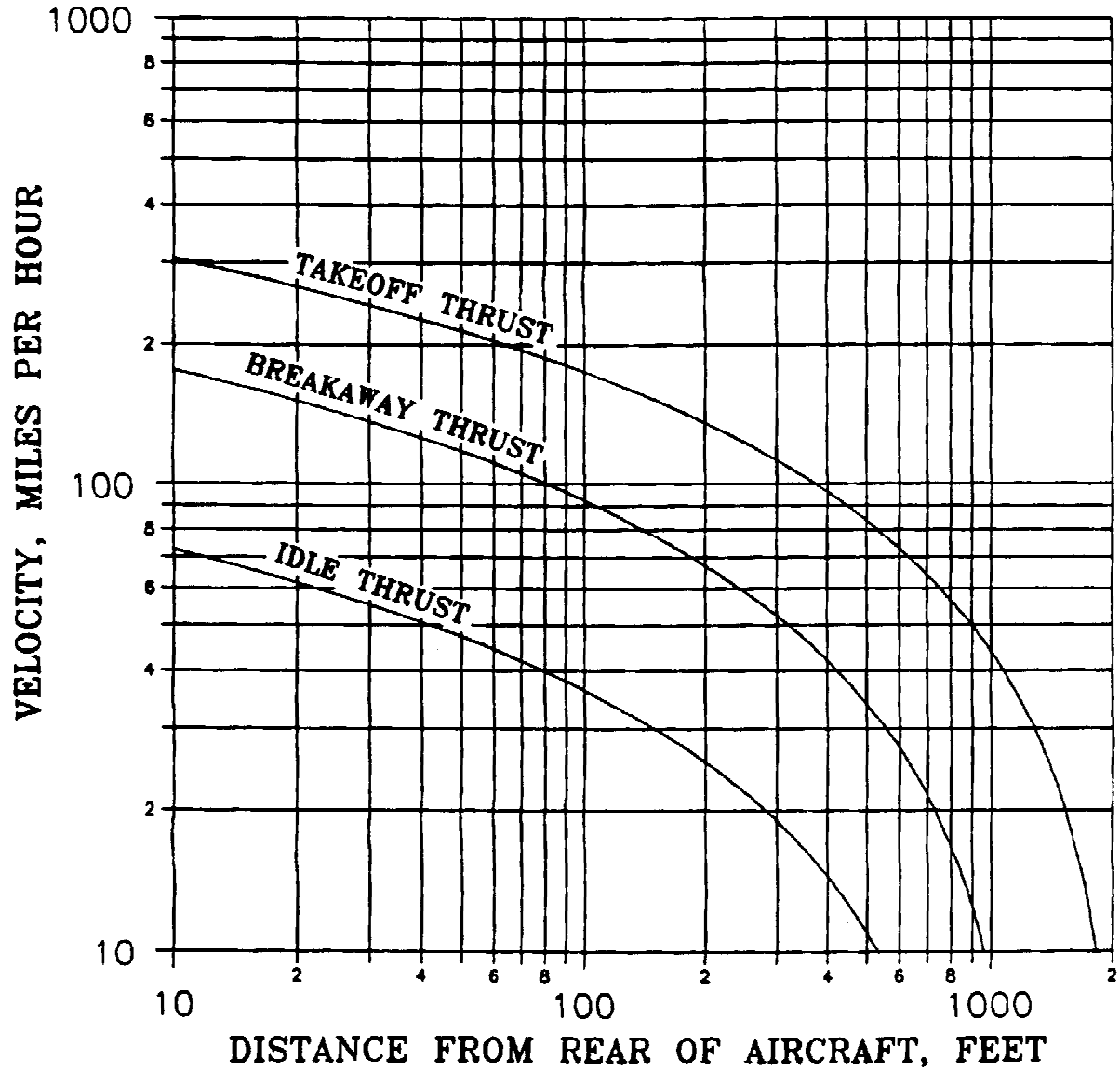


Figure. E-67. Boeing 767-200/-200ER/-300 with PW-JT9D-7R4E Engines, Velocity - Distance Curves

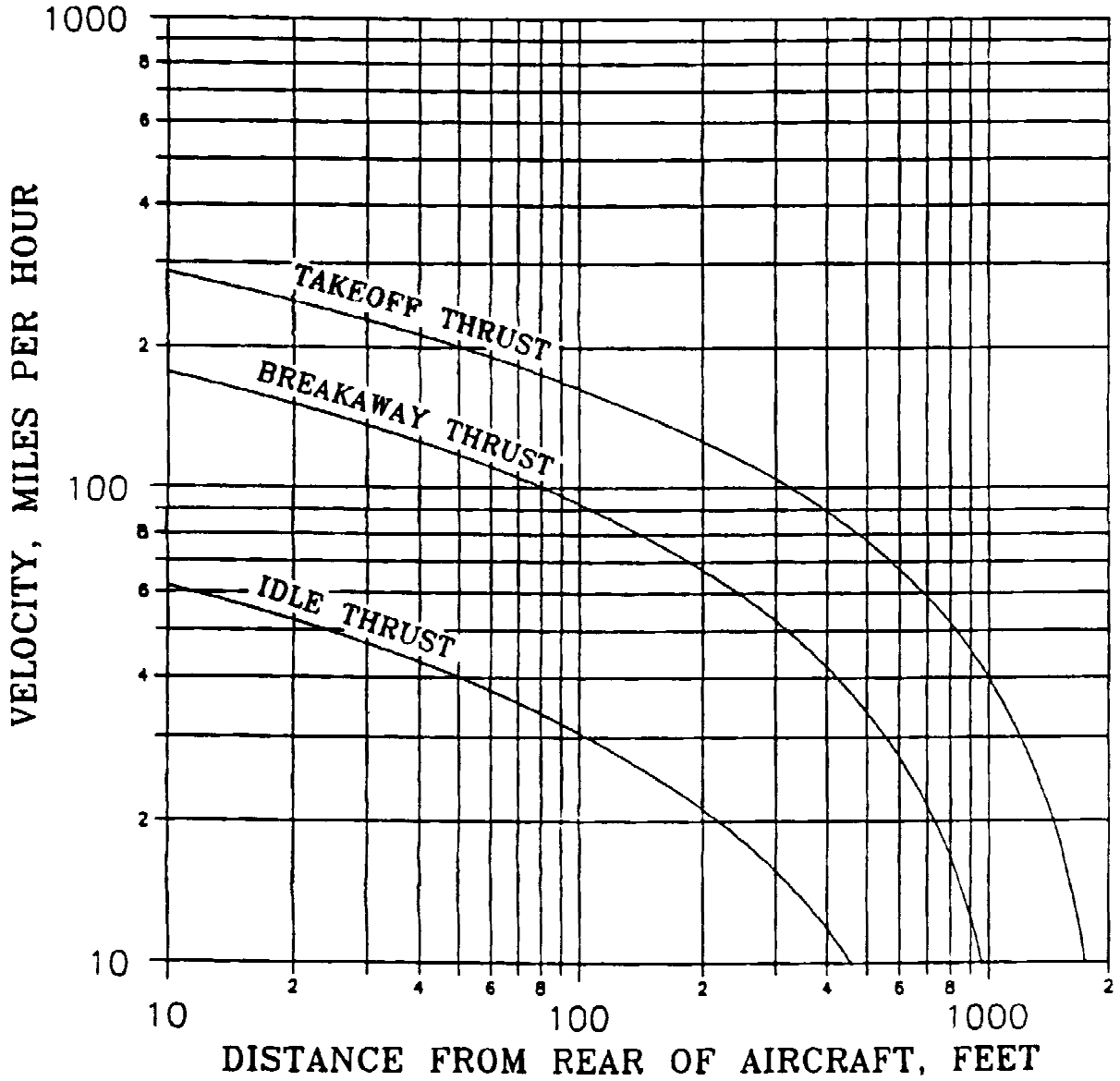


Figure E-68. Boeing 767-200ER/-300 with GE-CF6-80A2 Engines, Velocity - Distance Curves

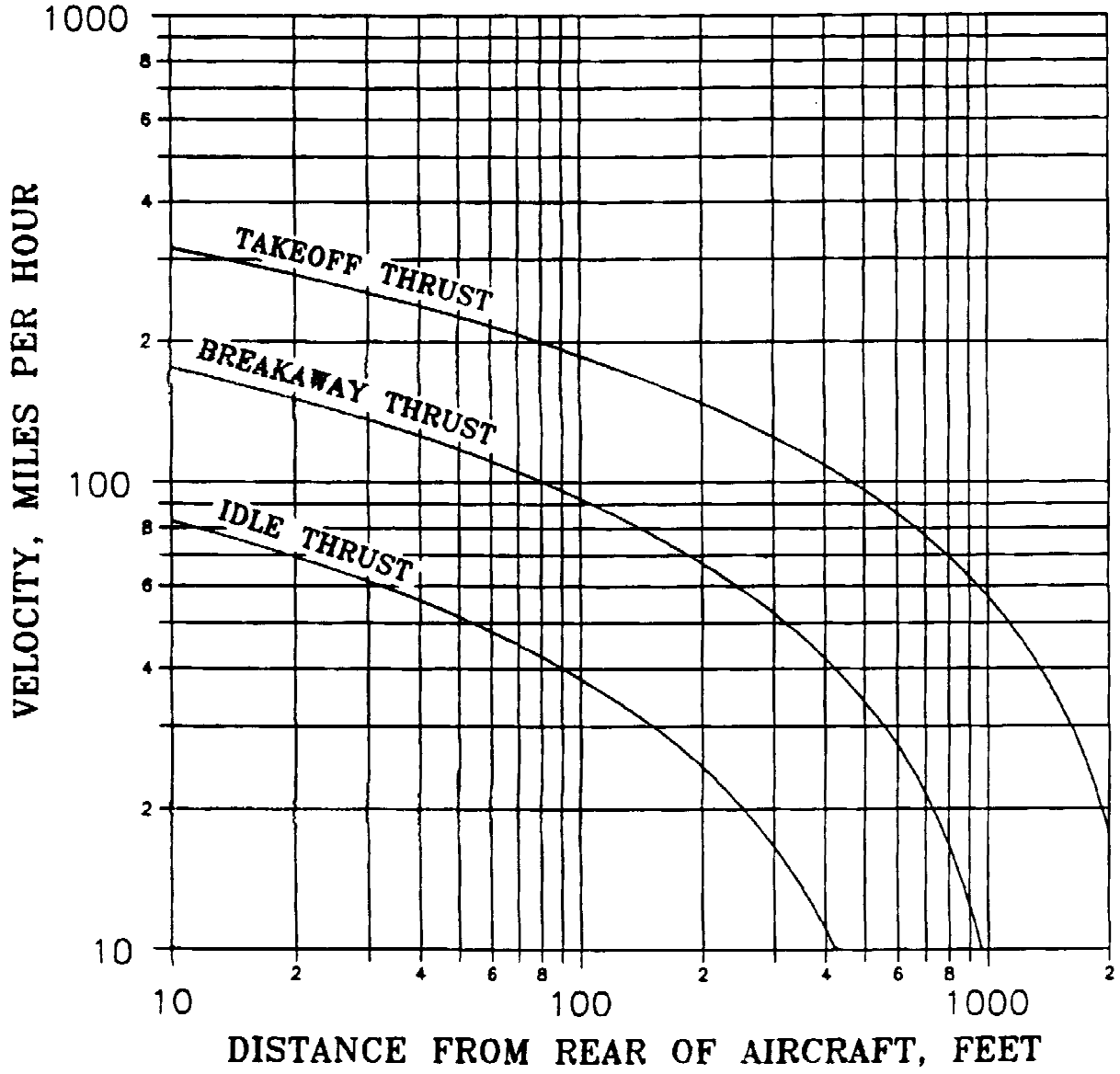


Figure E-69. Boeing 767-300ER, Velocity - Distance Curves

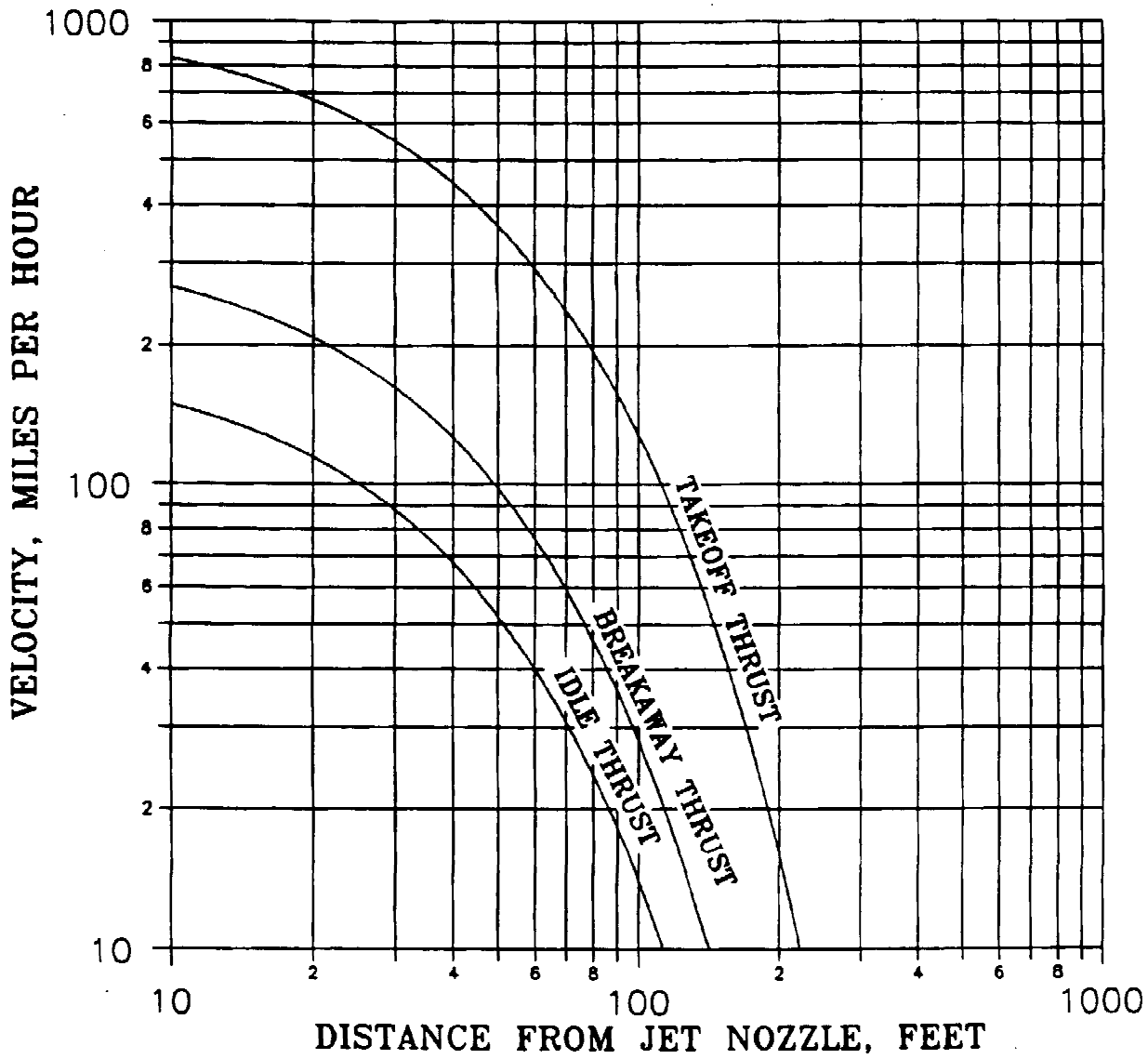


Figure E-70. General Dynamics/Convair 880, Velocity - Distance Curves

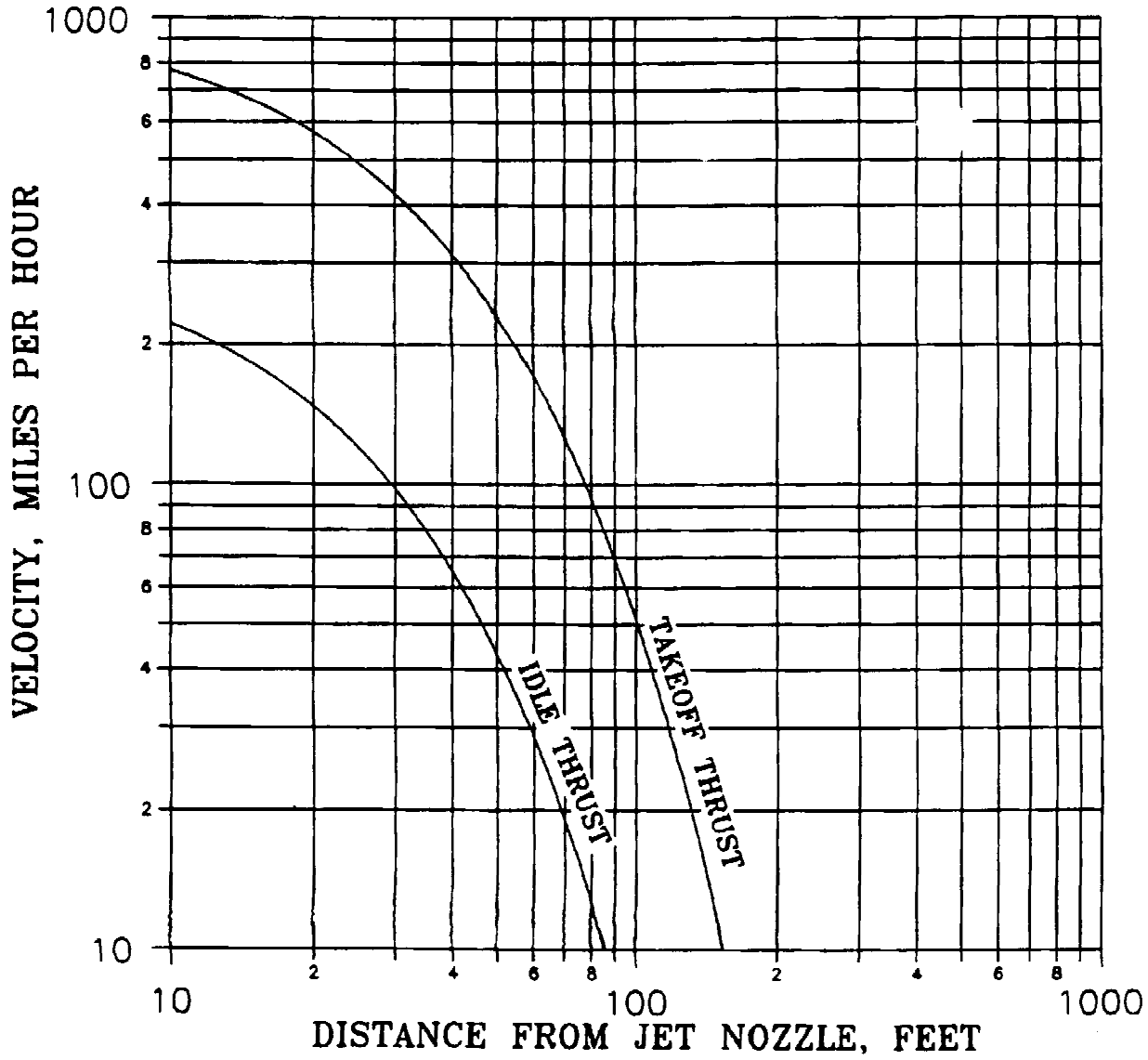


Figure E-7 1. General Dynamics/Convair 990, Velocity - Distance Curves

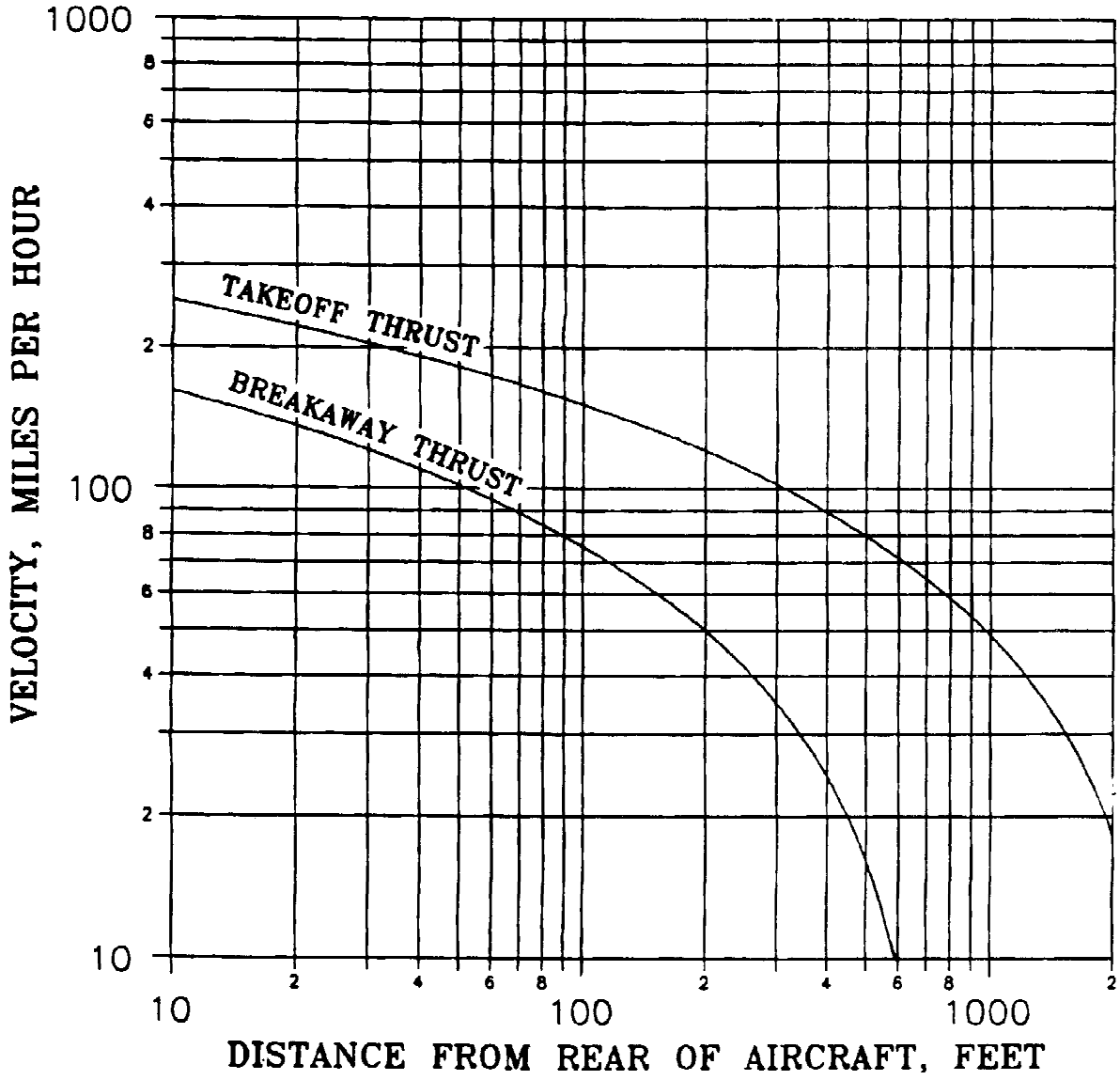


Figure E-72. Lockheed L-1011-1 and L-1011-100,
Velocity - Distance Curves

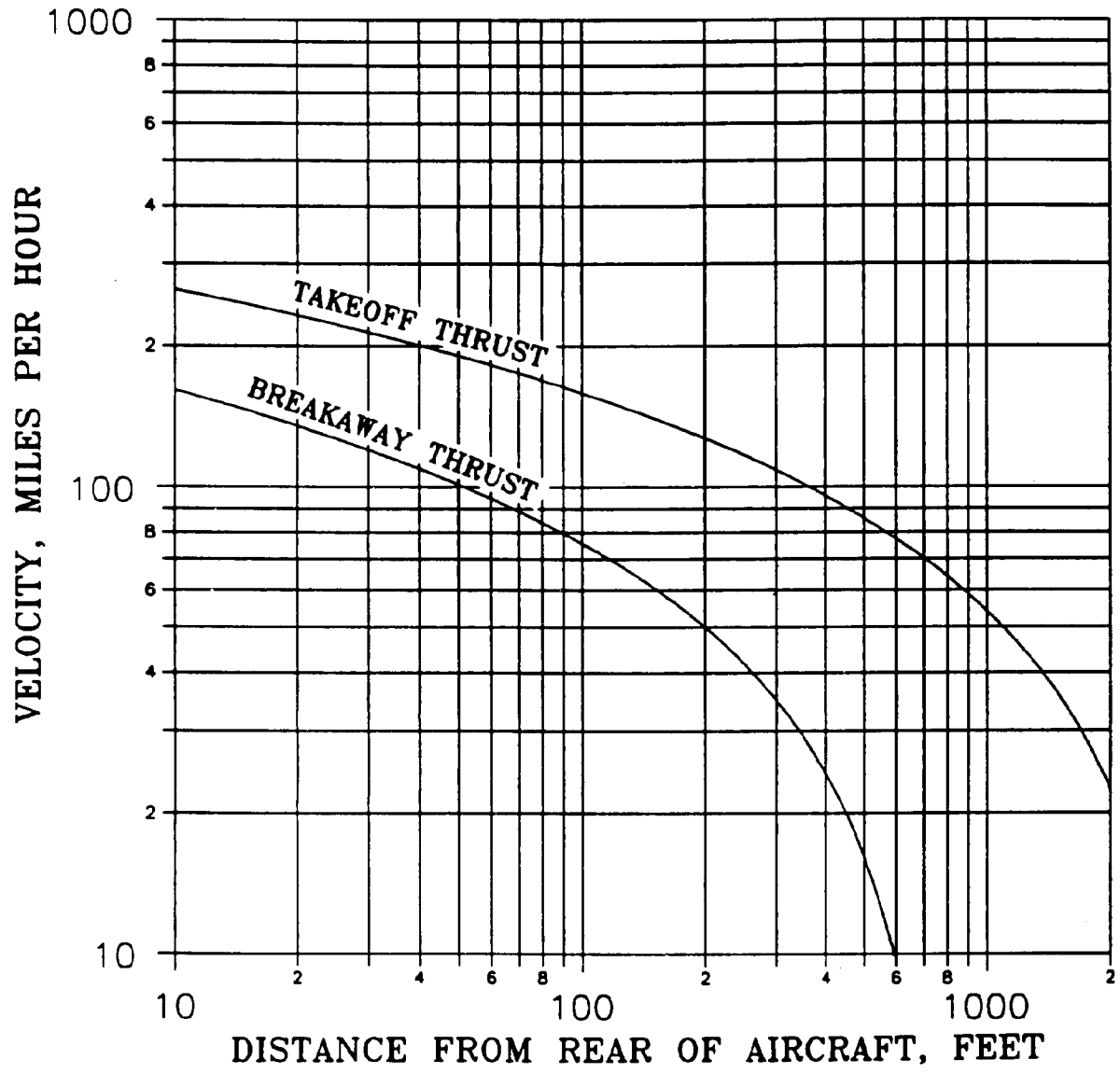


Figure E-73. Lockheed L1011-200/-500/-500 Ex. Wing,
Velocity - Distance Curves

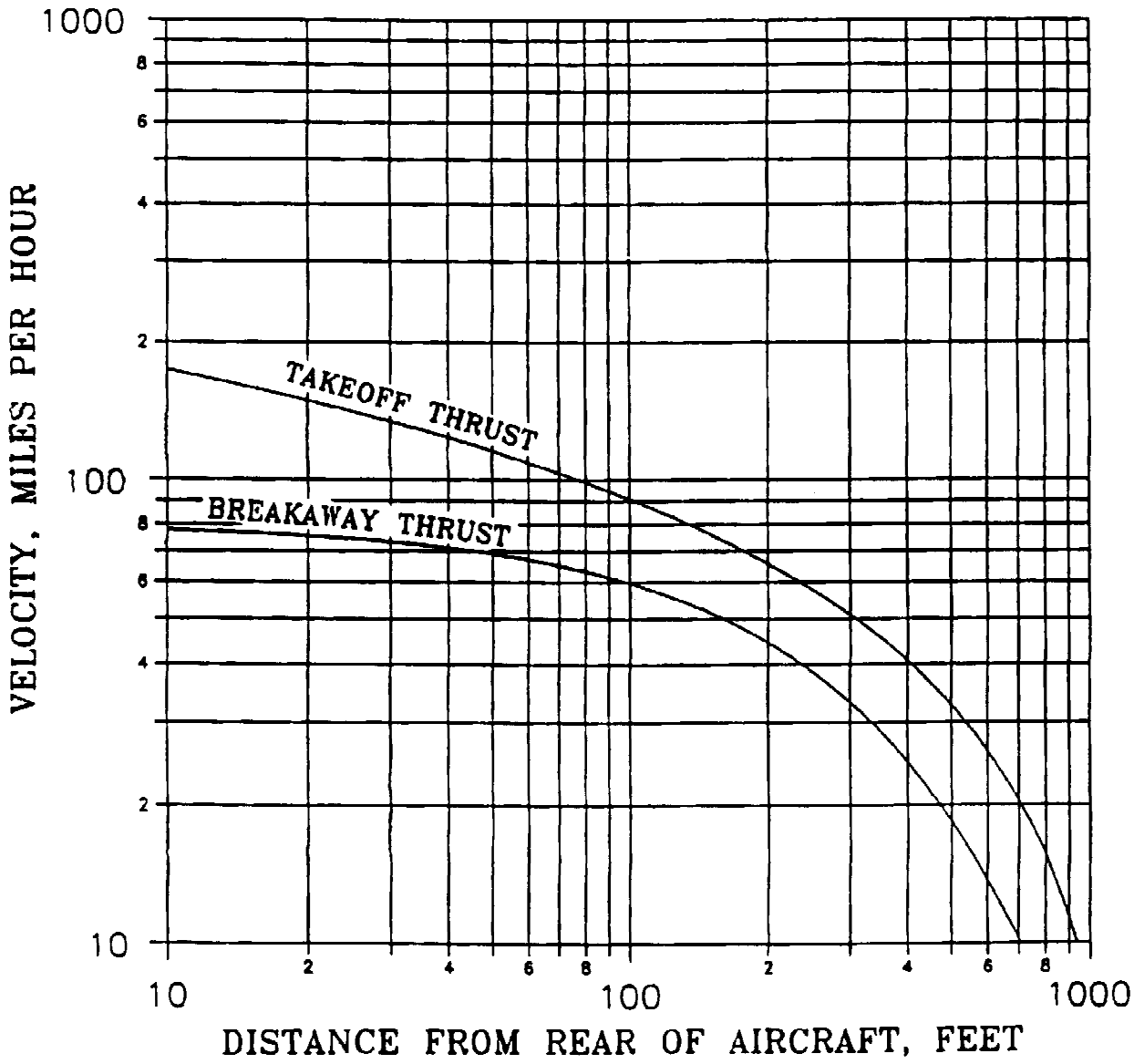


Figure E-74. McDonnell Douglas DC-8-43/-55/-55F/-61/-61F/
-62/-62F/-63/-63F, Velocity - Distance Curves

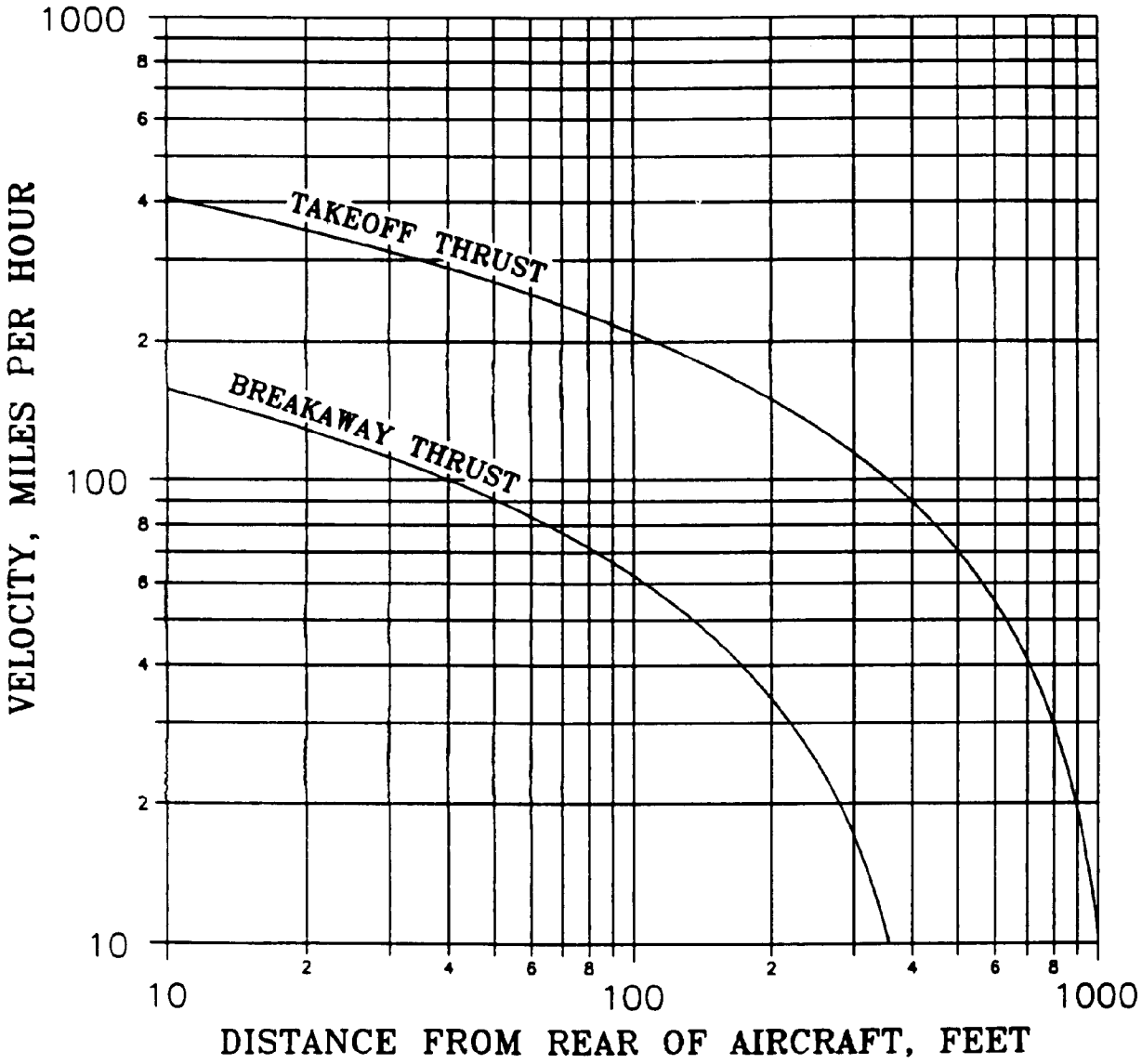


Figure E-75. McDonnell Douglas DC-8-71/-71F/-72/-72F/-73/-73F,
Velocity - Distance Curves

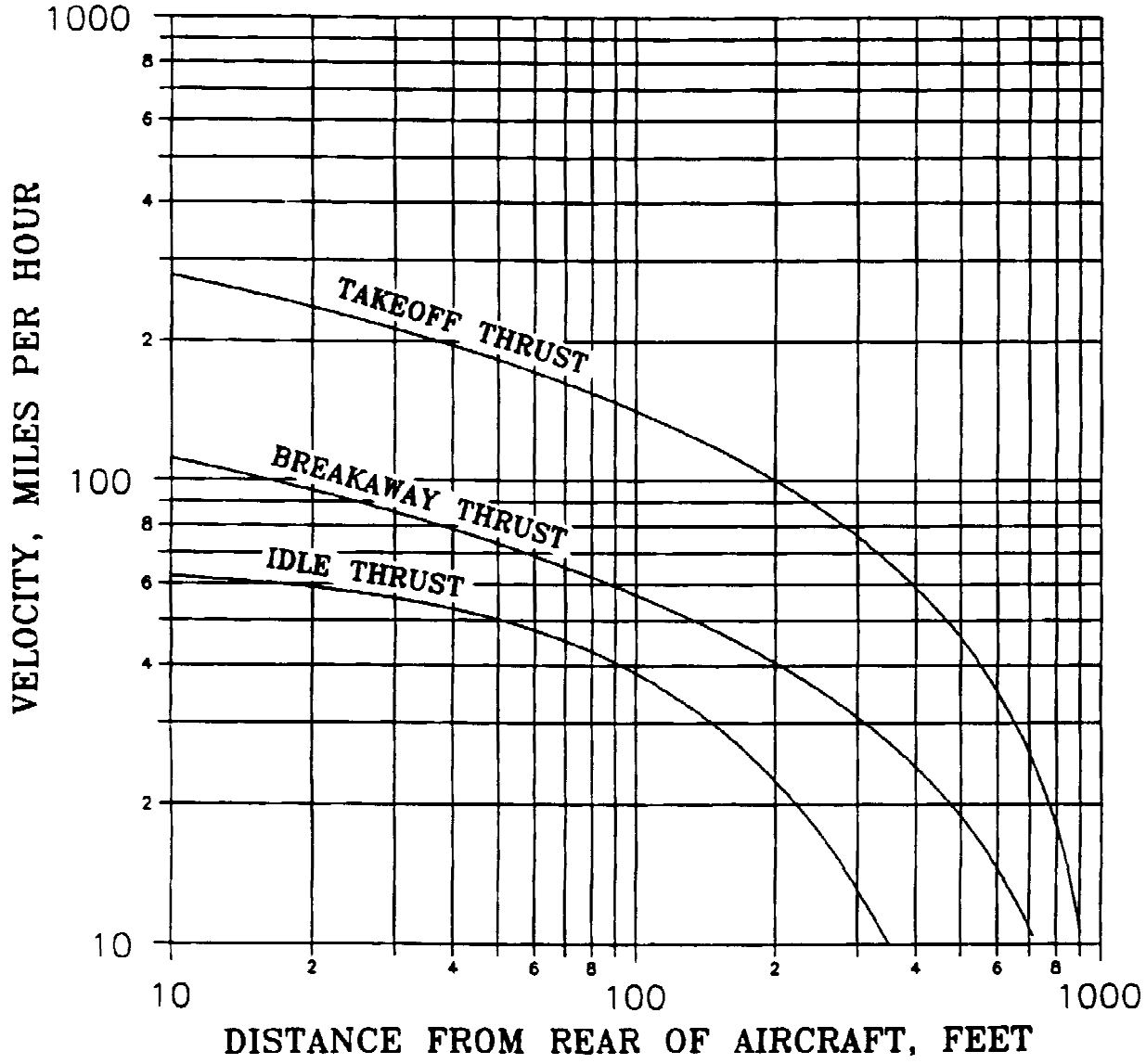


Figure E-76. McDonnell Douglas DC-9-15/-15F/-21/-32/-33F/ -41/-51, Velocity - Distance Curves

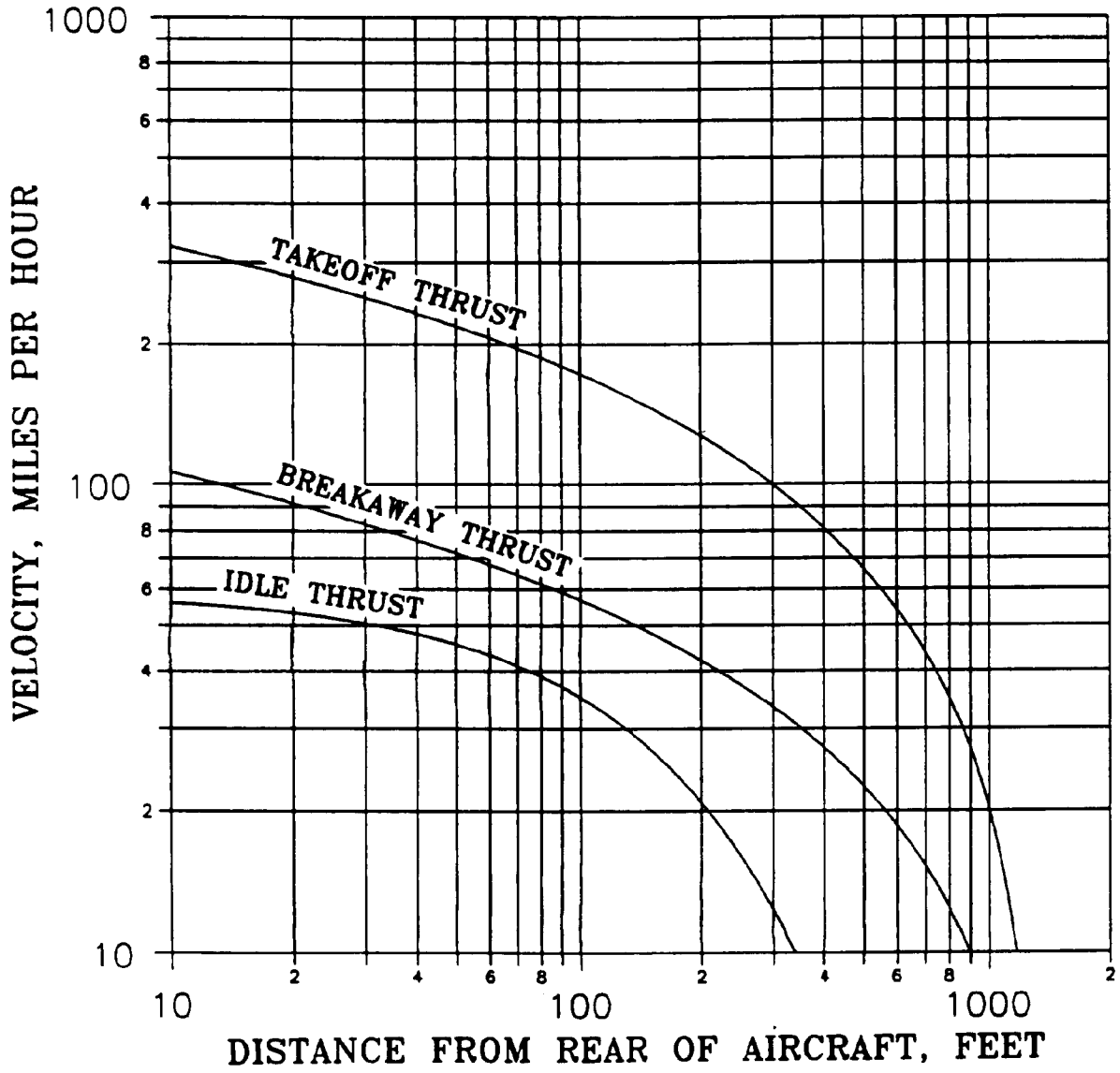


Figure E-77. McDonnell Douglas MD-81/-82/-83/-87/-88,
Velocity - Distance Curves

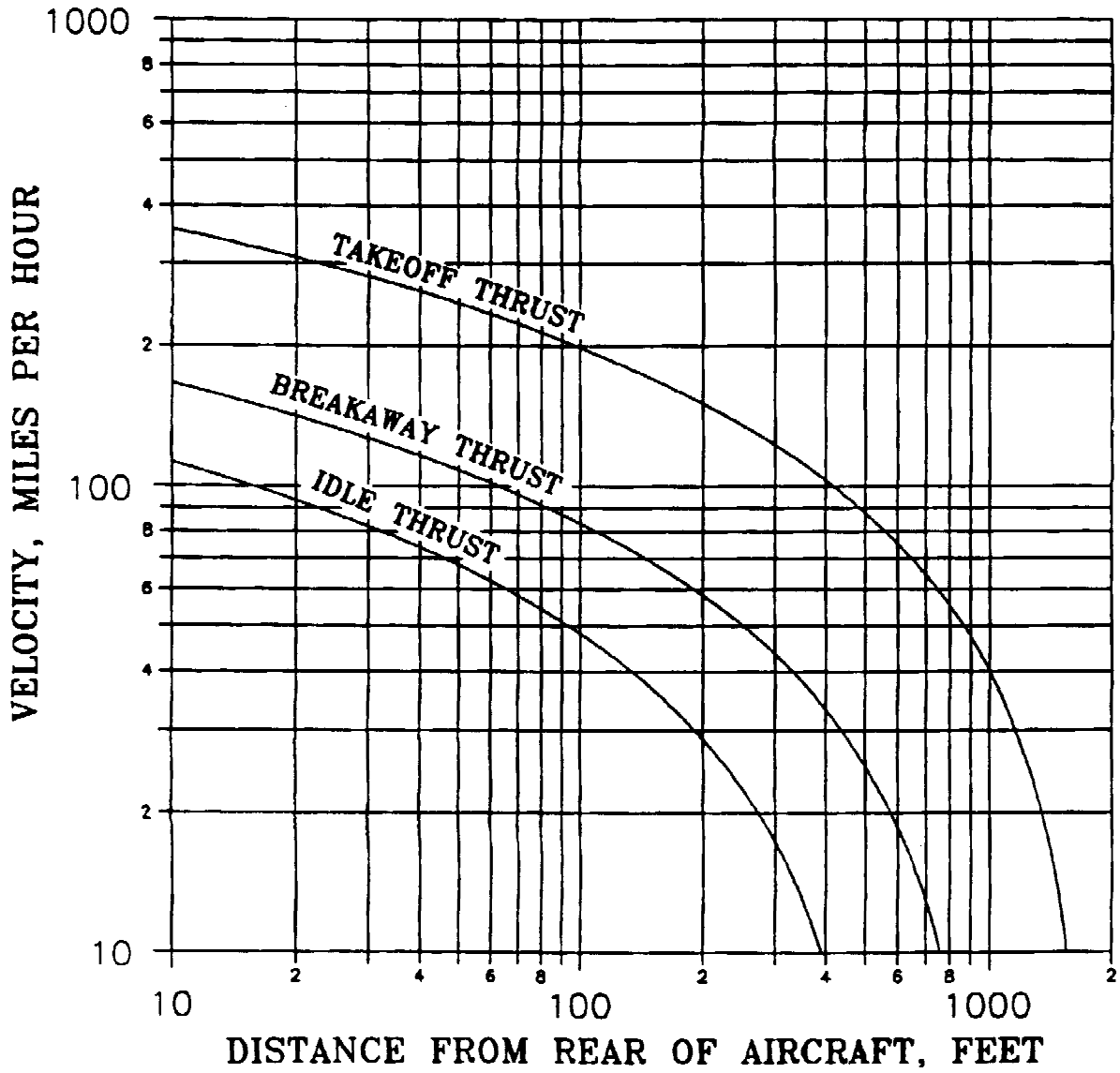


Figure E-78. McDonnell Douglas DC-10-10, Velocity - Distance Curves

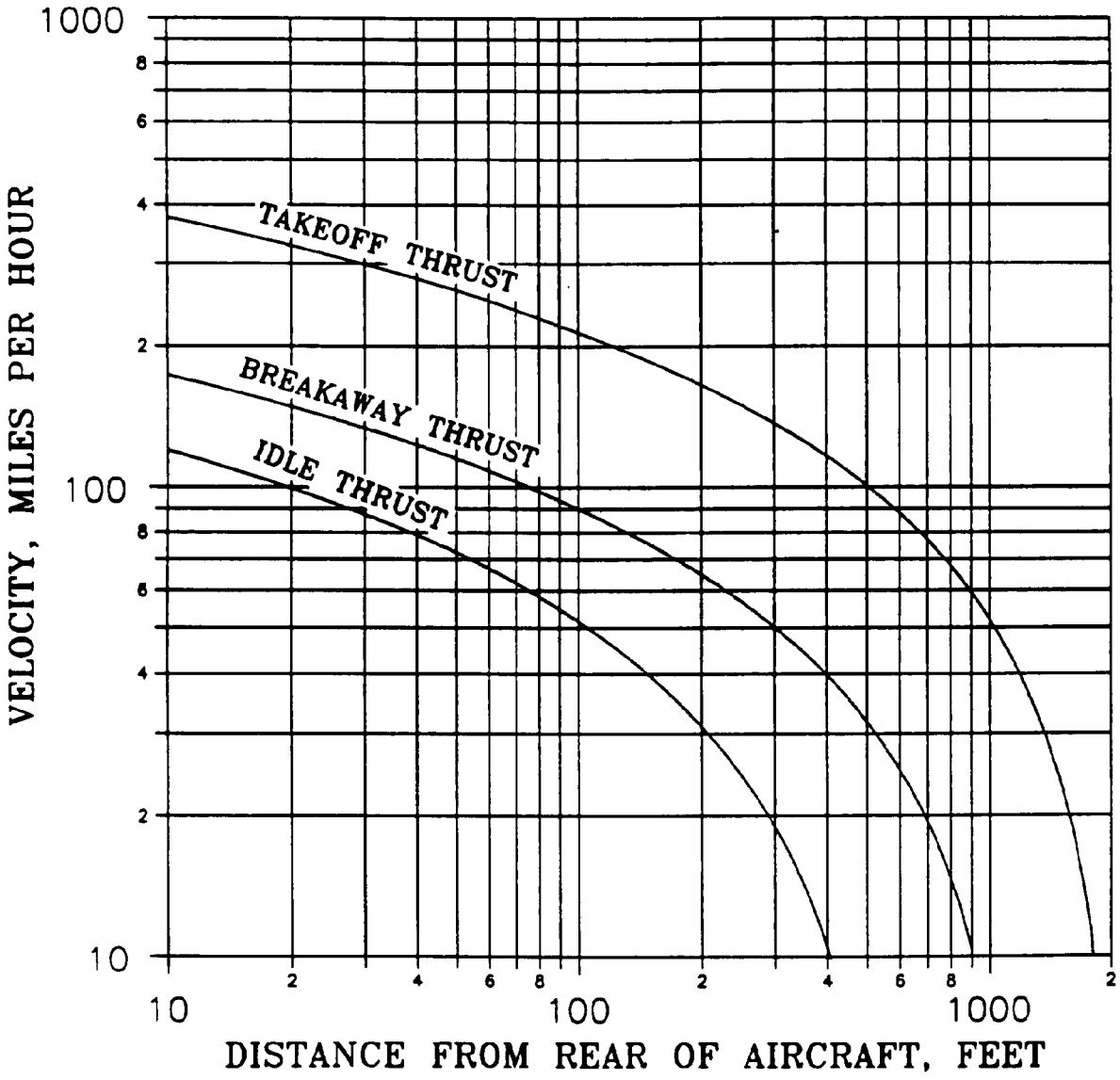


Figure E-79. McDonnell Douglas DC-10-30, Velocity - Distance Curves

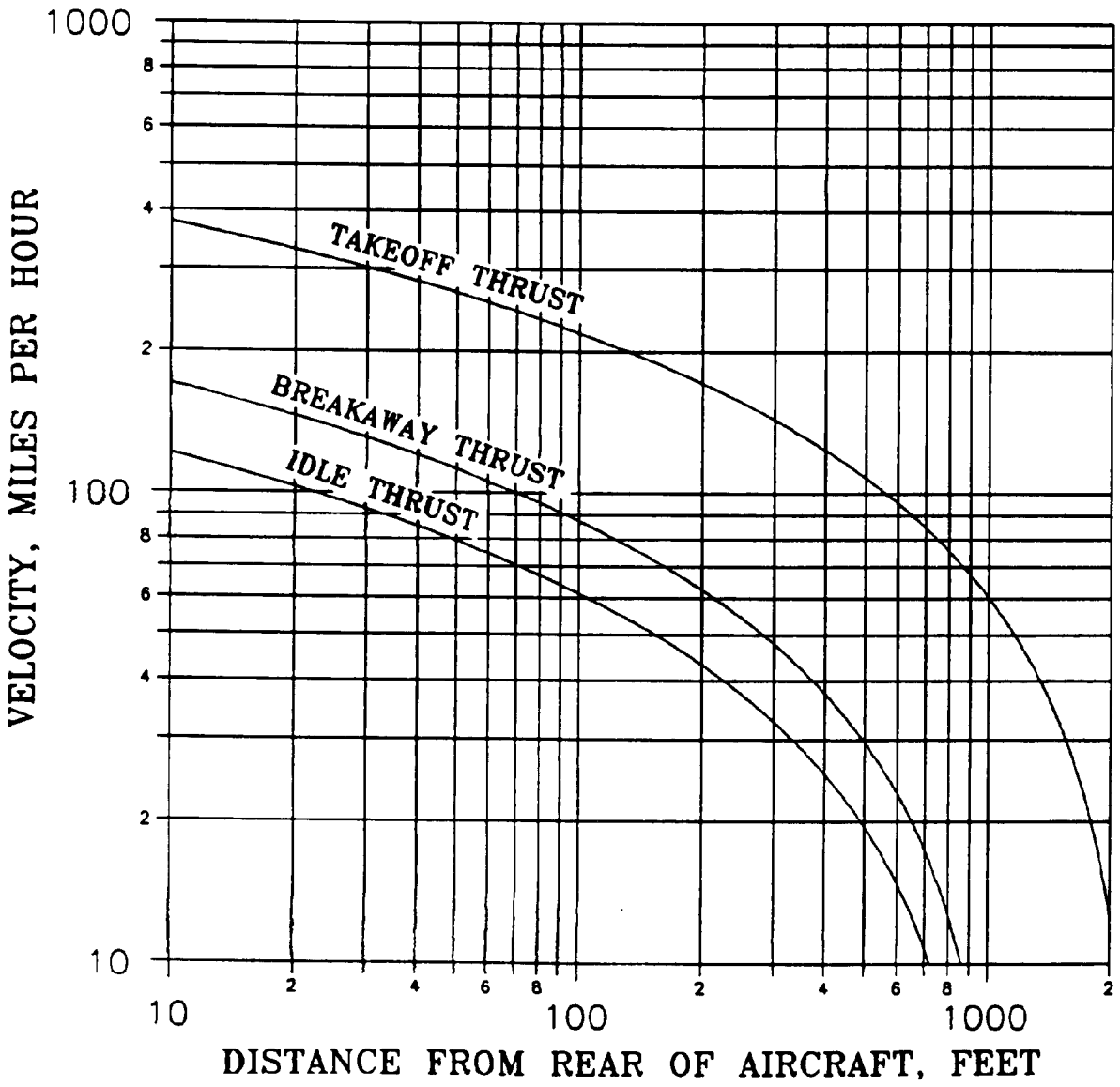


Figure E-80. McDonnell Douglas DC-10-40, Velocity - Distance Curves

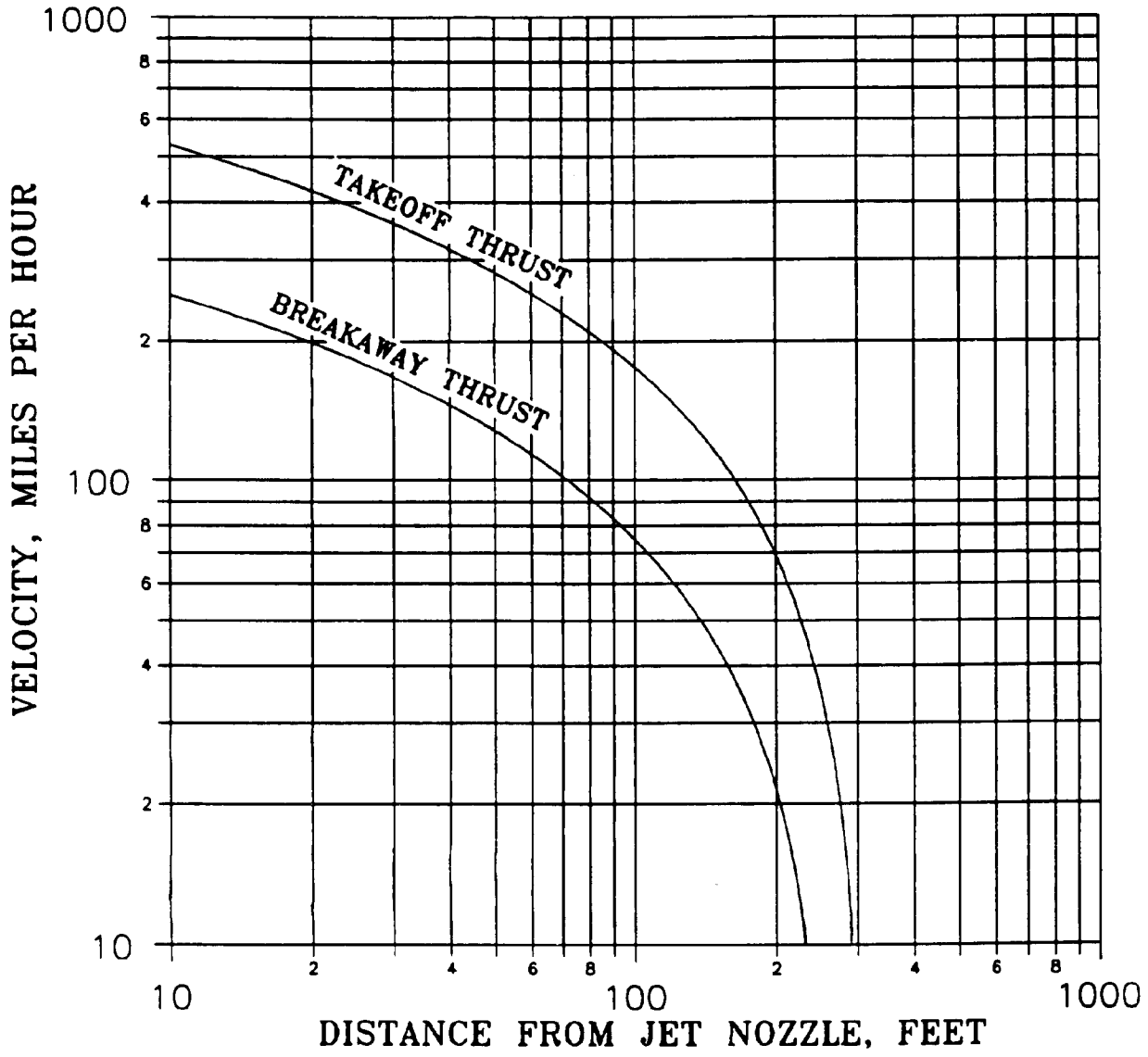


Figure E-81. BA.C. One-Eleven Model 400, Velocity - Distance Curves

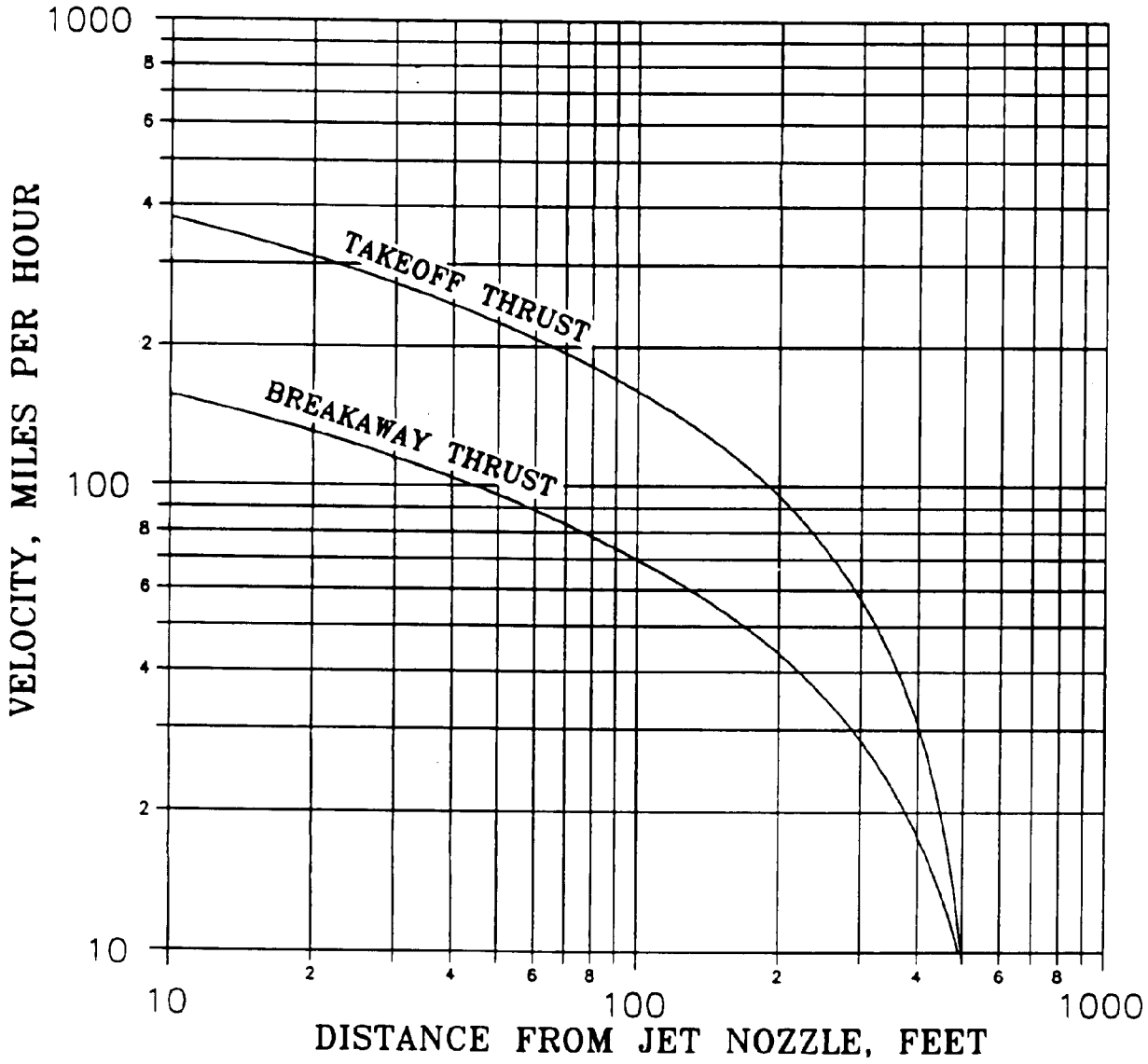


Figure E-82. B.A.C. One-Eleven Model 500, Velocity - Distance Curves

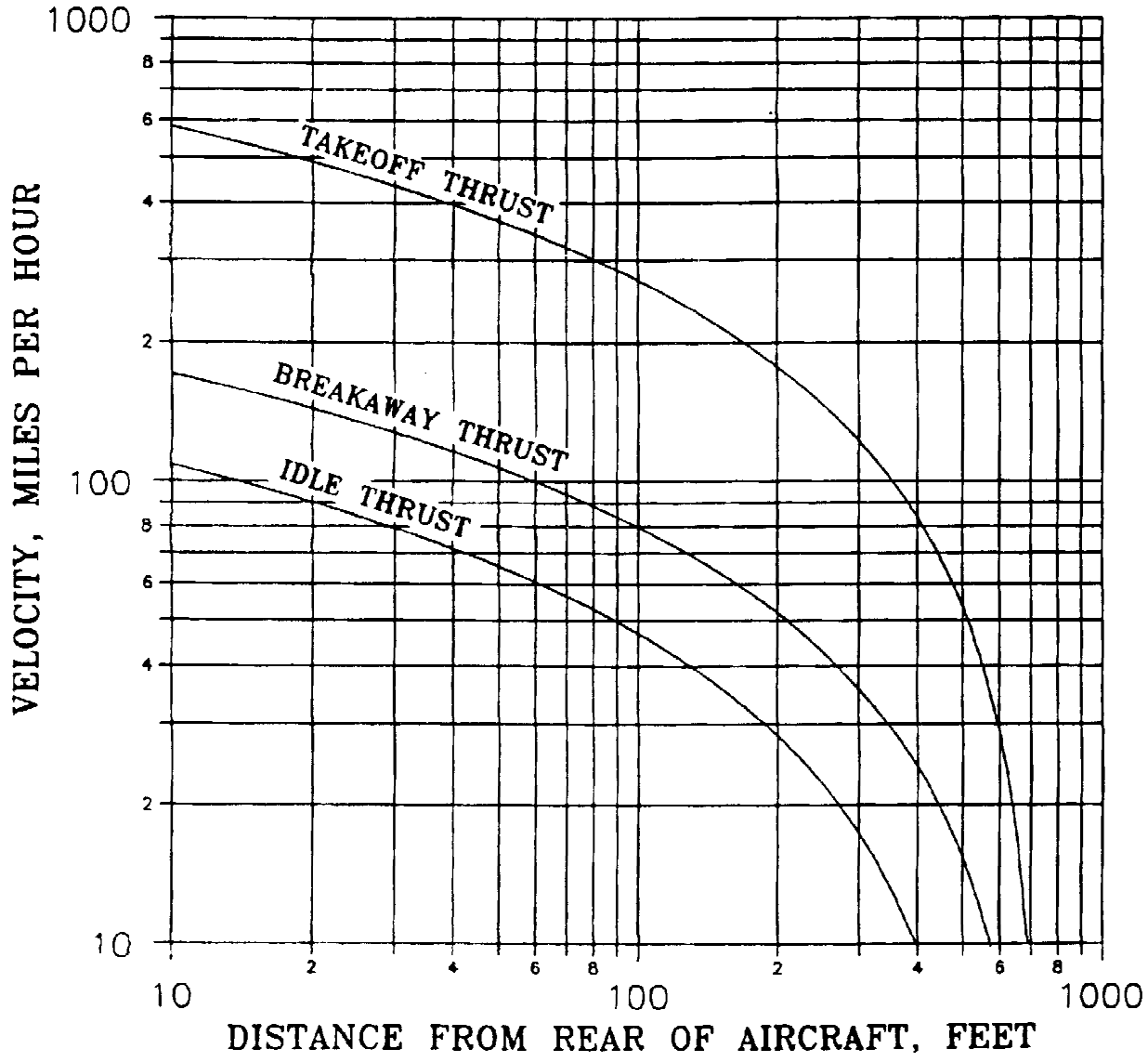


Figure E-83. B.A.C./SNIAS Concorde, Velocity - Distance Curves

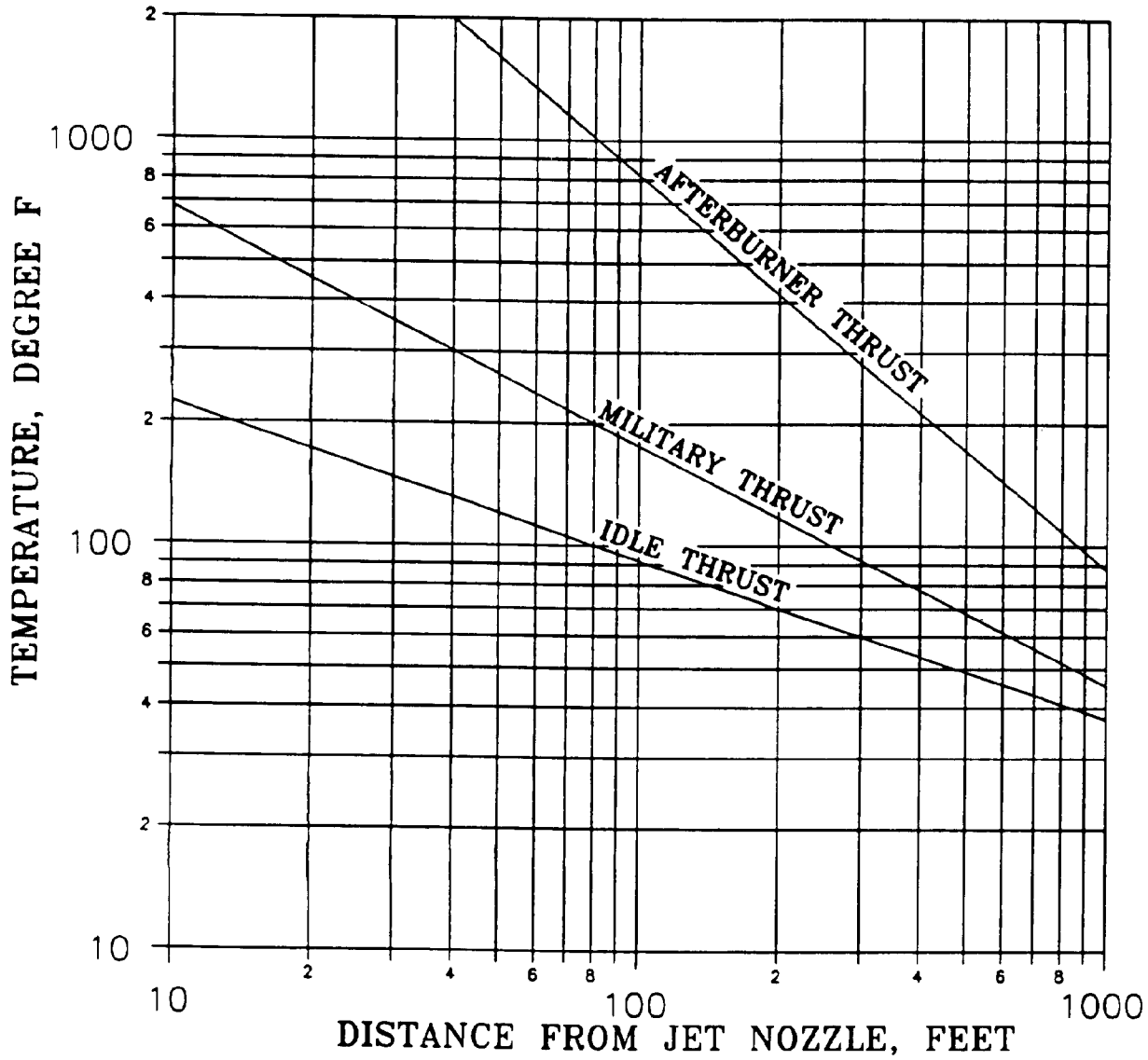


Figure E-84. B-1B, Temperature - Distance Curves

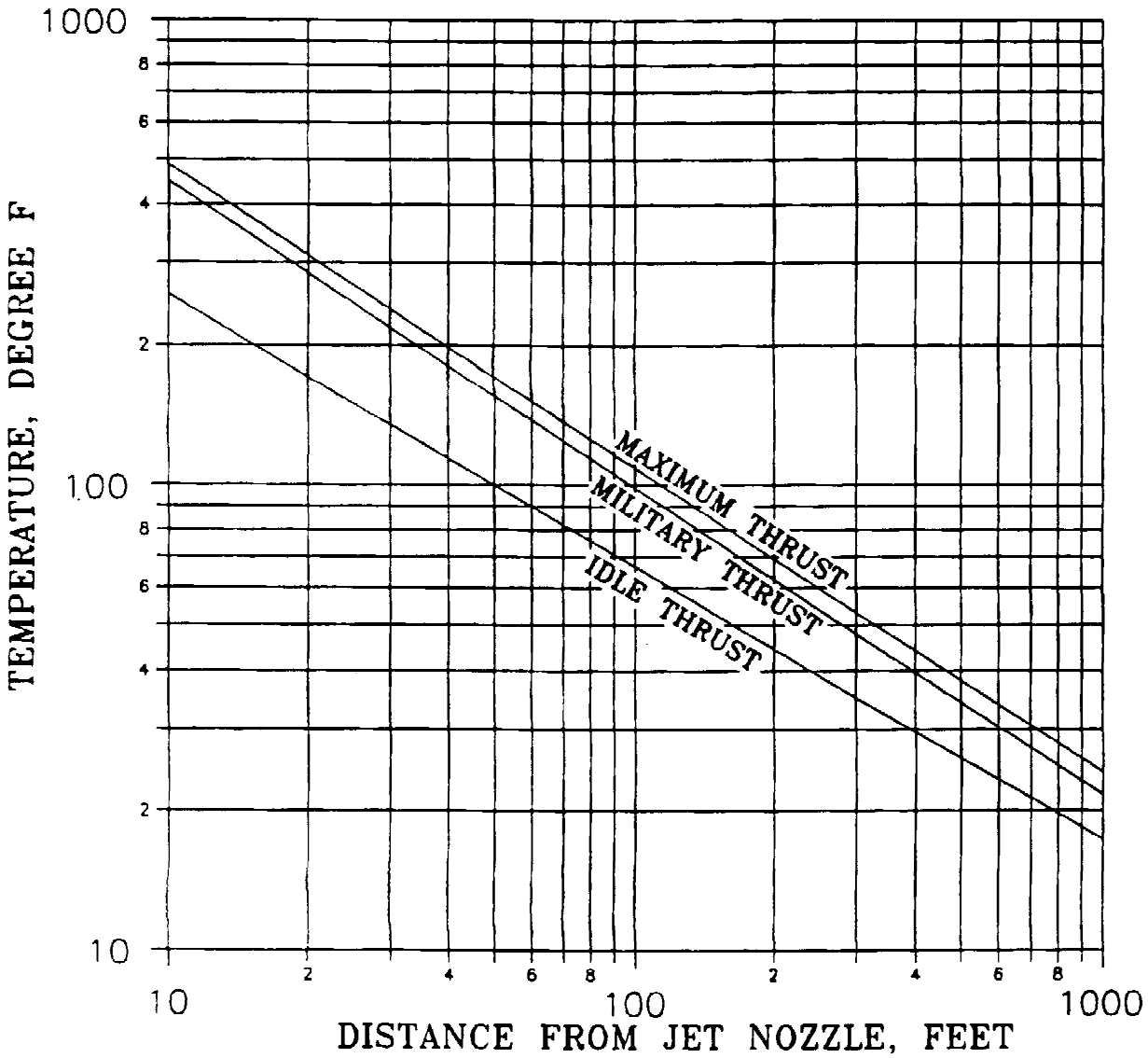


Figure E-85. B-52G, Temperature - Distance Curves

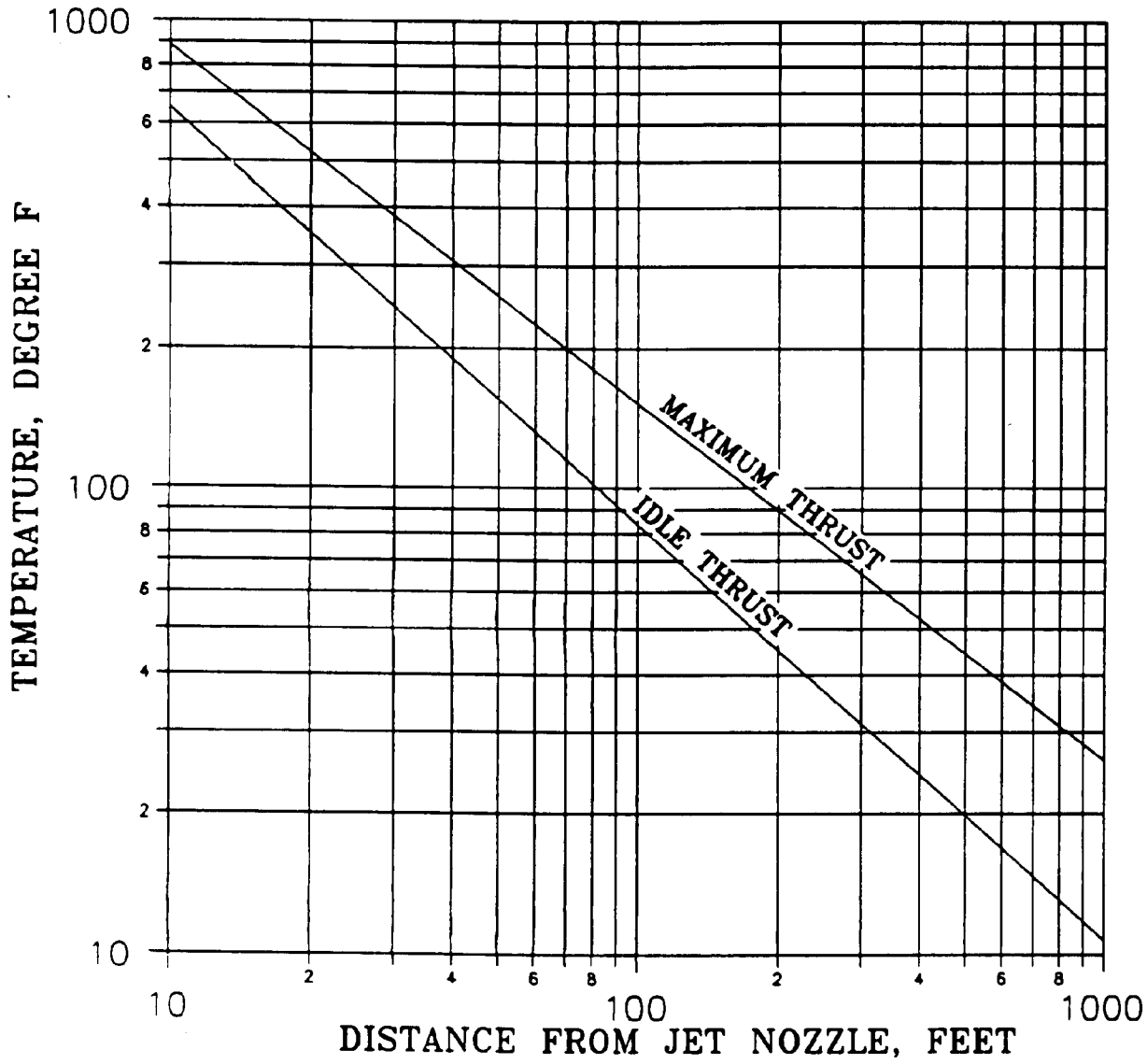


Figure E-86. B-52H, Temperature - Distance Curves

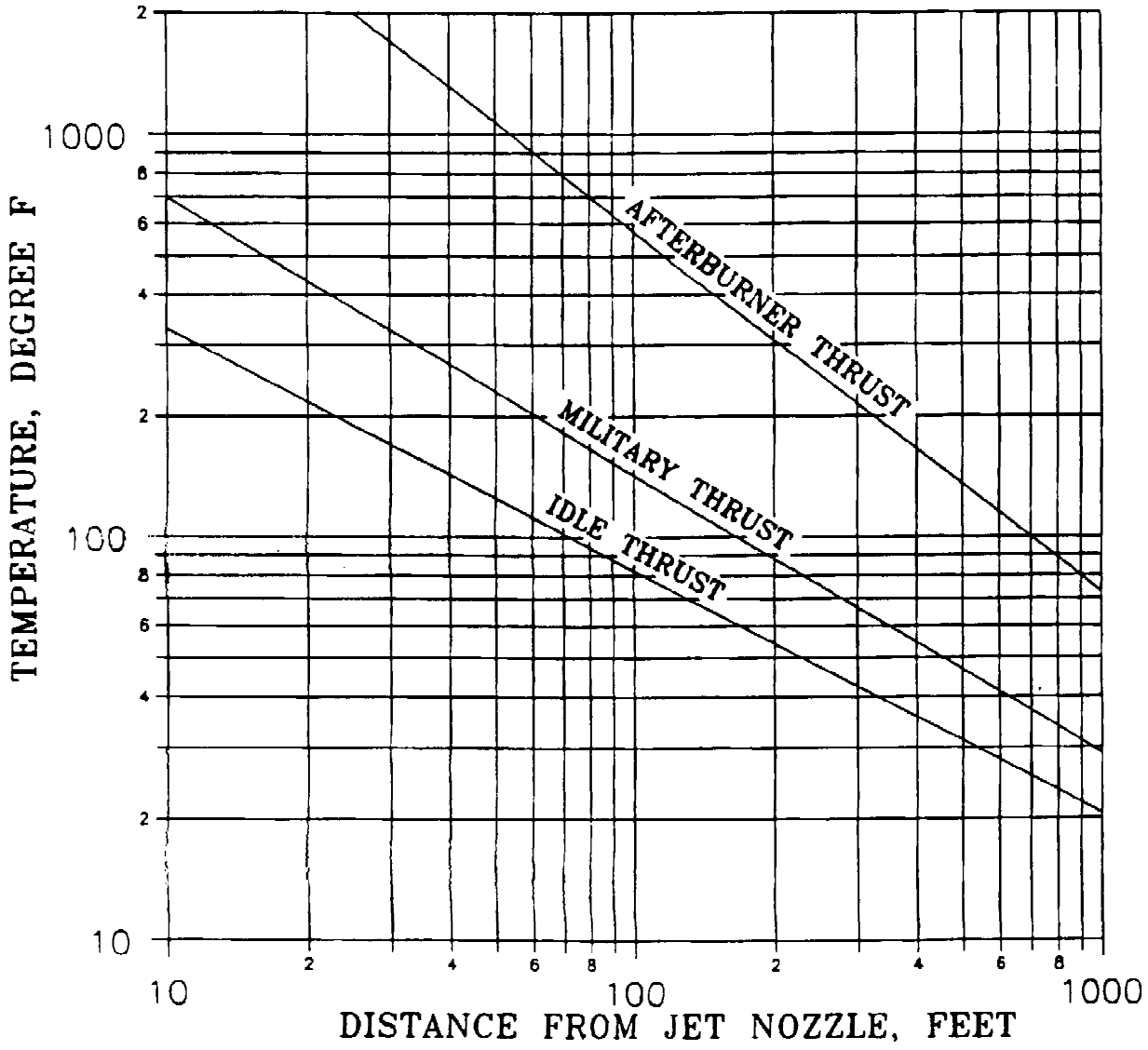


Figure E-87. FB-111A, Temperature - Distance Curves

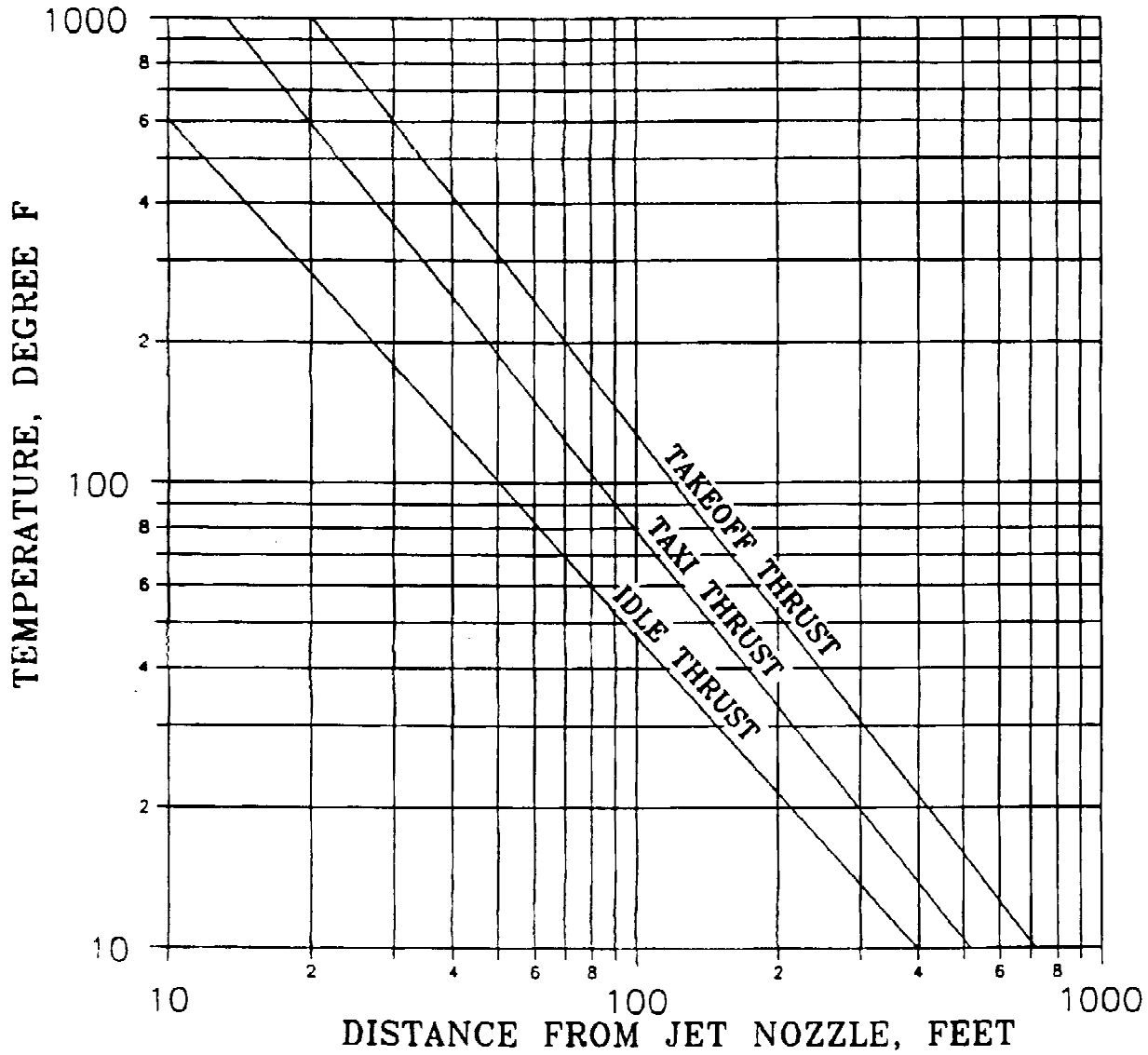


Figure E-88. C-5A/B, Temperature - Distance Curves

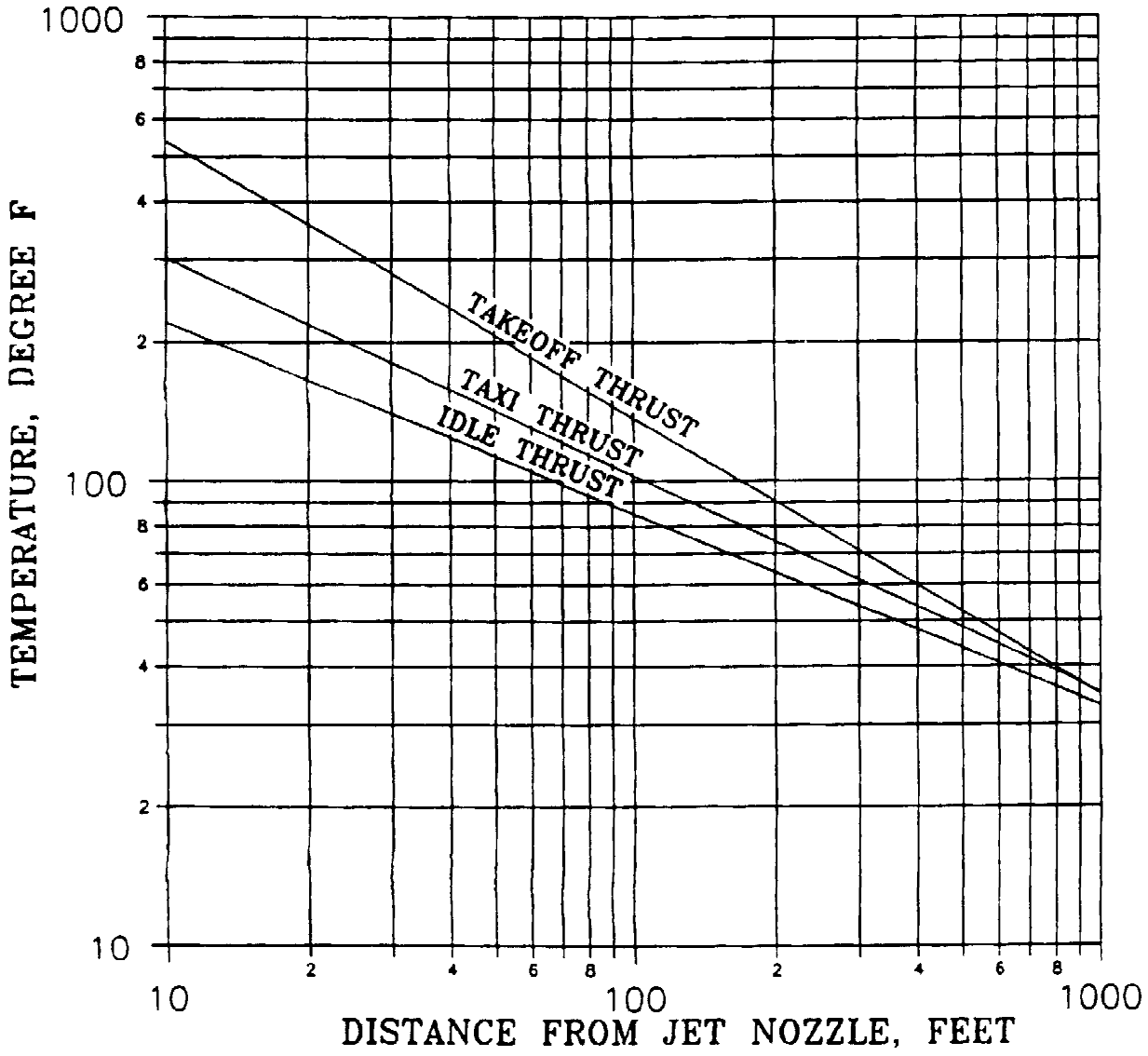


Figure E-89. C-9A, Temperature - Distance Curves

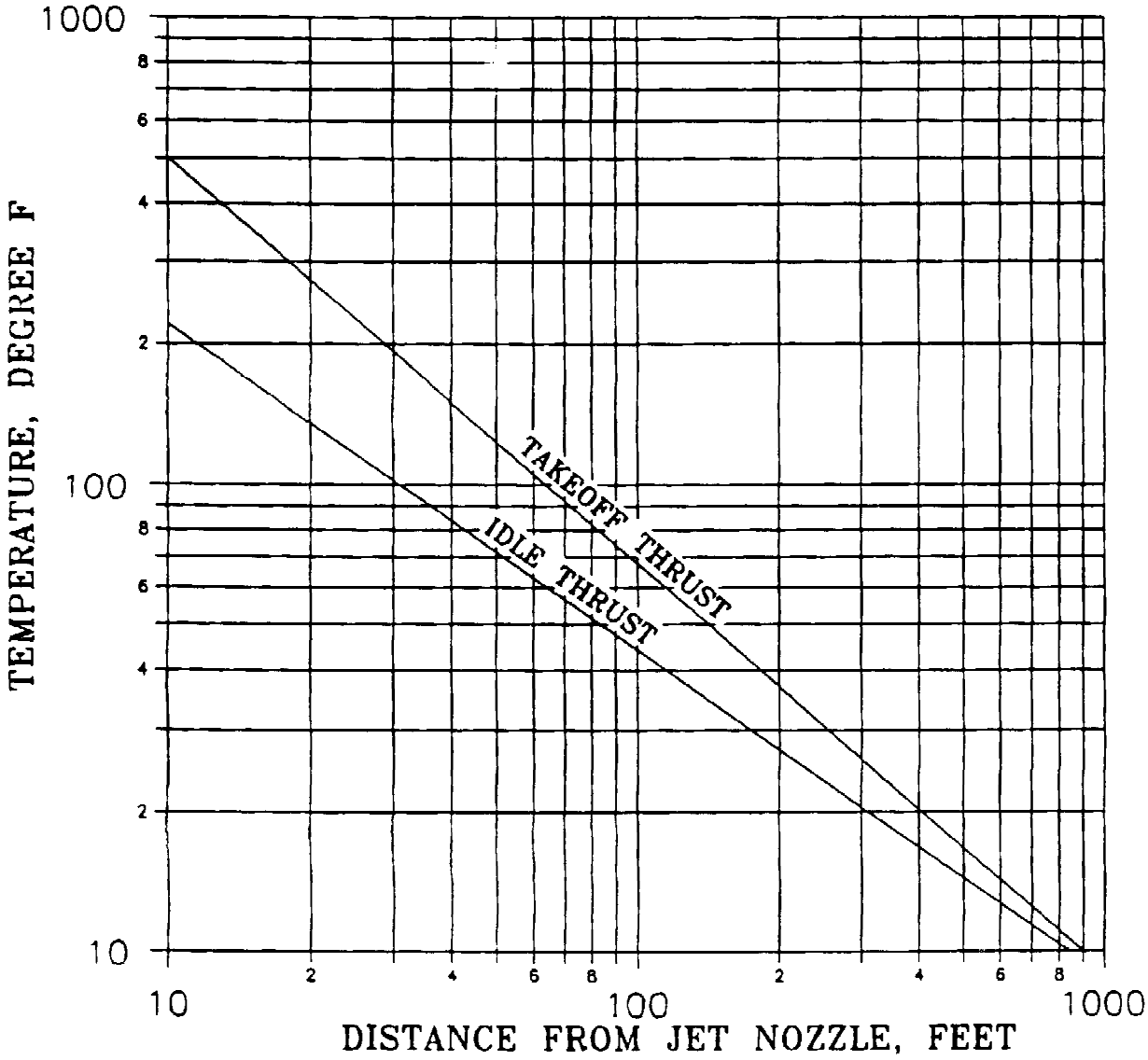


Figure E-90. C-21A, Temperature - Distance Curves

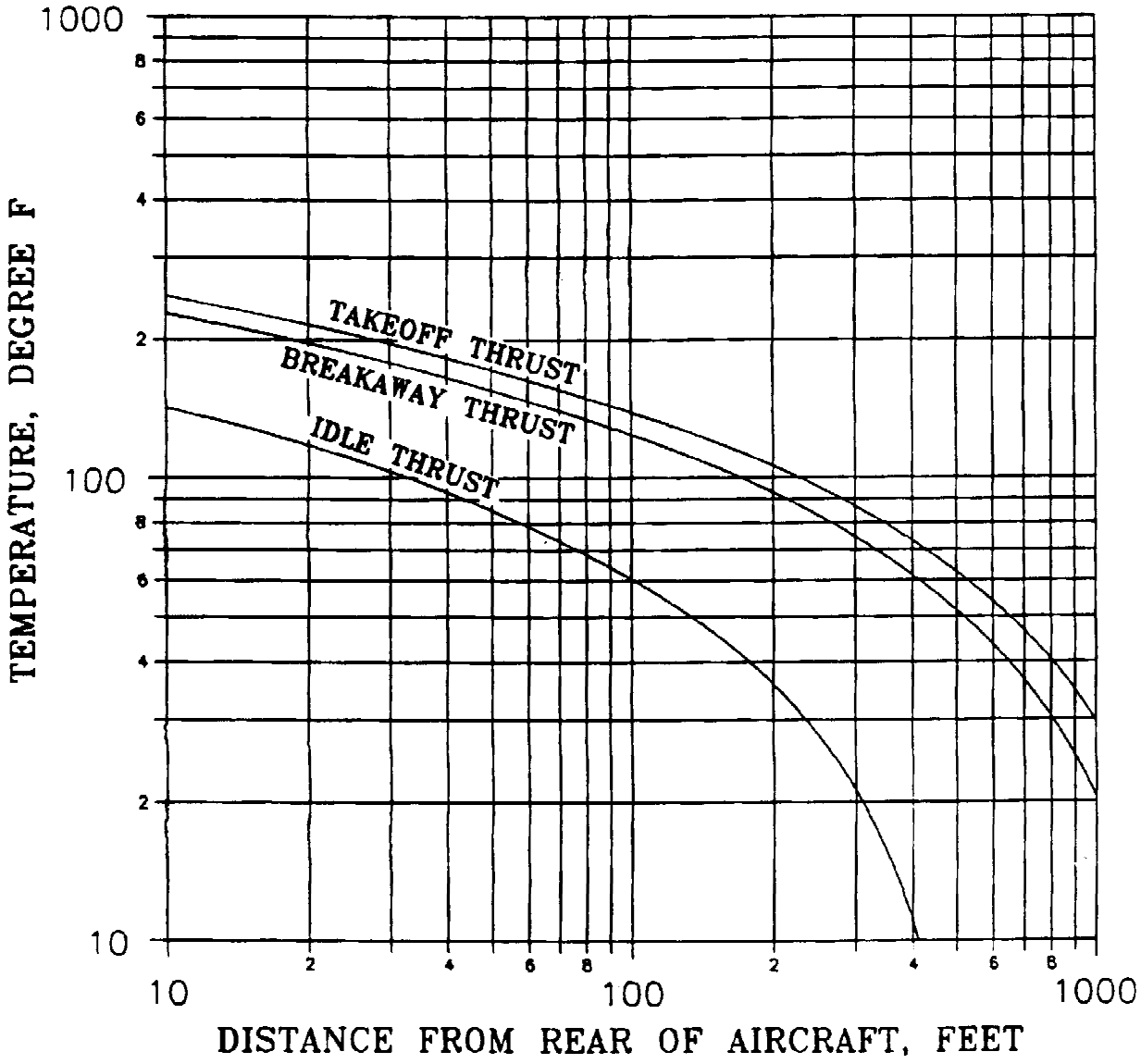


Figure E-91. C-22B, Temperature - Distance Curves

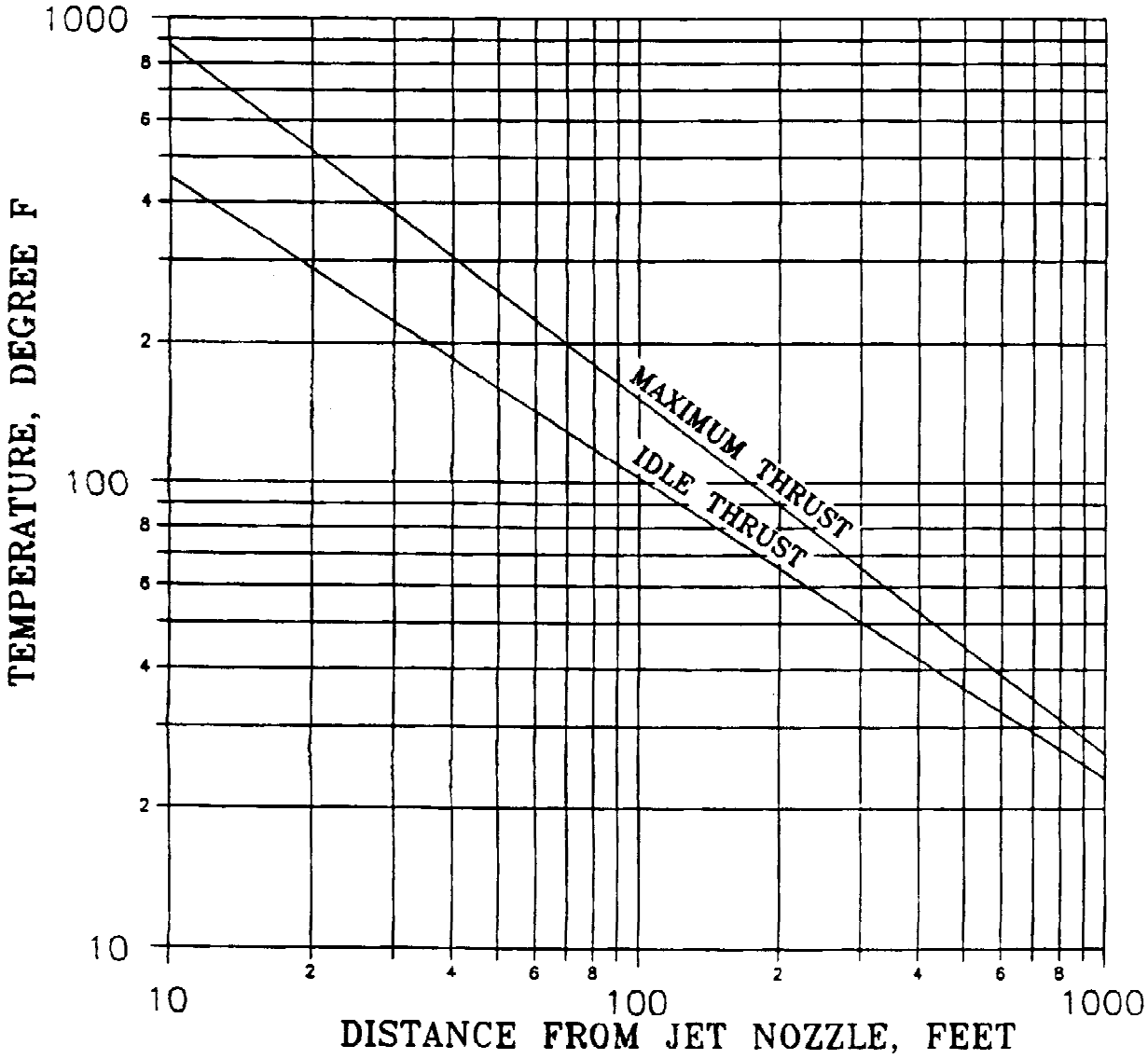


Figure E-92. C-135B, Temperature - Distance Curves

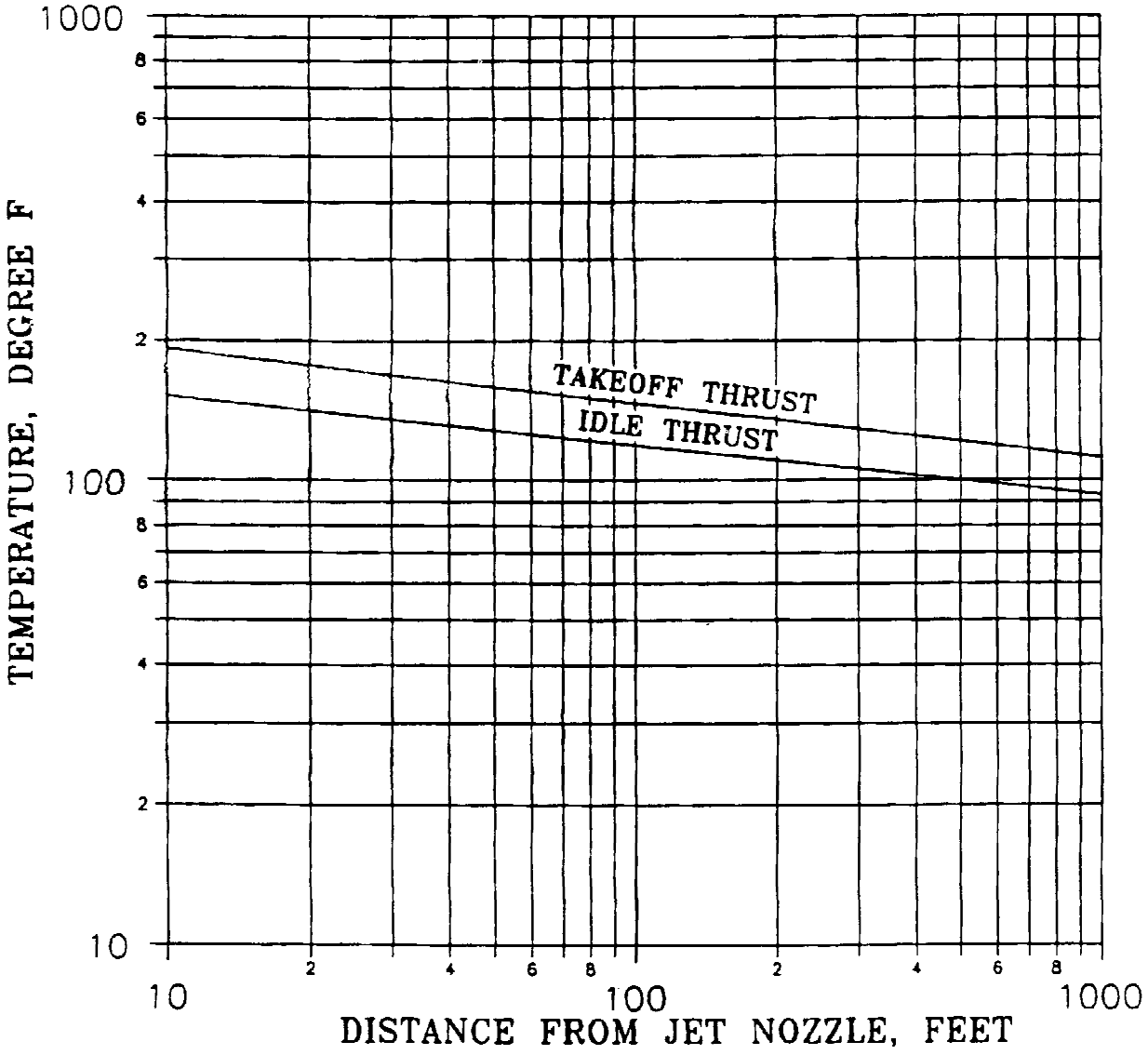


Figure E-93. KC-135R, Temperature - Distance Curves

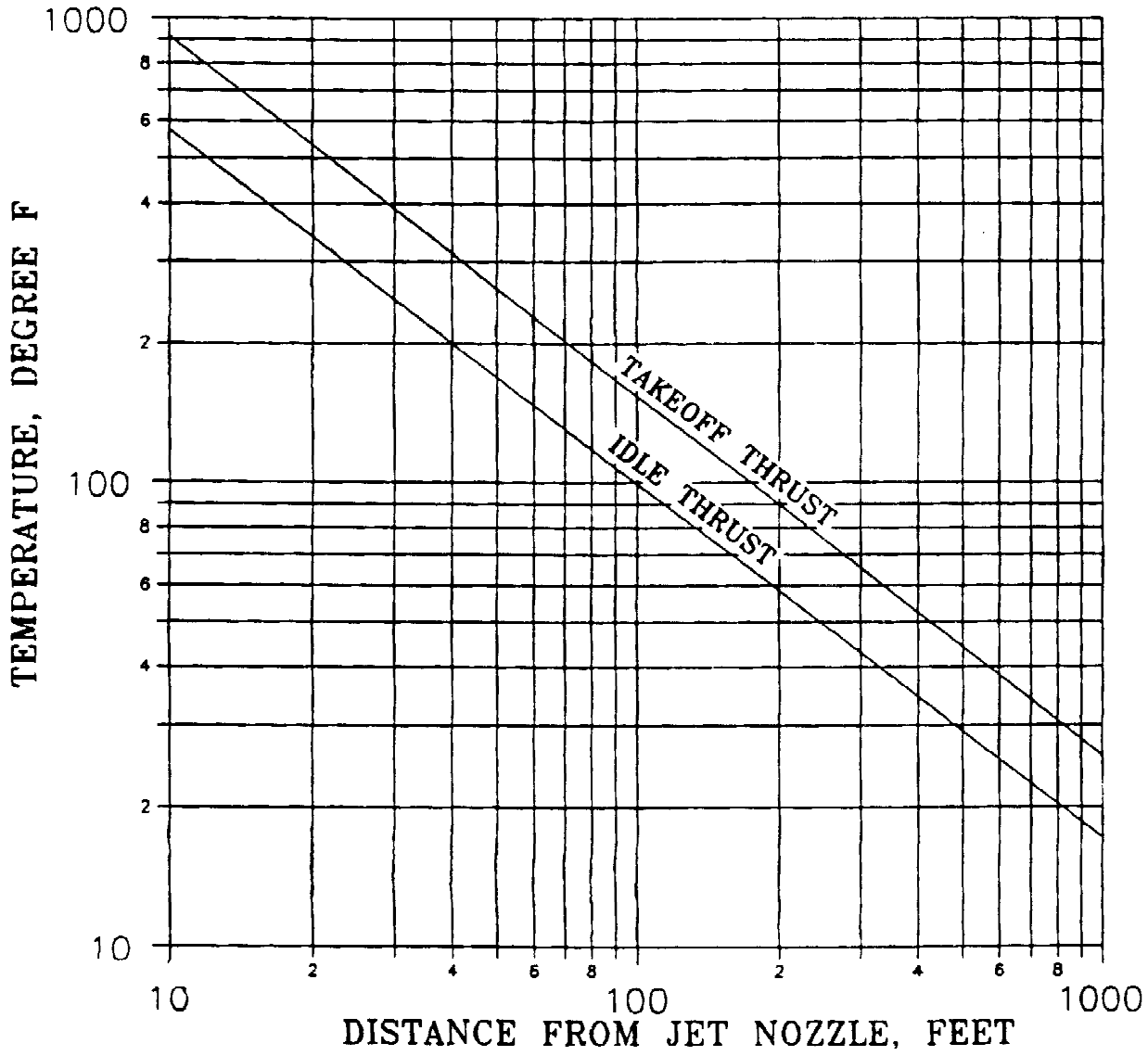


Figure E-94. C-137B/C, Temperature - Distance Curves

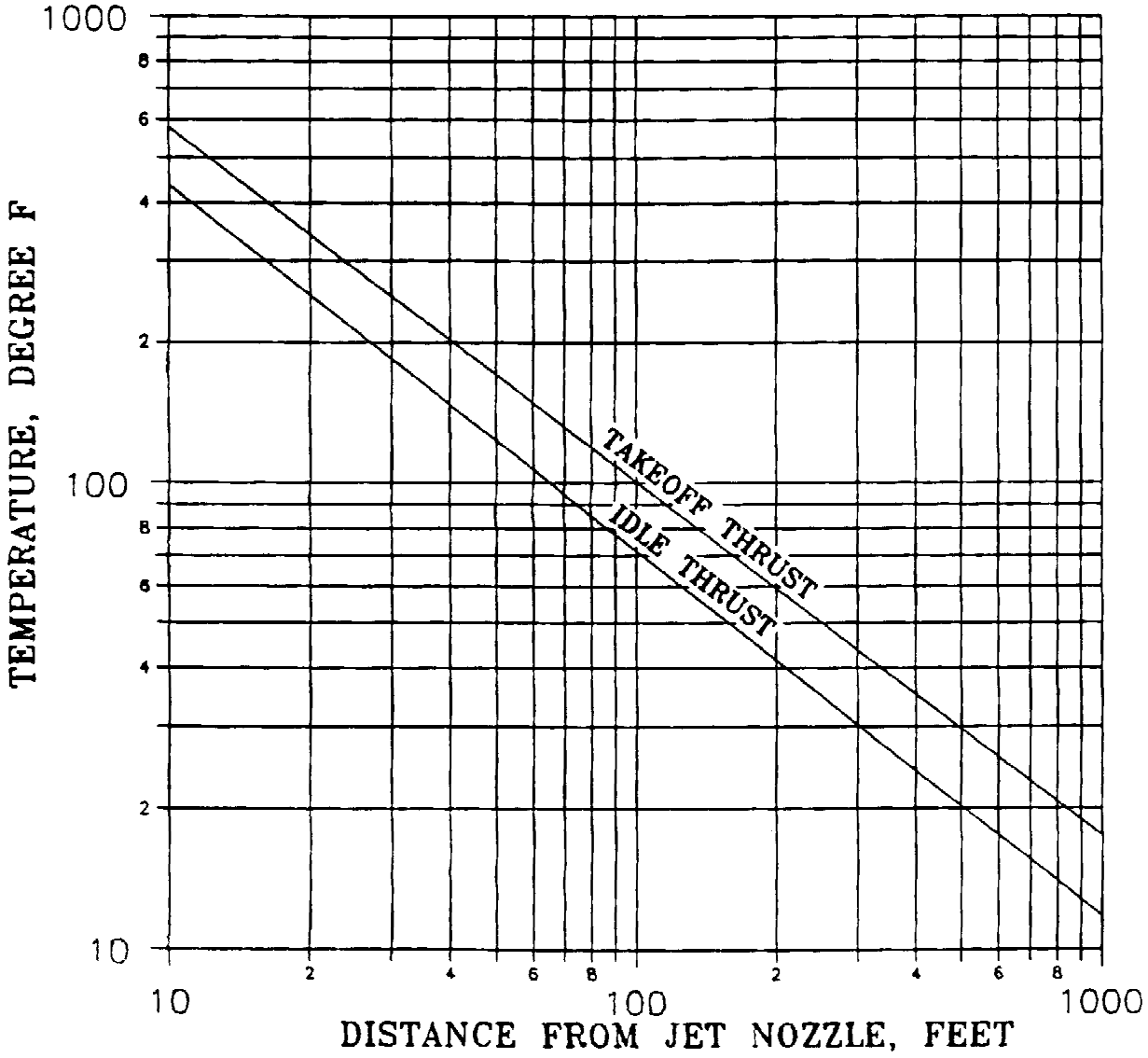


Figure E-95. C-140A/B, Temperature - Distance Curves

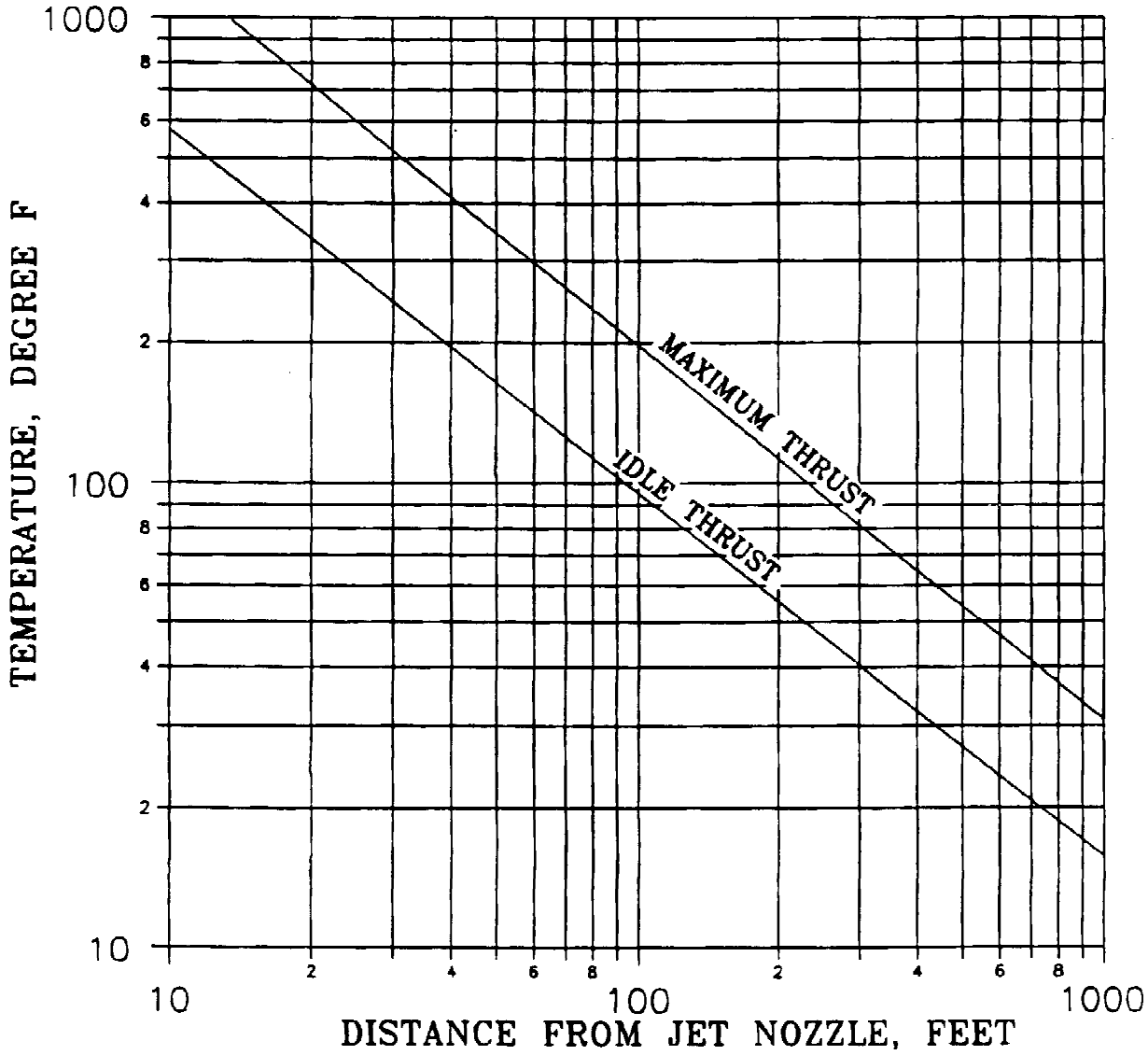


Figure E-96. C-141A/B, Temperature - Distance Curves

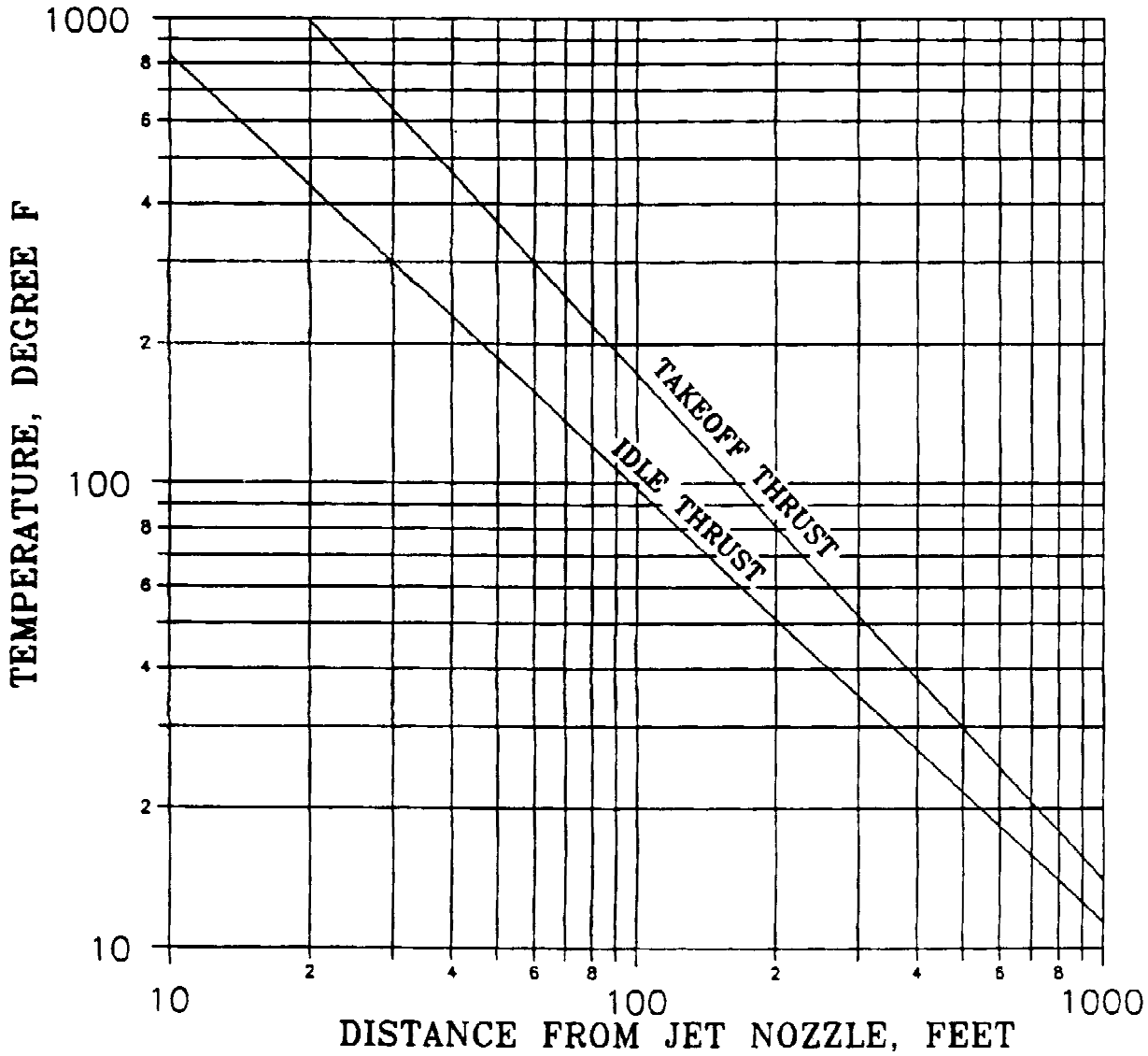


Figure E-97. KC-10A, Temperature - Distance Curves

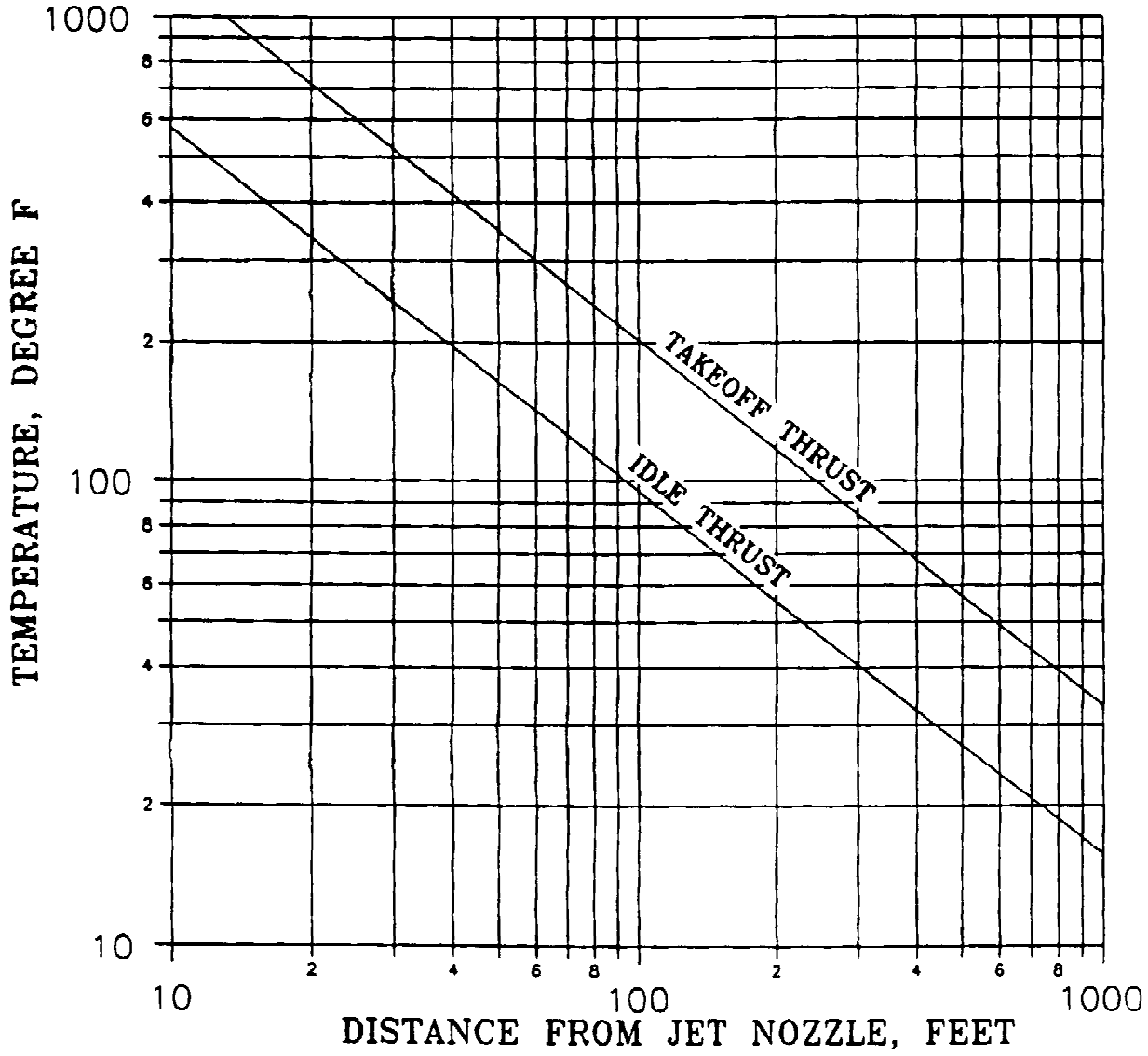


Figure E-98. E-3A/B/C, Temperature - Distance Curves

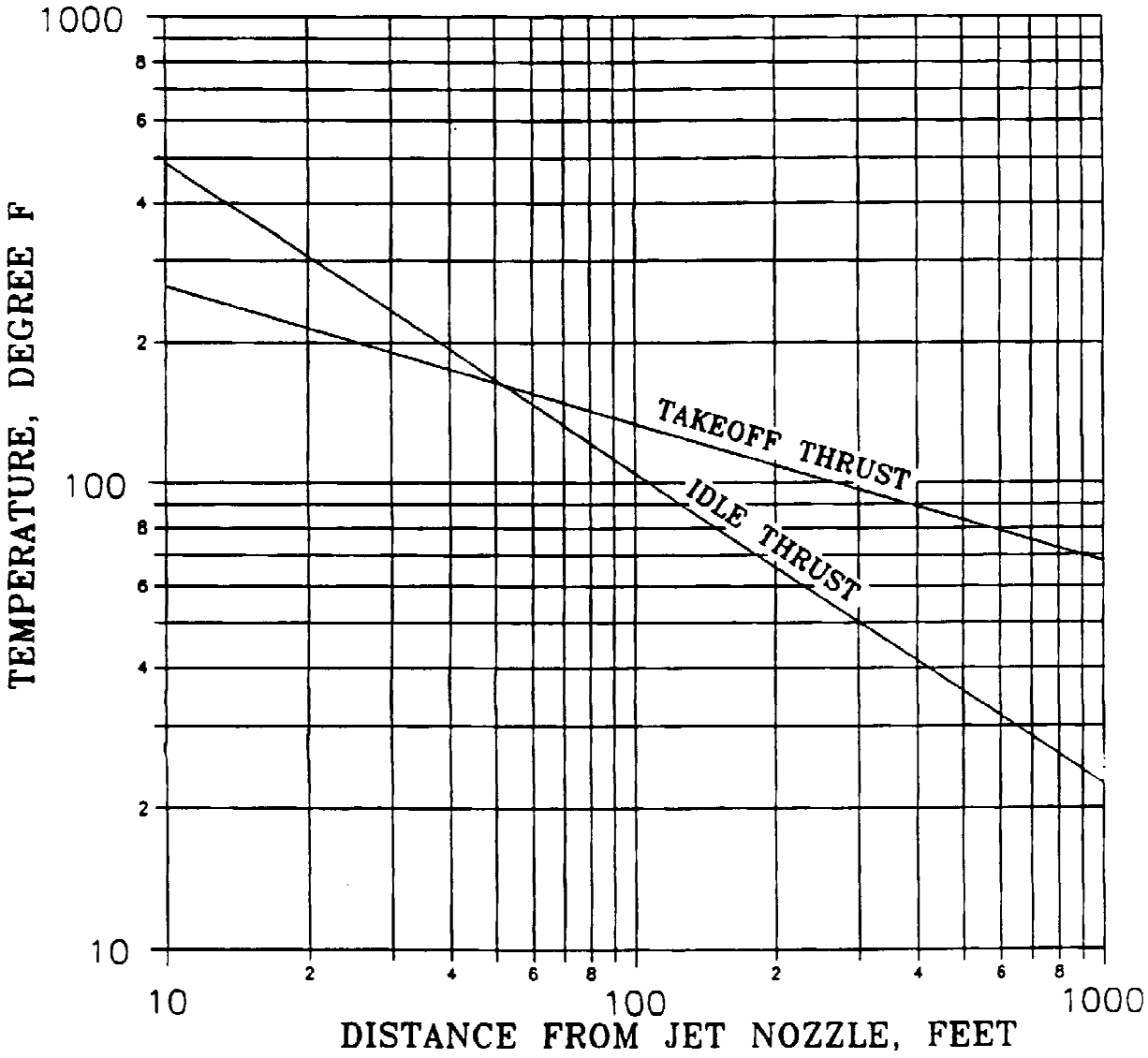


Figure E-99. E-4A/B, Temperature - Distance Curves

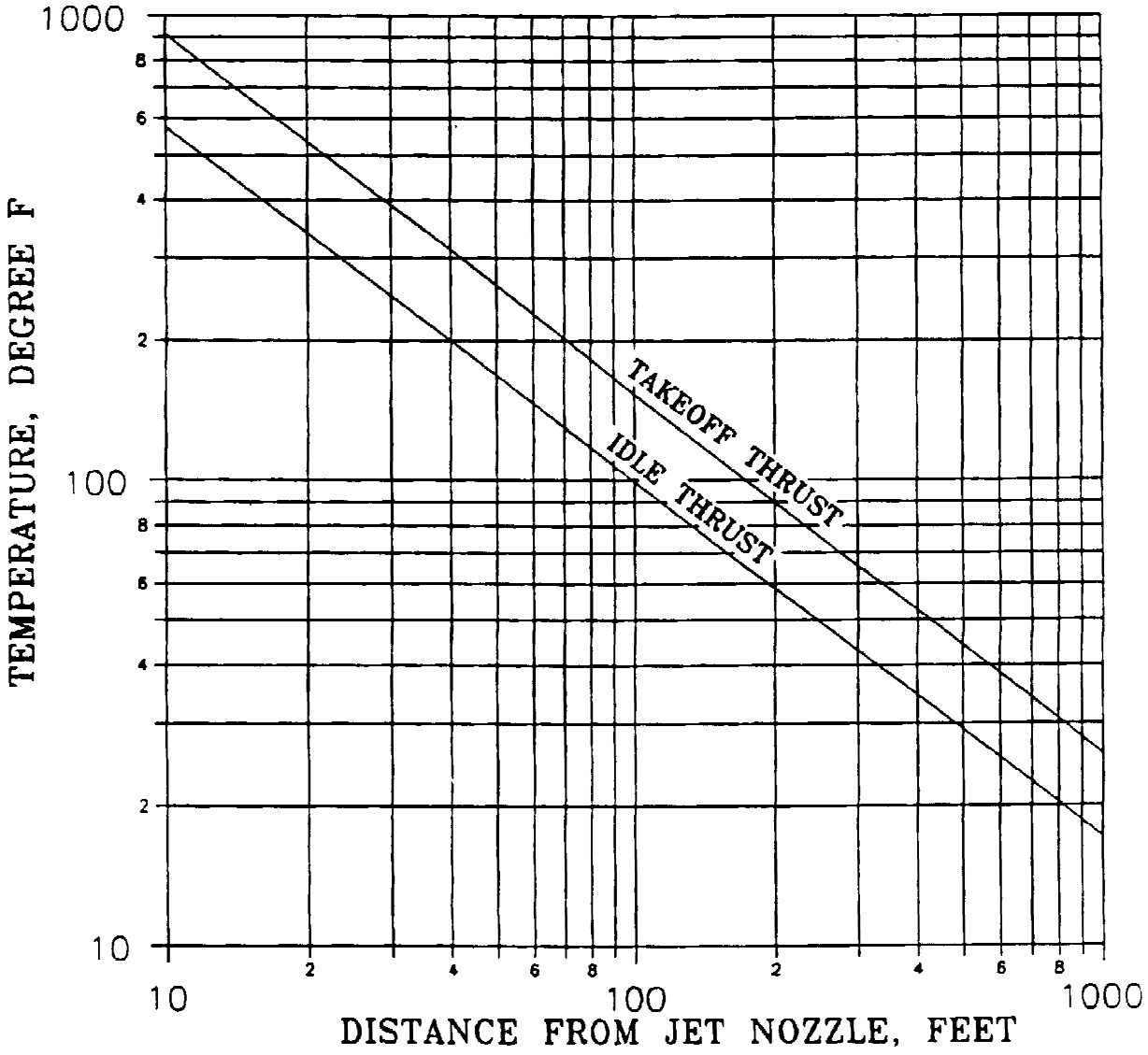


Figure E-100. EC-18B, Temperature - Distance Curves

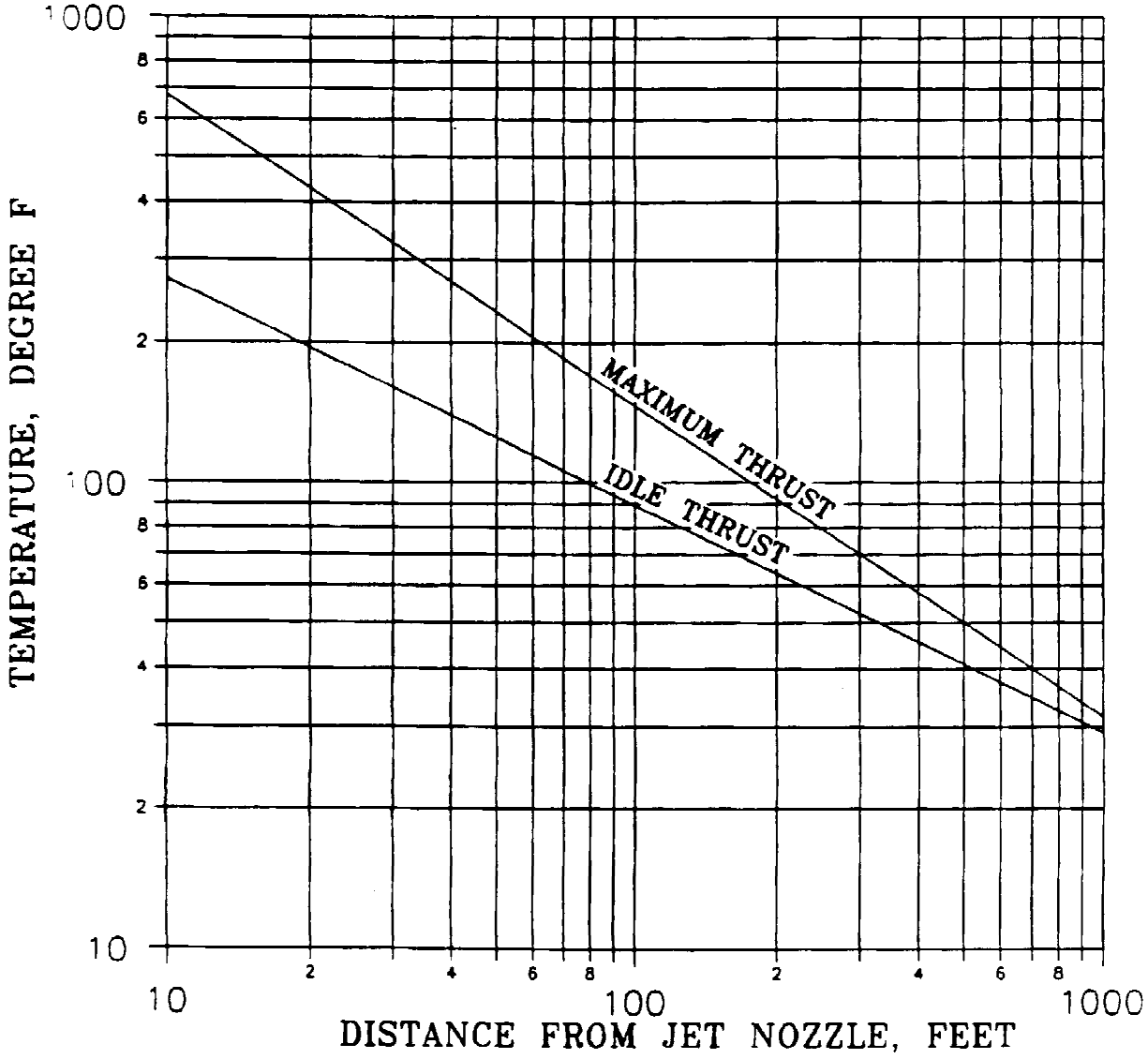


Figure E-101. EC-135A/G/L, Temperature - Distance Curves

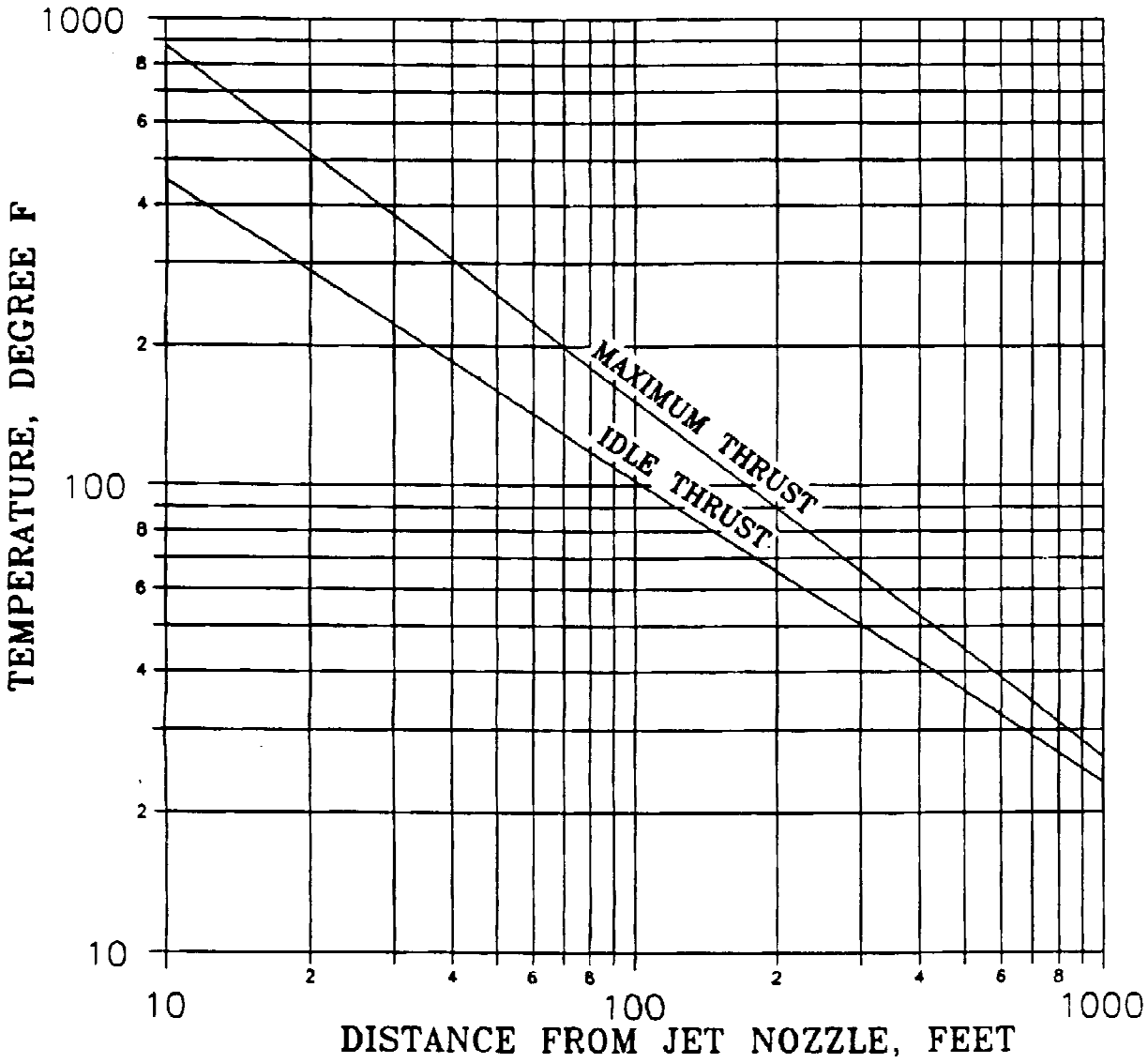


Figure E-102. EC-135C/E/H/J/K/P/Y, RC-135S/U/V/W, and WC-135B, Temperature - Distance Curves

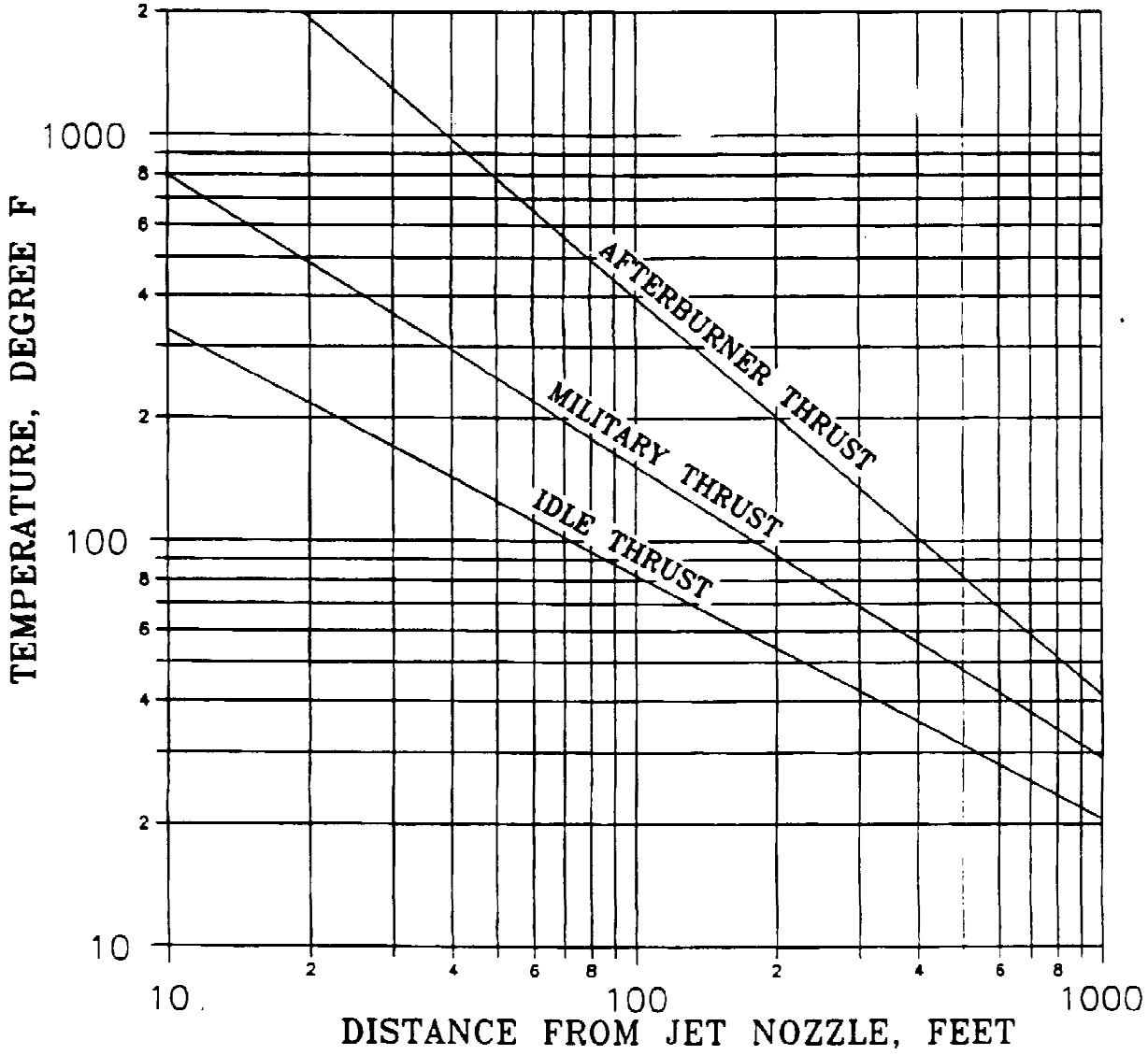


Figure E-103. EF-111A, Temperature - Distance Curves

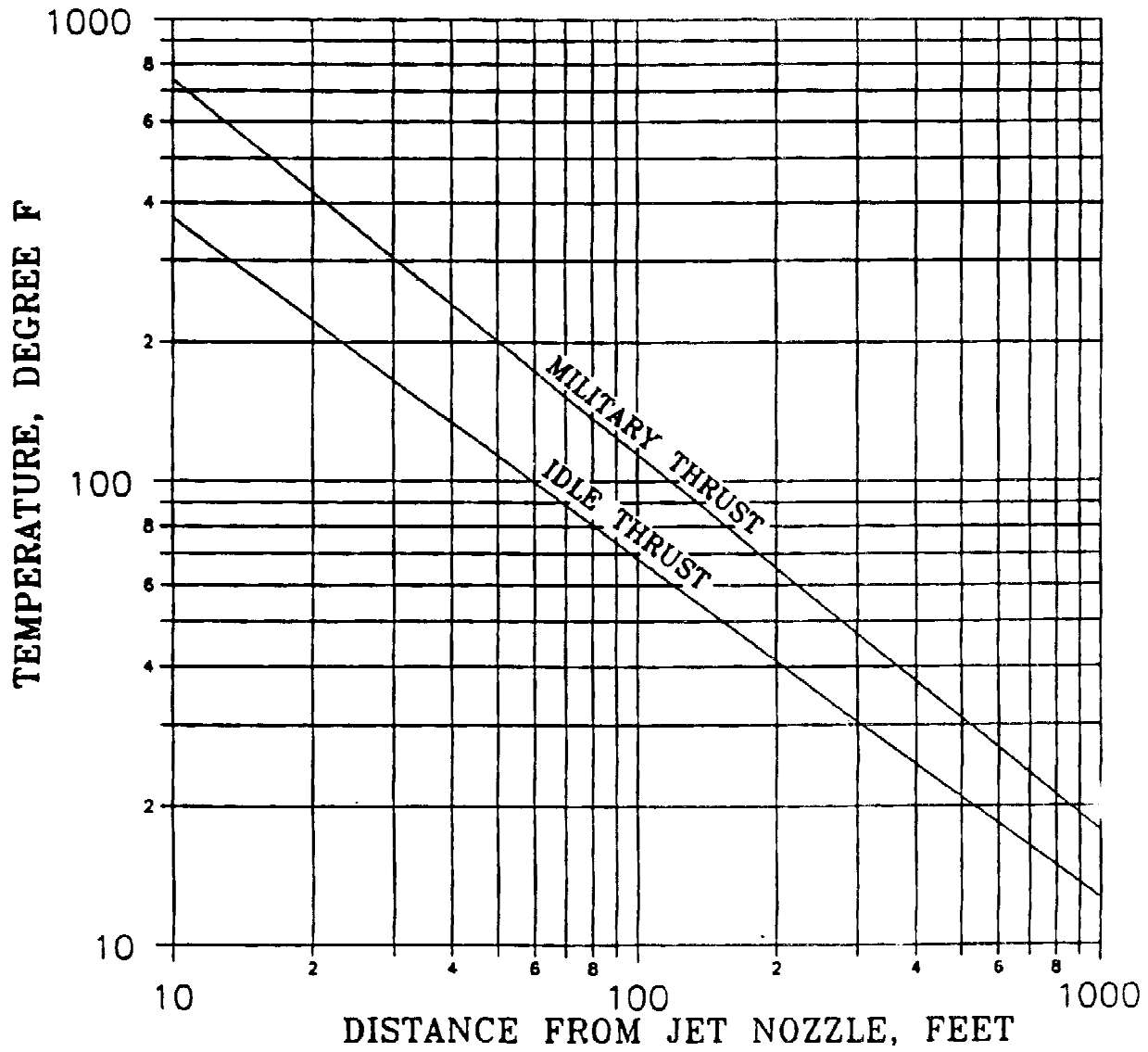


Figure E-107. A-7D/K, Temperature - Distance Curves

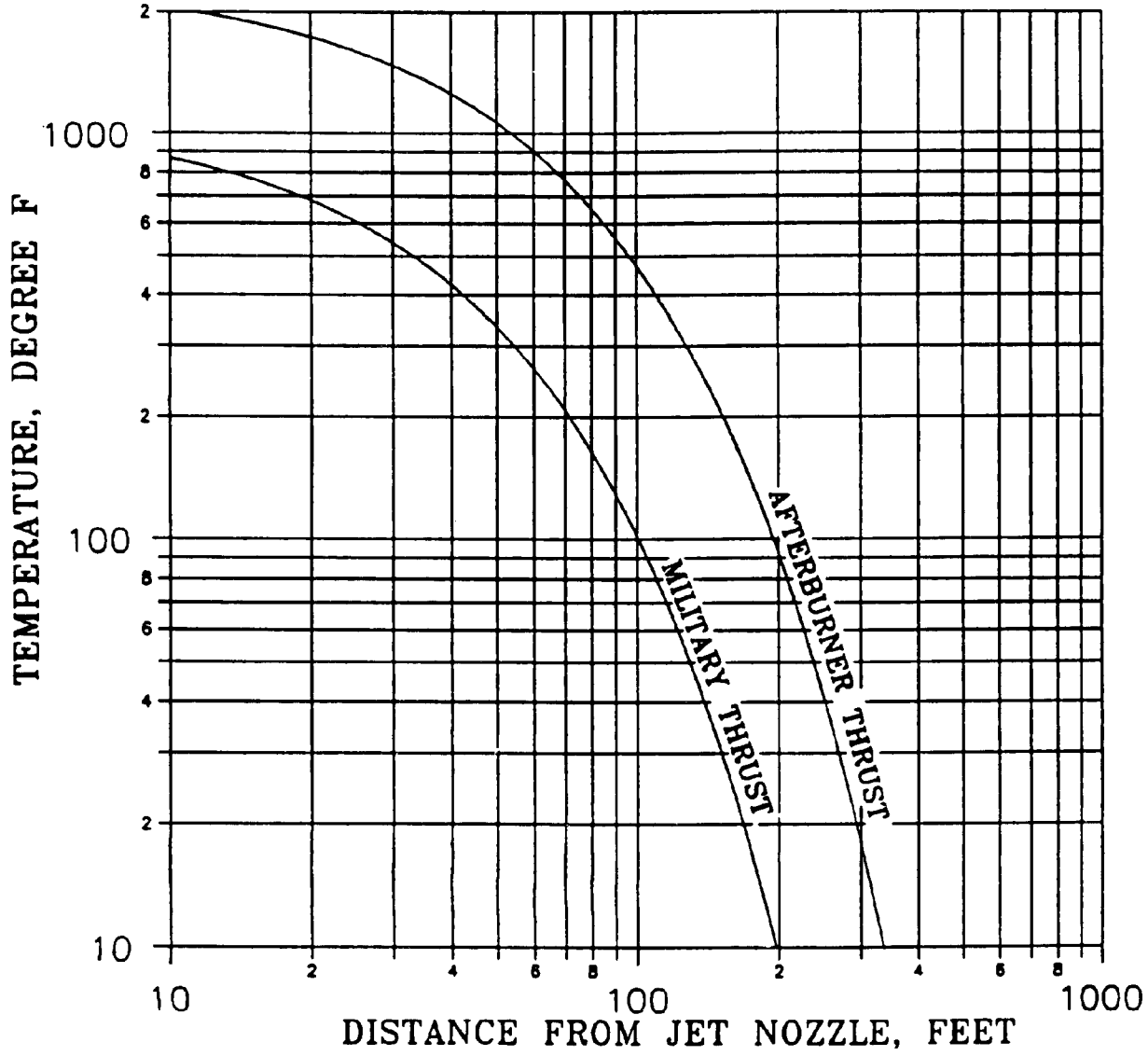


Figure E-106. RF-4C, Temperature - Distance Curves

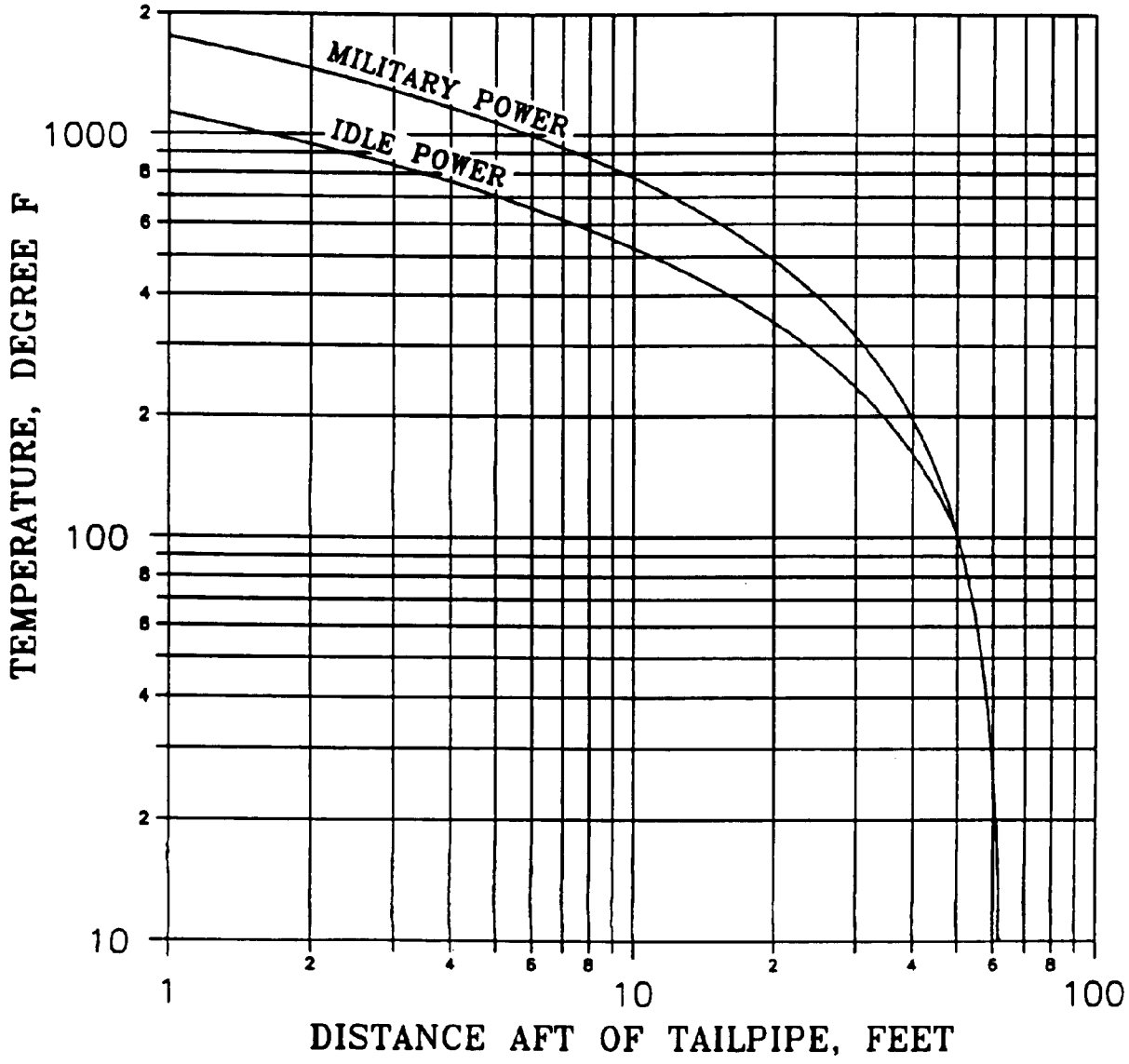


Figure E-105. OV-1B/C/D, Temperature - Distance Curves

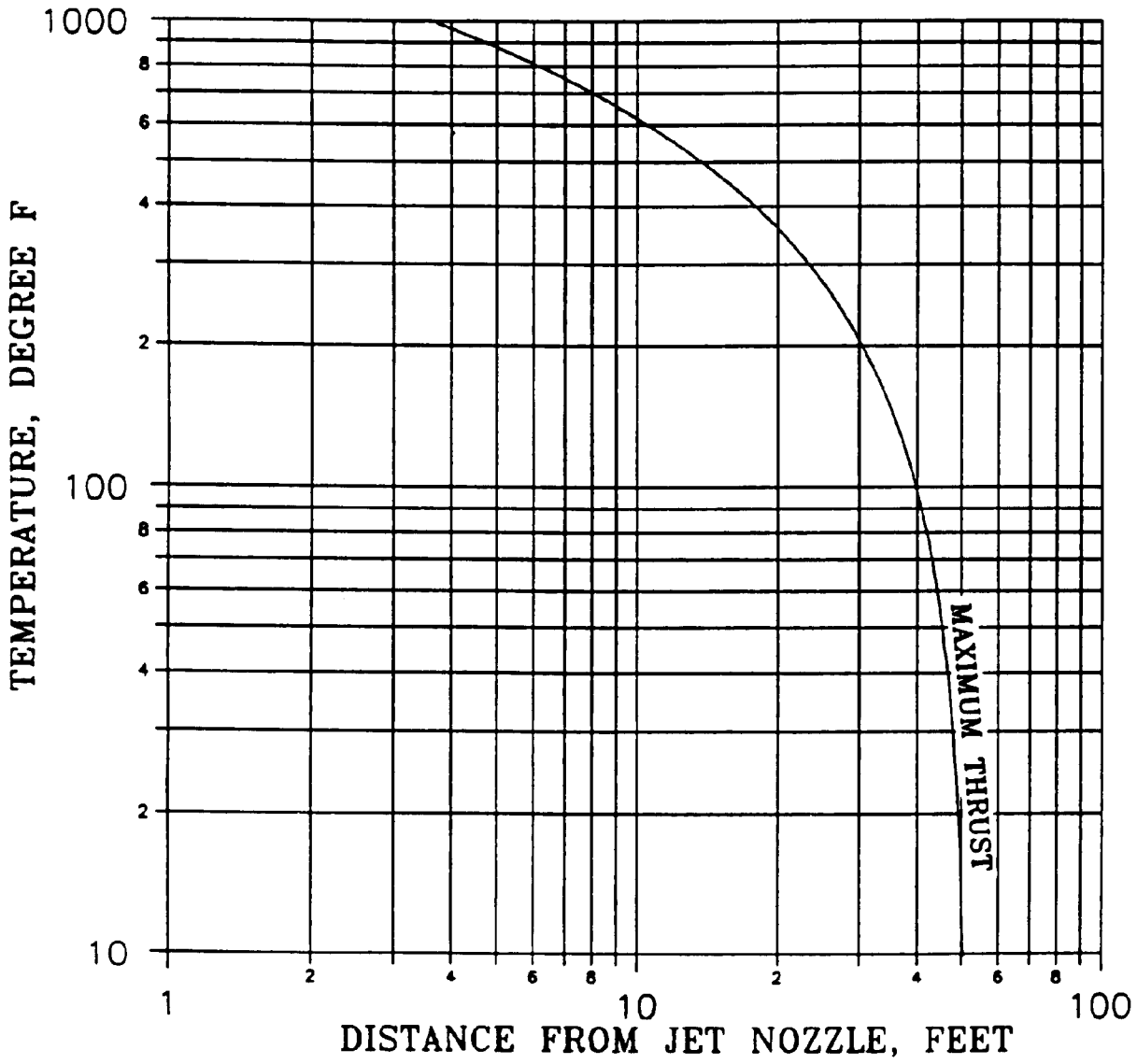


Figure E-104. OA-37B, Temperature - Distance Curve

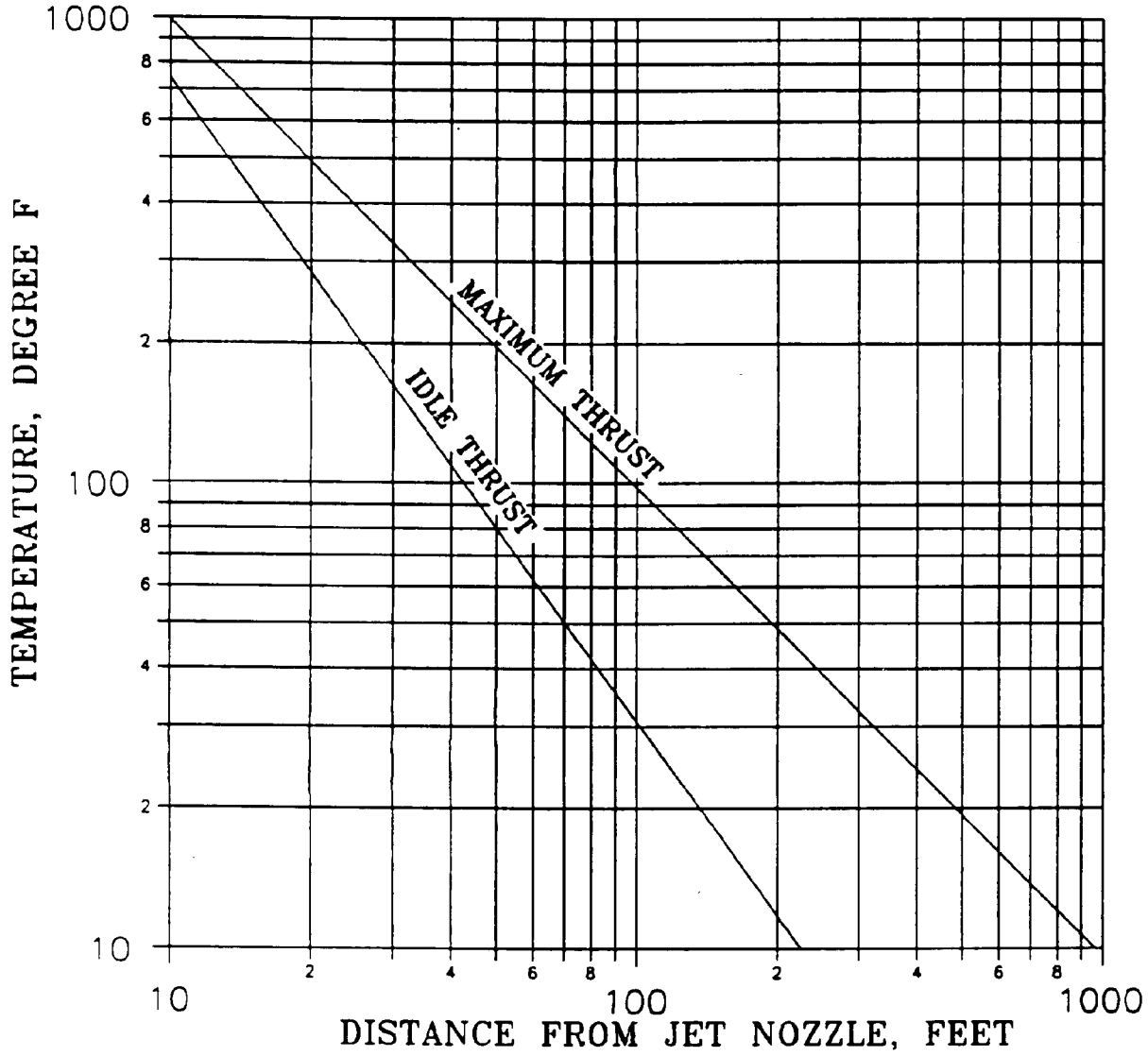


Figure E-108. A-10A, Temperature - Distance Curves

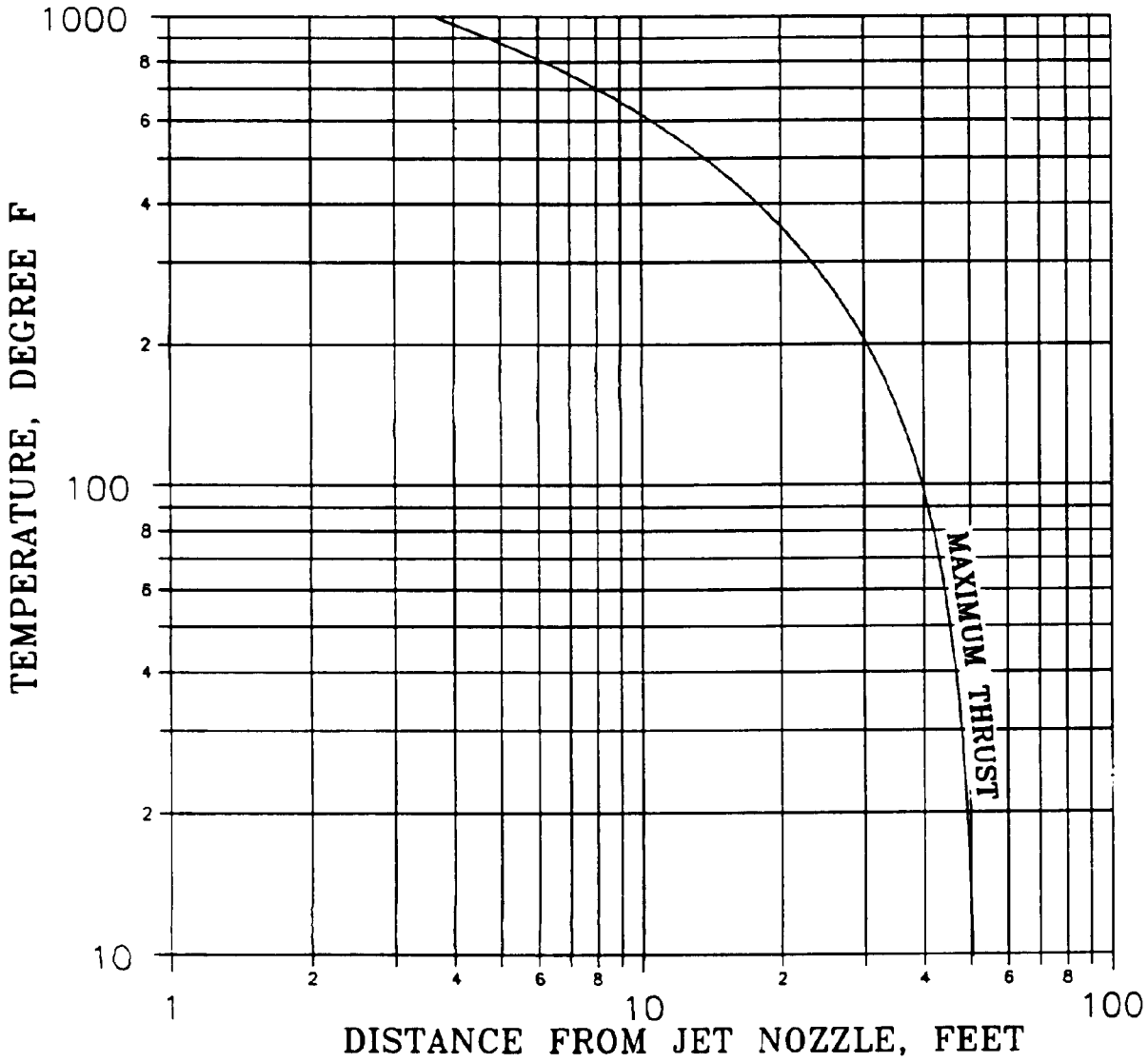


Figure E-109. A-37B, Temperature - Distance Curve

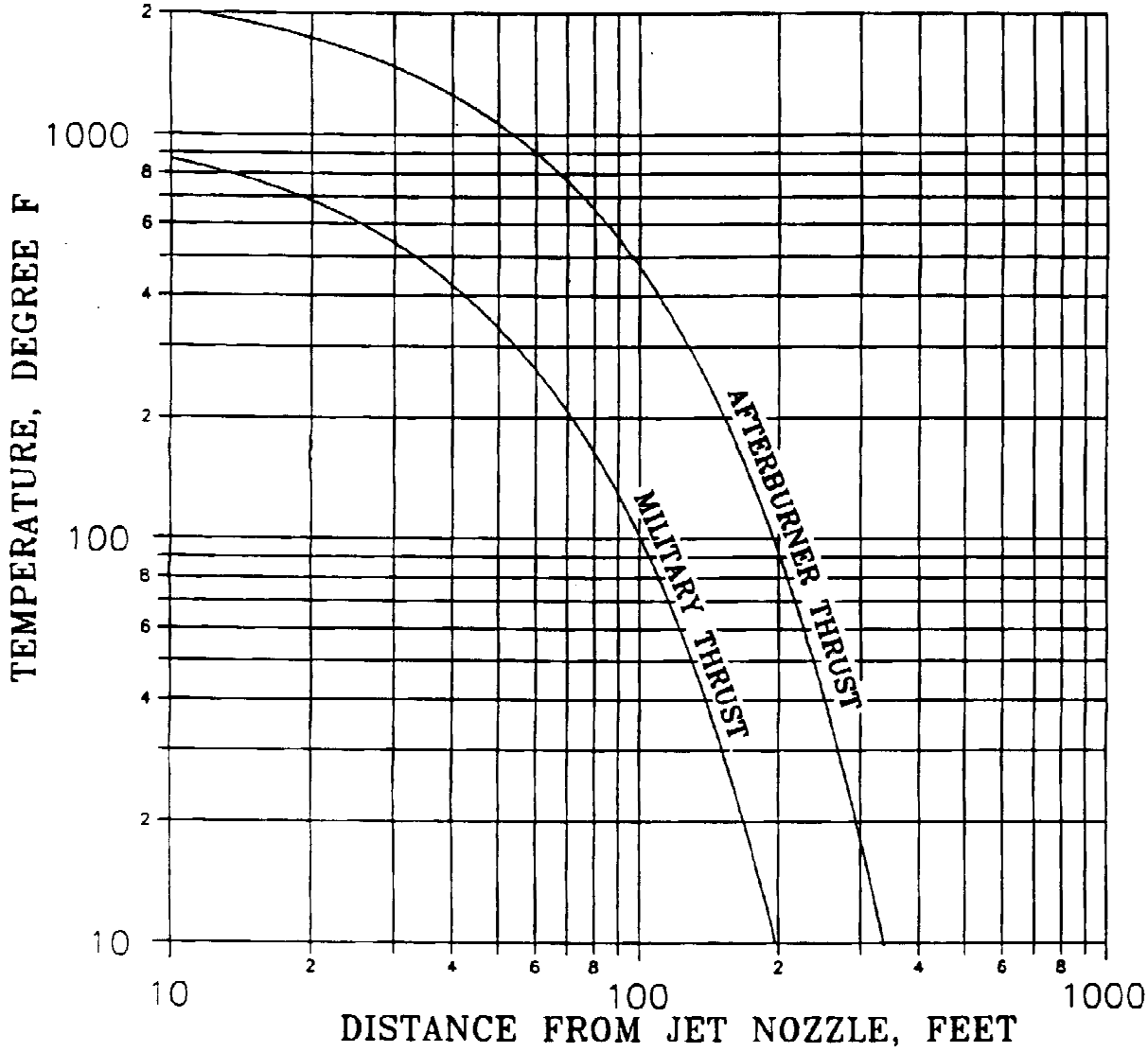


Figure E-110. F-4C/D/E, Temperature - Distance Curves

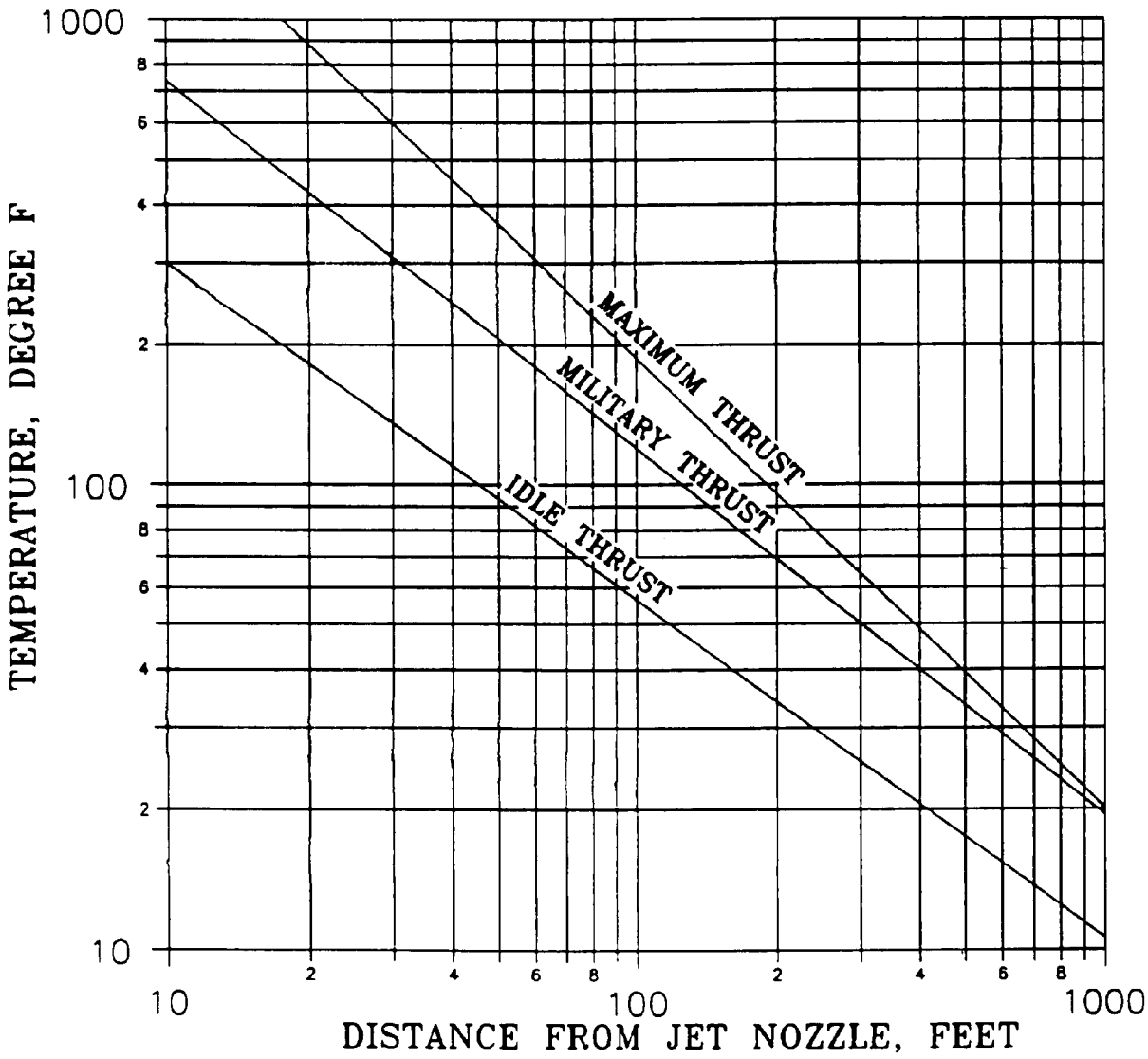


Figure E-111. F-5E/F, Temperature - Distance Curves

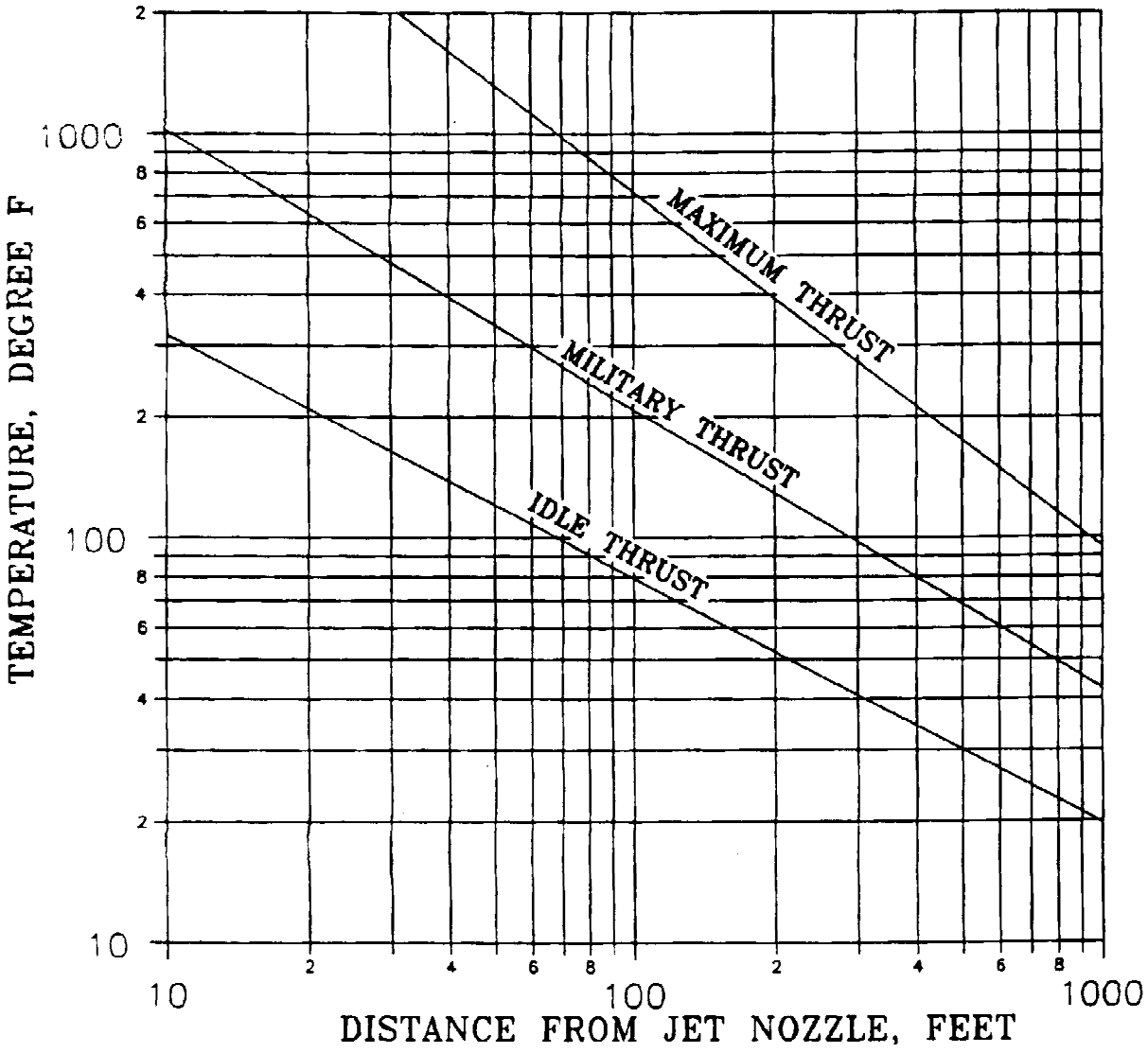


Figure E-112. F-15A/B/C/D/E, Temperature - Distance Curves

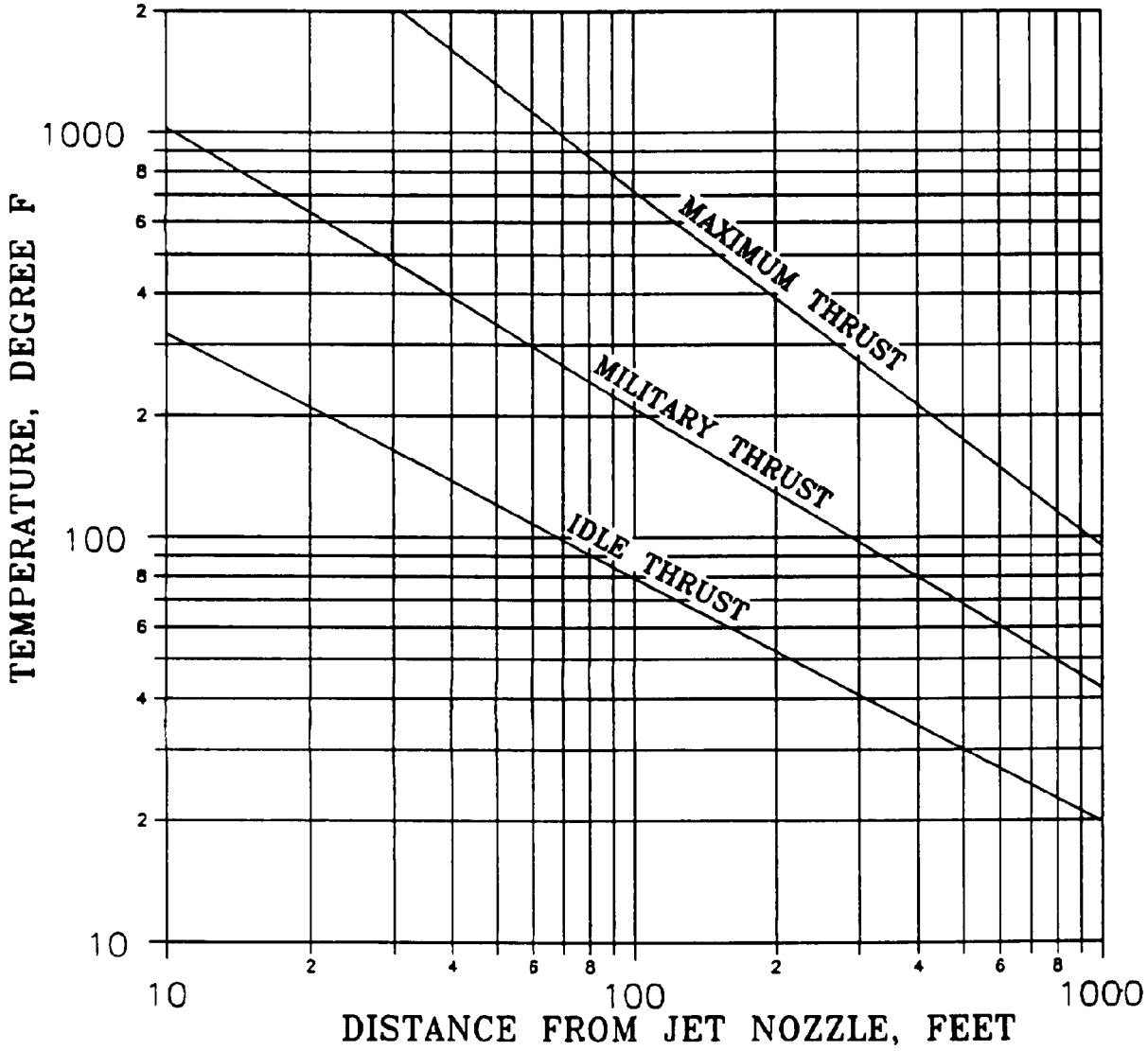


Figure E-113. F-16A/B, Temperature - Distance Curves

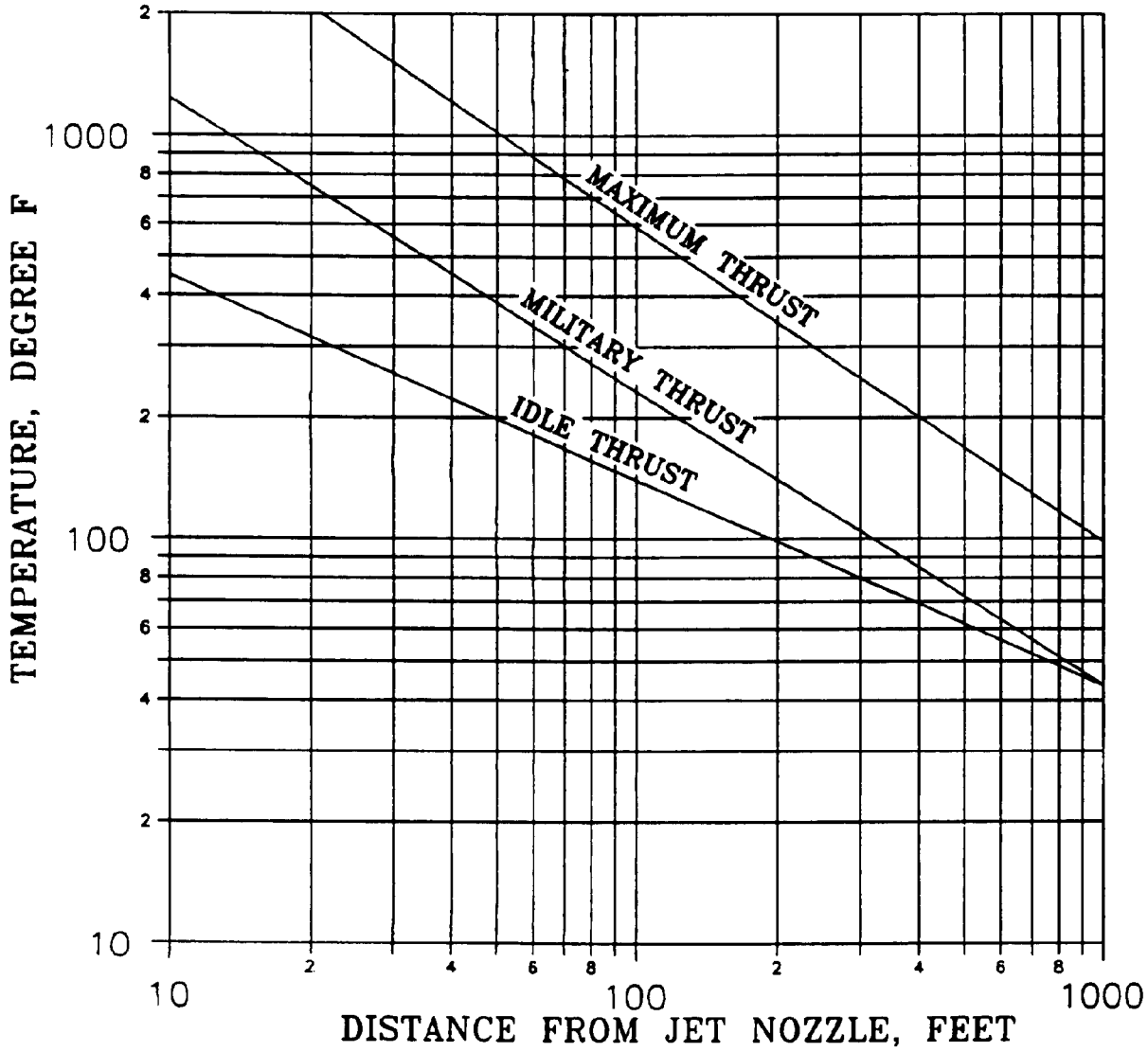


Figure E-114. F-16C/D, Temperature - Distance Curves

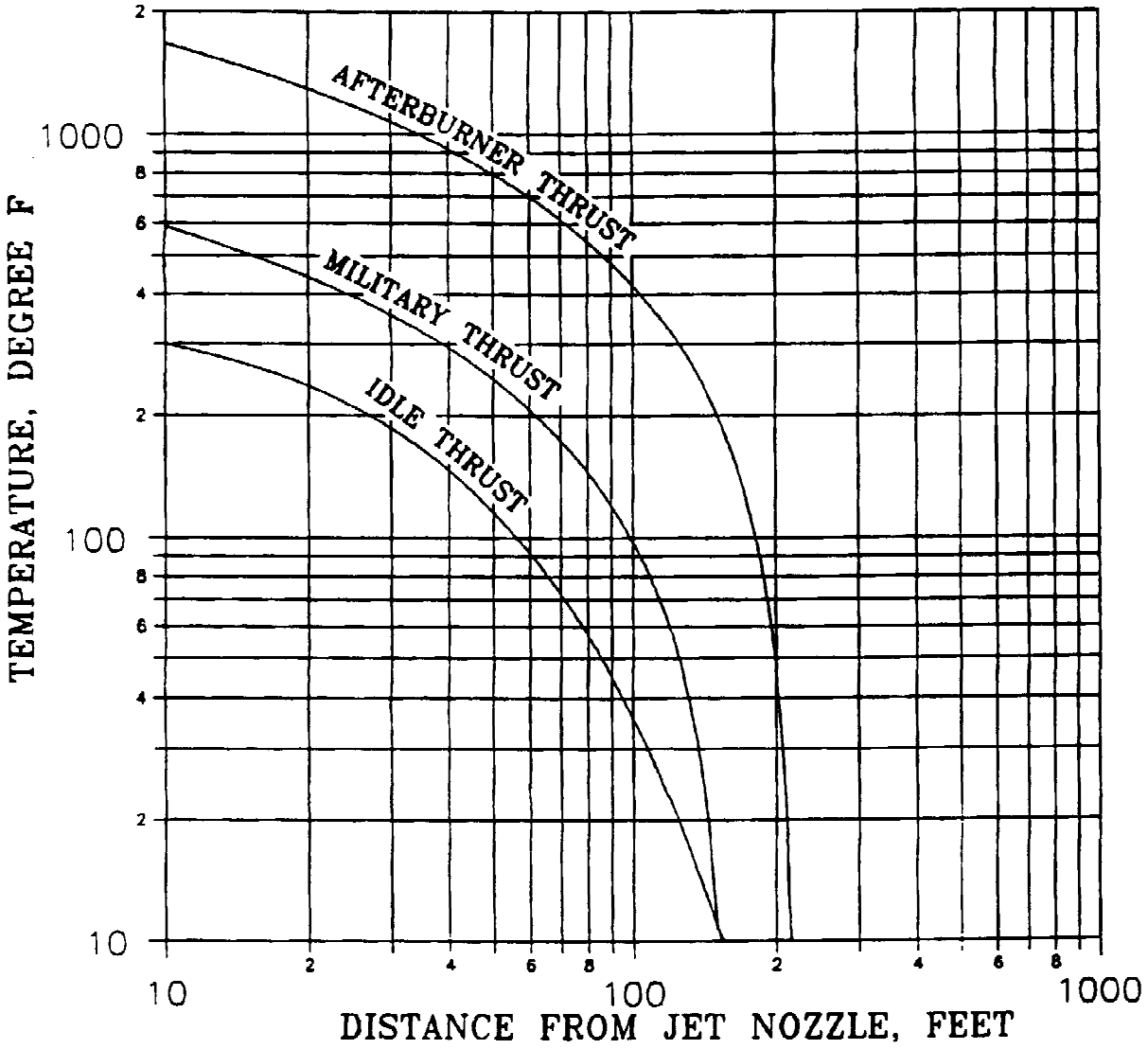


Figure E-115. F-100, Temperature - Distance Curves

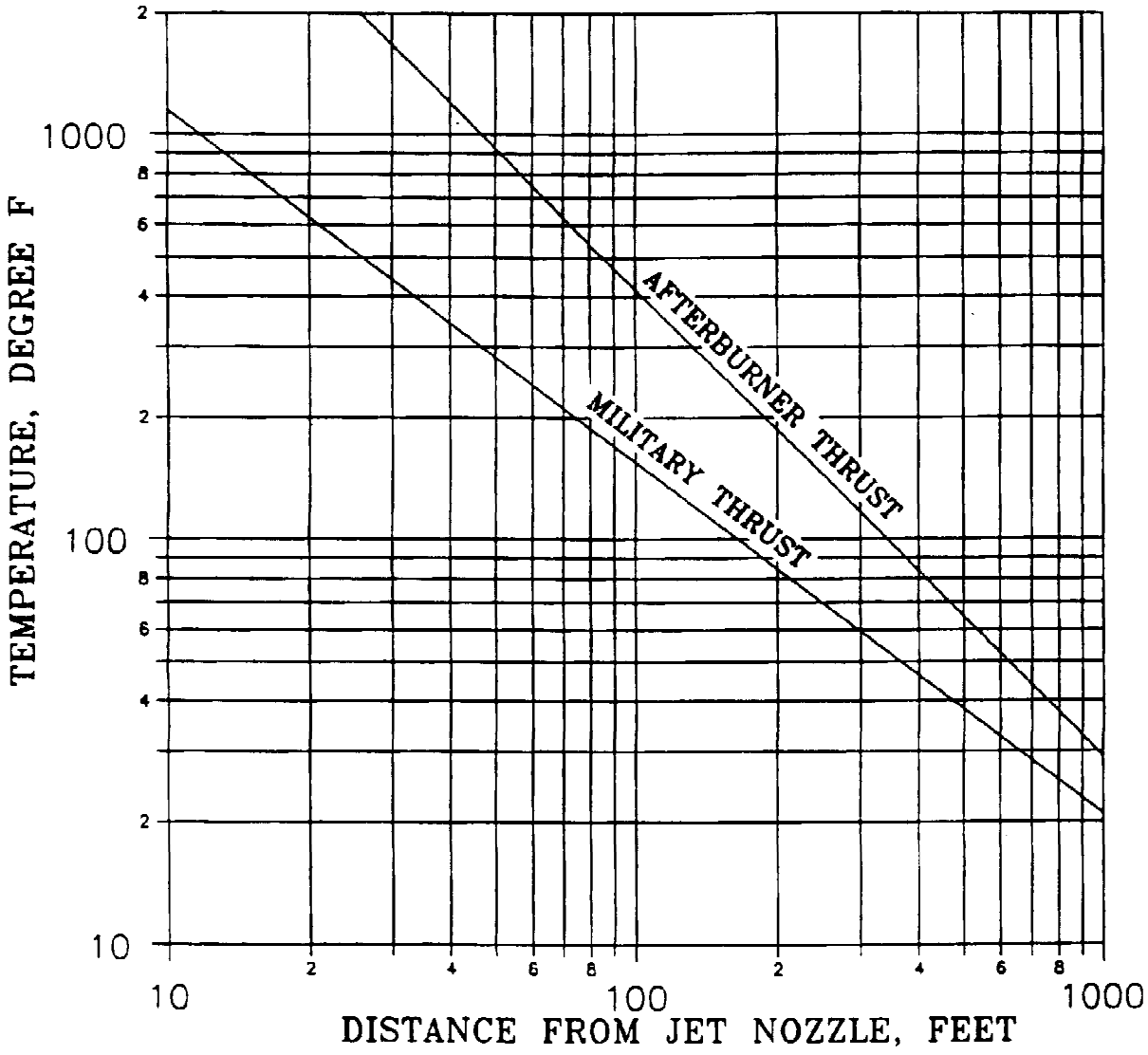


Figure E-116. F-101B, Temperature - Distance Curves

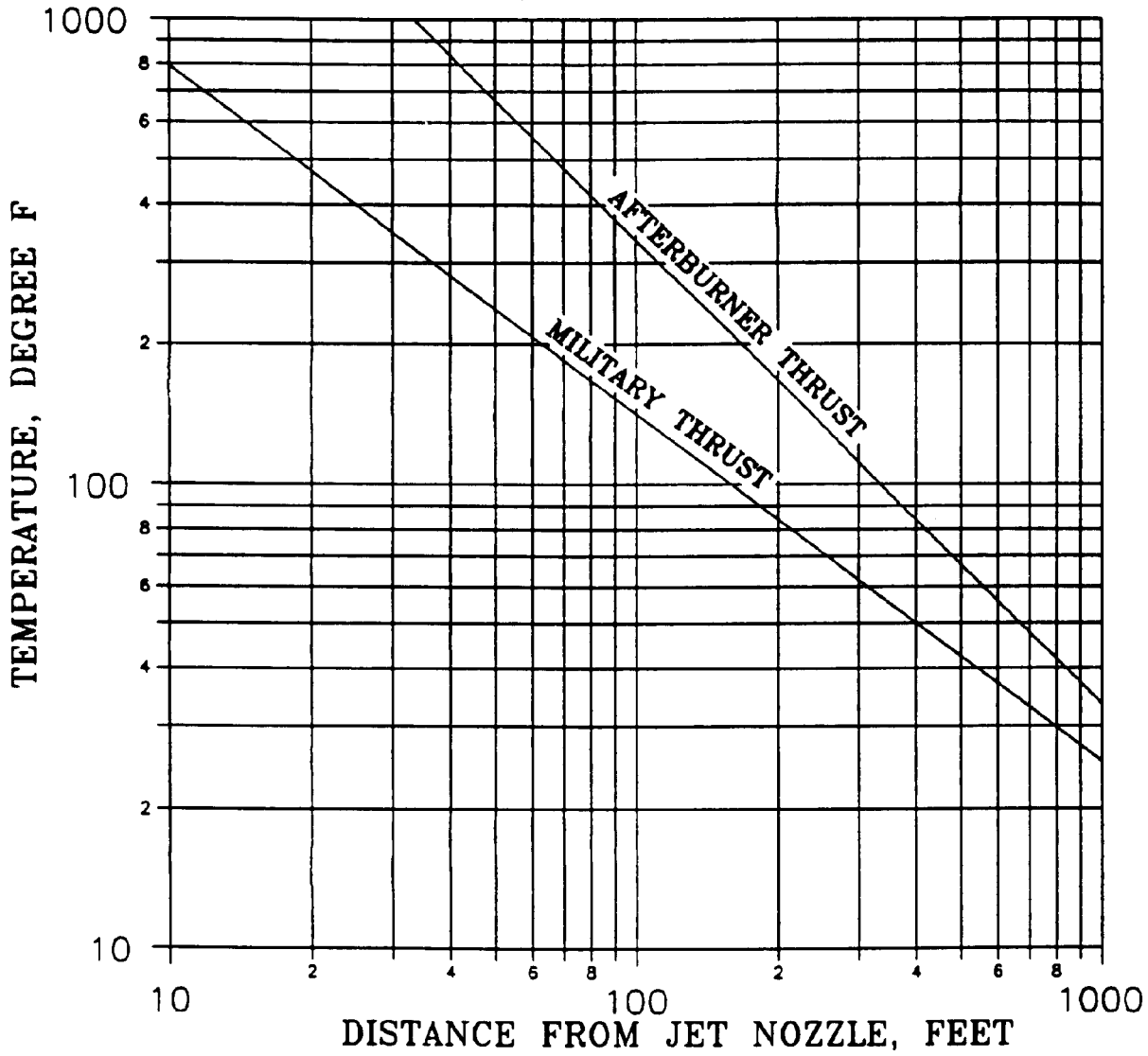


Figure E- 117. F-104G, Temperature - Distance Curves

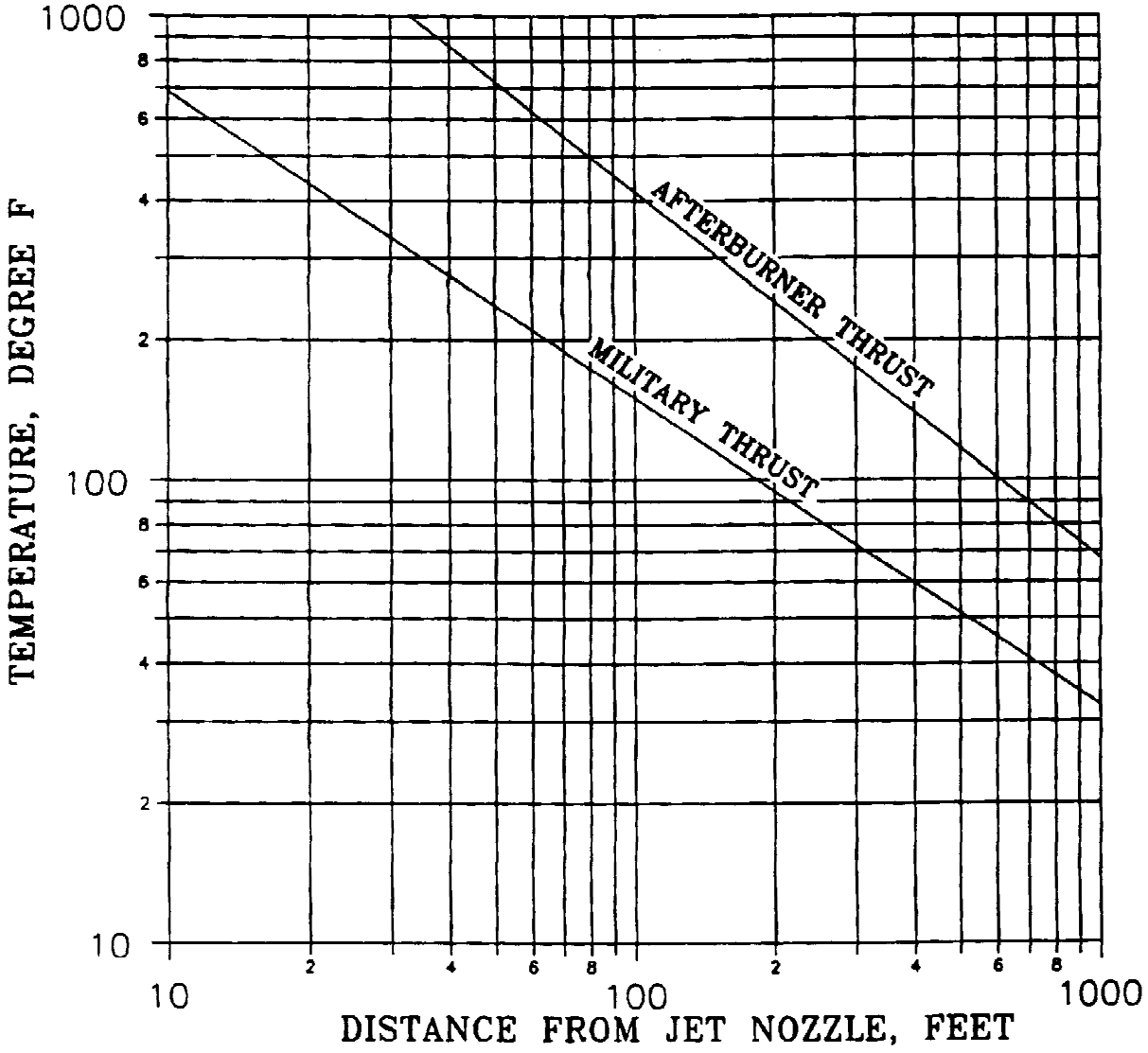


Figure E-118. F-105D/F/G, Temperature - Distance Curves

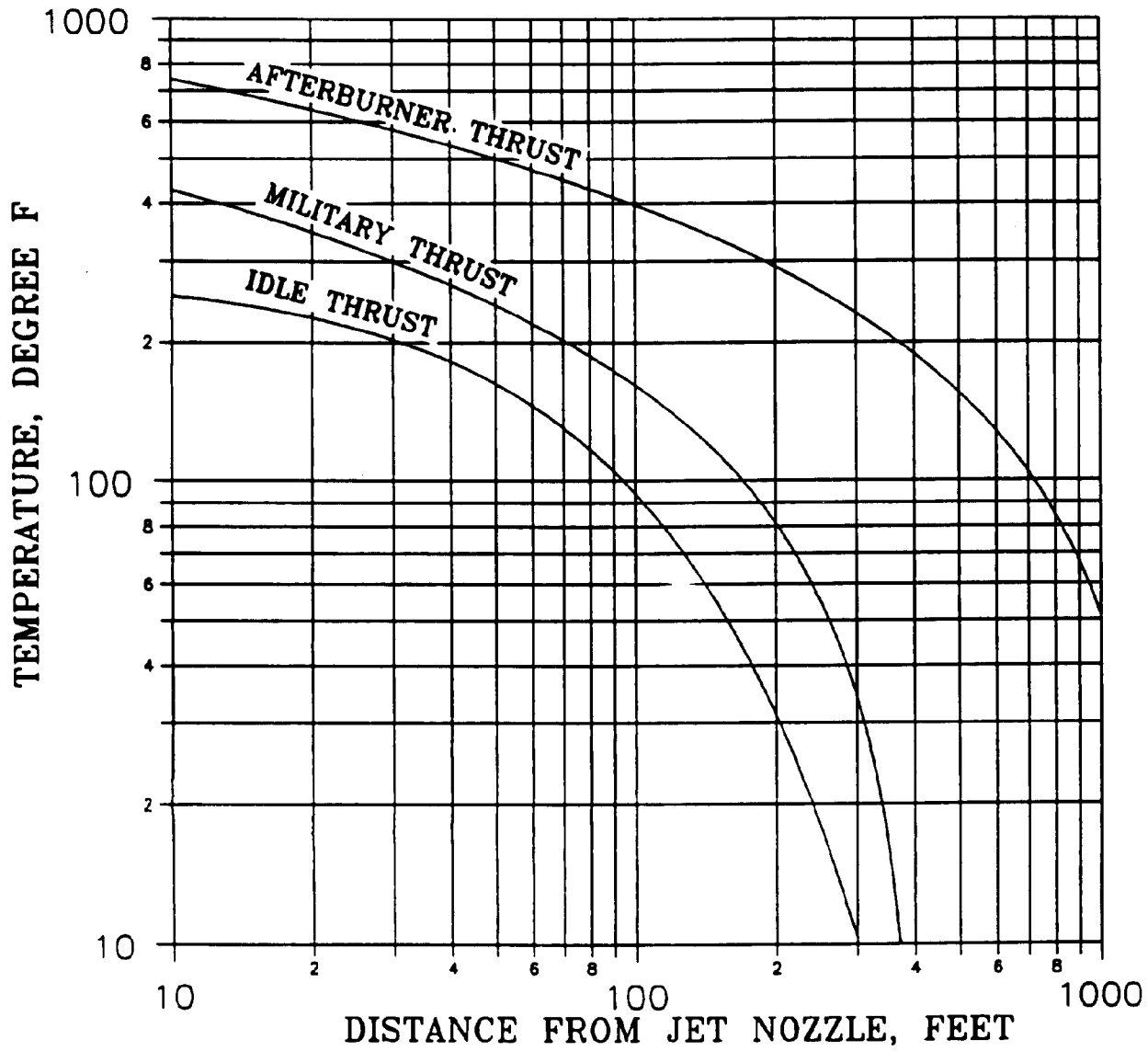


Figure E-119. F-106A/B, Temperature - Distance Curves

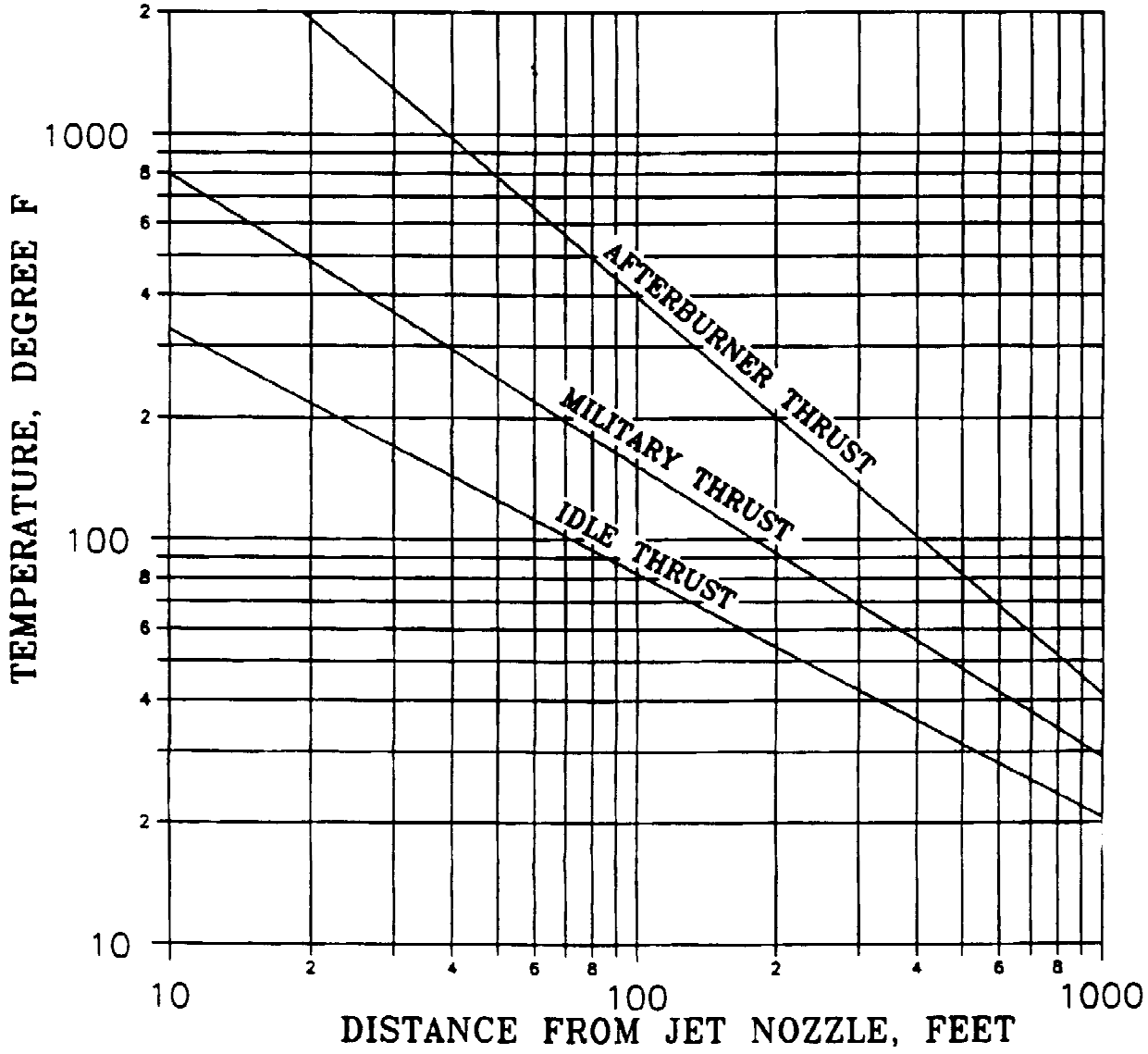


Figure E-120. F-111A/E, Temperature - Distance Curves

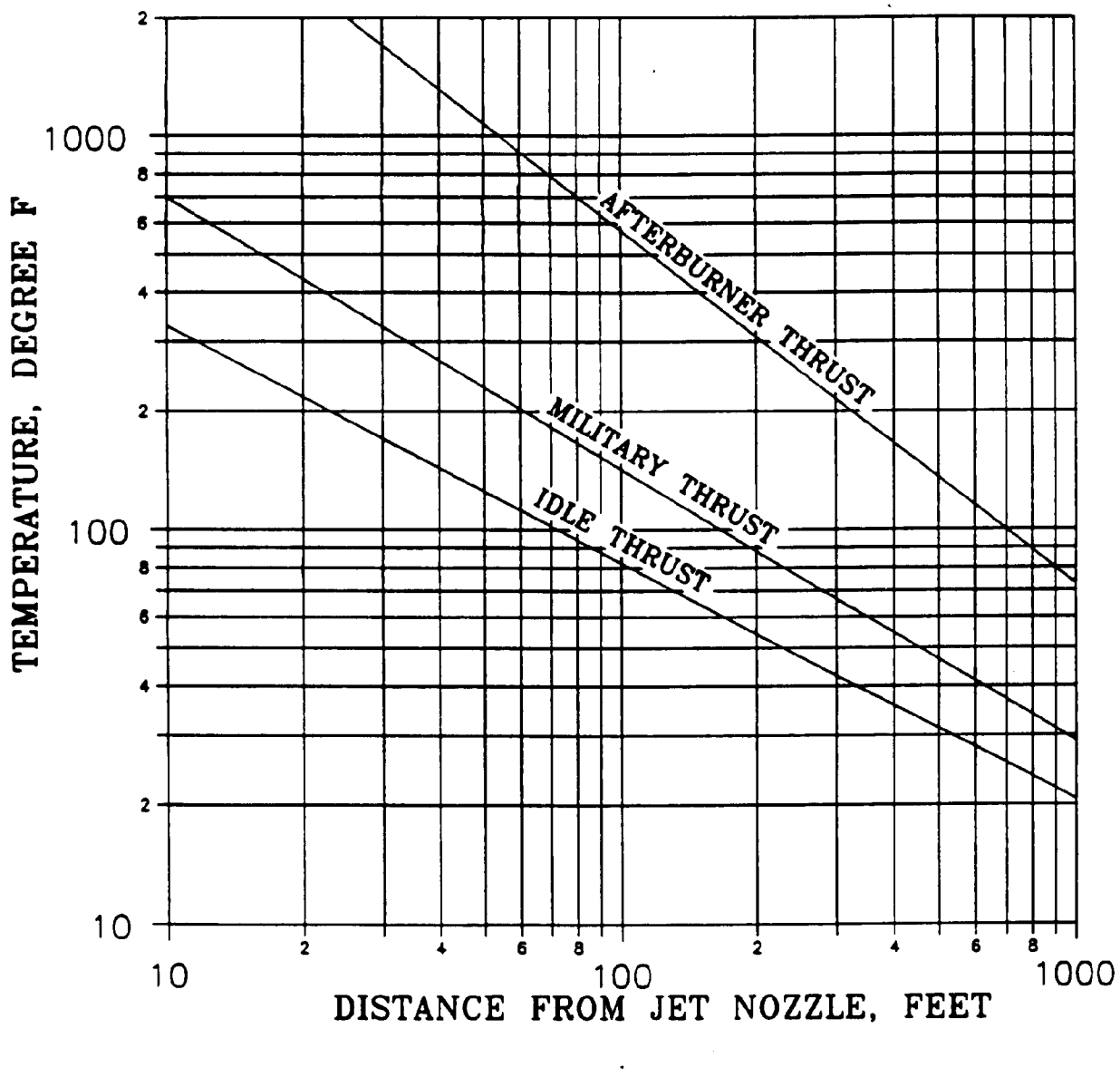


Figure E-121. F-111D, Temperature - Distance Curves

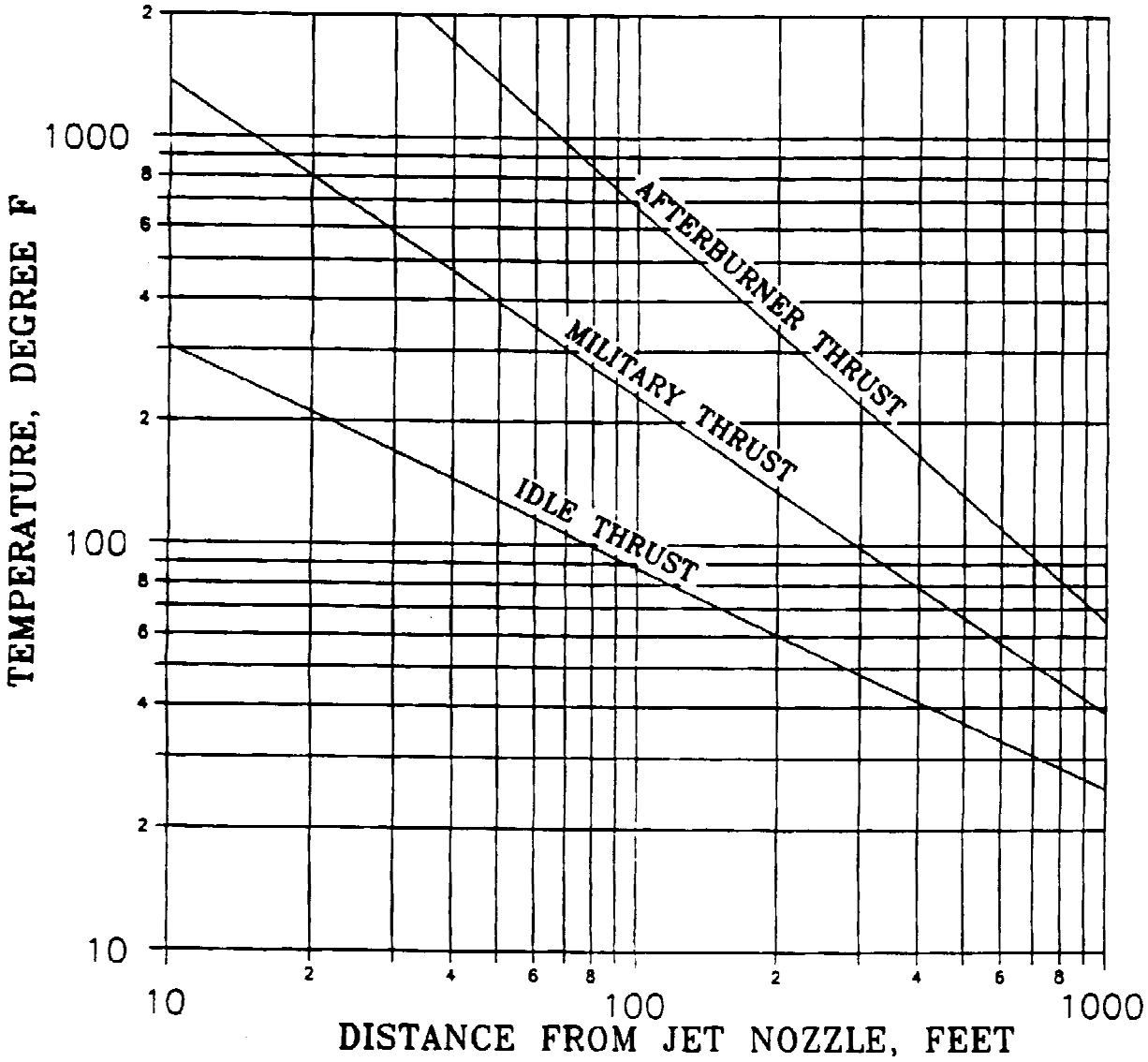


Figure E-122. F-111F, Temperature - Distance Curves

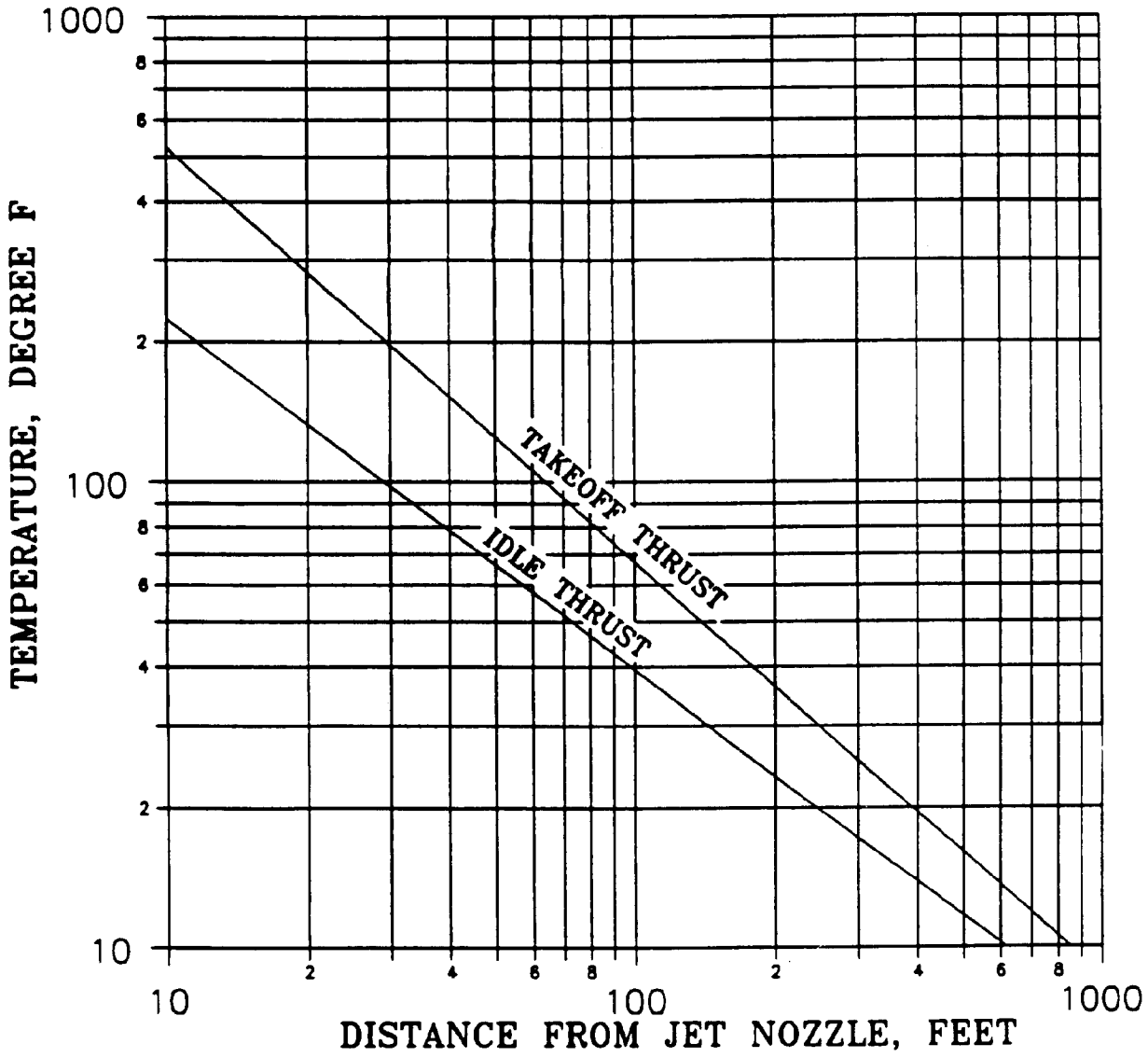


Figure E-123. Gates Learjet 35/36, Temperature - Distance Curves

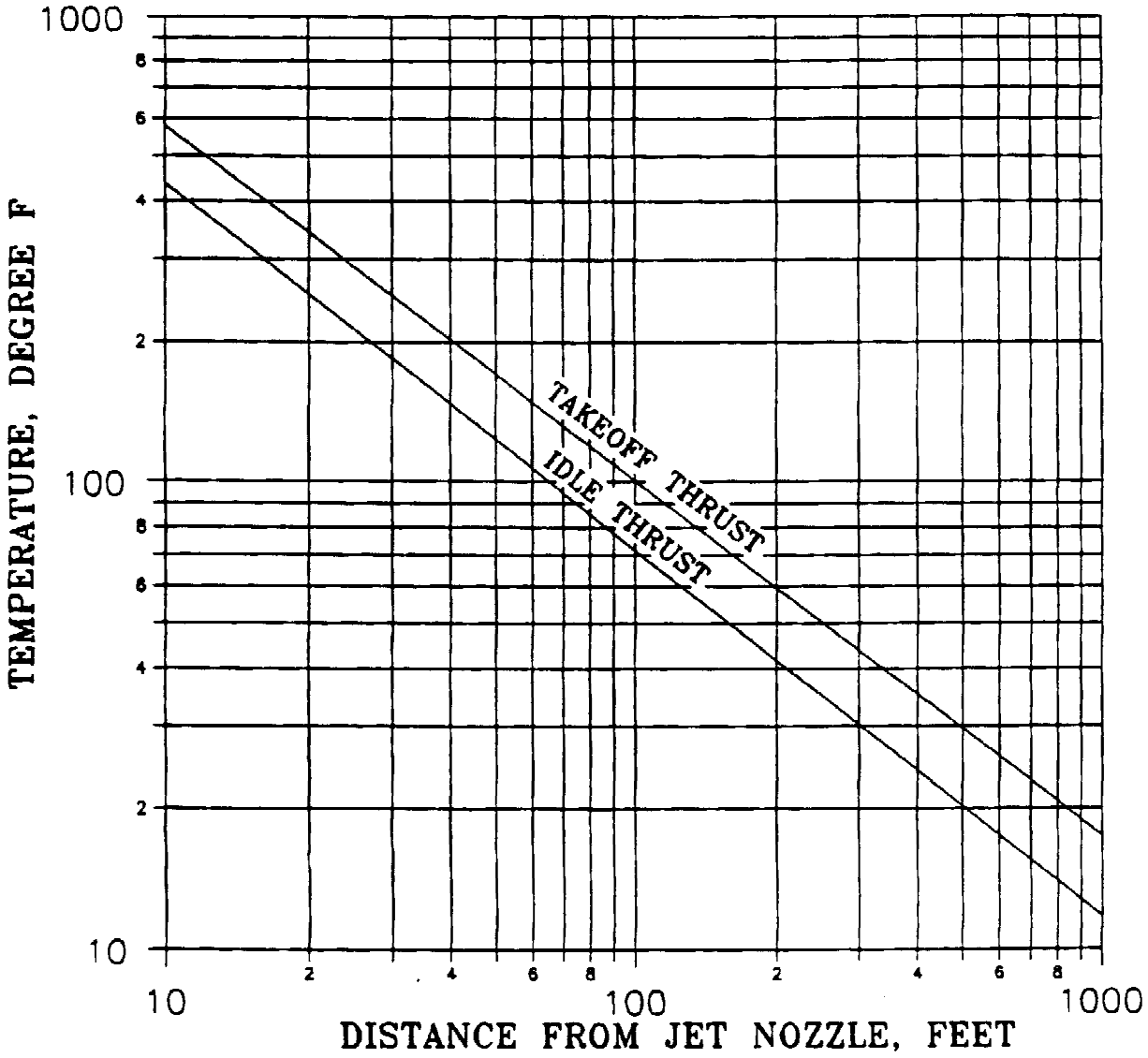


Figure E-124. Lockheed 1329, Temperature - Distance Curves

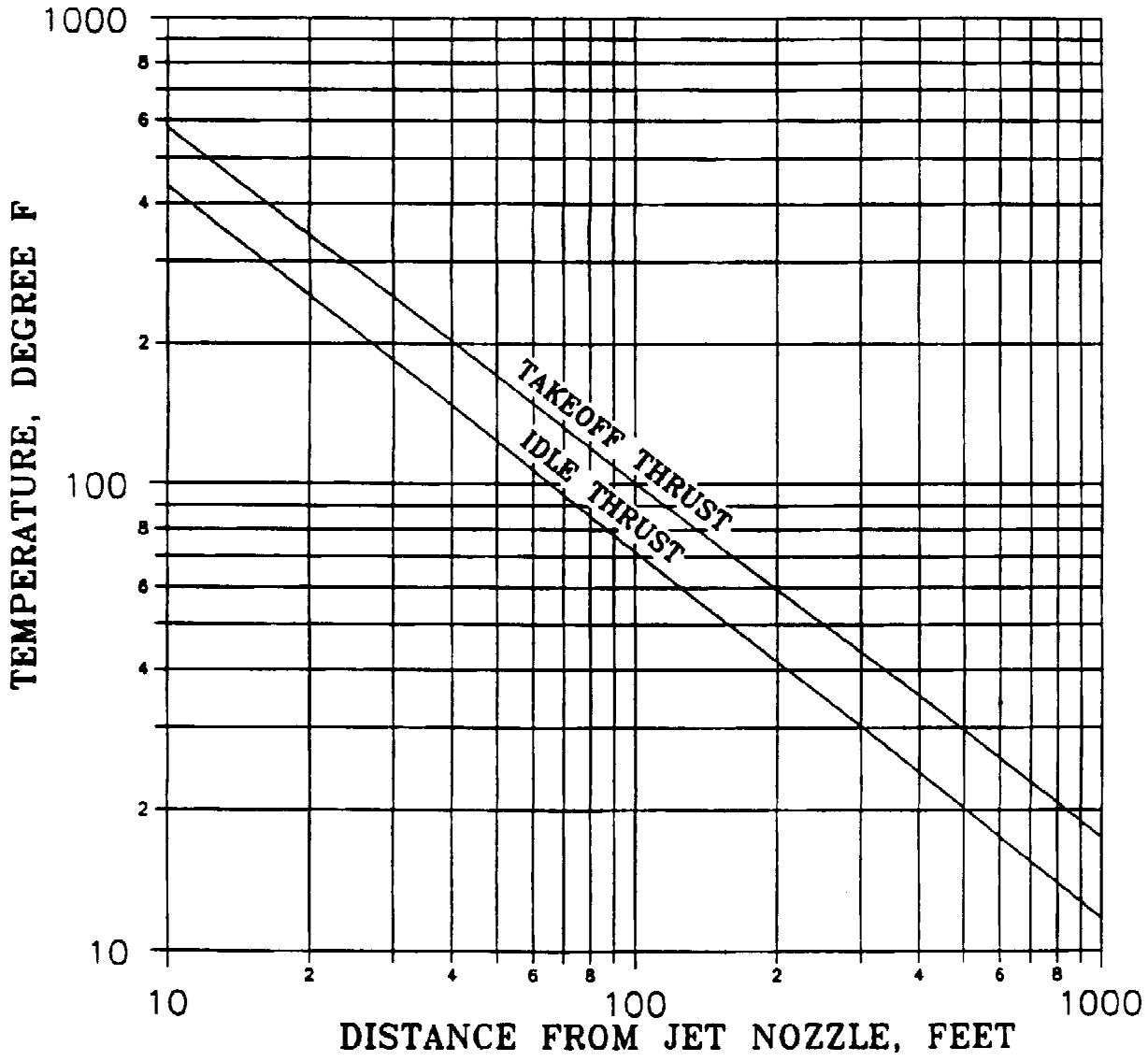


Figure E-125. Rockwell NA-265-40 and NA-265-60,
Temperature - Distance Curves

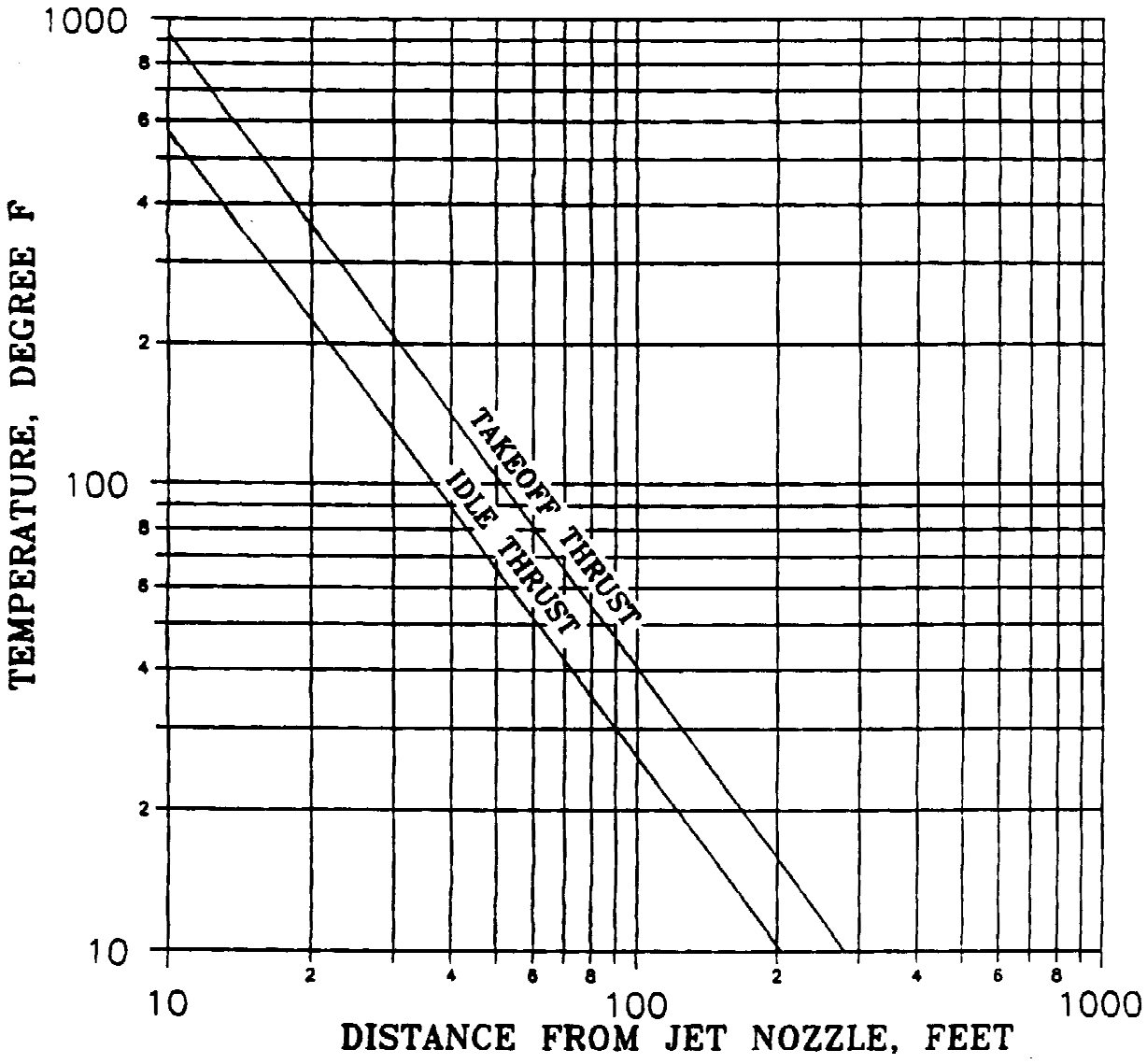


Figure E-126. Rockwell NA-265-75A, Temperature - Distance Curves

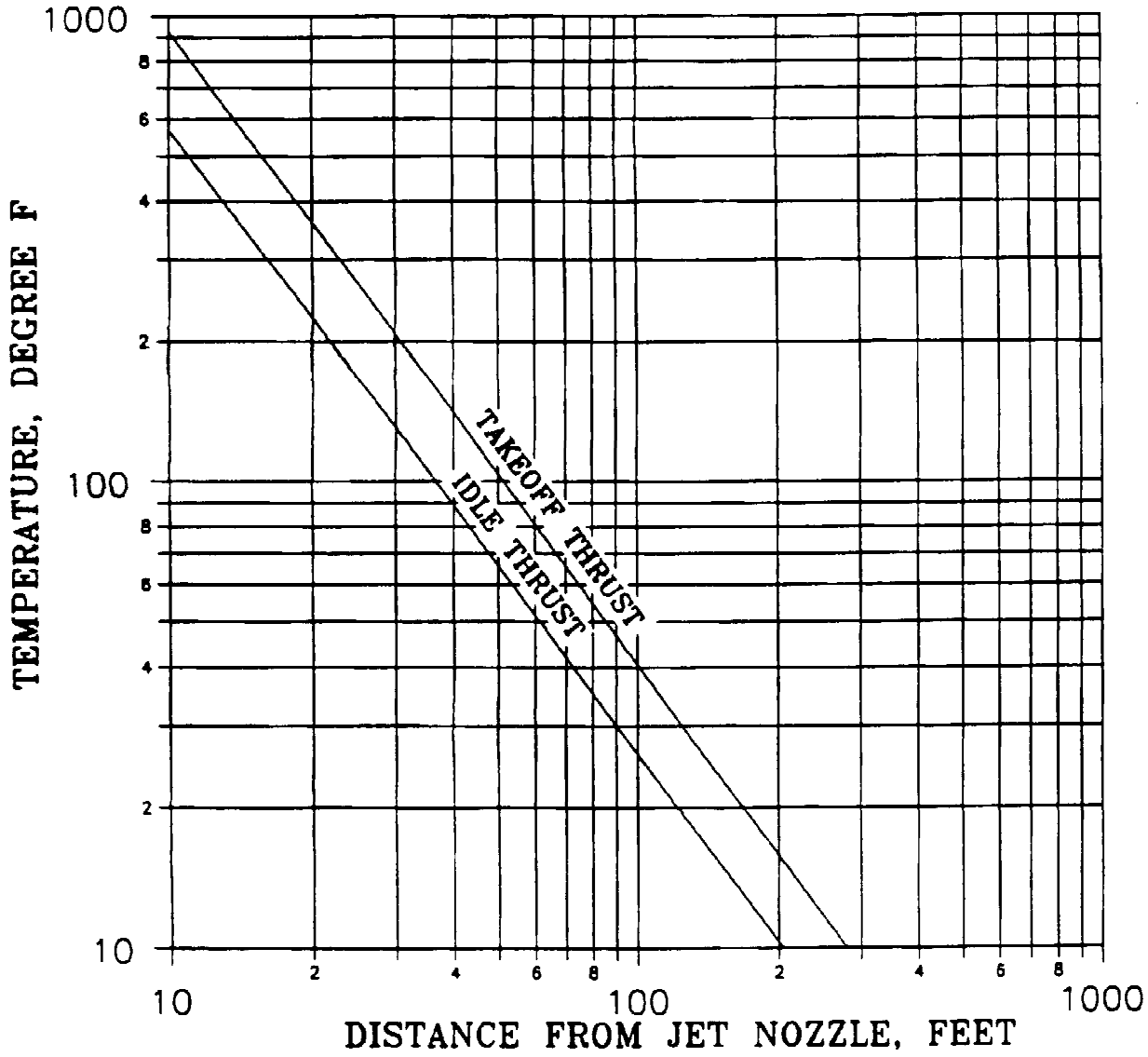


Figure E-127. Avions Marcel Dassault Mystere 20,
Temperature - Distance Curves

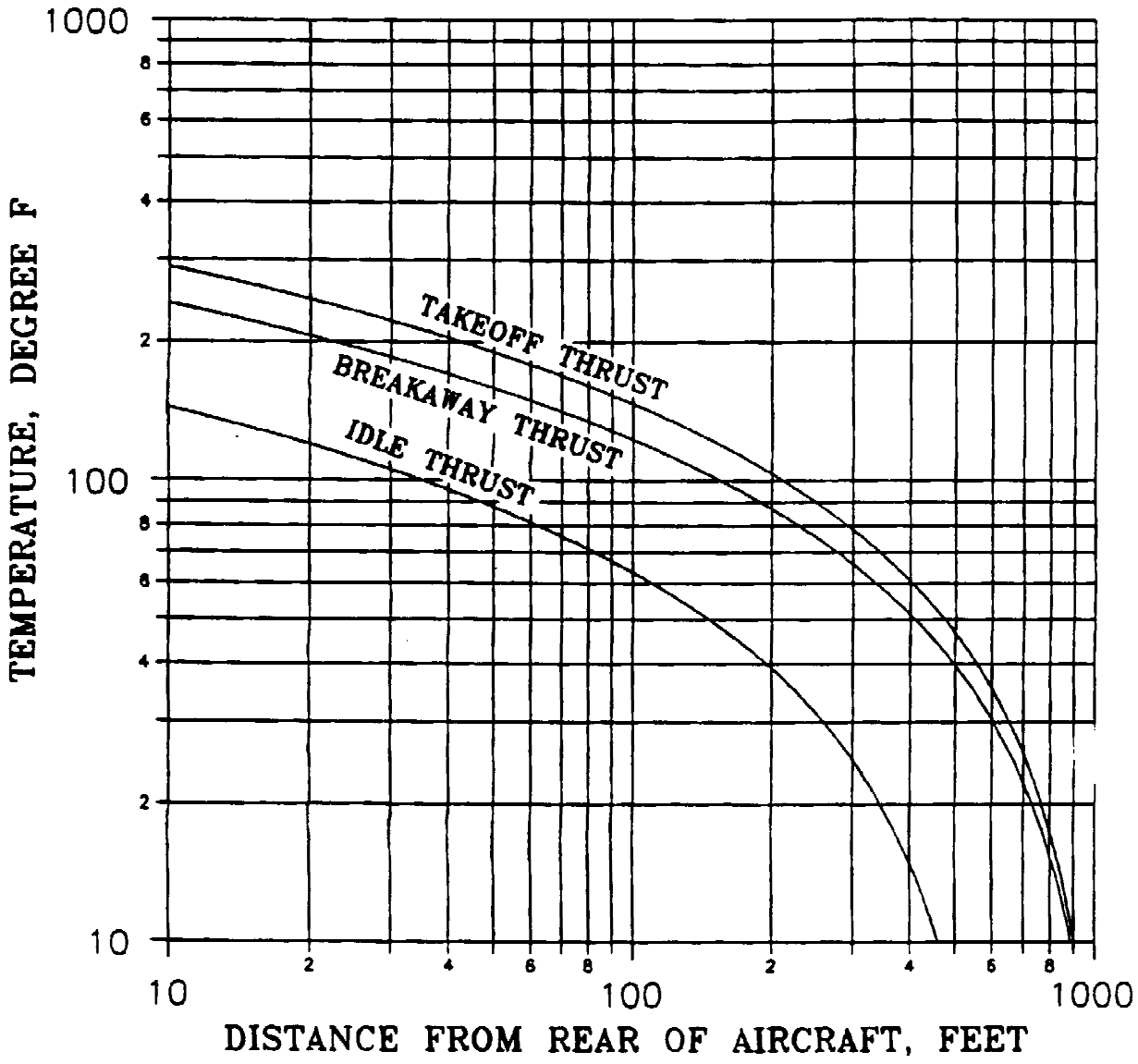


Figure E-128. Boeing 727-100/-100C, Temperature - Distance Curves

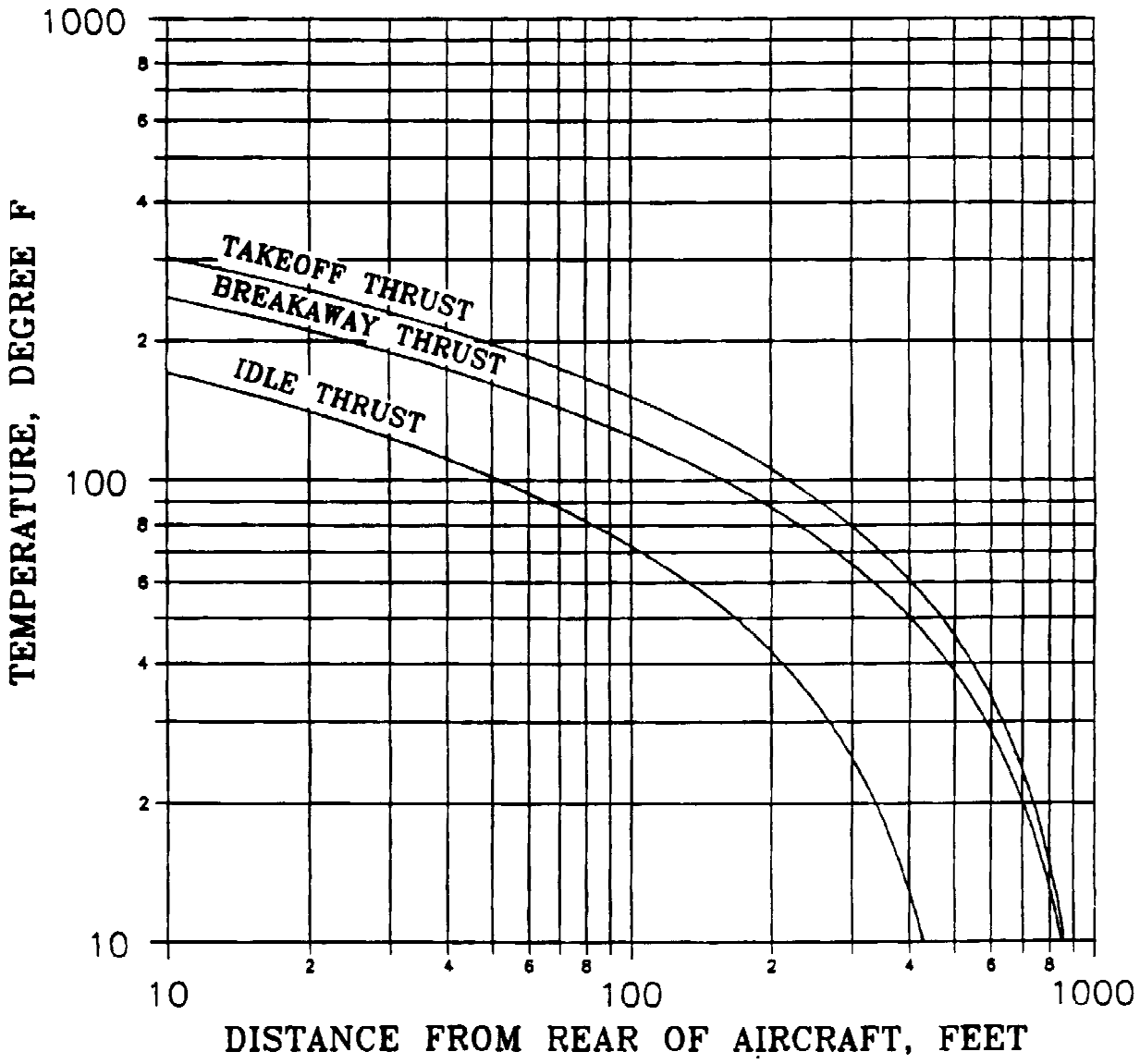


Figure E-129. Boeing 727-200, Temperature - Distance Curves

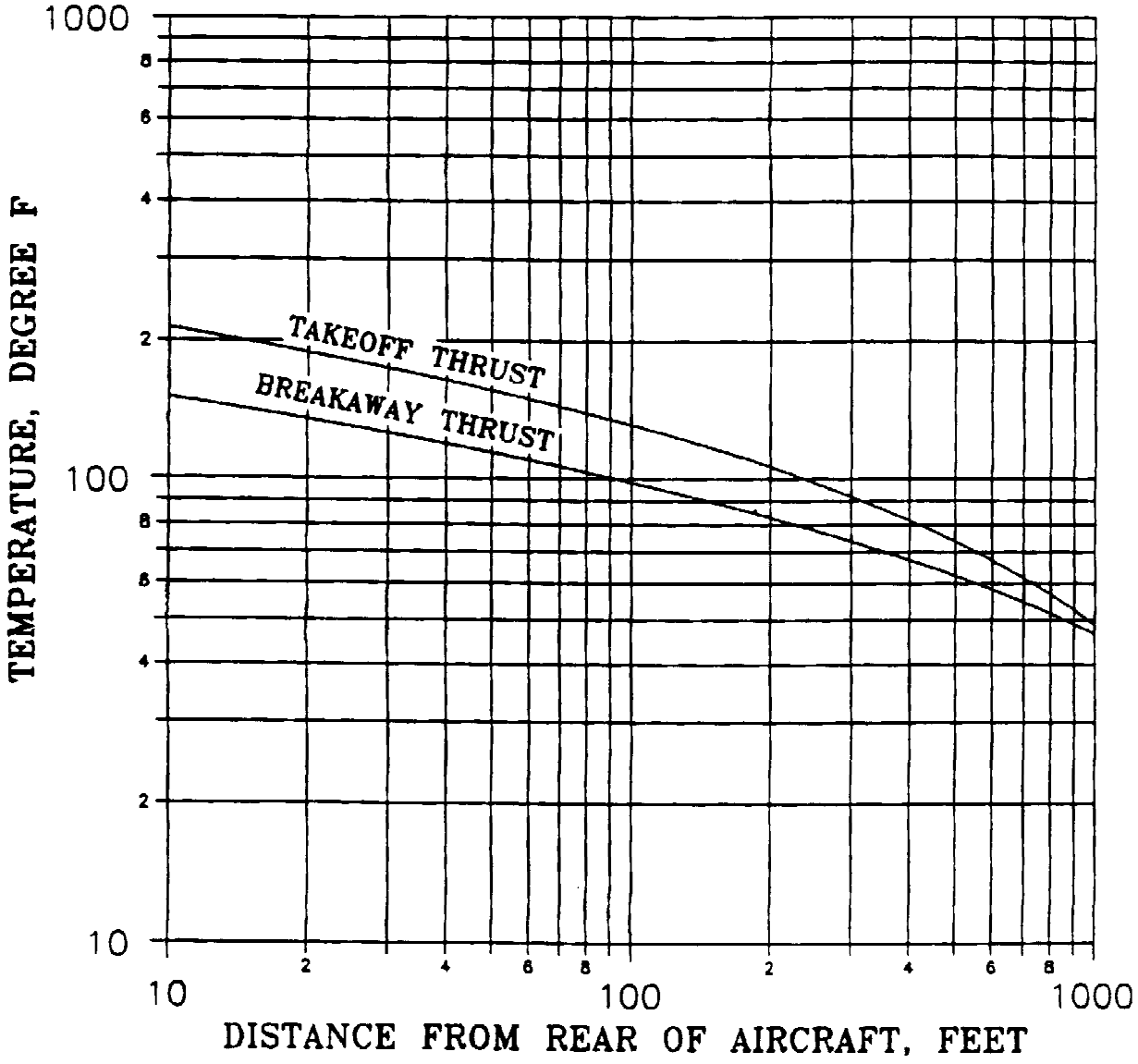


Figure E-130. Boeing 737-100, Temperature - Distance Curves

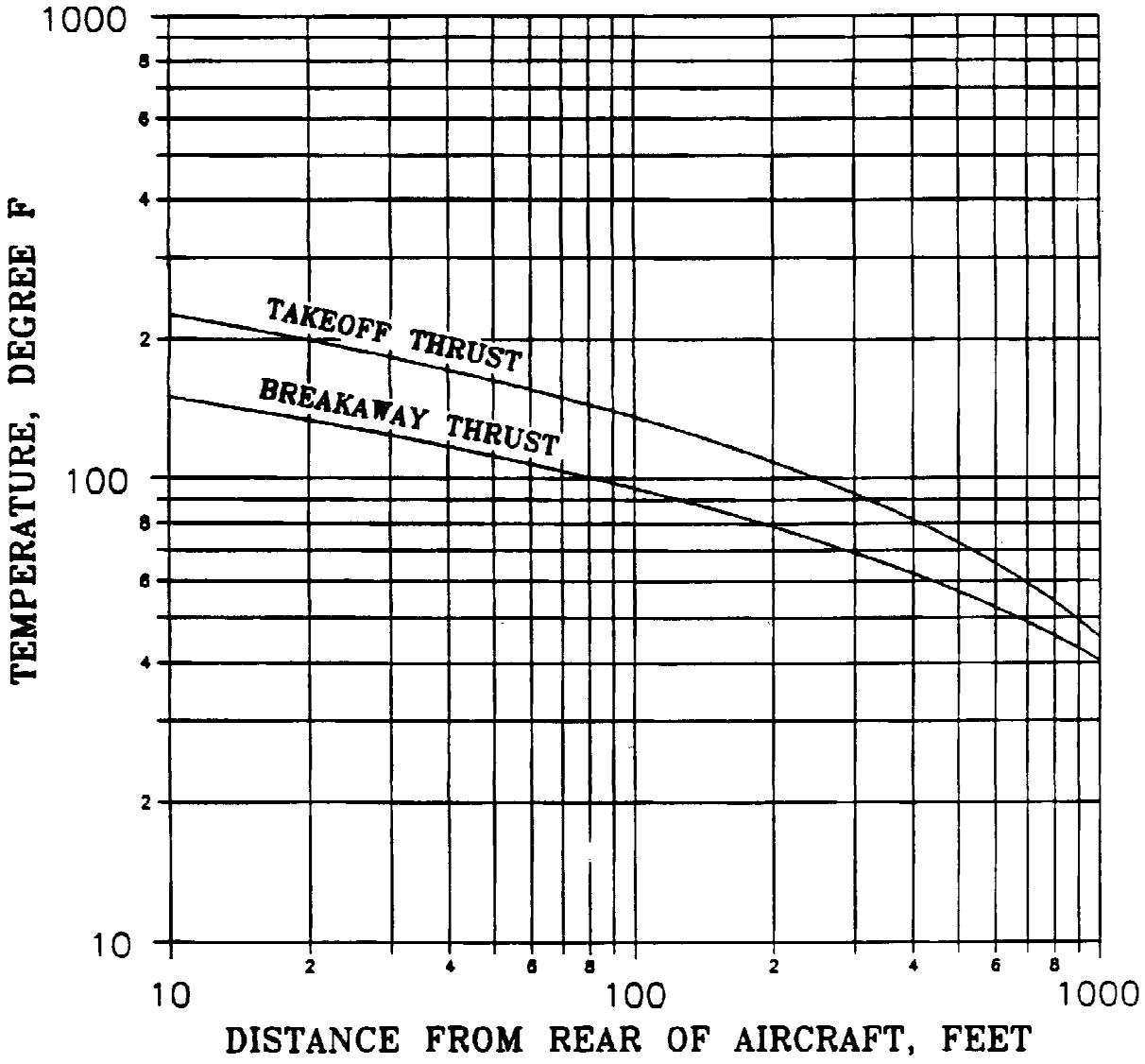


Figure E-131. Boeing 737-200, Temperature - Distance Curves

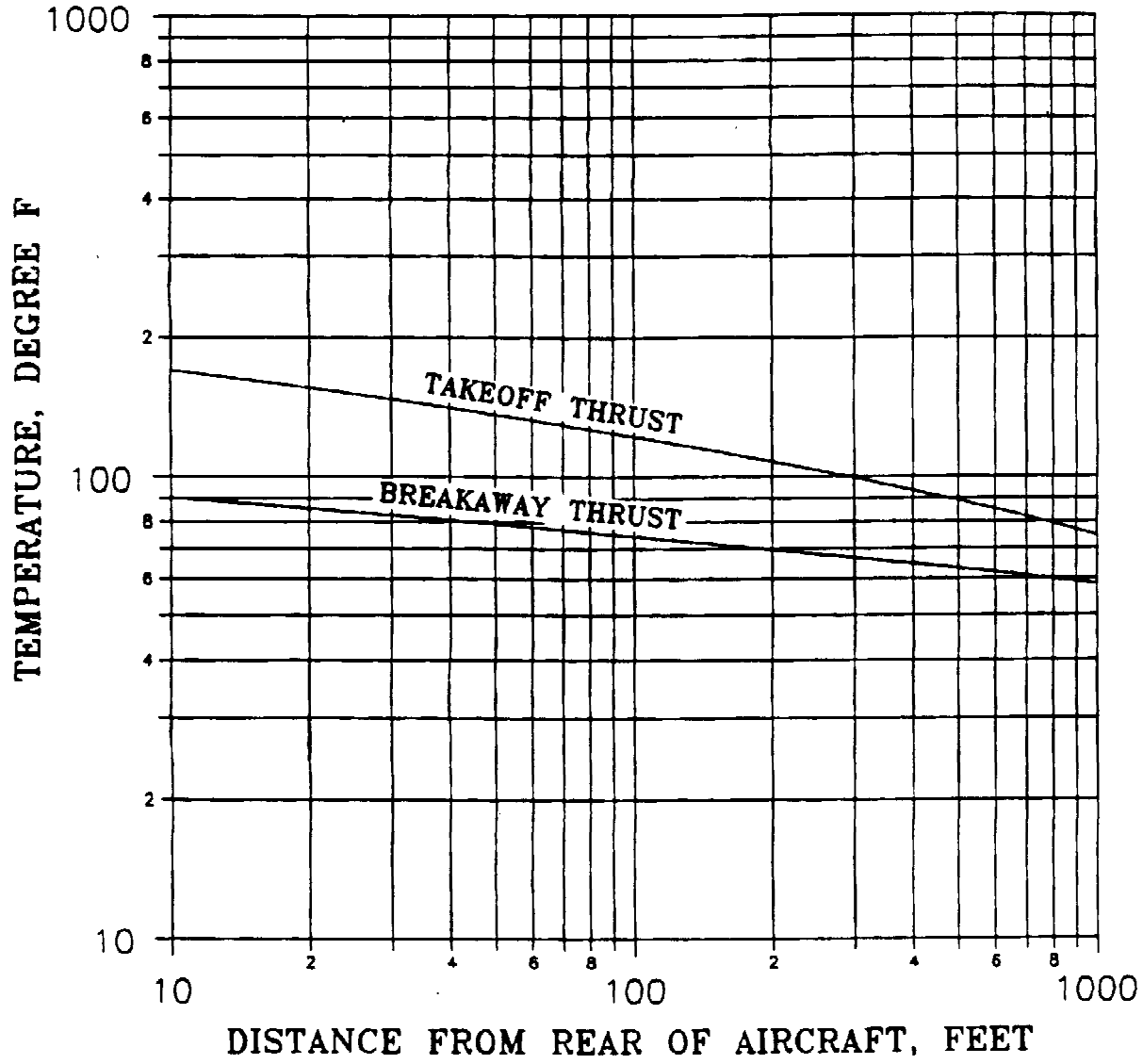


Figure E-132. Boeing 747-100B/-200B-Pass/-200C-Cargo/-200C-Pass/ -200F-Cargo/-300-Pass, Temperature - Distance Curves

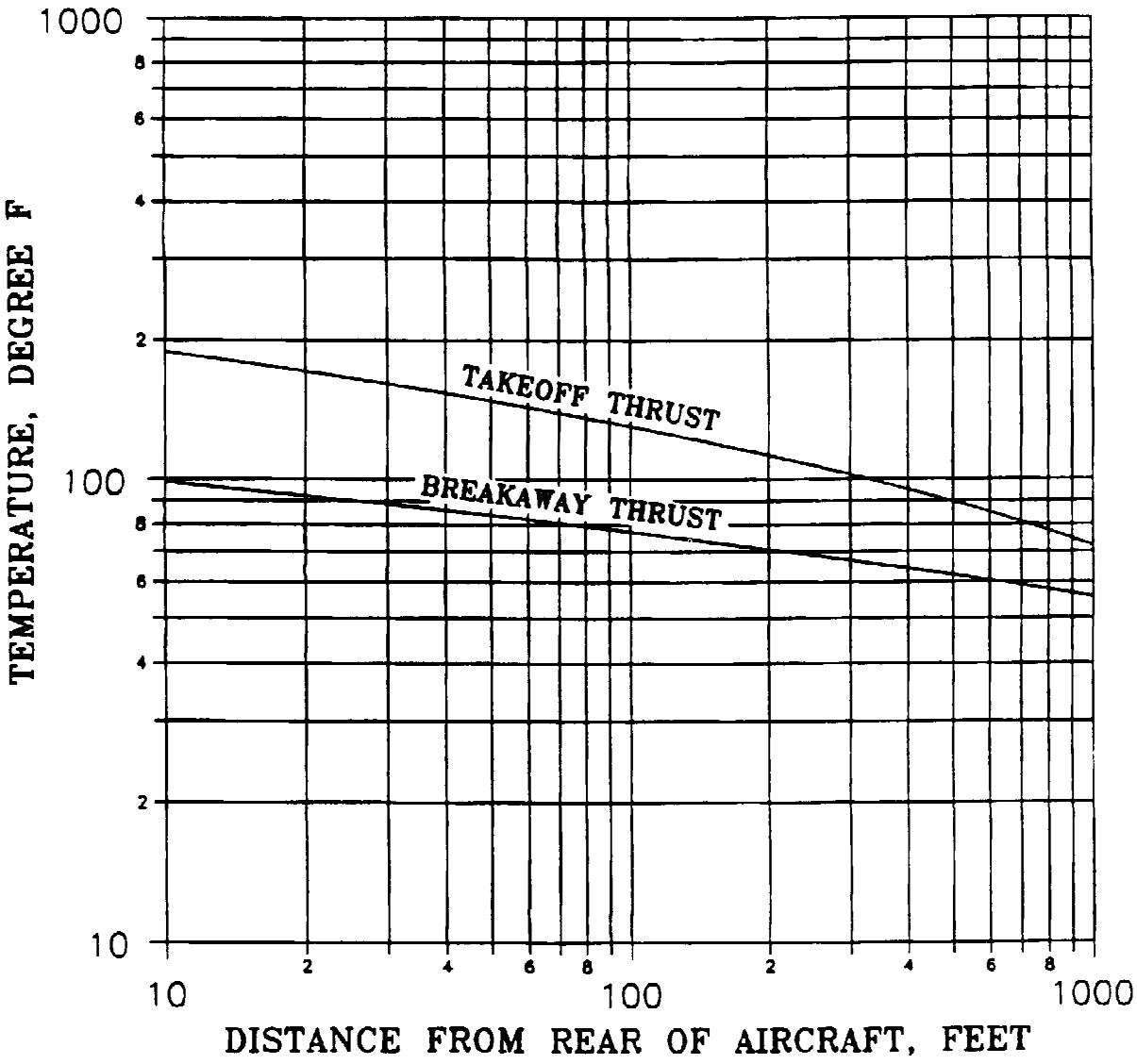


Figure E-133. Boeing 747SP, Temperature - Distance Curves

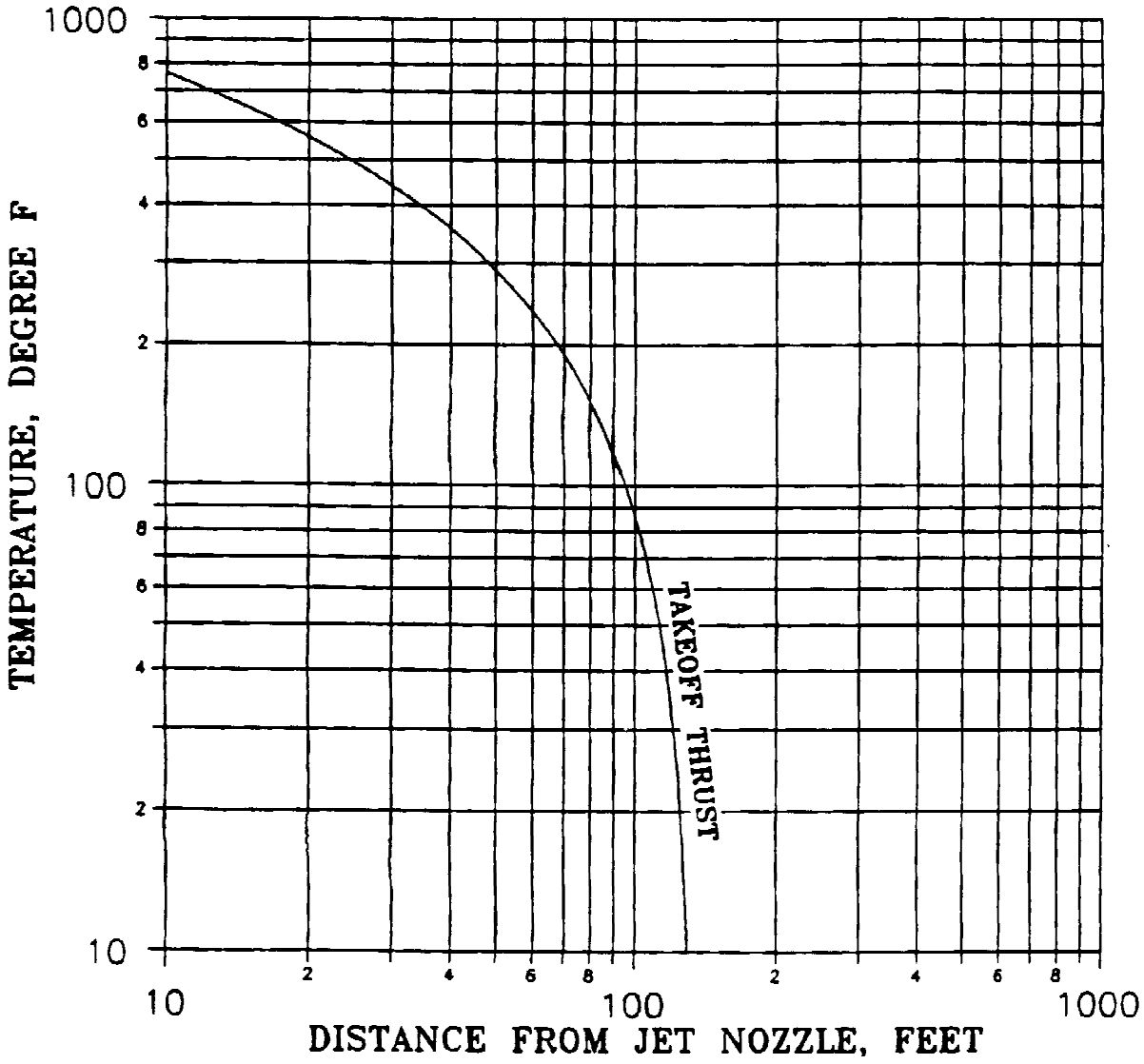


Figure E-134. General Dynamics/Convair 880, Temperature - Distance Curve

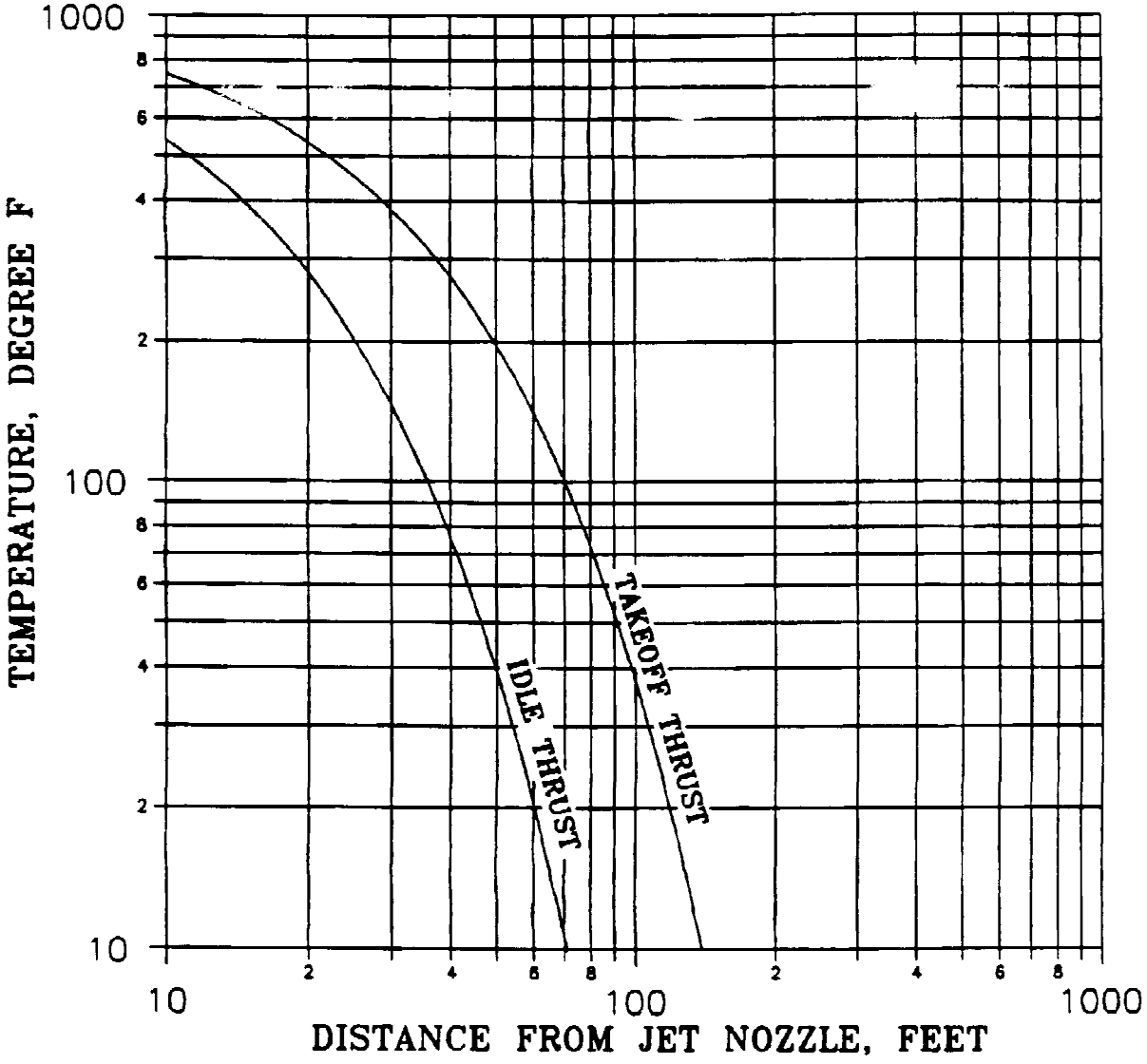


Figure E-135. General Dynamics/Convair 990, Temperature - Distance Curves

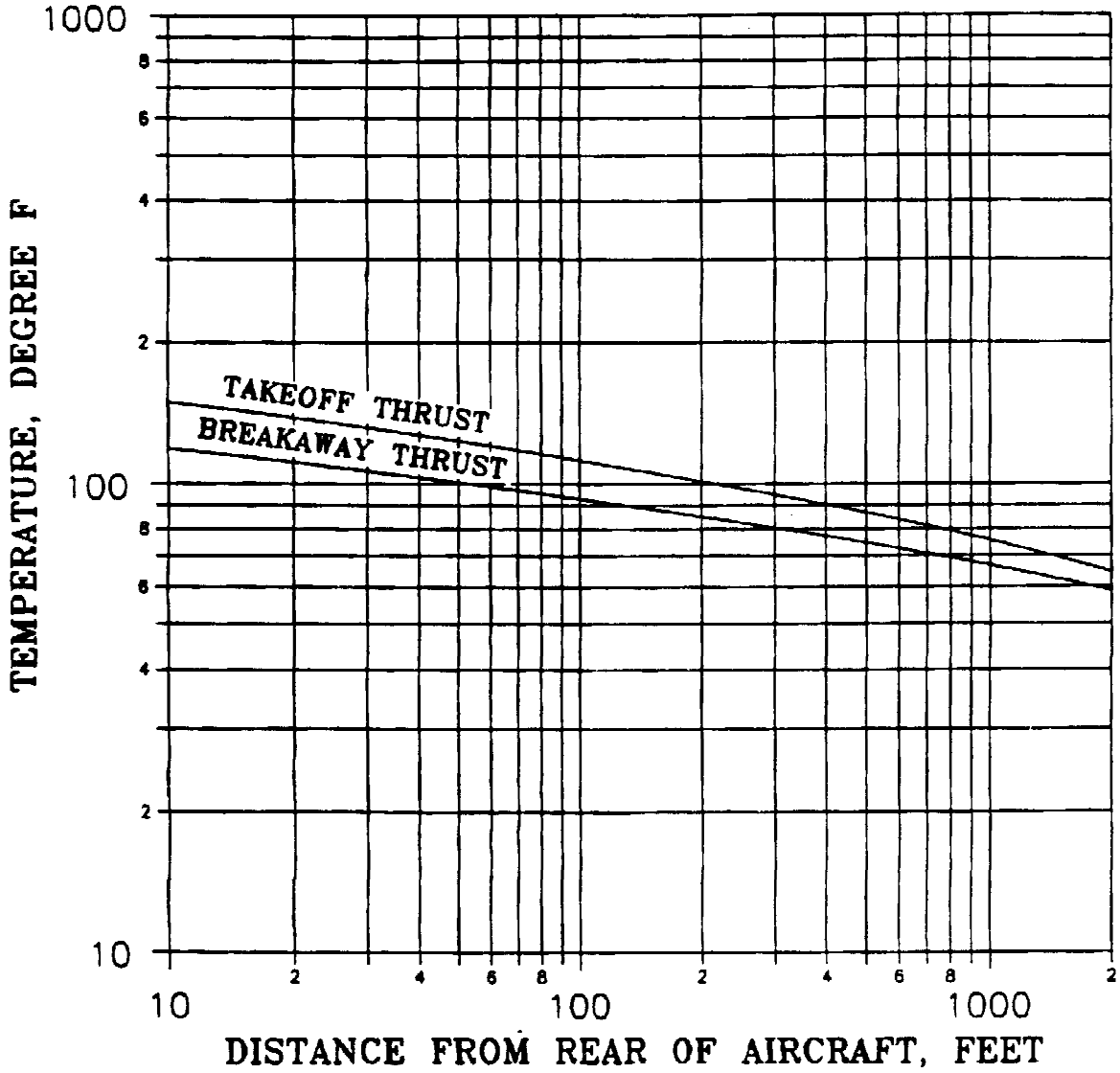


Figure E-136. Lockheed L-1011-1 and L-1011-100,
Temperature - Distance Curves

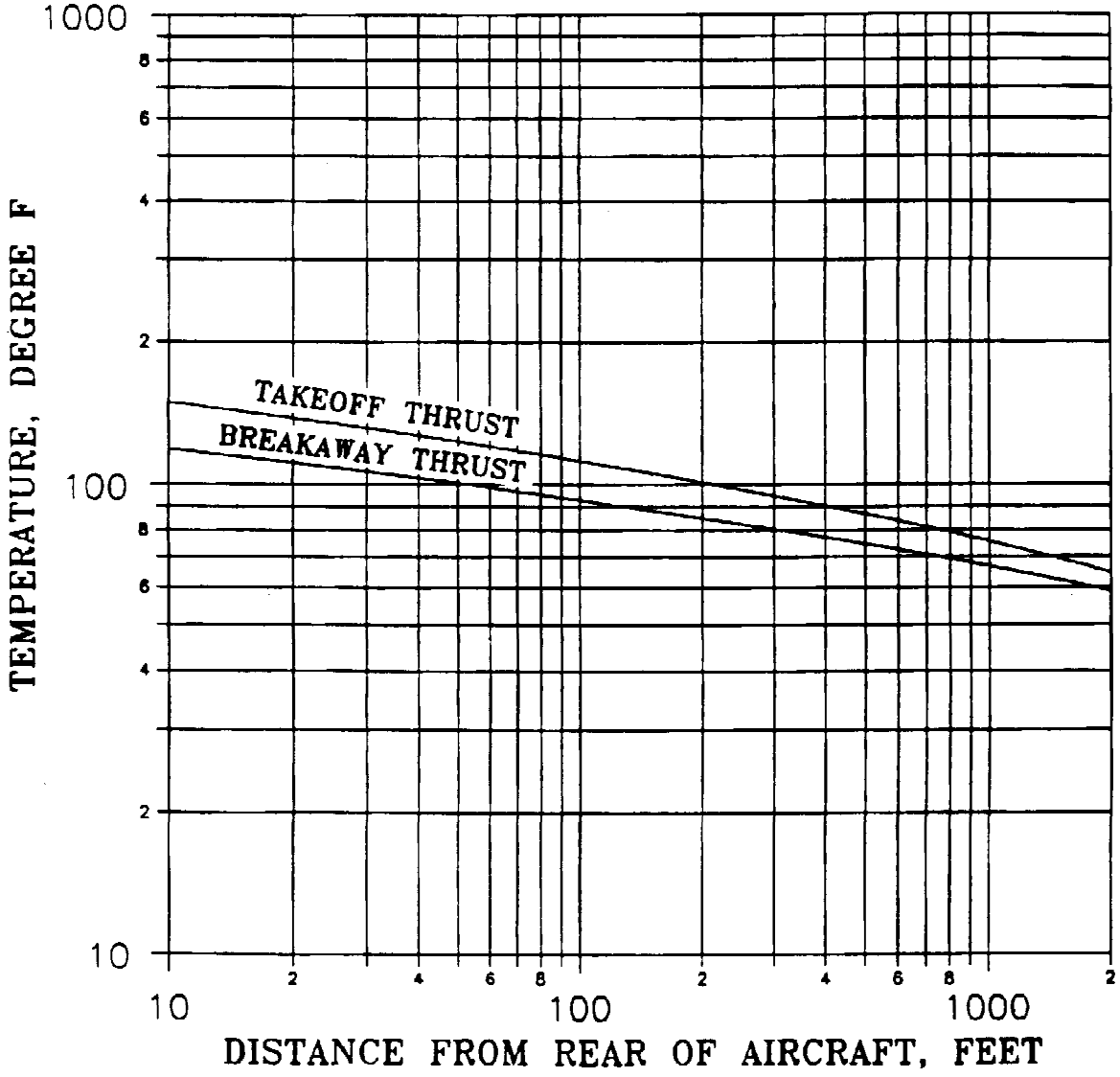


Figure E-137. Lockheed L-1011-200/-500/-500 Ex. Wing,
Temperature - Distance Curves

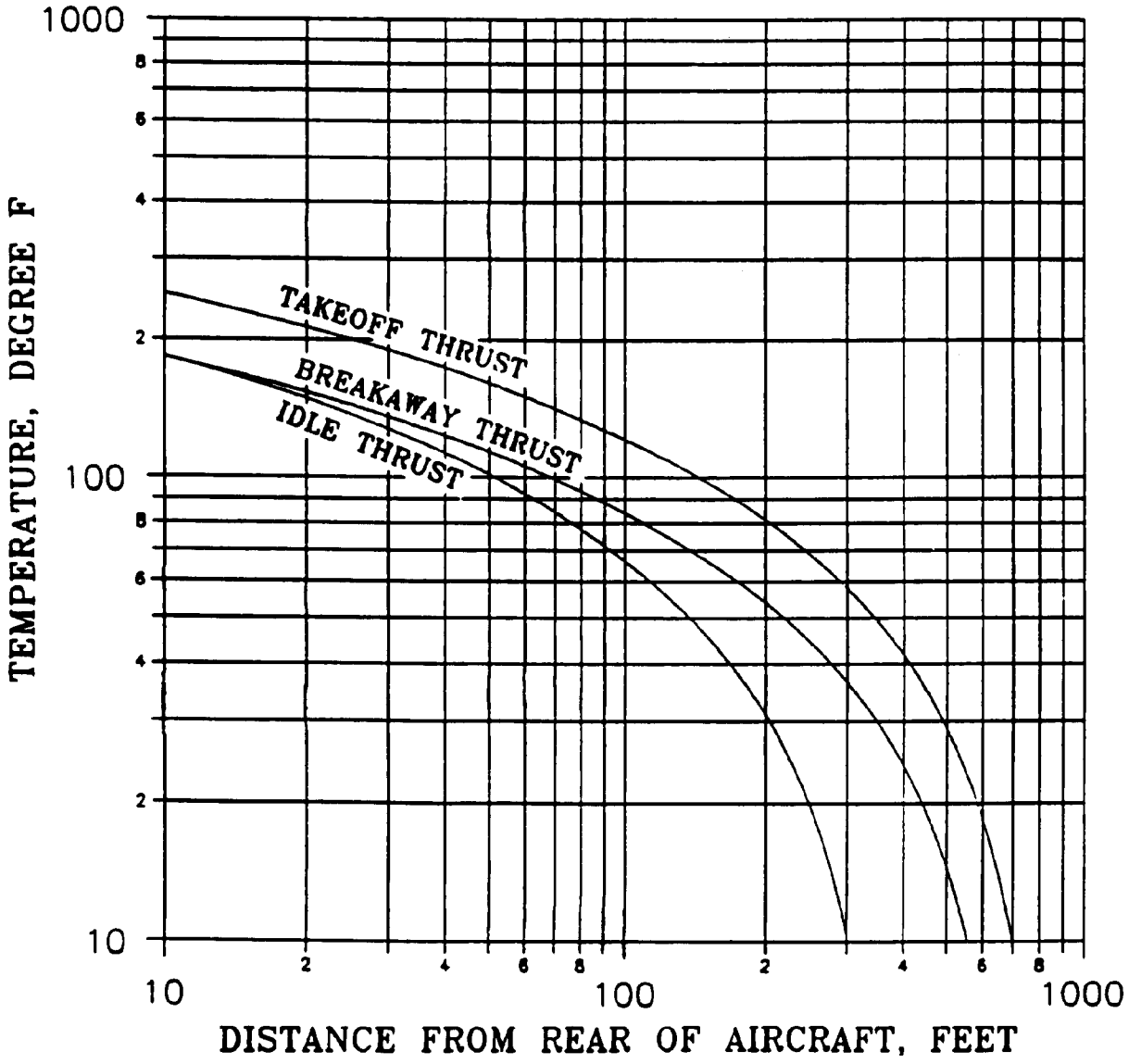


Figure E- 138. McDonnell DouglasDC-9-15/-15F/-21/-32/-33F/ -41/-51, Temperature - Distance Curves

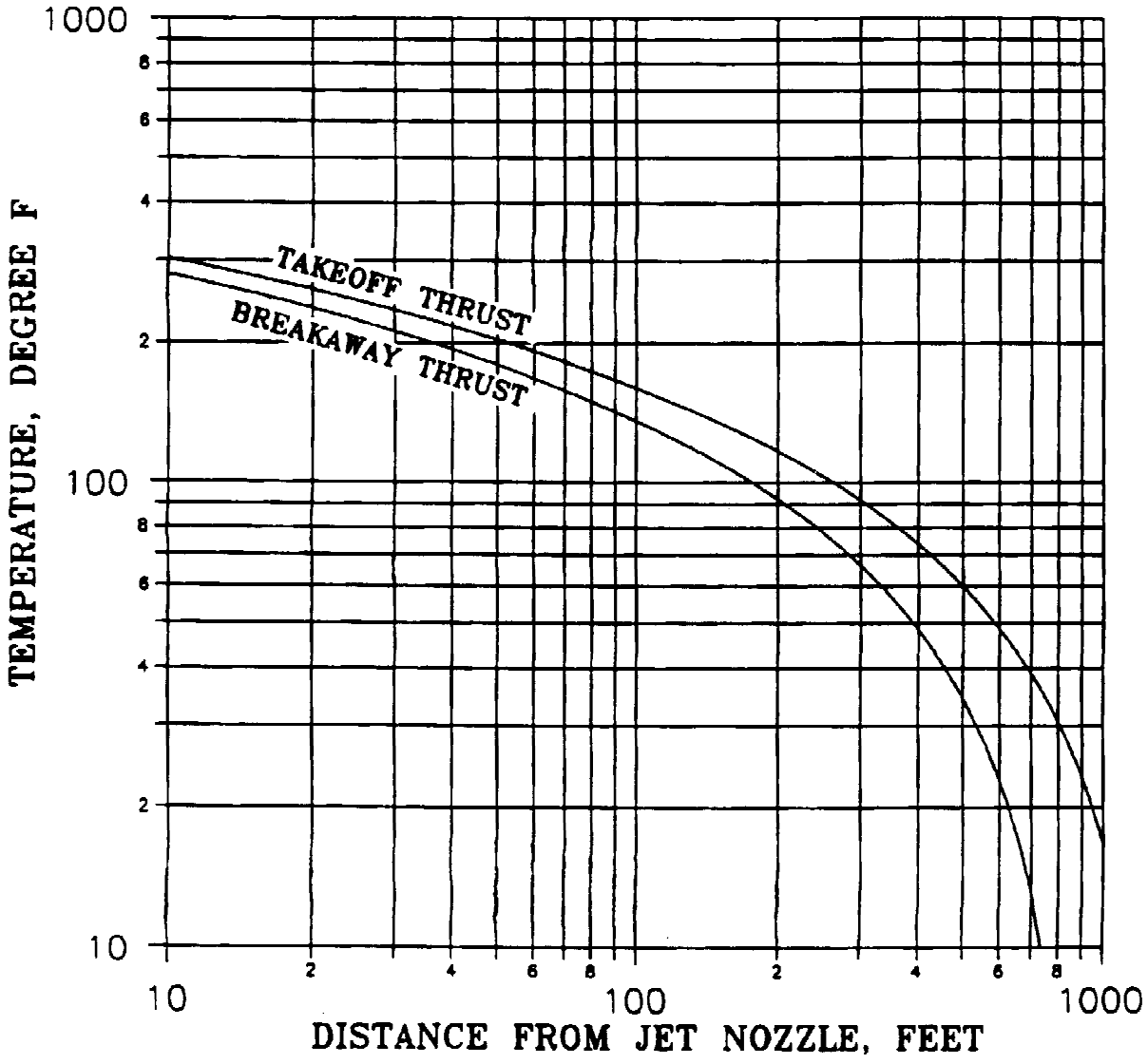


Figure E-139. B.A.C. One-Eleven Model 400, Temperature - Distance Curves

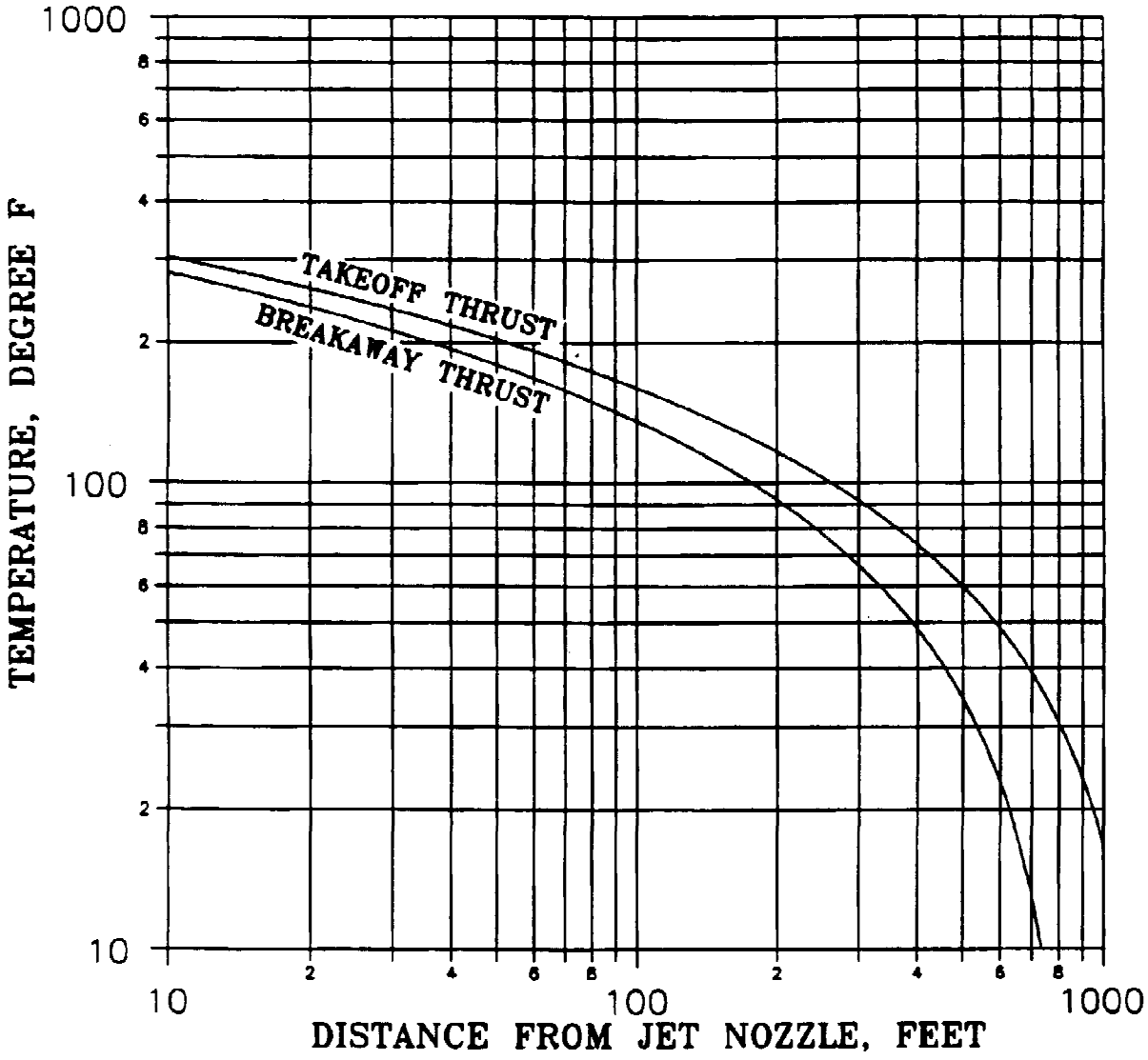


Figure E-140. B.A.C. One-Eleven Model 500, Temperature - Distance Curves

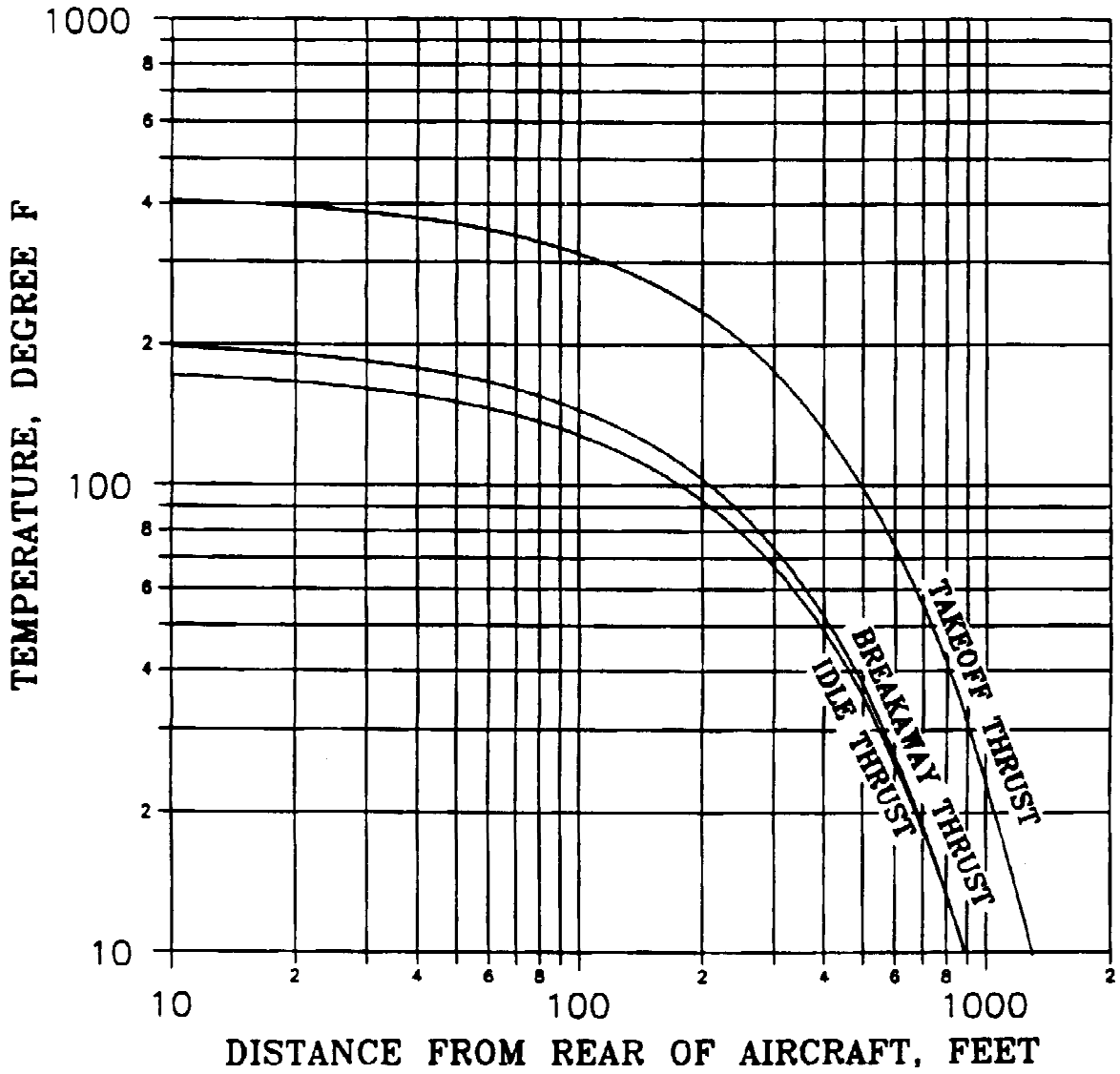


Figure E-141. B.A.C./SNIAS Concorde, Temperature - Distance Curves

AIRCRAFT CHARACTERISTICS FOR AIRFIELD-HELIPORT DESIGN AND EVALUATION

AIRCRAFT CLEARANCES IN COVERED SHELTERS

F-1. Covered shelter clearance data for US Army, US Air Force, and numerous civil and comercial aircraft are presented in table F-1. Table F-1 provides minimum clearances between various aircraft elements and covered shelter elements. The data should be beneficial in the design of hangars and alert shelters.

Table F-1. Aircraft Clearances Inside Hangars.

	Minimum Clearances (in feet) from Hangar Elements		
Aircraft Element	Door	Walls	Roof Framing
Wing tip (under 100-foot span)	10	10	
Fuselage (under 100-foot length)	10	10	10
Wing tip (over 100-foot span)	10	15	--
Fuselage (over 100-foot length)	10	15	10
Tail, vertical	7	--	10
Tail, horizontal	10	10	10

Notes: Clearances between aircraft components should be at least 10 feet where two or more aircraft are housed. None of the above clearances require waivers for existing facilities. The above clearance data are applicable to alert and hardened aircraft shelters.

F-2. Hangars are required to support aircraft maintenance, repair, and inspection activities which can be more effectively accomplished while the aircraft is under a covered structure. The design of a hangar should provide covered floor space to accommodate the largest aircraft assigned to a base or to accommodate a mixture of aircraft. Hangar floor space should be determined by using aircraft dimensions given in Appendix C and including minimum aircraft clearances inside hangars presented in table F-l. Critical dimensions created by tail or radome heights, heights and widths of door openings, and structural protuberances within hangars should not be overlooked in the hangar design.

F-3. An alert shelter is used to house tactical/fighter aircraft with an alert commitment. Alert aircraft must be protected from inclement weather to ensure their ability to be airborne within prescribed alert time limits. Alert shelters should be designed according to the size of alert aircraft plus clearances between aircraft elements and structural shelter elements. As noted in table F-l, the aircraft clearance data inside hangars are also applicable to alert shelters. Tactical/fighter aircraft dimensions are presented in Appendix C.

*U.S. Government Printing Office: 1991 — 526-897/40940