1995 Journal of Propulsion and Power Index

How to Use the Index

In the Subject Index, pages 1374–1379, each technical paper is listed under a maximum of three appropriate headings. Note the number in boldface type following each paper title, and use that number to locate the paper in the Chronological Index. The Author Index, pages 1380 and 1381, lists all authors associated with a given technical paper. The locating numbers are identical to those in the Subject Index. The Chronological Index, pages 1382–1388, lists all papers by their unique code numbers. This listing contains titles, authors and their affiliations, and volume, issue number and page where the paper appeared. It also gives the AIAA paper number, if any, on which the article was based, as well as the "CP" or conference volume number if the paper was published in a bound collection of meetings papers. Comments, Replies, and Errata are listed directly beneath the paper to which they refer. If the paper to which they refer was published prior to 1995, that paper also will appear in the Chronological Index. Authors of Comments also are listed in the Author Index.

Subject Index

Aircraft Technology, Conventional, STOL/VTOL

Aerodynamics

Velocity Measurements Downstream of a Lobed-Forced Mixer with Different Trailing-Edge Configurations B95-010 Thrust Vectoring Control from Convergent Nozzles with Translating Side Wall B95-057

Aerospace Plane

Feasibility Demonstration of Cryogenic Fluid Gauging for Space Vehicle Applications B95-122

Fuels and Fuel Systems

NOx Model for Lean Combustion Concept

B95-020

Development of Energetic Additives for Propellants in China

B95-105

Powerplant Integration

Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160

Propeller and Rotor Systems

Development of a Three-Dimensional Model for the Darrieus Rotor and Its Wake B95-023 Three-Dimensional Viscous Flow Analysis of an Advanced Ducted Propeller Subsonic Inlet B95-029

Crack Growth Resistance Due to Shot Peening in Carburized Gears B95-121

Energy

Alternate Fuels

Structure of Coal Water Slurry Sprays B95-019

Laser Integration/Systems

Laser Propulsion 10-kW Thruster Test Program
Results B95-168

Magnetohydrodynamic Power Generation

Flow of a Fissioning Gas in an Outflow Disk Magnetohydrodynamic Generator B95-003 Current Distribution on Isothermal Rod Electrodes in Combustion MHD Generators

Studies of Helical Magnetohydrodynamic Seawater Flow in Fields up to Twelve Teslas 895-173

Nuclear Fission

Flow of a Fissioning Gas in an Outflow Disk Magnetohydrodynamic Generator B95-003
Flow Instability in Plane-Parallel Particle Beds with Constant Volumetric Heating B95-129
Planetary Flight B95-133
Hydrogen Corrosion Considerations of Carbide Fuels for Nuclear Thermal Propulsion Applications B95-172

Photovoltaic Power

Photovoltaic Catenary-Tent Array for the Martian Surface B95-048
Solar Radiation on Mars: Stationary Photovoltaic Array B95-073

Power Conditioning

Dynamic Modeling of High-Speed Aircraft Generators During Forced Power Transfer Operation B95-170

Reciprocating Machinery

Intake Flow Modeling in a Four-Stroke Diesel
Using KIVA-3

Vortex Formation in a Proposed Detonation Internal Combustion Engine

Analysis of Free-Piston Stirling Engine/Linear
Alternator Systems Part 1: Theory

Analysis of Free-Piston Stirling Engine/Linear
Alternator Systems Part 2: Results

B95-131

Rotating Machinery

Application of Sweep to Improve the Efficiency of a Transonic Fan Part 1: Design B95-005

Investigation of Three-Dimensional Flowfield at the Exit of a Turbine Nozzle B95-006 Dynamic Modeling of High-Speed Aircraft Generators During Forced Power Transfer Operation B95-170

Solar Power

Photovoltaic Catenary-Tent Array for the Martian Surface B95-048 Solar Radiation on Mars: Stationary Photovoltaic Array B95-073

Stirling Engine

Analysis of Free-Piston Stirling Engine/Linear Alternator Systems Part 1: Theory B95-130 Analysis of Free-Piston Stirling Engine/Linear Alternator Systems Part 2: Results B95-131

Wind Power

Development of a Three-Dimensional Model for the Darrieus Rotor and Its Wake B95-023

Fluid Dynamics

Aeroacoustics

Effects of Vorticity on Rocket Combustion Stability B95-083

Boundary Layers and Heat Transfer— Turbulent

Hypersonic Turbulent Expansion-Corner Flow with Shock Impingement B95-059

Boundary-Layer Stability and Transition

Three-Dimensional Interactions in the Rotor of an Axial Turbine B95-024
Simulation of Laminar-Turbulent Transition with an Explicit Navier-Stokes Flow Solver
B95-153

Computational Fluid Dynamics

Effect of Bleed Configuration on Shock/Laminar Boundary-Layer Interactions B95-004

Wave Rotor Charging Process: Effects of Gradual Opening and Rotation B95-022 Chimera Grids in Computing Flowfields in Turbine-Blade-Internal-Coolant Passages R95-026 Navier-Stokes Analysis of Turbine Flowfield and External Heat Transfer B95-027 Particle Dynamics Simulations in Inlet Separator with an Experimentally Based Bounce Model R95-028 Penetration and Mixing of Radial Jets in Neck-Down Cylindrical Crossflow B95-031 Numerical Investigation of Bluff-Body Stabilized Microwave Plasmas B95-046 Intake Flow Modeling in a Four-Stroke Diesel Using KIVA-3 B95-049 Vortex Generation and Mixing in Three-Dimensional Supersonic Combustors B95-056 Inviscid Analysis of Transonic Oscillating Cascade Flows Using a Dynamic Mesh Algo-Solid Rocket Motor Internal Flow During Ignition R95-065 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Effects of the Chemical Reaction Model on Calculations of Supersonic Combustion Flows R95-075 Efficient Mapping Topology for Turbine Combustors with Inclined Slots/Staggered Holes R95-078 Numerical Simulations of Injection-Driven Flows in a Two-Dimensional Nozzleless Solid-Rocket Motor R95-082 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Mixing Analysis of Axially Opposed Rows of Jets Injected into Confined Crossflow Numerical Simulations of Flows in Centrifugal Turbomachinery B95-111 Flow-Structural Interaction Inside a Solid Rocket Motor During Ignition Transient B95-125 Slag Accumulation in the Titan Solid Rocket Motor Upgrade B95-127 Numerical Analysis of Base Flowfield for a Four-Engine Clustered Nozzle Configuration

Hydrodynamics

tion Calculations

Atomization Characteristics of Impinging Liquid
Jets B95-017
Spatial Instability of a Viscous Liquid Sheet
B95-018
Thermohydrodynamic Analysis of Fluid Film
Bearings for Cryogenic Applications B95-120

Assumed and Evolution Probability Density

Simulation of Laminar-Turbulent Transition

with an Explicit Navier-Stokes Flow Solver

Functions in Supersonic Turbulent Combus-

Hypersonic Flow

Vortex Generation and Mixing in Three-Dimensional Supersonic Combustors

Hypersonic Turbulent Expansion-Corner Flow with Shock Impingement

B95-059
Use of Jet Interaction for Ignition in Ram and External Propulsion Accelerators

B95-167

Inlet, Nozzle, Diffuser, and Channel Flows

Low-Density Nozzle Flow by the Direct Simulation Monte Carlo and Continuum Methods

895-007

Numerical Analysis of Rarefied Gas Flow
Through Two-Dimensional Nozzles

895-008 Velocity Measurements Downstream of a Lobed-Forced Mixer with Different Trailing-Edge Configurations B95-010
Particle Dynamics Simulations in Inlet Separator with an Experimentally Based Bounce Model B95-028
Three-Dimensional Viscous Flow Analysis of an Advanced Ducted Propeller Subsonic Inlet B95-029
Penetration and Mixing of Radial Jets in Neck-Down Cylindrical Crossflow B95-031
Shockless Transition from Supersonic to Subson-

B95-029 Penetration and Mixing of Radial Jets in Neck-B95-031 Shockless Transition from Supersonic to Subsonic Flow B95-051 Performance Variation of Scramjet Nozzle at Various Nozzle Pressure Ratios B95-054 Thrust Vectoring Control from Convergent Nozzles with Translating Side Wall R95-057 Flows in a Curved Combustor Inlet with and Without a Guide Vane B95-062 Analysis of Multidimensional and Two-Phase Flows in Solid Rocket Motors B95-081 Magnetic Field Control of Burning Rate and Thrust in Solid Rocket Motors B95-103 Thrust Characteristics of a Supersonic Mixer **Ejector** B95-115 Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A **B95-160** Grid Study

Jets, Wakes, and Viscid-Inviscid Flow Interactions

Development of a Three-Dimensional Model for the Darrieus Rotor and Its Wake B95-023 Three-Dimensional Interactions in the Rotor of an Axial Turbine B95-024 Penetration and Mixing of Radial Jets in Neck-Down Cylindrical Crossflow B95-031 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Mixing and Penetration Studies of Sonic Jets in a Mach 2 Freestream R95-040 Mixing Analysis of Axially Opposed Rows of Jets Injected into Confined Crossflow B95-109

Numerical Analysis of Base Flowfield for a Four-Engine Clustered Nozzle Configuration B95-135

Mixing Characteristics of Twin Impinging Circular Jets

B95-144
Use of Jet Interaction for Ignition in Ram and External Propulsion Accelerators

B95-167

Multiphase Flows

B95-135

B95-146

B95-153

Deficiencies and Requirements in Modeling of Slag Generation in Solid Rocket Motors

Structure of Coal Water Slurry Sprays

Particle Dynamics Simulations in Inlet Separator with an Experimentally Based Bounce Model

895-028

Geometry Effects in the Dynamic Response of the Cavitating LE-7 Liquid Oxygen Pump B95-042

Numerical Studies on Droplet Breakup Models B95-052

Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena
B95-068
Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet
B95-069
Two-Phase Flows in the Nozzles of Solid Rocket Motors
B95-080
Analysis of Multidimensional and Two-Phase Flows in Solid Rocket Motors
B95-081

Flows in Solid Rocket Motors

Effects of Two-Phase Flow on the Deflagration of Porous Energetic Materials

Solid Rocket Motor Upgrade

B95-081

Structure of a Swirl-Stabilized Spray Flame Relevant to Gas Turbine and Furnaces B95-143

Plasmadynamics and MHD

Flow of a Fissioning Gas in an Outflow Disk Magnetohydrodynamic Generator B95-003 Effects of Applied Magnetic Fields on Performance of a Quasisteady Magnetoplasmadynamic Arcjet Geometric Scaling of Applied-Field Magnetoplasmadynamic Thrusters R95-044 Thrust Formula for Applied-Field Magnetoplasmadynamic Thrusters Derived from Energy Conservation Equation Numerical Investigation of Bluff-Body Stabilized Microwave Plasmas B95-046 Current Distribution on Isothermal Rod Electrodes in Combustion MHD Generators B95-076

Rarefied Flows

Low-Density Nozzle Flow by the Direct Simulation Monte Carlo and Continuum Methods

895-007

Numerical Analysis of Rarefied Gas Flow Through Two-Dimensional Nozzles B95-008

Reacting Flows and Combustion

Flame Stabilization Characteristics of Strut Divided into Two Parts in Supersonic Airflow 895-013

Experimental Investigation of Kerosene Fuel
Combustion in Supersonic Flow B95-016
NOx Model for Lean Combustion Concept

Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame

Mixing and Chemical Kinetics Interactions in a Mach 2 Reacting Flow

Numerical Studies on Droplet Breakup Models

Vortex Generation and Mixing in Three-Dimensional Supersonic Combustors

B95-056
Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer

B95-061

Effects of the Chemical Reaction Model on Calculations of Supersonic Combustion Flows 895-075

Effects of Two-Phase Flow on the Deflagration of Porous Energetic Materials

Modeling of Combustion of Energetic Materials with Chemically Induced Mechanical Processes

B95-100

Beam Waist/Focus Misalignment Error Estimates in Laser Doppler Anemometry

B95-136

R95-052

Planar Measurement of Absolute OH Concentration Distributions in a Supersonic Combustion Tunnel B95-138

Structure of a Swirl-Stabilized Combusting
Spray
B95-141

Structure of a Swirl-Stabilized Spray Flame Relevant to Gas Turbine and Furnaces

Assumed and Evolution Probability Density

Functions in Supersonic Turbulent Combustion Calculations B95-146 Measurements of OH and H₂O for Reacting Flow in a Supersonic Combusting Ramjet Combus-

tor B95-149
Feedback-Controlled Gas Mixing System for the Ram Accelerator B95-166

One-Dimensional, Equilibrium-Chemistry Ram Accelerator Performance Calculations

Separated Flows

Flows in a Curved Combustor Inlet with and Without a Guide Vane B95-062

Shock Waves and Detonations

Microstructural Basis for Enhanced Shock-Induced Chemistry in Single Crystal Ammonium Perchlorate B95-002 Calculations for Steady Propagation of a Generic Ram Accelerator Configuration B95-012 Shockless Transition from Supersonic to Subsonic Flow B95-051 Hypersonic Turbulent Expansion-Corner Flow with Shock Impingement B95-059 Vortex Formation in a Proposed Detonation Internal Combustion Engine B95-070 Comparison Between Numerically Modeled and Experimentally Measured Wave-Rotor Loss Mechanisms

Subsonic Flow

Flows in a Curved Combustor Inlet with and Without a Guide Vane B95-062 Magnetic Field Control of Burning Rate and Thrust in Solid Rocket Motors R95-103 Flutter Stability of a Detuned Cascade in Subsonic Compressible Flow B95-114

Supersonic Flow

Boundary-Layer Interactions Low-Density Nozzle Flow by the Direct Simulation Monte Carlo and Continuum Methods B95-007 Mixing and Penetration Studies of Sonic Jets in a Mach 2 Freestream B95-040 Thrust Vectoring Control from Convergent Nozzles with Translating Side Wall B95-057

Effect of Bleed Configuration on Shock/Laminar

Magnetic Field Control of Burning Rate and Thrust in Solid Rocket Motors B95-103 New Supersonic Combustion Research Facility B95-137

Supersonic Flow Mixing and Combustion Using Ramp Nozzle B95-148

Transonic Flow

Application of Sweep to Improve the Efficiency of a Transonic Fan Part I: Design

Unsteady Flows

Wave Rotor Charging Process: Effects of Gradual Opening and Rotation R95-022 Three-Dimensional Interactions in the Rotor of an Axial Turbine B95-024 Numerical Simulations of Injection-Driven Flows in a Two-Dimensional Nozzleless Solid-Rocket Motor B95-082 Effects of Vorticity on Rocket Combustion Sta-B95-083 bility Numerical Simulations of Flows in Centrifugal Turbomachinery B95-111 Simplified Approach for Control of Rotating Stall Part 1: Theoretical Development R95-154 Simplified Approach for Control of Rotating Stall Part 2: Experimental Results B95-155

Vortices

Wave Rotor Charging Process: Effects of Gradual Opening and Rotation B95-022 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032

Wave Motion and Sloshing

Spatial Instability of a Viscous Liquid Sheet B95-018

Guidance, Control, and Dynamics **Technology**

Artificial Intelligence

Function Approximation Approach to Anomaly Detection in Propulsion System Test Data B95-134

Control System Design

Simplified Approach for Control of Rotating Stall Part 1: Theoretical Development

R95-154

Simplified Approach for Control of Rotating Stall Part 2: Experimental Results B95-155 Feedback-Controlled Gas Mixing System for the Ram Accelerator B95-166

Control Theory

Simplified Approach for Control of Rotating Stall Part 1: Theoretical Development

B95-154 Simplified Approach for Control of Rotating

B95-161

Stall Part 2: Experimental Results B95-155 Model Reference Adaptive Fuzzy Control Sys-

Engine Control

tem on an Aeroengine

Model Reference Adaptive Fuzzy Control System on an Aeroengine

Interdisciplinary Topics

Lasers and Laser Applications

Laser-Powered Heat Exchanger Rocket for Ground-to-Orbit Launch B95-071

Lasers and Laser Applications

Beam Waist/Focus Misalignment Error Estimates in Laser Doppler Anemometry B95-136

Effect of Dilution Air on the Scalar Flowfield at Combustor Sector Exit B95-150

Reliability, Maintainability, and Logistics Support

Space Shuttle Simplified LO2 Check Valve Development Tests B95-041

Research Facilities and Instrumentation

New Supersonic Combustion Research Facility B95-137

Feedback-Controlled Gas Mixing System for the Ram Accelerator B95-166

Launch Vehicle and Missile (LV/M) Technology

Configuration Design

Delta Improvement Study: Hydrogen Upper

Launch Vehicle and Sounding Rocket Systems

Laser-Powered Heat Exchanger Rocket for Ground-to-Orbit Launch

Delta Improvement Study: Hydrogen Upper Stage

Missile Systems

Supersonic Combustion Ramjet Missile

B95-147

Mission Studies and Economics

Inertial-Electrostatic-Fusion Propulsion Spectrum: Air-Breathing to Interstellar Flight B95-047

Propulsion and Propellant Systems

Deficiencies and Requirements in Modeling of Slag Generation in Solid Rocket Motors

B95-001 Space Shuttle Simplified LO2 Check Valve Development Tests R95-041

Geometry Effects in the Dynamic Response of the Cavitating LE-7 Liquid Oxygen Pump

R95-042 Hydrogen Peroxide as an Alternate Oxidizer for

a Hybrid Rocket Booster B95-074 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 High-Performance Propellants Based on Hy-

drazinium Nitroformate B95-107 Feasibility Demonstration of Cryogenic Fluid

Gauging for Space Vehicle Applications

Function Approximation Approach to Anomaly Detection in Propulsion System Test Data

B95-134

Supersonic Combustion Ramjet Missile

B95-147 Delta Improvement Study: Hydrogen Upper

B95-165 Stage

Testing, Flight and Ground

Space Shuttle Simplified LO2 Check Valve Development Tests Function Approximation Approach to Anomaly Detection in Propulsion System Test Data B95-134

Vibration

Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120

Propulsion

Airbreathing Propulsion

Application of Sweep to Improve the Efficiency of a Transonic Fan Part I: Design B95-005 Investigation of Three-Dimensional Flowfield at the Exit of a Turbine Nozzle B95-006 Velocity Measurements Downstream of a Lobed-Forced Mixer with Different Trailing-Edge Configurations B95-010 Aluminum Alkyl Derivatives-Ignition and Combustion Enhancers for Supersonic Combustors B95-015

Spatial Instability of a Viscous Liquid Sheet

B95-018

Navier-Stokes Analysis of Turbine Flowfield and External Heat Transfer B95-027 Three-Dimensional Viscous Flow Analysis of an

Advanced Ducted Propeller Subsonic Inlet B95-029 Feedback Control of a Dump Combustor with

Fuel Modulation B95-033 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts

Shockless Transition from Supersonic to Sub- sonic Flow B95-051	Analysis of Elementary Models for the Steady- State Combustion of Solid Propellants	Electric and Advanced Space Propulsion
sonic Flow B95-051 Assessment of a Three-Variable Reduced Kinetic	B95-088	Numerical Analysis of Rarefied Gas Flow
Scheme in Prescribed Turbulence B95-060	Development of Gas-Phase Reaction Mecha-	Through Two-Dimensional Nozzles B95-008
Suppression of Combustion Instability by Geo-	nisms for Nitramine Combustion B95-090	Use of Swirl-Induced Particle Separation to
metrical Design of the Bluff-Body Stabilizer B95-061	Study of the Gas-Phase Chemistry of RDX: Ex-	Clean Nuclear Rocket Plumes B95-009 Combustion Control of Solid Rocket Motors by
Controlling Mechanisms of Ignition of Solid	periments and Modeling B95-091 Effect of Multidimensional Flamelets in Com-	Polytetrafluoroethylene Sublimates B95-034
Fuel in a Sudden-Expansion Combustor	posite Propellant Combustion B95-093	Effects of Applied Magnetic Fields on Perfor-
B95-064	Analysis of RDX Monopropellant Combustion	mance of a Quasisteady Magnetoplasmady-
Efficient Mapping Topology for Turbine Com-	with Two-Phase Subsurface Reactions	namic Arcjet B95-043
bustors with Inclined Slots/Staggered Holes B95-078	B95-094	Geometric Scaling of Applied-Field Magneto- plasmadynamic Thrusters B95-044
Numerical Simulations of Flows in Centrifugal	HMX and RDX: Combustion Mechanism and In- fluence on Modern Double-Base Propellant	Thrust Formula for Applied-Field Magnetoplas-
Turbomachinery B95-111	Combustion B95-096	madynamic Thrusters Derived from Energy
Comparison Between Numerically Modeled and	Effects of Two-Phase Flow on the Deflagration	Conservation Equation B95-045
Experimentally Measured Wave-Rotor Loss Mechanisms B95-112	of Porous Energetic Materials B95-097	Numerical Investigation of Bluff-Body Stabilized Microwave Plasmas B95-046
Stall Inception in a Multistage High-Speed Axial	Dynamics of Aluminum Combustion B95-098	Inertial-Electrostatic-Fusion Propulsion Spec-
Compressor B95-113	Beam Waist/Focus Misalignment Error Esti-	trum: Air-Breathing to Interstellar Flight
Flutter Stability of a Detuned Cascade in Sub-	mates in Laser Doppler Anemometry	B95-047
sonic Compressible Flow B95-114 Thrust Characteristics of a Supersonic Mixer	B95-136	Laser-Powered Heat Exchanger Rocket for Ground-to-Orbit Launch B95-071
Ejector B95-115	Structure of a Swirl-Stabilized Combusting	Gasdynamic Fusion Propulsion System for Space
Approach to In Situ Analysis of Scramjet Com-	Spray B95-141 Experimental Study of Liquid Sheets Formed in	Exploration B95-072
bustor Behavior B95-117	Coaxial Swirl Injectors B95-142	Investigation of Stabilized Resonant Cavity Mi-
Analysis of Air–Turborocket Performance	Effect of Dilution Air on the Scalar Flowfield at	crowave Plasmas for Propulsion B95-128
Planetary Flight B95-133	Combustor Sector Exit B95-150	Flow Instability in Plane–Parallel Particle Beds with Constant Volumetric Heating
New Supersonic Combustion Research Facility	Combustion Instability	B95-129
B95-137	Combustion Instability	Experimental Studies into Hail Impact Charac-
Hypervelocity Scramjet Mixing Enhancement	Atomization Characteristics of Impinging Liquid	teristics B95-156
B95-140 Supersonic Flow Mixing and Combustion Using	Jets B95-017	Laser Propulsion 10-kW Thruster Test Program Results B95-168
Ramp Nozzle B95-148	Feedback Control of a Dump Combustor with Fuel Modulation B95-033	Two-Dimensional Numerical Model of Plasma
Laminar Flow Rotor for a Radial Inflow Tur-	Study of the Flow Turning Loss in a Simulated	Flow in a Hall Thruster B95-169
bine B95-151	Solid Rocket Motor B95-035	Performance Comparisons of Low-Power Arc-
E-manine and all Charles into Hall Immed Charles	Solid Rocket Motor	·
Experimental Studies into Hail Impact Characteristics	Suppression of Combustion Instability by Geo-	jets B95-177
teristics B95-156	Suppression of Combustion Instability by Geo- metrical Design of the Bluff-Body Stabilizer	•
	Suppression of Combustion Instability by Geo- metrical Design of the Bluff-Body Stabilizer B95-061	Engine Performance
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159	Suppression of Combustion Instability by Geo- metrical Design of the Bluff-Body Stabilizer	Engine Performance Engineering Design Models for Ramjet Efficien-
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A	Suppression of Combustion Instability by Geo- metrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Sta- bility B95-083 Vortex-Shedding Phenomena in Solid Rocket	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084	Engine Performance Engineering Design Models for Ramjet Efficien-
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dy-	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Ad-
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Com-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficien-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Im-
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors Hybrid Rocket Booster B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster Rocket Engine Combustors with Fuel-Impingement Cooling B95-077
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficien-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges Edges Engineering Design Models for Ramjet Efficiency and Lean Blowoff NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame In-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors Hybrid Rocket Booster B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster Rocket Engine Combustors with Fuel-Impingement Cooling B95-077
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance
teristics Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flametes in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion M95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOX Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scram-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology En-
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Ener-	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion With Two-Phase Subsurface Reactions With Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology En-
teristics B95-156 Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flametein Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-164 Life Prediction of the Thrust Chamber Wall of a Reusable Rocket Engine B95-164 Stall Inception in Single-Stage, Transonic Com-
teristics Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges Engineering Design Models for Ramjet Efficiency and Lean Blowoff NOx Model for Lean Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas In-	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-163 Life Prediction of the Advanced Technology Engine B95-163 Life Prediction of the Thrust Chamber Wall of a Reusable Rocket Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOX Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustor Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flametein Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOX Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-063 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion with Two-Phase Subsurface Reactions B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arc-
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Substitute B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges Engineering Design Models for Ramjet Efficiency and Lean Blowoff NOx Model for Lean Combustion Concept B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-066 Evaluation Of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Combustion Performance of Bipropellant Liquid	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion With Two-Phase Subsurface Reactions B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Characteristics of a Velocity-Modulated Pres-	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster R95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air—Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine B95-163 Life Prediction of the Thrust Chamber Wall of a Reusable Rocket Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arcjets
teristics B95-156 Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-063 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors with Fuel-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Characteristics of a Velocity-Modulated Pressure-Swirl Atomizing Spray B95-119	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-118 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arc-
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Substitute B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges Engineering Design Models for Ramjet Efficiency and Lean Blowoff NOx Model for Lean Combustion Concept B95-014 NOx Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-066 Evaluation Of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Combustion Performance of Bipropellant Liquid	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion With Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion With Two-Phase Subsurface Reactions B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Characteristics of a Velocity-Modulated Pressure-Swirl Atomizing Spray B95-119 Structure of a Swirl-Stabilized Combusting	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-163 Life Prediction of the Advanced Technology Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arcjets B95-177 Environmental Effects
teristics Effects of Body-Side Compression on Forward- Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study B95-160 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Combustion and Combustor Designs Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 NOX Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-063 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors with Fuel Impingement Cooling B95-077 Efficient Mapping Topology for Turbine Combustors with Inclined Slots/Staggered Holes	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093 Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Characteristics of a Velocity-Modulated Pressure-Swirl Atomizing Spray B95-119 Structure of a Swirl-Stabilized Combusting Spray B95-141	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff B95-014 Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster R95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air—Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-124 Design Studies of the Advanced Technology Engine B95-163 Life Prediction of the Thrust Chamber Wall of a Reusable Rocket Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arcjets
teristics Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets B95-159 Installed F/A-18A Inlet Flow Calculations: A Grid Study Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges Engineering Design Models for Ramjet Efficiency and Lean Blowoff NOX Model for Lean Combustion Concept B95-014 NOX Model for Lean Combustion Concept B95-020 Numerical Experiments on the Vortex-Flame Interactions in a Jet Diffusion Flame B95-021 Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors B95-030 Acoustic Control of Combustor Primary Zone Air-Jet Mixing B95-032 Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts B95-038 Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence B95-060 Computation of Turbulent Reacting Flow in a Solid-Propellant Ducted Rocket B95-063 Evaluation of the Transient Operation of Advanced Gas Turbine Combustors with Fuel Impingement Cooling B95-077 Efficient Mapping Topology for Turbine Com-	Suppression of Combustion Instability by Geometrical Design of the Bluff-Body Stabilizer B95-061 Effects of Vorticity on Rocket Combustion Stability B95-083 Vortex-Shedding Phenomena in Solid Rocket Motors B95-084 Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket Motors B95-085 High-Frequency Instability of Combustion in Solid Rocket Motors B95-086 Pulsed Instabilities in Solid-Propellant Rockets B95-087 Effect of Multidimensional Flamelets in Composite Propellant Combustion With Two-Phase Subsurface Reactions B95-094 Dynamics of Aluminum Combustion With Two-Phase Subsurface Reactions B95-098 Intrinsic Combustion Instability of Solid Energetic Materials B95-101 Droplet Characterization Atomization Characteristics of Impinging Liquid Jets B95-017 Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Gravity Effects on the Dynamics of Evaporating Droplets in a Heated Jet B95-069 Characteristics of a Velocity-Modulated Pressure-Swirl Atomizing Spray B95-119 Structure of a Swirl-Stabilized Combusting	Engine Performance Engineering Design Models for Ramjet Efficiency and Lean Blowoff Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines Evaluation of the Transient Operation of Advanced Gas Turbine Combustors Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066 Hydrogen Peroxide as an Alternate Oxidizer for a Hybrid Rocket Booster B95-074 Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling B95-077 Thrust Characteristics of a Supersonic Mixer Ejector B95-115 Analysis of Air-Turborocket Performance B95-116 Thermohydrodynamic Analysis of Fluid Film Bearings for Cryogenic Applications B95-120 Test Experience, 490-N High-Performance [321-s Specific Impulse] Engine B95-163 Life Prediction of the Advanced Technology Engine B95-164 Stall Inception in Single-Stage, Transonic Compressors with Straight and Swept Leading Edges B95-175 Performance Comparisons of Low-Power Arcjets B95-177 Environmental Effects Use of Swirl-Induced Particle Separation to

pellant in France

Computation of Turbulent Reacting Flow in a

Solid-Propellant Ducted Rocket

B95-036

B95-063

Fuels and Propellants, Properties of

Microstructural Basis for Enhanced Shock-In-

Effects of Acoustic Oscillations on Flame Dy-

Motors

namics of Homogeneous Propellants in Rocket

duced Chemistry in Single Crystal Ammonium Perchlorate Aluminum Alkyl Derivatives-Ignition and Combustion Enhancers for Supersonic Com-B95-015 Combustion Control of Solid Rocket Motors by Polytetrafluoroethylene Sublimates R95-034 History of the Development of Solid Rocket Propellant in France B95-036 Combustion of Energetic Azide Polymers B95-089 Development of Gas-Phase Reaction Mechanisms for Nitramine Combustion B95-090 Study of the Gas-Phase Chemistry of RDX: Experiments and Modeling B95-091 Structure and Chemical Kinetics of Flames Supported by Solid Propellant Combustion B95-092 Multiphase Chemistry Considerations at the Surface of Burning Nitramine Monopropellants B95-095 Design Principles of Advanced Solid Propel-R95-104 lants Development of Energetic Additives for Propellants in China B95-105

Hybrid Rocket Engines

Ducted Rockets

from Mars

tanium Film

Hydrogen Peroxide as an Alternate Oxidizer for B95-074 a Hybrid Rocket Booster Fresh Approach to Solid Rocket Motor Design

High-Performance Propellants Based

Energetic Insensitive Propellants for Solid and

In-Situ-Produced Methane and Methane/Carbon

Ignition of Boron Particles Coated by a Thin Ti-

Monoxide Mixtures for Return Propulsion

drazinium Nitroformate

Ignition and Ignitor Design

Dual-Spray Airblast Fuel Nozzle for Advanced Small Gas Turbine Combustors Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037

Ignition and Combustion Performance of Scramjet Combustors with Fuel Injection Struts

Controlling Mechanisms of Ignition of Solid Fuel in a Sudden-Expansion Combustor

B95-064 Ignition of Energetic Materials Under Conditions of Complex Heat Exchange B95-102

Injector Design and Characterization

Structure of Coal Water Slurry Sprays B95-019 Dual-Spray Airblast Fuel Nozzle for Advanced B95-030 Small Gas Turbine Combustors Rocket Engine Coaxial Injector Liquid/Gas Interface Flow Phenomena B95-068 Characteristics of a Velocity-Modulated Pressure-Swirl Atomizing Spray B95-119 Experimental Study of Liquid Sheets Formed in R95-142 Coaxial Swirl Injectors Mixing Characteristics of Twin Impinging Circular Jets B95-144

Liquid Rocket Motors and Missile Systems

Dynamic Modeling of Starting Capabilities of Liquid Propellant Rocket Engines B95-037 Geometry Effects in the Dynamic Response of the Cavitating LE-7 Liquid Oxygen Pump

Combustion Performance of Bipropellant Liquid Rocket Engine Combustors with Fuel-Impingement Cooling Pulsed Instabilities in Solid-Propellant Rockets

B95-087

R95.164

Design and Development of a Large Bipropellant Blowdown Propulsion System B95-123 Experimental Study of Liquid Sheets Formed in Coaxial Swirl Injectors B95-142 4000°F Materials for Low-Thrust Rocket En-B95-162 Design Studies of the Advanced Technology En-B95-163 gine Life Prediction of the Thrust Chamber Wall of a Reusable Rocket Engine

Propulsion Hazards

Use of Swirl-Induced Particle Separation to Clean Nuclear Rocket Plumes R95,009 High-Performance Propellants Based on Hydrazinium Nitroformate B95-107 Energetic Insensitive Propellants for Solid and **Ducted Rockets** B95-108

Ramjet Combustors

on Hy-

B95-107

R95.108

B95-132

B95-145

Engineering Design Models for Ramjet Efficiency and Lean Blowoff Controlling Mechanisms of Ignition of Solid Fuel in a Sudden-Expansion Combustor B95-064

Ramjets and Scramjets

Calculations for Steady Propagation of a Generic Ram Accelerator Configuration Flame Stabilization Characteristics of Strut Divided into Two Parts in Supersonic Airflow B95-013

Experimental Investigation of Kerosene Fuel Combustion in Supersonic Flow B95-016 Mixing and Penetration Studies of Sonic Jets in a B95-040 Mach 2 Freestream Approach to In Situ Analysis of Scramjet Com-

bustor Behavior Hypervelocity Scramjet Mixing Enhancement

B95-140 Measurements of OH and H2O for Reacting Flow in a Supersonic Combusting Ramjet Combus-

B95-149 Effects of Body-Side Compression on Forward-Swept Sidewall Compression Inlets

B95-159

Solid Rocket Motors and Missile Systems

Deficiencies and Requirements in Modeling of Slag Generation in Solid Rocket Motors

Combustion Control of Solid Rocket Motors by Polytetrafluoroethylene Sublimates B95-034 Study of the Flow Turning Loss in a Simulated Solid Rocket Motor **B95-035**

History of the Development of Solid Rocket Propellant in France B95-036 Computation of Turbulent Reacting Flow in a

Solid-Propellant Ducted Rocket B95-063 Solid Rocket Motor Internal Flow During Igni-B95-065

Numerical Simulations of Injection-Driven Flows in a Two-Dimensional Nozzleless Solid-Rocket Motor R95-082

Vortex-Shedding Phenomena in Solid Rocket B95-084 Motors

Effects of Acoustic Oscillations on Flame Dynamics of Homogeneous Propellants in Rocket B95-085 Motors

Pulsed Instabilities in Solid-Propellant Rockets

Structure and Chemical Kinetics of Flames Supported by Solid Propellant Combustion

B95-092 Effect of Multidimensional Flamelets in Composite Propellant Combustion B95-093

Analysis of RDX Monopropellant Combustion with Two-Phase Subsurface Reactions

RQ5_0Q4 Multiphase Chemistry Considerations at the Surface of Burning Nitramine Monopropellants

B95-095

Dynamics of Aluminum Combustion

B95-098 Flow-Structural Interaction Inside a Solid Rocket Motor During Ignition Transient

B95-125 Solid Rocket Motor Grain Burnback Analysis Using Adaptive Grids B95-126 Slag Accumulation in the Titan Solid Rocket Motor Upgrade B95-127 Analysis of Ignition and Flame Spreading in Solid Rocket Motor Star Slots B95-178

Supersonic Combustion

Calculations for Steady Propagation of a Generic Ram Accelerator Configuration B95-012 Flame Stabilization Characteristics of Strut Divided into Two Parts in Supersonic Airflow B95-013

Aluminum Alkyl Derivatives-Ignition and Combustion Enhancers for Supersonic Com-B95-015

Mixing and Chemical Kinetics Interactions in a Mach 2 Reacting Flow B95-039

Effects of the Chemical Reaction Model on Calculations of Supersonic Combustion Flows B95-075

Approach to In Situ Analysis of Scramjet Combustor Behavior R95-117

Planar Measurement of Absolute OH Concentration Distributions in a Supersonic Combustion Tunnel B95-138

Hypervelocity Scramjet Mixing Enhancement **B95-140**

Supersonic Flow Mixing and Combustion Using Ramp Nozzle B95-148

Measurements of OH and H2O for Reacting Flow in a Supersonic Combusting Ramjet Combus-B95-149

One-Dimensional, Equilibrium-Chemistry Ram Accelerator Performance Calculations

B95-176

Transient Combustion and Detonation

Evaluation of the Transient Operation of Advanced Gas Turbine Combustors B95-066

Space Technology

Landers

In-Situ-Produced Methane and Methane/Carbon Monoxide Mixtures for Return Propulsion B95-132 from Mars

Mission Design and Analysis

Planetary Flight B95-133 Design Studies of the Advanced Technology En-B95-163

Mission Trajectories (Earth and Interplanetary)

Inertial-Electrostatic-Fusion Propulsion Spectrum: Air-Breathing to Interstellar Flight

Space Processing

In-Situ-Produced Methane and Methane/Carbon
Monoxide Mixtures for Return Propulsion
from Mars

B95-132

Space Systems

Feasibility Demonstration of Cryogenic Fluid Gauging for Space Vehicle Applications

B95-122

Analysis of Free-Piston Stirling Engine/Linear Alternator Systems Part 1: Theory

B95-130

Analysis of Free-Piston Stirling Engine/Linear Alternator Systems Part 2: Results

B95-131

Spacecraft Propulsion System Integration

Design and Development of a Large Bipropellant Blowdown Propulsion System B95-123

Structural Mechanics and Materials

Aeroelasticity and Control

Flutter Stability of a Detuned Cascade in Subsonic Compressible Flow B95-114

Materials Structural Properties

Hydrogen Corrosion Considerations of Carbide Fuels for Nuclear Thermal Propulsion Applications B95-172

Structural Stability

Flow-Structural Interaction Inside a Solid Rocket Motor During Ignition Transient B95-125

Thermal Effects

Hydrogen Corrosion Considerations of Carbide Fuels for Nuclear Thermal Propulsion Applications B95-172

Thermophysics and Heat Transfer

Ablation, Pyrolysis, Thermal Decomposition and Degradation

Hot Fragment Conductive Ignition of Nitramine-Based Propellants B95-099

Aerothermodynamics/Thermal Protection

Numerical Analysis of Base Flowfield for a Four-Engine Clustered Nozzle Configuration 895-135

Computational Heat Transfer

Chimera Grids in Computing Flowfields in Turbine-Blade-Internal-Coolant Passages

B95-026

Navier-Stokes Analysis of Turbine Flowfield and External Heat Transfer B95-027

Laser Interaction

Intrinsic Combustion Instability of Solid Energetic Materials

B95-101

Laser Propulsion 10-kW Thruster Test Program
Results B95-168

Nonintrusive Diagnostics

Planar Measurement of Absolute OH Concentration Distributions in a Supersonic Combustion Tunnel B95-138

Thermal Modeling and Analysis

Hot Fragment Conductive Ignition of Nitramine-Based Propellants B95-099

Flow Instability in Plane-Parallel Particle Beds with Constant Volumetric Heating

B95-129

Thermochemistry and Chemical Kinetics

Microstructural Basis for Enhanced Shock-Induced Chemistry in Single Crystal Ammonium Perchlorate B95-002

Assessment of a Three-Variable Reduced Kinetic Scheme in Prescribed Turbulence

B95-060

Development of Gas-Phase Reaction Mechanisms for Nitramine Combustion

B95-090

Study of the Gas-Phase Chemistry of RDX: Experiments and Modeling B95-091

Structure and Chemical Kinetics of Flames Supported by Solid Propellant Combustion

B95-092

Multiphase Chemistry Considerations at the Surface of Burning Nitramine Monopropellants

B95-095

Hot Fragment Conductive Ignition of Nitramine-Based Propellants B95-099

Modeling of Combustion of Energetic Materials with Chemically Induced Mechanical Processes B95-100

Ignition of Boron Particles Coated by a Thin Titanium Film B95-145