

WSN SPECIAL REPORTS - 1993 SPRING CATALOG

SPECIAL REPORTS

CARGO SYSTEM MANUALS:

* **ASSEMBLY OF SPACE STATION BY EVA METHODS (ASEM)** - Complete details of the hardware and procedures of the ASEM demonstration conducted during STS-49. 76 pages, plus nine foldouts. _____ \$36.00

* **U.S. MICROGRAVITY LABORATORY ONE (USML-1)** - Extraordinary nuts-and-bolts material on every experiment on this Spacelab mission payload! 410 pages, plus 36 foldouts. _____ \$140.00

* **SHUTTLE AMATEUR RADIO EXPERIMENT II (SAREX II)** - All of the details of the four configurations. 36 pages, plus one foldout. _____ \$18.00

* **GAS: GetAway Special Canisters, All Flights** - Detailed text and schematic diagram information on the electrical, thermal, and command interfaces - along with structure data - for GAS. 40 pages, plus five foldouts. _____ \$20.00

* **ULTRAVIOLET PLUME INSTRUMENT (UVPI)** - Provides data on the USAF experiment involving an instrument on the Low-Power Atmospheric Compensation Experiment (LACE) satellite. 6 pages. _____ \$3.00

* **CRYSTALS BY VAPOR TRANSPORT EXPERIMENT (CVTE)** - Data on all aspects of this Boeing commercial payload. 14 pages, plus four foldouts. _____ \$6.00

SPACE SHUTTLE FLIGHT TEST AND SUPPLEMENTARY OBJECTIVES DOCUMENT (DTOS/DSOs) / January 1992 - This document contains the authoritative description of all 104 currently defined operational Shuttle flight test objectives, including medical tests and OEX requirements. 120 pages. _____ \$130.00

SPACELAB CREW SOFTWARE INTERFACE WORKBOOK / May 1991 - Full details of the Data Display System, display selection procedures, ECOS/SCOS displays, subsystem and experiment fault summary pages, and more. 21 illustrations. 64 pages _____ \$24.00

MCC TRAJECTORY AND ORBIT DETERMINATION SOFTWARE WORKBOOK / April 1991 - The purpose of this workbook is to familiarize the reader with the major routines located within the Mission Control Center ground navigation software. 170 pages _____ \$50.00

GROUND SYSTEMS TRAJECTORY DATA FLOW WORKBOOK / October 1991 - This new training manual provides data on spacecraft tracking, with information on sources of tracking data, how and at what rates the data flow from the sites into the trajectory processor, and what some of the major functions are in the tracking processing and data routing equipment. 48 pages _____ \$20.00

NAVIGATION AIDS / May 1991 - This training manual covers three major systems: TACANS, Microwave Landing System (MLS), and the Radar Altimeter. Includes over 40 figures. 92 pages _____ \$36.00

NATIONAL RESEARCH COUNCIL REPORT: FROM EARTH TO ORBIT - AN ASSESSMENT OF TRANSPORTATION OPTIONS This new report provides a thorough overview of all present launch vehicle options, with information on the National Launch System, Space Transportation Main Engine, existing and proposed international launch systems (including Russian rockets and engines), and technology developments for launchers. 91 pages _____ \$35.00

ROBOTICS PANEL REPORT: NASA ADVANCED TECHNOLOGY ADVISORY COMMITTEE - ADVANCING AUTOMATION AND ROBOTICS TECHNOLOGY FOR THE

SPACE STATION FREEDOM AND FOR THE U.S. ECONOMY - Submitted in November 1991, this report by a Congressionally-mandated NASA review panel discusses the status of automation and robotics for Freedom. 53 pages. _____ \$20.00

EXTENDED DURATION ORBITER (EDO) 28 DAY ENHANCEMENT OPTIONS - A variety of options to extend the duration of EDO pallet missions to a full 28 days are outlined here. 50 pages _____ \$20.00

* **SPACELAB SYSTEMS HANDBOOK** - This is the Spacelab equivalent of the Space Shuttle Systems Handbook. It has 69 huge foldout sheets 11" x 17" or larger, providing a schematic view of every Spacelab system: Electrical Power (AC, DC, Emergency and Essential Bus, Lighting, C&W); ECLSS (Module Atmosphere, Thermal Control); Command and Data Management System; Communications; Instrument Pointing System (Electrical, Mechanical); Payload Support Equipment and Structures (Racks, Tunnel, Igloo, Viewport, Module Characteristics); and Displays and Controls. _____ \$120.00

SPACE SHUTTLE MAIN ENGINE (SSME) DEVELOPMENT PLANS:

* **PRATT AND WHITNEY ALTERNATE TURBOPUMP DEVELOPMENT PROGRAM (1991)** 120 pages _____ \$38.00

* **SSME PROGRAM DEVELOPMENT PLAN: POST-CHALLENGER MARGIN AND LIFE IMPROVEMENTS, ROCKETDYNE (1988)** 220 pages _____ \$68.00

* **SSME PROGRAM PLAN FOR FLIGHT CERTIFICATION EXTENSION AND MARGIN IMPROVEMENT, ROCKETDYNE (1991)** 40 pages _____ \$17.00

COMPLETELY REVISED AND UPDATED VERSIONS:

* **SPACE SHUTTLE OPERATIONAL FLIGHT RULES UPDATED THROUGH MID 1992** - 940 pages (full-size reproductions). This new edition incorporates 12 page change notices issued since the last full update in 1989! The "all-flights" document outlines preplanned decisions for non-nominal situations from countdown to egress - and all phases and systems are covered: ground instrumentation, Trajectory and guidance, booster systems, SSME, OMS/RCS, Data Processing, GNC, aerodynamics, electrical / environmental / consumables (EECOM), mechanical / maintenance / arm / crew systems (APU, hydraulics, PLBD), aeromedical, EVA, ascent, orbit, entry, range safety. In addition to being an invaluable reference during each flight, this document makes excellent reading, since the rationale behind each rule is explained in detail! Thus, it provides a unique reference that provides a virtual "gold mine" of Shuttle data! _____ \$270.00

* **GUIDANCE AND CONTROL SENSORS: GNC SENSORS** November 1991 This new version of the SENSORS training manual reviews significant BFS processing and SRB rate gyro assembly changes since the 1985 edition, with exceptional graphics. 75 pages. _____ \$26.00

* **BAILOUT** / November 1991 Another revised training manual with up-to-date material used by the crews. 49 pages _____ \$20.00

SPACELAB ENVIRONMENTAL CONTROL SYSTEM TRAINING MANUAL / Module Only and Module plus Pallet August 1991 - Completely revised and updated, this ECS manual details the hardware and software interfaces to the ECS, along with the major subsystems. Over 30 illustrations, 95 pages. _____ \$36.00

WSN SPECIAL REPORTS - BASIC CATALOG

Small reports are shipped in vinyl covers, while groups of reports ordered at the same time, along with larger documents, are shipped in three-ring vinyl binders.

ASTRONAUTS AND COSMONAUTS

THE ORIGINAL ASTRONAUTS: NASA BIOGRAPHIES We've collected the last official NASA biographies for every astronaut in the program not included in the current Shuttle profiles - veterans of the Mercury, Gemini, Apollo, Skylab, ASTP, and early Shuttle programs! 177 pages. ___ \$48.00

COMPREHENSIVE NASA ASTRONAUT BIOGRAPHICAL PROFILES: 1992 VERSION Latest biographies on all active Shuttle astronauts - including the latest group which "graduated" this year! 170 pages. ___ \$48.00

U.S. ASTRONAUTS - SUPPLEMENTAL DATA: SHUTTLE PAYLOAD SPECIALISTS AND OTHERS Biographical data on 22 payload specialists who flew; X-15, X-20, MOL astronauts. 21 pages. ___ \$6.00

SOVIET COSMONAUT DATA, PROFILES, AND STATISTICS From U.S. documents - collection of biographical sketches. 26 pages. ___ \$6.00

SPACE SHUTTLE PROGRAM

TAGS MESSAGES TO STS-40 / SLS-1 MISSION WSN has obtained these reproductions of the actual TAGS "fax" messages to the crew of Columbia on the Spacelab Life Sciences mission - providing new insight into the communications from Mission Control to the crew! Contains some fascinating material. 180 pages. ___ \$52.00

SHUTTLE TRAINING AIRCRAFT (STA) FLIGHT MANUAL "Hands-on" manual used to operate the STA: limitations, normal & emergency procedures, performance, simulation procedures. 260 pages plus one foldout drawing. ___ \$78.00

SHUTTLE TRAINING AIRCRAFT: JSC AIRCRAFT OPERATING PROCEDURES DOCUMENT (November 1990) Covers pilot requirements, general flight rules, procedures, mission rules, functional checklists, and WSSH/KSC/EDW operations (with maps). 46 pages. ___ \$18.00

ENTRY DIGITAL AUTOPILOT (DAP) TRAINING MANUAL The entry DAP commands the aerodynamic control surfaces and the RCS jets to provide vehicle trim, coordinated flight maneuvers, energy modulation, and runway steering. Many line drawings. 135 pages. ___ \$40.00

APPLIED ORBITAL MECHANICS - INSTRUCTIONAL TEXT TRAINING WORKBOOK Used at JSC in the astronaut training program, this "Jo-it-yourself" fill-in-the-blanks workbook is part of the space navigation and orbital mechanics course: Energy and Orbit Type, Orbital Size, Velocity and Period, and Orbital Transfer. 110 pages. ___ \$38.00

SHUTTLE MISSION SIMULATOR (SMS) SYSTEMS INSTRUCTOR HANDBOOK The SMS systems instructor is responsible for flight crew training for all phases of flight, including writing the simulation scripts. Has engineering and malfunction pages available to the instructor for each of the Shuttle systems. 191 pages. ___ \$62.00

FLIGHT DATA FILE DOCUMENT: DATA PROCESSING SYSTEM (DPS) DICTIONARY Contains all PASS and BFS display information for use by the flight crew during all flight phases - including program notes for messages and failures. 231 pages. ___ \$72.00

FLIGHT DATA FILE DOCUMENT: ORBIT POCKET CHECKLIST This is the latest 1991 version of the vital checklists always available to crews with emergency procedures to safe systems and continue the flight. These procedures must be performed within five minutes! Also included: routine procedures, such as powerdowns. 377 pages. ___ \$115.00

EVA CONSOLE HANDBOOK Provides a "single authoritative source of primary information for use by EVA flight control personnel with information most often required during training and actual missions, addressing systems and procedures as used during nominal flights." It contains over 350 illustrations and line drawings - truly superb material! 325 pages. ___ \$180.00

SHUTTLE "TOP 20" PRIORITIZATION RESULTS: PROGRAM RISK SUMMARY, FEBRUARY 1991 This is the completely revised prioritization of critical Shuttle items, containing the latest available assessments of each Shuttle project elements' top 20 risks. 65 pages. ___ \$24.00

SPACE SHUTTLE ORBITER APPROACH AND LANDING TEST EVALUATION REPORT - CAPTIVE / ACTIVE FLIGHT TEST SUMMARY, SEPTEMBER 1977 Covers the three mated flights with an active manned Orbiter in 1977. Includes pilot reports. 112 pages. ___ \$26.00

SPACE SHUTTLE ORBITER APPROACH AND LANDING TEST / FINAL EVALUATION REPORT, FEBRUARY 1978 Covers the five free flights; pilot reports, anomaly summary, hardware problems, vehicle unique features, recommendations. 205 pages. ___ \$60.00

SPACE SHUTTLE MISSION REPORTS / The official JSC reports: mission summary, SRB, ET, SSME performance & anomalies; Orbiter performance; anomalies; sequence of events timeline; problem tracking summary. Each report averages about 20-25 pages; the first three are longer.

STS-26 MISSION REPORT - TDRS, September 1998 (RTF)	\$20.00
STS-27 MISSION REPORT - DOD, December 1988	\$14.00
STS-29 MISSION REPORT - TDRS, March 1989	\$14.00
STS-30 MISSION REPORT - Magellan, May 1989	_____
STS-28 MISSION REPORT - DOD, August 1989	_____
STS-34 MISSION REPORT - Galileo, October 1989	_____
STS-33 MISSION REPORT - DOD, November 1989	_____
STS-32 MISSION REPORT - LDEF, January 1990	_____
STS-36 MISSION REPORT - DOD, February 1990	_____
STS-31 MISSION REPORT - HST, April 1990	_____
STS-41 MISSION REPORT - Ulysses, October 1990	each
STS-38 MISSION REPORT - DOD, November 1990	\$9.00
STS-35 MISSION REPORT - ASTRO-1, December 1990	_____
STS-37 MISSION REPORT - GRO, April 1991	_____
STS-39 MISSION REPORT - AFP-675, April 1991	_____
STS-40 MISSION REPORT - SLS-1, June 1991	_____
STS-43 MISSION REPORT - TDRS-E, August 1991	_____
STS-48 MISSION REPORT - UARS, September 1991	_____
STS-44 MISSION REPORT - DSP, November 1991	_____
STS-42 MISSION REPORT - IML-1, January 1992	_____

ORBITAL FLIGHT TEST (OFT) MISSION REPORTS Full, uncut versions of the detailed JSC reports for the first four shuttle flights are now available:

STS-1 ORBITER MISSION REPORT	243 pages	___ \$75.00
STS-2 ORBITER MISSION REPORT	184 pages	___ \$55.00
STS-3 ORBITER MISSION REPORT	146 pages	___ \$44.00
STS-4 ORBITER MISSION REPORT	107 pages	___ \$28.00

CARGO SYSTEMS MANUALS (CSMs) - These manuals "provide a single authoritative source for payload / spacecraft systems information" with drawings and systems data:

STS-39 PAYLOADS - TWO CSMs: IBSS/SPAS II and AFP-675 - 290 pages plus 38 foldout drawings ___ \$155.00

STS-40 PAYLOAD - SLS-1 - 361 pages; seven foldouts ___ \$125.00

STS-44 PAYLOAD - DSP 69 pages plus 16 foldouts ___ \$80.00

STS-48 UARS - 142 pages plus 24 foldouts. ___ \$85.00

STS-42 IML-1 - 450 pages plus 14 foldouts. ___ \$130.00

EVA ANNEX: GAMMA RAY OBSERVATORY Thorough material (with line drawings) on contingency EVA activities for GRO - including HGA deployment operations actually performed in flight! 72 pages. ___ \$24.00

EVA ANNEX: CREW AND EQUIPMENT TRANSLATION AIDS (CETA) STS-37. 87 pages. ___ \$27.00

SHUTTLE ORBITER HARDWARE CHANGES INCORPORATED IN OV-105 / ENDEAVOUR 55 pages. ___ \$21.00

FLIGHT DATA FILE REFERENCE DATA DOCUMENT This vital on-orbit document provides routine data needed by the crew to manage critical systems: electrical power, critical equipment lost, MDMs, CRT displays, fault messages, C&W displays, GPC info. 142 pages. ___ \$48.00

SPACELAB MODULE OPERATIONS CHECKLIST (GENERIC) / FLIGHT DATA FILE DOCUMENT Covers all routine and emergency procedures for module operations; carried aboard SLS-1 flight. 68 pages. ___ \$24.00

SPACELAB MODULE MALFUNCTION PROCEDURES / FLIGHT DATA FILE DOCUMENT - Outlines crew reactions to every module malfunction: time-critical problems (ECLS, atmosphere, EPS bus loss); communications; computer/CDMS; ECLS; and EPS systems. 345 pages ___ \$125.00

SPACELAB PALLET MALFUNCTION PROCEDURES / FLIGHT DATA FILE DOCUMENT - Step-by-step procedures for pallet mission contingencies: CDMS, computers, freon cooling, power systems, IPS electrical/thermal/mechanical systems, sensors. 310 pages ___ \$95.00

SPACELAB HIGH RATE DATA ASSEMBLY (HRDA) TRAINING MANUAL 55 pages. ___ \$19.00

SPACELAB ELECTRICAL POWER DISTRIBUTION SYSTEM (PALLET MODE) WORKBOOK 66 pages. ___ \$24.00

SPACELAB INSTRUMENT POINTING SYSTEM (IPS) TRAINING MANUAL Detailed description of every IPS component, including gimbal and mechanical systems, software, electronics, displays; nearly 100 line drawings. 200 pages. ___ \$30.00

SPACELAB IN-FLIGHT MAINTENANCE (IFM) CHECKLIST / FLIGHT DATA FILE DOCUMENT Like the Shuttle IFM document, this covers crew repair procedures: examples include avionics fan cable swap, contingency power, MMU changeout, tunnel fan changeout, etc. 140 pages. \$42.00

SPACELAB CDMS OVERVIEW This basic overview workbook covers the Command and Data Management System, with DPA hardware and software reviews. 43 pages. \$14.00

SPACELAB DATA PROCESSING ASSEMBLY WORKBOOK This detailed training manual covers the computer hardware for Spacelab: SSC, EXC, BUC, input/output units, remote acquisition units, mass memory units, data display system, remote amplification and advisory box, master timing unit, PCMMU, and PL MDM. 136 pages, two foldouts. \$42.00

SPACELAB HABITABILITY WORKBOOK Crew habitability equipment unique to Spacelab is described in detail: location coding, workbench, crew restraints, stowage, special equipment (straps, bungee restraints, etc.) 25 illustrations. 30 pages. \$9.00

SPACELAB CAUTION AND WARNING / EMERGENCY ALARMS Items covered include the fire suppression system, fire detection, C & W inputs and annunciation, systems displays. 47 pages. \$16.00

INTRODUCTION TO SPACELAB SIMULATOR Provides a basic description of Spacelab Simulator (SLS) located in Bldg. 5 at JSC - facility, training support, and the role of SLS in simulations. 20 pages. \$8.00

SPACELAB ELECTRICAL POWER DISTRIBUTION / LIGHTING SYSTEMS WORKBOOK A comprehensive text on the electrical system; detailed info on components, operational data. 79 pages plus 40 foldouts. \$90.00

EXTRAVEHICULAR MOBILITY UNIT (EMU) SYSTEMS TRAINING MANUAL This is the comprehensive training manual for the spacesuit - with a wealth of material on every aspect of the suit. Includes over 170 figures and line drawings with great views of all EMU components, along with five 11" x 17" foldouts! 264 pages. \$85.00

EXTRAVEHICULAR MOBILITY UNIT (EMU) CAUTION AND WARNING SYSTEM REFERENCE MANUAL This is the "malfunction" book for the spacesuit; has a detailed set of system flowcharts representing failure modes and messages. 310 pages. \$95.00

LIQUID ROCKET BOOSTER (LRB) CONTRACTOR STUDIES: FINAL REPORTS 110 pages. \$38.00

SPACE SHUTTLE ORBITER ARRESTING SYSTEM (SOAS) DESCRIPTION Full details of the transportable net implemented after the Challenger accident. 19 pages. \$8.00

PLANS FOR THE RESTRUCTURED SPACE STATION PROGRAM, MARCH 1991 Numerous line drawings and charts illustrate this compilation of NASA documents; includes Alternate Concepts, Assembly and Checkout Operations, Reduction of System Complexity, Manifest, Capability and Configuration. 70 pages. \$30.00

FISHER-PRICE SPACE STATION FREEDOM EVA REPORT / EXTERNAL MAINTENANCE TASK TEAM (EMTT) FINAL REPORT, JULY 1990 628 pages. \$165.00

ASCENT GUIDANCE AND FLIGHT CONTROL TRAINING MANUAL A completely revised and updated document, now with over 110 drawings and tables! The text explains the esoteric aspects of ascent with all post-Challenger changes included! 178 pages. \$55.00

SHUTTLE ENTRY TRAINING MANUAL Includes: entry design, constraints on boundaries of entry corridor, drag profile, entry targeting, guidance concepts, bank angle, nav aid input, more. 40 pages. \$15.00

DEORBIT PREP FLIGHT PROCEDURE HANDBOOK Presents not just the actions taken by the checklist, but the complete rationale with supporting information. Includes BFS prep, contingency door closure, backout. 39 pages. \$15.00

CONTINGENCY DEORBIT PREP FLIGHT PROCEDURE HANDBOOK Covers eleven contingency cases. 120 pages. \$44.00

REAL-TIME DATA SYSTEM (RTDS) HANDBOOK Covers the unique Mission Control system for EMU Caution and Warning system during EVA, the first use of the system in the MOCR. 120 pages. \$44.00

SPACE SHUTTLE SYSTEMS HANDBOOK This is an extraordinary document with 200 huge foldout schematics of every Space Shuttle system, including non-Orbiter elements such as the ET, SRB, and Main Engines! The drawings include return-to-flight hardware and engineering changes. Most are 11" x 34" or larger. Systems covered include: Main Propulsion, SRB, ET, Liquid Oxygen and Hydrogen system, SSME, 17" disconnect, payload bay, data processing, guidance, navigation and

control, mechanical, full display and control panels. \$480.00

CONTEMPORARY SPACEFLIGHT REPORTS

COSMIC BACKGROUND EXPLORER (COBE) 70 pages. \$21.00

NASA 90-DAY REPORT ON THE HUMAN EXPLORATION INITIATIVE Complete version of report on the Bush Moon/Mars initiative, detailing five reference concepts for lunar and Mars bases. It is exhaustive, featuring dozens of detailed line drawings. 152 pages. \$48.00

NATIONAL RESEARCH COUNCIL REPORT: HUMAN EXPLORATION OF SPACE, A REVIEW OF NASA'S 90 DAY STUDY AND ALTERNATIVES Findings include: alternative mission concepts, nuclear propulsion, critical technologies, artificial gravity, space science. 73 pages. \$18.00

NATIONAL RESEARCH COUNCIL REPORT: U.S. GLOBAL CHANGE RESEARCH PROGRAM Concentrates on the NASA Earth Observing System (EOS) and Mission to Planet Earth program, examining options for instruments. 102 pages. \$24.00

OFFICE OF TECHNOLOGY ASSESSMENT REPORT - AFFORDABLE SPACECRAFT: DESIGN AND LAUNCH ALTERNATIVES Examines options for reducing high cost of spaceflight: fatsats, lightsats, microspacecraft, laser-powered rockets, and railguns. 36 pages. \$14.00

SPACEFLIGHT HISTORY REPORTS

SOVIET SPACE PROGRAMS, 1968 - 1970 Extensive review of manned and unmanned flights, starting with Sputnik 1! Statistical tables and line drawings illustrate this huge report. 670 pages. \$190.00

SOVIET SPACE PROGRAMS: 1971 - 1975 / OVERVIEW, FACILITIES AND HARDWARE, MANNED AND UNMANNED FLIGHT PROGRAMS, BIOASTRONAUTICS, CIVIL AND MILITARY APPLICATIONS, FUTURE PLANS This heavily-illustrated government report with many line drawings and tables provides comprehensive coverage of the period, which includes the unmanned lunar programs, Kosmos series, Soyuz, Salyut, and Zond, and ASTP. 668 pages. \$185.00

SOVIET SPACE PROGRAMS: 1976 - 1980 / SUPPORTING VEHICLES AND LAUNCH VEHICLES, POLITICAL GOALS AND PURPOSES, INTERNATIONAL COOPERATION, ADMINISTRATION, LAUNCH SITES AND VEHICLES, MASTER LOG OF FLIGHTS 1957-80. 21 tables, 31 figures. 445 pages. \$135.00

SOVIET SPACE PROGRAMS: 1981 - 1987 Includes Salyut 7, MIR, space life sciences, future piloted activities, launch sites and vehicles, support services, space support ships. 280 pages. \$90.00

ON THE MOON WITH APOLLO ...
These guidebooks, prepared by a NASA scientist, provided detailed information about the scientific investigations planned for the mission. Contents: Landing Site, Lunar Roving Vehicle, Surface Science Activities (with detailed descriptions and line drawings of each instrument), Orbital Science Activities, and many charts, tables, and illustrations.
ON THE MOON WITH APOLLO 15 46 pages. \$15.00
ON THE MOON WITH APOLLO 16 90 pages. \$28.00
ON THE MOON WITH APOLLO 17 110 pages. \$30.00
ALL THREE "ON THE MOON" REPORTS \$66.00

OTHER RECENT WSN SPECIAL REPORTS

SHUTTLE PAYLOADS

HUBBLE SPACE TELESCOPE (HST) SYSTEMS DESCRIPTION HANDBOOK Covers every system and subsystem. Hundreds of detailed line drawings, schematics, and cutaways - highlighted by a set of six giant foldout drawings! 220 pages plus six 11" x 17" or larger foldouts. \$78.00

GAMMA RAY OBSERVATORY (GRO) TECHNICAL DESCRIPTION AND SCIENCE PLAN Subsystems and instruments. 124 pages. \$39.00

SHUTTLE SYSTEMS AND FACILITIES

SHUTTLE FLIGHT OPERATIONS MANUAL (SFOM): CREW SYSTEMS SFOMs provide a single source of the most detailed information about hardware for astronauts and flight personnel. This volume covers crew module equipment: stowage, interfaces, functional descriptions, performance, constraints; 380 drawings, figures, and illustrations. 700 pages plus 14 11 x 17" foldouts. \$160.00

GLOSSARY, ACRONYMS, AND ABBREVIATIONS FOR STS AND ASSOCIATED PAYLOADS NASA's compilation of nearly 10,000 Shuttle-related acronyms and phrases. 97 pages. \$29.00

SPACE SHUTTLE MAIN ENGINE (SSME) DESCRIPTION AND OPERATION: TECHNICAL MANUAL Produced by Rocketdyne, this detailed manual is considered the standard reference for SSME data. 40 drawings. 52 pages. \$16.00

SSME: ROCKETDYNE PRESENTATION TO THE PRESIDENTIAL COMMISSION Excellent document provides unique data, superb line drawings. Program description, development/test program, margin changes. 102 pages. \$28.00

KENNEDY SPACE CENTER SHUTTLE FACILITIES: LAUNCH COMPLEX 39 AND ASSOCIATED FACILITIES Over 30 drawings: LC-39, VAB, OPF, LCC, Mobile Launcher, Tail Service Masts, Engine Service Platforms, Fixed Service Structure, Access Arms, RSS. 51 pages plus 11" x 17" foldout map \$16.00

SHUTTLE ORBITER DISPLAY, CONTROL, AND SWITCH PANELS All displays and controls, including the aft flight deck, middeck, with identified markings: 79 panels on 11 one-sided 11" x 17" foldouts. \$14.00

LAUNCH PROCESSING SYSTEM / SHUTTLE FIRING ROOM UTILIZATION PLAN (1988) This document shows you what the engineers huddled at their consoles are doing; describes console functions and gives seating arrangements for engineers. Hardware responsibilities of each console are listed. 56 pages. \$19.00

LAUNCH COMPLEX 39 OPERATIONAL TELEVISION REFERENCE GUIDE Identifies each OTV camera location, and furnishes a view of the coverage obtained from each. Describes other aspects of KSC video (switchers, controls). 96 pages. \$36.00

MAJOR SHUTTLE PROGRAM DOCUMENTS

KSC SHUTTLE COUNTDOWN DOCUMENT: BASIC CONTROL PROCEDURES Used by launch team; individual steps are known as "operations instructions," and this set of actions is called the "control procedure document" by KSC. Everything from initial call to stations to liftoff is included. Certain contingency actions for on-pad aborts and RTLS are included. No better way to follow the excitement of the countdown! 510 pages in three-ring vinyl binder. \$135.00

EXCERPT OF KSC SHUTTLE COUNTDOWN DOCUMENT (Terminal Count Sequence Only) This is a part of the full document above, with actions and operations that start with the Terminal Sequence at T-6 hours. \$39.00

SHUTTLE COUNTDOWN BAR CHARTS These 15 charts provide a total review of all critical events through the STS-29 countdown. The last hour of the count is covered in 1 minute or 30 second intervals. 15 single-sided charts. \$8.00

KSC LAUNCH PAD EMERGENCY EGRESS / ESCAPE DATA PACKAGE Four documents with details of new hardware, procedures: Orbiter Flight Crew and Pad Ground Crew Emergency Egress and Escape Launch Pad Emergency Procedures with instructions, tools, 14 pages of LC-39 drawings; Pad Emergency Egress Data Book is single-source of data, with slidewire, FSS, white room, bunker, OTV, M-113 data, 29 full-page drawings; Pad Emergency Egress Test Report, 1/87, results of tests with recommendations; and 174 areas of concern; and Launch Pad Emergency Egress / Rescue Simulation June 1987 included night-time simulation to evaluate lighting conditions. 95 pages. \$33.00

ORBITER LANDING EMERGENCY RESCUE DATA - SHUTTLE OPERATIONAL DATA BOOK VOLUME IV Incredible line drawings of Orbiter with totally new views of systems; has technical information and basic safety critical procedures with complete list of all fluids and gases; drawings of fluid and tank locations; external views, internal structure, wiring, EPS lines, ECLSS, hydraulics, APUs, RCS, OMS, MPS, Landing gear/fire extinguisher/window/RMS/antenna/side hatch pyrotechnics; crew module; crew equipment, breathing systems; seats, escape equipment (slide, hatch, pole, etc.), module cut-in, personnel procedures, powerdown, Shuttle Carrier Aircraft (SCA) description/drawings. 45 foldout drawings 11" x 17" or larger, plus 115 pages, Spectacular! \$100.00

GROUND LAUNCH SEQUENCER (GLS) DESCRIPTION DOCUMENT This KSC document, updated for STS-30, is a step-by-step description of the functions performed by the GLS, which is the fully automated software which controls the Shuttle countdown. Every step or event (including some not in the Countdown Document) is referenced by time - takes you right up to liftoff. Alternative actions, holds, cutoffs, and breakouts are included. 168 pages. \$45.00

LAUNCH COMMIT CRITERIA (LCC) IMPLEMENTATION PLAN Provides a comprehensive list of LCCs, organized by subsystem, and shows how each is implemented in GLS software or in other ways. Each listing is identified by the name of the LCC, document page number, start/stop time for monitoring, method, and displays. 189 pages. \$58.00

EVA CATALOG OF TOOLS AND EQUIPMENT JSC document provides complete reference source of all 230 tools for Shuttle EVAs. Cutters, levers, electrical tools, restraints, adapters, many others; includes tools for HST maintenance, and early Space Station designs. 480 pages. \$135.00

SHUTTLE OPERATIONAL DATA BOOK (SODB) - VOLUME ONE (Part One) SODB is the "single authoritative source of properly validated operational performance data: shall be used as the standard operational data base for all mission design." Sections in this part include: Configurations and Coordinates, Constraints and Operational Limitations, and ET/SRB. Each hardware limitation is defined and the result if the limit is exceeded is shown. 65 subsections provide the details, with every conceivable criteria - from temperature and pressure to operational cycles. 413 pages with 9 foldouts 11" x 17" or larger. \$132.00

SHUTTLE OPERATIONAL DATA BOOK (SODB) - VOLUME ONE (Part Two) Giant document with Orbiter Performance and Operational Data, descriptions of the fundamental performance of all subsystems and components! The scope and detail is incredible! Heavily illustrated with line drawings, charts, tables, graphs. 1115 pages, with two 11" x 17" foldouts. \$290.00

POST-CHALLENGER FLIGHT DATA FILE CHECKLISTS

All of these checklists are "merged" versions of All-Flight Generic plus STS-26 flight-specific supplements; final versions:

ASCENT CHECKLIST Prelaunch procedures, Ascent flip book, contingency cards, ascent cards, post OMS-1 burn procedures. 86 pages. \$33.00

POST-INSERTION PROCEDURES CHECKLIST Picks up where Ascent Checklist leaves off, with payload bay door opening, computer configuration, AFO procedures, full switch list with diagrams. 26 pages. \$11.00

ORBIT OPERATIONS CHECKLIST Called the "orbit ops" list, this is heavily used during flight for conducting routine operations: APU, crew systems, communications, DPS, ECLSS, EPS, GNC, MPS, OMS, RCS, sep maneuvers. 135 pages. \$38.00

DEORBIT PREP CHECKLIST Covers time from CAP to Entry Checklist. Radiator stow, PLBD closure, Ku-band antenna stow, burn attitude, clothing configuration, entry switch list, seat ingress, APU prestart, deorbit burn. Deorbit prep backout and contingency PLBD closure included. 86 pages. \$32.00

ENTRY CHECKLIST This completes the set of basic nominal checklists. Includes maneuver pads, OMS pads, burn cue cards, entry cue cards/procedures, post-landing procedures, loss of FES burn, switch list at wheels stop. 130 pages. \$38.00

* FULL SET OF ALL FIVE CHECKLISTS \$130.00

MEDICAL CHECKLIST (Generic and STS-29 Flight Supplement) Recommended responses to medical problems: listed in alphabetical order (from abdominal injury to upset stomach), medication side effects; also experiments. 120 pages. \$36.00

CONTINGENCY DEORBIT PREP (Generic and STS-30 Flight Supplement) Includes launch day prep, switch list, loss of two fuel cells, loss of FES, loss of two water or Freon loops, emergency deorbit prep/entry, jettisons. 252 pages. \$75.00

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FIRST SKYLAB MISSION (SL-1/SL-2) LAUNCH CHECKLIST Liftoff switch configuration, boost checklists, systems checks, abort procedures and checklists, emergency procedures. 22 pages. \$10.00

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SKYLAB WORKSHOP (SWS) ACTIVATION CHECKLIST This Flight Data File document, from the second Skylab mission (which had a "routine" activation procedure), was used as the astronauts opened up the station. Each of the tasks required to activate the workshop is detailed. 146 pages. \$38.00

SKYLAB ENTRY CHECKLIST Another SL-3 Flight Data File document with normal procedures - entry sims, undocking, fly around, shaping burn, deorbit burn, entry, and post-landing - along with contingency procedures (nine in all). 124 pages. \$33.00

APOLLO-SOYUZ TEST PROJECT (ASTP) CSM RENDEZVOUS BOOK A Flight Data File document for the 1975 joint mission, with nominal plans along with various failure mode procedures. 92 pages. \$26.00

APOLLO-SOYUZ TEST PROJECT (ASTP): SOVIET AND AMERICAN PRESS KIT TECHNICAL DATA Comprehensive descriptions - by the Soviets - of the Soyuz, with line drawings; docking system, mission control, more. 28 pages. \$10.00

APOLLO-SOYUZ TEST PROJECT (ASTP): FINAL FLIGHT PLAN AND JOINT CREW ACTIVITY PLAN 38 pages. \$11.00

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'THE CHALLENGER' TRAGEDY: 51-L CATASTROPHE SPECIAL REPORTS

TSR-1 THE PRESENTATION TO THE PRESIDENTIAL COMMISSION ON THE SPACE SHUTTLE CHALLENGER ACCIDENT BY NASA: 2/10/86 O-ring problem, August 1985 Thiokol presentation (63 potential remedies), Richard Cook memos, Mulloy's description, Crit 1 waiver (1983). 125 pages. \$35.00

TSR-2 51-L DATA AND DESIGN ANALYSIS TASK FORCE PRESENTATIONS TO THE PRESIDENTIAL COMMISSION ON THE SPACE SHUTTLE CHALLENGER ACCIDENT, MARCH 21, 1986 Fault Tree Scenario Analysis, Trajectory and Flight Dynamics reconstruction, Propulsion System performance, Liftoff Dynamics. 70 pages. \$28.00

TSR-3 DOCUMENTS RELEASED BY THE PRESIDENTIAL COMMISSION ON THE SPACE SHUTTLE CHALLENGER ACCIDENT: MAY 10, 1986 O-ring history, launch constraints, memos, safety reports, CIL change requests, more. 60 pages. \$28.00

TSR-4 NASA SEARCH, RECOVERY, AND RECONSTRUCTION TASK FORCE TEAM REPORT (a) Ships and vessels used in recovery; Surface Mishap report; radar report; list of recovered debris (with a catalog of the 4071 separate items found). 42 pages. \$14.00

TSR-5 NASA SEARCH, RECOVERY, AND RECONSTRUCTION TASK FORCE TEAM REPORT (b) Includes Salvage operation data, SRB debris (line drawings of recovered pieces), NTSB report. 44 pages. \$14.00

TSR-6 NASA TASK FORCE TEAM REPORTS Pre-launch activities report; Mission Planning and Operations report; Development and Production report (good review of safety issues). 48 pages. \$15.00

TSR-7 NASA ACCIDENT ANALYSIS TASK FORCE REPORT - WITH SRM TEAM TEST RESULTS AND FINDINGS The definitive statement by NASA - very detailed information. MTI comments by Boisjoly. 124 pages. \$36.00

TSR-8 FLIGHT READINESS REVIEW TREATMENT OF O-RING PROBLEMS 49 pages. \$15.00

TSR-9 APPENDIX N / ROGERS COMMISSION APPENDIX: NASA PHOTO AND TV SUPPORT TEAM REPORT Includes full 51-L incident Integrated Events Timeline; observed anomalies, detailed telemetry data. 102 pages. \$35.00