SECTION 1. INTRODUCTION

A. PURPOSE 1.0-5

B. MPD ORGANIZATION 1.0-5

C. SCHEDULED MAINTENANCE PROGRAM DEVELOPMENT 1.0-6

D. APPLICABILITY OF ZONAL AND STRUCTURES INSPECTION PROGRAMS 1.0-9

E. MAINTENANCE CHECKS 1.0-10

F. MAINTENANCE CHECK INTERVAL ESCALATION 1.0-13

G. WARRANTY (VENDOR ITEMS) 1.0-13

H. AUTOMATED CONFIGURED (AC) TASK CARDS 1.0-14

I. COMPUTERIZED MAINTENANCE PROGRAM PACKAGING 1.0-17

J. TASK CARD DATA ON MAGNETIC TAPE 1.0-18

K. REVISIONS 1.0-18

L. PERIODIC AIRPLANE WEIGHING 1.0-19

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF FIGURES

FIGURE	TITLE	PAGE
FIGURE 1.	767 MAINTENANCE PROGRAM DEVELOPMENT	1.0-8
FIGURE 2.	767 TASK CARD NUMBERING SYSTEM	1.0-16

THIS PAGE INTENTIONALLY LEFT BLANK

A. PURPOSE

This Boeing 767 Maintenance Planning Data (MPD) document provides maintenance planning information necessary for each 767 operator to develop a customized scheduled maintenance program. This document lists all Boeing recommended scheduled maintenance tasks and satisfies (in part) the Federal Aviation Administration (FAA) requirement that a manufacturer provide "instructions for continued airworthiness" as specified in FAR 25.1529 - Appendix H. Periodic (scheduled) maintenance tasks outlined in this document include, but are not limited to, the following source:

767 Maintenance Review Board (MRB) Report - September 2007

The Boeing recommended scheduled maintenance tasks outlined in this document are applicable to current production and existing 767 airplanes as follows:

AIRPLANES - 767-200, 767-200 Special Freighter, 767-200ER, 767-300, 767-300ER, 767-300 Package Freighter, 767-300 General Market Freighter, and 767-400ER.

ENGINES - GE CF6-80 Series, P&W JT9D-7R4, P&W PW4000 Series, and RR RB211-524H.

The Scheduled Maintenance Tasks in this document should not be considered as all-inclusive. Each individual airline has final responsibility to decide what to do and when to do it except for those maintenance requirements identified as "Airworthiness Limitations" (AWLs) or "Certification Maintenance Requirements" (CMRs). Temporary requirements in the form of Service Letters, Service Bulletins and Airworthiness Directives are the responsibility of the individual airline to incorporate. Maintenance Tasks recommended in engine, APU, and vendor manuals should also be considered.

B. MPD ORGANIZATION

Each section in the 767 MPD contains information and definitions pertinent to that particular section. The MPD is divided as follows: Sections 1 through 4 provide general information relative to airplane dimensions, zone and station diagrams, and access door/panel illustrations. The recommended Lubrication Tasks are defined in Section 5. Section 6, arranged in ATA order (12-80), outlines the Systems Maintenance Program. Section 7, arranged by airplane zone, and Section 8, arranged by ATA order (27, 32, 52-55, and 57); outline the Zonal and Structural Inspection Programs respectively. Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)", outlines the structural inspections, Structural Safe-Life Parts, and CMRs. Section 10 is reserved.

Appendix A provides information on selected LRUs and component change items. Appendix B contains the Supplemental Structural Inspection Program and information on Document D622T001-DTR. This document contains DTR Check Forms and the Discrepant Structure Report Form. Appendix C provides scheduled maintenance manhour summaries, customized maintenance program packaging indexes/tables, and cumulative manhours per A-check information. Appendix D lists Systems Visual Inspection Tasks precluded by the Zonal Inspection Program. Appendix E contains MPD/MRB/Task Card number cross-reference indexes. Appendix F contains Maintenance Check Manhour Survey and Performance Factors. Appendix G contains the Structures and Fatigue Cross-Reference Indexes. Appendix H provides a critical systems list intended to raise airline awareness at the maintenance planning level for redundant system maintenance involving multiple similar systems. Appendix I contains three revisions of previous highlights. Current revision highlights are located at the front of the MPD.

C. SCHEDULED MAINTENANCE PROGRAM DEVELOPMENT

Most of the Scheduled Maintenance Tasks outlined in this planning document were developed using the process guidelines of the ATA Airline/ Manufacturer Maintenance Program Development Document - MSG-3. In addition, this document includes all scheduled maintenance tasks recommended by Boeing based on worldwide fleet service experience, (with the exception of temporary requirements as described in paragraph A).

There are no additional sources of Boeing recommended Scheduled Maintenance Tasks.

Some structural inspection requirements arose from Model 767 airplane certification activities with the U.S. Federal Aviation Administration (FAA) and are identified as "Airworthiness Limitations" in Section 9 of this document. The inspection requirements for these "Airworthiness Limitations" are covered in Section 8 (Structural Inspection Program) - see Section 8 for further explanation. Also included in Section 9 of the 767 MPD are the Structural Safe-Life Parts.

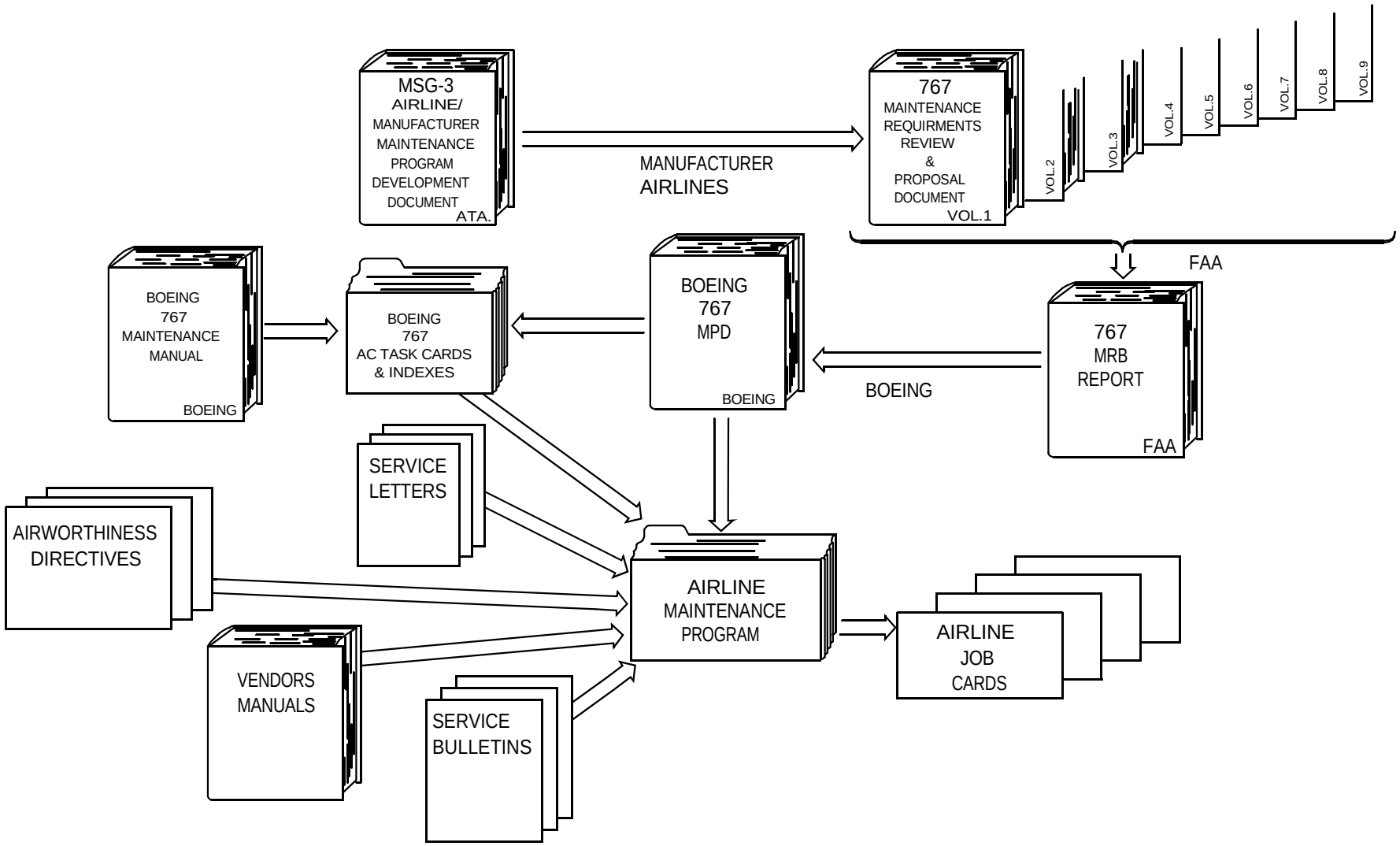
A few maintenance requirements in the Systems section were developed as a result of the safety analysis for certification of the airplane. These tasks, called "Certification Maintenance Requirements" (CMRs), are identified with a "(#)" placed under the interval of the specific task. Section 9 (Airworthiness Limitations and Certification Maintenance Requirements) is the approved document that lists all 767 CMRs. Section 9 is controlled separately from the rest of the MPD and is approved by the FAA Aircraft Certification Office (ACO) and is released as document number D622T001-9.

Prior to MSG-3, Scheduled Maintenance Programs were developed from analysis which began at the component level. The effect of failures in these components was considered and, where appropriate, scheduled maintenance tasks were assigned. Using such an approach, an inclusive list of component level "Maintenance Significant Items" (MSIs) was generated from the initial list of items subjected to analysis. Components which had no scheduled maintenance were assigned the "Condition Monitoring" maintenance process category and were considered candidates for a reliability program.

With the advent of MSG-3, however, this component level approach was replaced with a more efficient analysis termed the "Top Down Approach." Using this method, the analysis begins at the system level and proceeds "downward" towards establishing specific maintenance tasks. Before the actual MSG-3 logic can be applied to an item, the airplane significant systems and components must be identified. This process of identifying MSIs is a conservative process (using engineering judgment) based on the anticipated consequences of failure. An MSI can be anything from an individual part or component to an entire ATA system. The level selected as the MSI depends on what is considered by the manufacturer to be the highest manageable level.

Since MSG-3 was used to develop the Boeing 767 maintenance program there was no resulting list of components assigned "Condition Monitoring," however, it is recommended that operators establish and use a component reliability program in order to optimize reliability and the cost effectiveness of their maintenance program. Establishing a definitive list of components to be monitored in an operator's reliability program is outside the scope of this scheduled maintenance program; however, Appendix A of this document contains a list of candidate components that an operator may use as a starting point in developing their own component reliability program.

Figure 1 illustrates the process used to develop the 767 scheduled maintenance program, eventually leading to the preparation of the individual airline job cards.



849479

FIGURE 1. 767 MAINTENANCE PROGRAM DEVELOPMENT

D. APPLICABILITY OF ZONAL AND STRUCTURES INSPECTION PROGRAMS

Effective with the August 2005 MPD revision, CPCP Tasks previously located in Section 10 have been integrated into the Zonal and Structural Inspection Programs contained in Sections 7 and 8 respectively. Boeing 767 operators may use either their existing, previously approved programs or programs contained herein, but may NOT mix the two programs. Existing operators, whose approved maintenance program is based on an April 2005 MPD (or previous), may convert to a program based upon this MPD as detailed in the paragraph below.

Conversion/transition procedures from the April 2005 MPD (or previous), Sections 7, 8 and 10, to the new MPD Revision August 2005 (and subsequent), Sections 7 and 8, are as follows:

1. A plan for the transition from the April 2005 revision (the operator's current approved maintenance program) to the August 2005 requirements (and subsequent revisions) contained herein, or based on the requirements contained herein, should be submitted in advance to the local Regulatory Authority for approval.
2. Conversion/transition to the August 2005 (and subsequent) revision does not allow operators to make cumulative extensions to their current CPCP Task Initial Intervals beyond initial intervals currently scheduled. No task may be extended during the transition period. The only option available during the transition is to accomplish the current CPCP Task at the previously approved interval or the new MPD task at whichever interval occurs first.
3. For 767 model airplanes, transition to these requirements may be performed if all of the following conditions are met:
    - The subject airplane must be in compliance with the necessary Airworthiness Directives currently defined by the FAA.
    - These requirements will be used in their entirety and not in combination with previously approved MPD Requirements. For approved programs with equivalent tasks at higher intervals than specified in this report, operators may retain those intervals previously approved by the operator's local Regulatory Authority.

E. MAINTENANCE CHECKS

Many of the scheduled maintenance tasks listed in this document identify the frequency of accomplishment in terms of a letter check; e.g., 1A, 2A, 1C, 48 hour elapsed clock hour, etc. These letter checks and the other checks are defined as follows:

The Transit Check (TR) is intended to assure continuous serviceability of a transiting airplane. This check is planned for use at an enroute stop and is basically a "walk-around" inspection which requires a check of the airplane interior and exterior for obvious damage, leaks, proper operating equipment, security of attachment and required servicing.

A-Check

There are two different A-Check intervals specified for 767 maintenance. These are identified in the interval column of the Systems, Structural, and Zonal programs.

The Systems (including lubrication) and Zonal A-Check interval is 750 flight hours. The Systems/Zonal A-Check is designated "1A".

The Structures A-Check interval is 300 flight cycles and is designated "S 1A".

C-Check

There are two different C-Check intervals specified for 767 maintenance. These are identified in the interval column of the Systems, Structural, and Zonal programs.

- The Systems (including lubrication) and Zonal C-Check interval is 6,000 flight hours or 18 months, whichever comes first. The Systems/Zonal C-Check is designated "1C". No multiple C-Check interval should be escalated until at least one airplane inspection has been accomplished at 12,000 flight hours for 2C items, 18,000 flight hours for 3C items, and 24,000 flight hours for 4C items.
- The Structures C-Check interval is 3,000 flight cycles or 18 months, whichever comes first. The Structures C-Check is designated "S 1C".

EXPLANATION CONCERNING STRUCTURES TASKS WITH CALENDAR LIMIT INTERVALS

Some structures tasks have a calendar limit interval instead of the normal letter check interval described above. The following provides an explanation for the interval difference:

The original FAA Maintenance Review Board Report (MRBR) S 1C interval was 3,000 flight cycles or 15 months (whichever comes first), and the S 2C, S 3C, and S 4C intervals were multiples thereof. For Revision C of the MRBR (issued 11/90), based on current accumulated service experience, the MRBR calendar time limit for S 1C, S 2C, and S 3C was escalated to 18, 36, and 54 months respectively with the S 4C remaining at 60 months. However, based on fleet-wide corrosion findings, the initial (starting point) interval for a selected number of structural inspection tasks was kept at 15, 30, and 45 months. Consequently, the MRBR interval for these tasks were changed from S 1C, S 2C, and S 3C to 3,000 cycles/15 months, 6,000 cycles/30 months, and 9,000 cycles/45 months, respectively. For revision "D" (June 1994) of the MRBR, the S 4C calendar time limit was escalated to 72 months with a selected number of previously S 4C tasks kept at the initial (starting point) 60-month interval. The MRBR interval for these tasks was changed from S 4C to 12,000 cycles/60 months.

The interval for any of these calendar based tasks (15, 30, 45, or 60 months) can be adjusted, as any other structural inspection task, by an operator based on their service experience as noted on page 1-2 (Para. 1.3 Maintenance Program Rules, item 3.), and page 3-2 (Para. 3.4 Operating Rules, General Rule A.2) of the MRBR. Prior to each MRBR revision, all structural tasks will be reviewed and based on available service experience, some cycle/calendar tasks may be adjusted back to a letter check interval and, conversely, some letter check intervals may be converted to a cycle/calendar interval. These same tasks will be revised accordingly in the 767 MPD.

The Systems Maintenance and Zonal Inspection Programs are flight hour sensitive; whereas, the Structural Inspection Program is flight cycle or calendar time sensitive. Separation of these A- and C-Check definitions provides an operator with maximum flexibility in scheduling and packaging the Systems/ Zonal/Structural Tasks based on airplane utilization.

The following table summarizes the Boeing Recommended Basic Maintenance Check Intervals applicable to the 767. The maintenance program utilizing these check intervals is intended for normal airplane/airline daily utilization.

MAINTENANCE CHECKS	INITIAL INTERVALS
• Transit Check	Prior To Each Flight
• A-check (Systems/Zonal)	750 Flight Hours
• A-check (Structures)	300 Flight Cycles
• C-check (Systems/Zonal)	6,000 Flight Hours or 18 Months *
• C-check (Structures)	3,000 Flight Cycles or 18 Months *
	* Whichever comes first

These Boeing-recommended basic maintenance check intervals are intended for new 767 operators. Experienced 767 operators with established maintenance programs and approved check intervals which exceed the Boeing recommended intervals listed in this document are not expected to de-escalate their currently approved 767 check intervals.

Operators deviating substantially from a normal type of utilization (those accumulating less than 100 flight hours/month/airplane (1200 hours/year)), should consider the application and employment of a Low Utilization Maintenance Program based on calendar time. Upon request, Boeing will assist an operator with the development of a Low Utilization Program.

Task Frequencies are expressed in hours, cycles, calendar time, or letter check. Individual operators may convert intervals (based on airplane utilization) to their desired units provided such conversion does not result in exceeding the frequencies identified herein. An operator may package any or all of the tasks not specified at one of the basic check intervals into one of the basic checks, provided such packaging does not exceed the interval shown for the task. See Appendix C for a complete listing of all intervals used. Adjustments for training flights can be made by considering a full stop landing or two touch-and-go landings equivalent to one flight cycle.

NOTE: Tasks specified to be accomplished at a given letter check are unique and are therefore not redundant with other tasks at different letter checks. For example (assuming 500 HR A-Check, 6,000 HR C-Check):

1. The C-Check tasks do not satisfy the A-Check task requirements.
2. Normally, during the C-Check, all lesser checks which become due are also accomplished; i.e., the C-Check package of work would include the 1A + 2A + 3A + 4A + 6A + 1C Check tasks.
3. The 6A-Check package would normally consist of the 1A + 2A + 3A + 6A Check tasks.

F. MAINTENANCE CHECK INTERVAL ESCALATION

The Check Intervals specified in this document may be escalated (increased) in keeping with the operator's existing regulations and practices. It is the operator's responsibility to justify an escalation of check intervals and other time limitations to their regulatory authority based on substantiating operating experience. When Check Intervals are to be escalated, the operator should carefully evaluate all items subject to escalation to ensure that only qualified items are included in the escalated interval and CMRs remain unchanged. For additional information on check interval escalation for the Structures Program, refer to Section 8 - Structural Inspection Program.

G. WARRANTY (VENDOR ITEMS)

The accomplishment, at specified intervals of maintenance tasks as recommended in this document, does not imply a warranty by The Boeing Company for service life of vendor components. If an operator is concerned with a specific warranty for a vendor item, the vendor should be contacted regarding warranty policy, overhaul times, and service information.

H. AUTOMATED CONFIGURED (AC) TASK CARDS

For each of the maintenance tasks listed in this 767 MPD, a corresponding Boeing 767 Maintenance Task Card has been prepared. A complete description of the format and content of the AC Task Cards is provided in Boeing Document M7360-D368. Each operator is provided with a set of Boeing prepared cards or optional magnetic tape which can be used to develop the final airline job cards. Each task card provides the following information:

1. Task Card Number/MRB Reference Number
2. MPD Item Number
3. Related Task
4. Work Area
5. Access Panels
6. Structural Illustration Reference
7. Task Description
8. Title
9. Interval
10. Phase Codes
11. Estimated Manhours (included on index only)
12. Skill
13. Airplane/Engine Applicability
14. Applicable Maintenance Manual Text/Illustrations

The Boeing 767 Maintenance Task Cards have been computerized to facilitate revisions, sorting, formatting, etc. All of the previously listed information is stored in specified data fields and may be sorted and retrieved in any manner. The flexibility provided by the task card computer program permits rapid printout of the task cards and the task card indexes. This information provided to the operator should greatly facilitate preparation of individual airline job cards. "Automated Configured (AC)" is defined as follows:

Automated

The task cards are automated in that all text and illustrations are computerized and, once properly identified, are automatically merged onto the task card. The applicable procedures and illustrations from the Maintenance Manual are automatically incorporated on the task cards and any revision to the Maintenance Manual automatically triggers the task card revision as applicable.

Configured

The task cards are configured to the same degree that the Boeing Maintenance Manual is configured for each operator. They include the text and illustrations pulled from the operator's customized Maintenance Manual. They cover all requirements of the Boeing recommended scheduled maintenance program outlined in this MPD and are printed in a Boeing standard format. Further customization of the cards is possible based on negotiation between the operator and Boeing.

Task Card Sorting

Each 767 customer airline receives a set of AC Task Cards, sorted by Task Card Number.

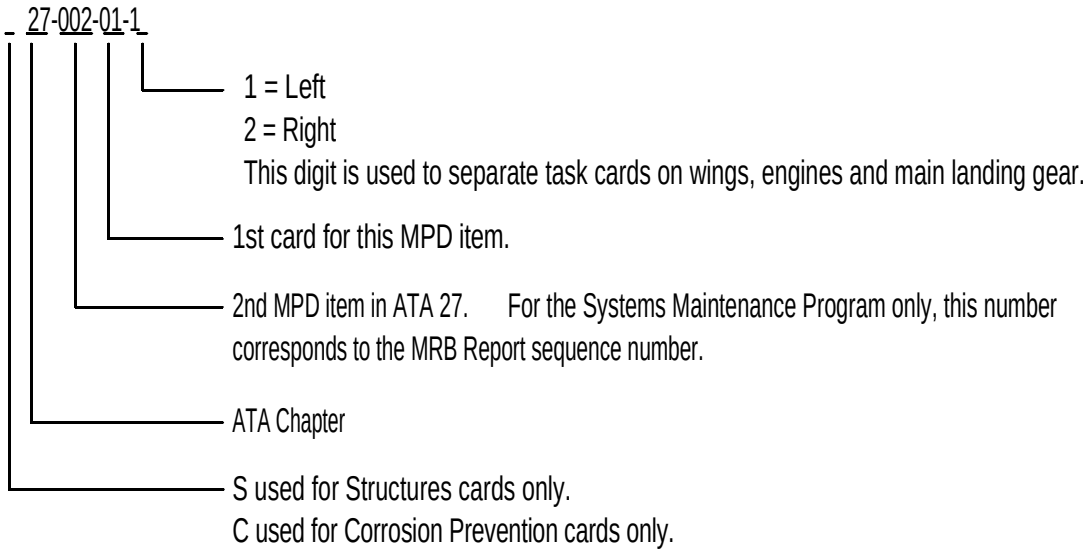
Task Card Index

Each 767 customer airline receives a set of five (5) Task Card Indexes with the initial set of cards and at each task card revision thereafter. This five-way sort of the Task Card Index facilitates packaging and planning of each operator's maintenance program to fit their airline requirements. The tasks are sorted as follows:

Index 1	Index 2	Index 3	Index 4	Index 5
Card No.	MPD Item No.	Interval	Zone	Access
	Card No.	Zone	Access	Interval
		Access	Interval	MPD Item No.

Task Card Numbering

The task cards are numbered sequentially within each ATA chapter. The Systems Maintenance Program Task Card Numbers match the sequence numbers found in Section B of the FAA MRB Report. The following example from ATA 27 (Flight Controls) illustrates the 767 Task Card Numbering System:



B59567

FIGURE 2. 767 TASK CARD NUMBERING SYSTEM

I. COMPUTERIZED MAINTENANCE PROGRAM PACKAGING

Upon request, Boeing will prepare a set of computerized maintenance program packaging indexes/tables based on the operator's anticipated airplane utilization and check intervals.

The Computerized Maintenance Program Package includes five different indexes/tables. These five indexes/tables are: Manhour Summary by Phase Group According To Skill, Maintenance Task Operating Plan, Index 7.1 Phase Group Tasks, Index 7.2 Phase Group Access Panel, and Index 7.3 Sorted By Phase Code. A detailed description of these indexes/tables is provided in Appendix C.

Every item in the MPD is covered by a Task Card. Task Intervals are identified in various terms (hours, cycles, calendar time, or letter check). Given an operator's hour to cycle ratio, daily utilization, and planned check intervals, an "interval conversion" computer program is run to convert each task card interval into a phase code and to enter this into the phase code data field on each card. A phase code is a number that identifies the initial and repeat intervals of a task. The computer program then produces indexes and tables, grouping tasks into the nearest Systems A-Check package without exceeding the task interval.

Phase Codes are based upon the following parameters, any of which may be varied to determine its impact on the grouping of tasks into the A-Check packages:

1. Flight hours per flight cycle
2. Flight hours per day
3. Systems A-Check (in flight hours or days)
4. Structures A-Check (in flight cycles)
5. Systems C-Check (in flight hours or days)
6. Structures C-Check (in flight cycles)
7. Structures C-Check (in months)

The "standard" Phase Code shown on the Task Card is based on the following parameters:

1. 2.5 Hours/Cycle
2. 11.0 Hours/Day
3. 500 Hour Systems A-Check
4. 300 Cycle Structures A-Check
5. 6000 Hour Systems C-Check, or 18 Months*
6. 3000 Cycle Structures C-Check, or 18 Months*

* Whichever comes first

Appendix C includes a summary of manhour requirements per phase for a typical 767 operator based on the above listed "standard" parameters. A more detailed explanation of the computerized maintenance program packaging indexes and tables is provided in Appendix C of this document.

J. TASK CARD DATA ON MAGNETIC TAPE

Airline operators have the option of receiving their automated configured task card textual data on magnetic tape. The format of the tape is designed to give the customer the ability to either print the task card pages on a line printer or to load the task card data into the customer's own database for additional processing.

The magnetic tapes are available in the following formats:

1. The AC Task Card Data Tape includes both Maintenance Planning Data (MPD) and Maintenance Manual (MM) text and illustration callouts. The data on this tape is arranged in the same format as that of the Boeing 767 AC Task Cards; however, the tape has no illustrations.
2. The Task Card Masterfile Tape includes only those maintenance tasks from the 767 Task Card Masterfile (Task Card and MPD database) applicable to the 767 operator's aircraft. This tape does not include Maintenance Manual text nor illustrations; it includes only Maintenance Planning data in the masterfile format. A list of standard access panels and manhours can be appended to the tape for use as a reference.

The 757/767 AC Task Card Magnetic Tape User Document M7360-D349 describes the content and format of both magnetic tapes.

K. REVISIONS

The MPD and Task Cards are revised every 120 days concurrently with the normal Maintenance Manual revision. Both the MPD and the Task Cards are derived from the same computerized database.

Revision bars on the data pages of Sections 5, 6, 7, and 8 are computer generated and are marked to the left of the first line only of the affected task.

This revision bar indicates that something within the entire task has changed since the last MPD revision.

The "Highlights" pages which accompany each revision are a summary of the significant changes included in that revision.

Please submit any comments or recommendations concerning this document to:

Maintenance Programs Engineering
Attn: Senior Manager
Boeing Commercial Airplane Group
P.O. Box 3707, M/C 2J-02
Seattle, Washington 98124-2207 USA
Fax: (206) 662-2336; Telex: 32-9430 STA 637

L. PERIODIC AIRPLANE WEIGHING

The Boeing 767 Weight and Balance Manual (Basic Document Numbers: D043T4XX (767-200), D043T5XX (767-300)) prepared for each operator describes the recommended procedures for preparation and weighing of the model 767 airplane. Useful information concerning periodic weighing is described in FAA Advisory Circular (AC) 120-27 which provides a method and procedures for an operator to develop a weight and balance control system.

THIS PAGE INTENTIONALLY LEFT BLANK