June 1984

SHUTTLE SERIES MPAD / RTG (BROWN) DOCUMENTS

Robert Brown was Branch Chief of the Technology Development & Applications Branch of the Mission Planning & Analysis Division (MPAD). Among other functions, this branch was responsible for dynamic systems. Mr. Brown also chaired the committee studying the Radioisotope Thermoelectric Generator (RTG) to be used in the Galileo and Ulysses payloads scheduled to fly on the Shuttle. This subseries consists predominantly of copies of meeting minutes, reports and correspondence related to Mr. Brown's role in the safety testing of the RTG device. The collection runs from the mid 1970s through 1988. Boxes 1 through 13 contain original files in the order received. No changes were made to the contents and minimal changes for readability were made to the titles. Box 13 through the end of the run contain the contents of notebooks. The contents were removed and foldered according to the inventory received with the books. Green dividers mark each book title from the original notebook. Basically, nothing has been changed. Some documents were listed in detail and others not mentioned at all. Those not listed, in most cases, were kept in the original order and placed in folders with listed documents. Where documents had lost the original order (not in notebooks or not related to material surrounding it), documents were

put into folders entitled (Miscellaneous, Unlisted.) Because original order was maintained so that the inventory listing could be used, the chronological order of documents from the notebooks (although not consistent) generally goes from most recent to earliest dates. The

original order of the files seemed to have been alphabetical.

Inventory

Inventory		
SubHeading:	Box Number: 01	
	Release Conditions of the Two RTG's Breakup Case 1: Steep	October 1981
	Release Conditions of the Two RTG's Galileo Breakup Case 2	July 1982
	Report of NASA Management Review Panel on the Safety of the Shuttle RTG Missions	February 1985
	Results of Case 2 Breakup Analysis Conducted at JPL	July 1982
	Response of the SPHS RTG to Explosive Environments	May 1983
	Response ot the GPHS - RTG to Explosive Environments - Final Report	May 1983
	Results of Nonlinear Regressions of the Project PYRO Pressure and Impulse Data	September 1984
	Report of the Shuttle Transportation System (STS) Explosion Working Group (EWG)	June 8, 1984
	Review of Centaur Reliability Model Presented in Reference Report	October 1982
	Review of LASP USAR Review Report	June 1984
	Review of Meteorological Aspects of Galileo / ISPM USAR, Vols. I, II, III	June 1984
	Review of Potential Galileo and ISPM RTG Environment	January 1984
	Review of Potential Galileo and ISPM RTG Environments	June 1984
	Review of RTG Safety Analysis Data	August 1984
	Review of Space Shuttle Data for Nuclear Safety Analysis Preliminary	February 1979
	Revised Appendix to the Safety Evaluation Report	March 1986
	Report of Space Transportation System (STS) Explosion Working Group (EWG)	July 1985
SubHeading:	Box Number: 02	
	RMS FMEA / CIL Review	July 1986

RTG Overview Committee File

	RTG Nuclear Safety Study Program Plan, CDRLO57A2	May 1979
	RTG Shield Requirements Review	July 1986
	Safety Analysis Report for the Galileo Mission Light - Weight Radioisotope Heater Unit - Volume I & II (draft)	n.d.
	Safety Evaluation for Launch Vehicle Accidents (pgs 55-84)	n.d.
SubHeading:	Box Number: 03	
	Science Applications Incorporated On- board Remote Terminals Study Program: Final Report	August 1981
	Selection of Second Breakup Case for Galileo	February 1982
	Shuttle Baseline Data	April 1979
	Shuttle / Centaur Orientation at NASA LeRC	May 1981
	Shuttle Data for Nuclear Safety Analysis, Vehicle Level Working Group,Interagency Nuclear Safety Review Panel	n.d.
	Shuttle Failures Which Could Result in an Intact Orbiter Impact	February 1984
	Shuttle Safety Analysis Support to Galileo Mission / Rockwell SD78-SH- 0204	October 1978
	SIG / GM Handout for STS Safety	September 1978
	Simulation Code for Reentry Velocities and Flight Path Angles	July 1979
	Snap-27 Reentry Safety Presentation	September 1968
SubHeading:	Box Number: 04	
	SP-100 Space Nuclear Reactors	May 1983
	Status of Galileo / ISPM RTG Safety Studies	June 1984
	Xerox Copies, Shuttle and Galileo Line Drawings	n.d.
	Space Flight Handbooks Volume III Planetary Flight Handbook, SP35	January 1969
	Space Platform NASA / MDAC Bendix IBM, Final Report	November 1981
	Space Propulsion Hazard Analysis Manual Program Plan	January 1984
	Space Propulsion Hazards Analysis Manual - Annotated Bibliography Program Review Data Package (Interim)	December 1984
	Space Shuttle Data for Nuclear Safety Analysis Revision 1, JSC-16087	July 1982
	Space Shuttle Data to Support Nuclear Payload Environmental Impact Statements	November 1976
	Space Shuttle Requirements for Nuclear Safety Analysis	June 1978
	Spacecraft Contamination / Characterization & Control NASA / AF Interdependency	March 26, 1985
	Development of STS / Centaur Failure Probabilities Liftoff to Centaur Separation Technical Report No. 82- 1404	February 1982
SubHeading:	Box Number: 05	
	Draft Final Safety Analysis Report for the Galileo Mission and the Ulysses Mission Vol. II Book 2	August 1985

	Dynamic Motion of the GPHS - RTG Inboard Fuel Module Upon Emergence from the RTG for Galileo Entry Breakup Cases 1 & 2	January 1983
	MCC Mature Ops Timeframe, ERRP Step 2, Level B Requirements for Host Software, JSC-12370, 7 vols.	July 1985
	ET Failures that Could Result in On - Pad or In - Flight Explosion	July 1984
	Evaluation of Fragment Models and Analysis of Solid Propellant Response to STS Launch Accidents	January 1982
	Explosions, Centaur	July 1984
	Final Safety Analysis Report for the Galileo Mission and the Ulysses Mission	May 1986
	Fragments Environments or Postulated Accidents of the STS and Postulated Accidents of the Orbiting Vehicle	October 1980
	Final Safety Analysis Report for the Galileo Mission and the Ulysses Mission Vol. III, Book 2, Appendix A-F	October 1985
	Formation of a Working Group to Support the Interagency Nuclear Safety Review Panel	February 1978
	Fragment Environments for Postulated on - Orbit Accident Sequences of the STS Vehicle	August & October 1980
SubHeading:	Box Number: 06	
	Fifth Annual Convention Society of Piping Engineers & Designers	October 1985
	Future Orbital Power Systems Technology Requirements CP2058	May 1978
	Galileo Breakup Analysis Case 3	March 1983
	Galileo / Centaur Failure Probabilities (partial)	n.d.
	Galileo Conceptual Flight Profile	n.d.
	Group Display and Video Distribution Equipment, JSC-12370	July 1985
	Galileo Launch Abort Panel File	1979 - 1982
	Galileo Orbital Malfunction Analysis	September 1979
	Galileo RTG Reentry Breakup Analysis, A. D. McRonald	September 1984
	Galileo Shuttle Centaur 1986 Targeting Specification (Preliminary)	May 1983
SubHeading:	Box Number: 07	
	Galileo Mission Centaur G Prime Reliability Analysis for the Radioisotope Thermoelectric Generator (RTG)Safety Study	November 1983
	Galileo Trajectory Parameters	November 1982
	Galileo / Ulysses Nuclear Safety Evaluation Report	February 1986
	General Electric Final Test Report GPHS Drop Test for Impact Orientation	January 1985
	GPHS Reentry Analysis	n.d.
	GPHS Reentry and Impact: Meeting at GE on January 25-26, 1983	January 1983
	GPHS RTG Organizational Responsibilities	n.d.
	Heat Sources Module Entry Motion	n.d.
	Identified Shuttle / Centaur Airborne	March 1983

Hazards for the Radioisotope Thermoelectric Generator Safety

Thermoelectric Generator Safety Study	
Information Science, Inc. On-board Remote Terminal Study and Executive Summary	September 1981
Information Science Inc. Functional Specification of Software to Support SOC Operations	October 1981
An Improved Fragment Model for Internal Explosion of LO2/LH2 Propellant Tanks	January 1981
Initial Estimate of Potential Most Credible Shock Wave Properties	December 1978
Initial Estimated Shuttle Maximum Credible Explosives Equivalency Factors	December 1978
INSRP Vehicle Level Working Group Agenda	January 1984
Interagency Nuclear Safety Review Panel	November 1977
Interagency Nuclear Safety Review Panel Review of the Update Safety Analysis Report for the Galileo and International Solar Polar Mission	December 1983
Interagency Nuclear Safety Review Panel (INSRP) Support	September 1981
Interagency Nuclear Safety Review Panel (INSRP)	November 1977
International Astronautical Federation IAF '81 Safety Aspects of Nuclear Waste Disposal in Space	September 1981
International Solar Polar Mission Centaur G Prime Reliability Analysis for the Radioisotope Thermoelectric Generator (RTG) Safety Study Revision A	November 1983
ISPM Case Breakup Analysis	April 1983
IUS Accident Summary	n.d.
IUS Galileo Spacecraft Breakup Analysis	n.d.
JHU / APL Presentation INSRP Reentry Subpanel	January 1983
Jupiter Orbiter Probe / Space Transportation System & Support Element Interaction Review	December 1977
Justification for Noncompetitive Procurement, Wiggins Co. Failure Probability	February 1979
Launch Abort Subpanel Status and Recent Recommendations	May 1984
LAUNCH, A Computer Code for Determining Launch Vehicle Reliability	September 1977
Light Weight Radioisotope Heater Unit Safety Analysis Report (LWRHU - SAR) Vol. 1	October 1985
Light - Weight Radioisotope Heater Unit Safety Analysis Report (LWRHU - SAR) Vol. II Accident Model Document	October 1985
Box Number: 08	
Letter to Dr. Bennett Re: Working Schedule for GPHS Safety Verification Tests	December 1982
Letter to Mr. Brown Do: Schodule for	

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Letter to Mr. Brown Re: Schedule for GPHS Program

Letter to Mr. Brown Re: Shuttle Range Safety Hazard Analysis

December 1982

March 1982

Letter to Dr. Buchanan Re: Galileo	1
Delta Phase I Ground Safety Review	January 198
Letter to Mr. A. Diaz Re: Postulated Accidents	April 198
Letter to Dr. Gerald Walberg Re: ISBM Breakup Analysis for Case 2	April 198
Letter to L. Ullian Re: Safety Tests for Nuclear Power Sources	March 19
Letter to Gerald Walberg Re: ISBM Breakup Analysis for Case 1	December 19
Letter to Kenneth Sutton Re: Breakup Analysis for Case 3	February 19
Major Unresolved Issues	n
Manipulator Analysis; Interactive Graphic, Kinematic (MAGIK) Program	June 19
Marked for Materials Identification Galileo Spacecraft Configuration, Requirements, Mass Properties	July 19
Minutes of Launch Abort Subpanel Meeting	November 19-21, 19
Minutes of the December 6-7, 1987 INSRP - WG Meeting	January 19
Minutes from the INSRP Reentry Subpanel Meeting	August 19
Minutes from INSRP Reentry Meeting Subpanel Meeting	January 19
Minutes from INSRP Reentry Subpanel Meeting	May 19
Minutes from Vehicle Level Working Group Meeting October 4, 1984	November 19
Minutes of Meeting, Space Shuttle & Centaur Vehicle Hazards	June 19
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Minutes of the STS Explosion Working Group (EWG) Meeting Germantown Maryland, 1/24/84	February 19
Minutes of the STS Explosion Working Group (EWG) Meeting	March 19
Minutes of the Vehicle Level Working Group Meeting	October 19
Minutes of the Vehicle Level Working Group Meeting, 10/82	November 19
Aaron Cohen File (Including Safety Evaluation Report for Galileo)	July 19
(Accident Identify Probability Software Analysis) RTG Nuclear Safety Study Program Plan	19
Activities of the Launch Abort Subpanel for the Galileo Mission	September 19
Activities of the Launch Abort Subpanel for the Galileo Mission	November 19
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Activities of the Launch abort Subpanel for the Galileo and Solar Polar Missions	August 19
Activities of the Launch Abort Subpanel for the Galileo and Solar Polar Mission	April 19
Activities of the Launch Abort Subpanel for the Galileo and Solar / Polar Mission	June 19
Ad Hoc Working Group for Explosive Equivalency	July 19
Advance Technology Advisory	May 19

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	Committee, NASA Automation and Robotics (4 vols.)
October 1977	Agenda INSRP Shuttle Data Meeting (Presentation Material)
	Box Number: 11
June 1986	Assembly of U. S. Modules Using the MSC Clearance Calculations & Assembly Diagrams
June 1979	Assessment of IUS Accidents Resulting in Large Entry Velocities and Flight Path Angles
February 1986	Aviation Week & Space Technology Re: 51-L
n.d.	Backup Data Generated During the Study Which Formed the Basis of the Report, Shuttle Nuclear Payload Safety Analysis
November 1982	Blast hazards Analysis of Spacecraft and Missiles
March 1985	Blast Hazards Analysis of Space Vehicles, Riehl, Ullian, ana Atkins
March 1985	Blast Hazards Analysis of Space Vehicles, Riehl, Ullian, and Atkins (RUA) Method, Volume 2: Edited Transcript
March 1979	Boeing STS Flight Operations Tasks for Galileo
November 1984	Breakup Analysis Final Report Jet Propulsion Laboratory, Ulysses
January 1983	Breakup Characteristics of Reentering Satellites
September 1985	Calculating the Geoidal Separation, JSC-20736
n.d.	Centaur Safety Analysis Data Submittal Plan for Galileo and ISPM Missions
November 1982	Centaur Vehicle Misalignment Probabilities
September 1981	Centaur F Technical Description a High Performance Upper Stage
	Box Number: 12
April 1982	Characterization of Off Nominal Shuttle Reentry Environments for the Nuclear Safety Review (2 vols.)
May 1982	Close out of Action Items 1, 3, and 11 from the March 31 Meeting of the Vehicle Level Working Group
March 1985	Comments on Report of NASA Management Review Panel on the Safety of the Shuttle RTG Missions
May 1984	Comparison of Wiggins and SERA Reports by the Launch Abort Subpanel (LASP)
n.d.	Contracts - Miscellaneous Nuclear Safety Study Materials
April 1985	Conclusions Overpressure Tests. Summary of Interagency Nuclear Safety Review Panel Meeting
March 1983	Contract NAS3-22901, Radioisotope Thermoelectric Generator (RTG) (memo only)
May 1983	Contract NAS3-22901, Radioisotope Thermoelectric Generator (RTG) Safety Analysis
March 1985	Contract NAS3-22901, (RTG) Safety Analysis. Ulysses Mission Centaur G Prime Reliability Analysis for the

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Radioisotope Thermoelectric
Generator (RTG) Safety Study

Crew Seats. Restraints, and Associated (Orbiter Crash and Rescue Information)

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Box Number: 13 Data Delivery Schedule Update September 1983 Designation of Member to Interagency February 1978 Nuclear Safety Review Development of STS / Centaur Failure Probabilities Liftoff to Centaur February 1982 Separation Discussion Summary (Shuttle / n.d. Centaur Integration) Distribution of Change No. 120 JSC-November 1985 07700, Volume III Distribution of Change No. 4, JSC-March 1986 08116 Draft Final Safety Analysis Report for the Galileo Mission and the Ulysses August 1985 Mission Executive Summary Draft Final Safety Analysis Report for the Galileo Mission and the Ulysses August 1985 Mission Vol. I Reference Design Document Draft Final Safety Analysis Report for the Galileo Mission and the Ulysses August 1985 Mission Vol. II Book 1 Accident Model Document Flight 23: Flight Feasibility June 1978 Assessment, Galileo JSC-14274 Galileo - STS / Galileo / ISPM Launch March 1983 Policy Launch Vehicle Status (Shuttle / July 10, 1984 Centaur) July 10, 1984 Shuttle Launch Abort Investigation RTG Assessment June 26, 1984 Status of Launch Approval for the Galileo and Solar Polar Radioisotope Thermoelectric Generators Using the May 1984 Space Shuttle / Centaur Launch Vehicle Combination MINUTES INSRP - WG MEETING Minutes of the First INSRP - WG March 17, 1978 Meeting MINUTES INSRP - WG MEETING Minutes of the Second INSRP - WG July 6, 1978 Meeting MINUTES INSRP - WG MEETING Minutes of the December 6-7, 1978 January 8, 1979 INSRP - WG Meeting MINUTES INSRP - WG MEETING Minutes of the Vehicle Level Working November 4, 1980 Group Meeting Box Number: 14

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KSC - USAF

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1978-79

Response to Action Item (4) and Action Item (9) Assigned at Launch JSC-08116 April 23, 1985 Abort Subpanel Meeting April 2 and 3, 1985

Acceleration of Selected Fragments by JSC-08116 Propellant Explosions in the Cargo July 31, 1985

JSC-08116 Explosions in Space Shuttle Cargo July 1985 Bay

Calculations of Centaur Propellant

Panel Review of the Final Safety

LASP Tasks for the Sea Agreed to at JSC-08116 August 1985 6-7 August 1985 Meeting

JSC-08116 Interagency Nuclear Safety Review March 5, 1985

	Analysis Report for the Galileo and Ulysses Missions	
JSC-08116	Comments on JSC-08116	n.d.
JSC-08116	Technical Issue Comments on JSC Document 08116, Space Shuttle Data for Planetary Mission RTG Safety Analysis	March 29, 1985
JSC-08116	Silicon Germanium (SiGe) Radioisotope Thermoelectric Generator (RTG) Program for Space Missions	February 1985
JSC-08116	Safety Panel Raises Questions About Orbiter / Centaur / Nuclear Unit, Defense Daily	February 27, 1985
JSC-08116	Support for RTG Shielding Task	October 25, 1984
JSC-08116	RTG Activities	May 24, 1985
JSC-08116	Overview of the U. S. Flight Safety Process for Space Nuclear Power	July - August 1981
JSC-08116	Review of RTG Safety Analysis Data	August 3, 1984
JSC-08116	Task Approach for Reviewing Data for RTG Safety Analysis	August 10, 1984
JSC-08116	JSC-08116 Chapter 21 (Mission & Launch Rules)	March 13, 1987
JSC-08116	Revision to Space Shuttle Data Book, NSTS-08116	February 10, 1987
ULYSSES - RTG SHUTTLE	Charter or the INSRP Program / STS 51-L Explosion Working Group	November 26, 1986
ULYSSES - RTG SHUTTLE	Revision to Space Shuttle Data Book, NSTS-08116	January 9, 1987
ULYSSES - RTG SHUTTLE	Joint Meeting of JSC-08116 Document Update and Revision Working Group and INSRP STS 51-L Explosion Working Group	January 10, 1987
ULYSSES - RTG SHUTTLE	Revision to Space Shuttle Data Book, NSTS-08116	January 9, 1987
ULYSSES - RTG SHUTTLE	RTG Safety Assessment and Monthly Management Reported	January 13, 1987
ULYSSES - RTG SHUTTLE	Revision of the Shuttle Data Book (JSC-07116) for the Galileo (GLL) and Ulysses (ULS) Nuclear Launch Safety Analysis	December 31, 1986
ULYSSES - RTG SHUTTLE	Update to JSC-08116 for Galileo and Ulysses Missions	November 4, 1986
ULYSSES - RTG SHUTTLE	JSC Representative on the Interagency Nuclear Safety Review Panel (INSRP) Launch Abort Subpanel (LASP)	October 10, 1986
ULYSSES - RTG SHUTTLE	Galileo / Ulysses RTG Safety Assessment Plan Launch Vehicle and RTG Shield Options	August 1, 1986
SubHeading:	Box Number: 14 *	
JSC-08116	Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis * Report JSC-08116 * This 421 page document has been scanned	February 15, 1985
JSC-08116	Distribution of Change No. 1, JSC- 08116 * This 189 page document has been scanned	April 15, 1985
JSC-08116	Major Area of Concern to the JSC Data Book JSC-08116 Space Shuttle Data for Planetary Mission RTG Safety Analysis * This 11 page document has been scanned	April 12, 1985
SubHeading:	Box Number: 15	
INSRP	V-Y Reentry Analysis for Galileo	May 2, 1979

INSRP	Non - Design Items Which can Shorten STS Ground Turnaround Time	July 1, 1978
INSRP	RCS Data Package	October 5, 1977
INSRP	Notes from the Vehicle Working Group Meeting September 13-14, 1978	September 14, 1978
INSRP	Technical Support for Nuclear Power System Safety	May 12, 1979
INSRP	INSRP Vehicle Level Working Group Schedule	November 12, 1980
INSRP	Shuttle Shrapnel Environment	September 26, 1980
SRB - RTG	SRB Thrust Termination Study	August 14, 1980
SRB - RTG	Trip Report, RTG Accident Probability Task Team: Revision of Boeing Fault Trees - JSC	January 27 - 29, 1988
SRB - RTG	RTG Safety Monthly Management Report for Galileo and Ulysses Missions	February 22, 1988
SRB - RTG	Survival Time After Loss of and SRB	February 9 - 11, 1988
SRB - RTG	Delta Launch Vehicle Accident Investigation	June 5, 1986
SHUTTLE DATA BOOK	Accident Environment Workshop, February 24 - 26, 1987	February 13, 1987
SHUTTLE DATA BOOK	Range Safety for the STS Galileo and Ulysses Missions	March 2, 1987
SHUTTLE DATA BOOK	Blast Loading Model for Fragments	n.d.
SHUTTLE DATA BOOK	Uncontrolled Reentry of Orbiter	n.d.
SHUTTLE DATA BOOK	Upper Stage Environments	February 24, 1987
SHUTTLE DATA BOOK	Orbiter Aircraft Operations Crash Scenarios and RTG Environments	n.d.
SHUTTLE DATA BOOK	Blast and Thermal Environments Accident Environment Workshop	February 26 -27, 1987
SHUTTLE DATA BOOK	MSFC Shuttle Element Risk Assessment for RTG Missions	November 1984
SHUTTLE DATA BOOK	Shuttle RTG Risk Assessment Solid Systems SRB / SRM Failure Mode Results	n.d.
SubHeading:	Box Number: 16	
EXPLOSION WORKING GROUP	Review of Potential Galileo and ISPM RTG Environments	March 15, 1984
EXPLOSION WORKING GROUP	Review of Potential Problem with Galileo and ISPM Missions	March 15, 1984
STS - FP	Combinatorial Failure Probability Analysis Using MIL - STD - 882B	December 1984
STS - FP	Mission Support Directorate Goals Report	September 12, 1986
STS - FP	Justification for Other Than Full and Open Competition Pursuant to 10 U.S.C. 2304(c)(1)	n.d.
STS - FP	RTG Assessment NSTS-08116 Revision A Appendix B	October 20, 1987
STS - FP	Probabilities in Risk Assessment: Two Opinions	December 18, 1987
STS - FP	Probabilistic Risk Assessment of the Space Shuttle Main Propulsion Pressurization System	September 1987
STS - FP	RTG Assessment NSTS-08116 Revision A Appendix B	January 12, 1988
STS - FP	MISCELLANEOUS DATA - NO DATES Review of Potential Galileo and ISPM RTG Environments	n.d.
STS - FP	Preliminary Results Launch - Area Hazards Study for Space Shuttle	n.d.

STS - FP	Data Requirements for Nuclear Safety Analysis NASA Space Transportation System	n.d.
STS - FP	Purpose, Organization, Timeline - Following Charts	n.d.
STS - FP	Space Shuttle Data Book, NSTS- 08116, Rev. A	n.d.
STS - FP	SRB Failure Likelihood by Phase	n.d.
STS - FP	Review of NSWC SRB Fragment Model as it Relates to NSTS-08116	n.d.
SubHeading:	Box Number: 16 *	
STS - FP	SRB Fragment Velocity Issue * All 52 pages have been scanned	n.d.
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JANUARY - APRIL 1989	STS Stargrain Velocity Predictions	January 4, 1989
JANUARY - APRIL 1989	STS INSRP - LASP Meeting	January 9, 1989
JANUARY - APRIL 1989	Galileo / Ulysses / Mariner Mark II RTG Safety	February 2, 1989
JANUARY - APRIL 1989	Minutes of the 18 - 20 January 1989 Interagency Nuclear Safety REview Panel (INSRP) Meeting	February 8, 1989
JANUARY - APRIL 1989	INSRP Power System Subpanel Summary of GE Output to Date	February 15, 1989
JANUARY - APRIL 1989	SRB Fragment Model for NSTS-08116	March 2, 1989
JANUARY - APRIL 1989	Nuclear Safety Analysis Support	March 17, 1989
JANUARY - APRIL 1989	Some Highlights of the 14 - 15 March 1989 INSRP LASP Meeting at RTI in Cocoa Beach	March 17, 1989
JANUARY - APRIL 1989	RTG Safety Monthly Management Report (MMR) for Galileo, Ulysses and Mariner Mark II Missions	April 5, 1989
JANUARY - APRIL 1989	Final Coordination of the INSRP - LASP Final Report	April 10, 1989
JANUARY - APRIL 1989	Review of STS Inflight Vapor - Cloud Explosion Scenario	April 21, 1989
JANUARY - APRIL 1989	Safety Evaluation Report for Galileo	April 24, 1989
APRIL - JULY 1989	INSRP Report	April 26, 1989
APRIL - JULY 1989	Tethered Systems Task Annual Review	April 28, 1989
APRIL - JULY 1989	Dynamic Systems Section Annual Status Review	May 1, 1989
APRIL - JULY 1989	Failure Probabilities in Support of the Safety Analysis Reports for Galileo and Ulysses Missions	May 12, 1989
APRIL - JULY 1989	Shuttle Data Book Updates for the Ulysses FSAR	May 18, 1989
APRIL - JULY 1989	Review of STS Inflight Vapor Cloud Explosion Scenario	April 21, 1989
APRIL - JULY 1989	Safety Evaluation report for Galileo	May 26, 1989
APRIL - JULY 1989	Review of JPL Shuttle Data Book for Ferry Flight	June 20, 1989
APRIL - JULY 1989	SSME Catastrophic Failure Rates	June 20, 1989
APRIL - JULY 1989	SSME Reliability Determination	June 30, 1989
APRIL - JULY 1989	Agenda and Schedule Galileo RTG /Spacecraft Status Review	July 5, 1989
APRIL - JULY 1989	STS High Inclination Hazards Analysis Technical Interchange Meeting & Review of ACTA High Inclination Hazard Study	July 14, 1989
APRIL - JULY 1989	Redesign Effectiveness Factor	July 18, 1989
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JANUARY - APRIL 1989	An Assessment of the Risks and Benefits Associated with the Space Shuttle's Range Safety System (RSS)	February 6, 1989
	* All 21 pages have been scanned	
APRIL - JULY 1989	Galileo Launch Safety / Shuttle Rocket Booster (SRB) Fragment Velocity Analysis * All 22 pages have been scanned	May 25, 1989
SubHeading:	Box Number: 18	
APRIL - JULY 1989	Draft No. 3 of the RTG Safety Management Implementation Plan for Mission / Launch Approval	n.d.
JANUARY - MARCH 1988	Plan for RTG Accident Probability Estimates Task Team	January 5, 1988
JANUARY - MARCH 1988	Notes from Nuclear Safety Working Group Telecon of January 5, 1988	January 7, 1988
JANUARY - MARCH 1988	Radiation Hazards on Space Missions	January 7, 1988
JANUARY - MARCH 1988	Trip Report, RTG Accident Probability Task Team Meeting	January 20, 1988
JANUARY - MARCH 1988	Uncontrolled STS Orbiter Reentry	January 1988
JANUARY - MARCH 1988	Order of Magnitude Probability Assessment	January 25, 1988
JANUARY - MARCH 1988	Failure Probabilities for Solid and Liquid Rocket Motors	January 27, 1988
JANUARY - MARCH 1988	SSME FASCOS Risk Assessment	January 27, 1988
JANUARY - MARCH 1988	Supporting Data for Probability Estimates	January 28, 1988
JANUARY - MARCH 1988	Data Package for DOE Input	January 28, 1988
JANUARY - MARCH 1988	Failure Probability Values for Use in DOE Safety Analysis Reports for Galileo and Ulysses	January 28, 1988
JANUARY - MARCH 1988	Nuclear Safety Working Group Meeting	February 2, 1988
JANUARY - MARCH 1988	Review Uncontrolled STS Orbiter Reentry	February 10, 1988
JANUARY - MARCH 1988	Trip Report, RTG Accident Probability Task Team: Revision of Boeing Fault Trees	February 10, 1988
JANUARY - MARCH 1988	Input Data for Analyses in the Support of Galileo and Ulysses Missions	February 25, 1988
JANUARY - MARCH 1988	Request for OOM Program	March 4, 1988
JANUARY - MARCH 1988	Modified Probability Approach	March 4, 1988
JANUARY - MARCH 1988	Review of Supporting Data for RTG Probability Estimates	March 7, 1988
JANUARY - MARCH 1988	Estimating Subjective Probabilities for Launch Success	March 8, 1988
JANUARY - MARCH 1988	Supporting Data for Probability Estimates	March 10, 1988
JANUARY - MARCH 1988	New Shuttle Probabilities	March 16, 1988
MARCH - APRIL 1988	Failure at 5 Sec Thrust for Failed SRB, No Fail SRB vs. Time Thrust Mismatch	March 21, 1988
MARCH - APRIL 1988	Reentry Analysis Summary	March 29, 1988
MARCH - APRIL 1988	Section by Section Summary of Updates Made to the NSTS-08116 Document	March 29, 1988
MARCH - APRIL 1988	Ascent Thrust Vector Control Actuator Hardover Failure Study	April 11, 1988
MARCH - APRIL 1988	Summary of NASA Open Items Related to Galileo / Ulysses FSAR	April 15, 1988
MARCH - APRIL 1988	NASA / DOE / INSRP Launch Approval Schedule Meeting February 23, 1988	April 15, 1988
MARCH - APRIL 1988	RTG Safety Monthly Manager Report	April 15, 1988

	for Galileo and Ulysses Missions	
MARCH - APRIL 1988	Galileo Uncontrolled STS Orbiter Reentry	April 15, 1988
MARCH - APRIL 1988	Galileo Summary of Reentry Breakup Analysis Galileo and Ulysses Launches	April 15, 1988
MARCH - APRIL 1988	RTG Safety Monthly Management Report for galileo and Ulysses Missions	April 15, 1988
MARCH - APRIL 1988	Destruction of Shuttle Oxygen Tankfrom Linear Shape Charge Destruct of Solid Rocket Boosters	April 21, 1988
MARCH - APRIL 1988	Galileo / Ulysses RTG Safety Management Implementation Plan	April 27, 1988
MARCH - APRIL 1988	Range Safety for the STS Galileo and Ulysses Missions	April 26, 1988
SubHeading:	Box Number: 18 *	
JANUARY - MARCH 1988	Solid Rocket Motors and Boosters * All 15 pages have been scanned	February 1, 1988
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MARCH - APRIL 1988	Upper Stage Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis Technical Operation Report	May 13, 1987
MARCH - APRIL 1988	Titan IV Radioisotope Thermoelectric Generator Safety Data Book Volume V	September 1988
MARCH - APRIL 1988	Launch Abort Subpanel Report for Galileo	May 1989
MARCH - APRIL 1988	A Comparison of the Final Safety Analysis Report and the Safety Evaluation Report for the Galileo Mission	May 31, 1989
MARCH - APRIL 1988	Independent Assessment of Shuttle Accident Scenario Probabilities for Galileo Mission and Comparison with NSTS Program Assessment, Draft Working Copy Summary Report	December 1988
MAY - JUNE 1988	Request for Completion Schedule for NSTS-08116 From Joe Cork	May 4, 1988
MAY - JUNE 1988	STS Accident Probabilities for RTG Risk Assessment	May 6, 1988
MAY - JUNE 1988	Teleconference Minutes on Use of NSTS Probabilities	May 11, 1988
MAY - JUNE 1988	Rewrite of Sec 3 NSTS-08116	May 13, 1988
MAY - JUNE 1988	Mission Operations Directorate Flight Director Office: Range Safety Flight Rules	May 17, 1988
MAY - JUNE 1988	Controllability Flight Rule Concerns	May 18, 1988
MAY - JUNE 1988	Burning Solid Propellant Tests	May 24, 1988
MAY - JUNE 1988	RTG Safety Monthly Management Report for Galileo & Ulysses Missions	May 24, 1988
MAY - JUNE 1988	Final Safety Analysis Report II for the Galileo Mission	May 1988
MAY - JUNE 1988	RTG Safety Analysis	May 27, 1988
MAY - JUNE 1988	Range Safety Meeting	June 18, 1988
MAY - JUNE 1988	Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis	June 21, 1988
MAY - JUNE 1988	Veega Study Results	June 22, 1988
SubHeading:	Box Number: 20	
MAY - JUNE 1988	RTG Safety	May - June 1988
JULY - SEPTEMBER 1988	MMACS Risk Assessment	July 5, 1988
JULY - SEPTEMBER 1988	Space Agency Works to Clear	July 13, 1988

Generators for Launch

JULY - SEPTEMBER 1988	Radioisotope Thermoelectric Generators (RTG) Safety Analysis	July 13, 1988
JULY - SEPTEMBER 1988	Minutes from NASA / DOE / INSRP June 22, 1988 Coordination Meeting at JPL	July 15, 1988
JULY - SEPTEMBER 1988	Galileo / Ulysses RTG Safety	July 20, 1988
JULY - SEPTEMBER 1988	Final Safety Analysis Report Forms	July 21, 1988
JULY - SEPTEMBER 1988	Inputs Required for a Tip Over on Launch Pad to the Left Tower Impact	July 27, 1988
JULY - SEPTEMBER 1988	Studies on Shuttle Crashes	July 27, 1988
JULY - SEPTEMBER 1988	Distribution of Reference Design document of Galileo FSAR	July 28, 1988
JULY - SEPTEMBER 1988	Premature SRB Separation	July 29, 1988
JULY - SEPTEMBER 1988	Preliminary Results: Launch Area Hazards for Space Shuttle	July 29, 1988
JULY - SEPTEMBER 1988	Contingency Abort Enhancement of NSTS Onboard Software	August 1, 1988
JULY - SEPTEMBER 1988	Nuclear Launch Safety Planning and Approval	August 2, 1988
JULY - SEPTEMBER 1988	SRM Probability of Failures	August 8, 1988
JULY - SEPTEMBER 1988	Galileo FSAR Review Meeting	August 24, 1988
JULY - SEPTEMBER 1988	Space Shuttle Data Book Model	August 25, 1988
JULY - SEPTEMBER 1988	Outline of Questions	August 31, 1988
JULY - SEPTEMBER 1988	Final Safety Analysis Report II for the Galileo Mission: Executive Summary	August 1988
JULY - SEPTEMBER 1988	Forms for Comments NASA Review of Draft Final Safety Analysis Report	August 243, 1988
JULY - SEPTEMBER 1988	Draft Minutes to the Management Wrap - up Meeting	September 28, 1988
JULY - SEPTEMBER 1988	Code QS Comment on FSAR Draft	September 12, 1988
JULY - SEPTEMBER 1988	INSRP Attendance List	September 13, 1988
SubHeading:	Box Number: 21	
OCTOBER - NOVEMBER 1988	Major Launch Vehicle Solid Rocket Moter Failure	October 4, 1988
OCTOBER - NOVEMBER 1988	Naval Surface Center (NSWC) Briefing	October 7, 1988
OCTOBER - NOVEMBER 1988	Titan IV RTG - S.C. Data Book	October 13, 1980
OCTOBER - NOVEMBER 1988	Minutes, Executive Summary and Action Items for Interagency Nuclear Safety Review Panel Meeting at Research Triangle Institute	October 14, 1988
OCTOBER - NOVEMBER 1988	SRB Breakup Analysis (NSWC)	October 17, 1988
OCTOBER - NOVEMBER 1988	Galileo Nuclear Safety Evaluation Report	October 20, 1988
OCTOBER - NOVEMBER 1988	Comments on Parker Summary	October 24, 1988
OCTOBER - NOVEMBER 1988	Titan 34D-9 Early Met Velocity Calculations	October 24, 1988
OCTOBER - NOVEMBER 1988	SRB Fragment Velocity Issue	October 24, 1988
OCTOBER - NOVEMBER 1988	FSAR Review Schedule	October 24, 1988
OCTOBER - NOVEMBER 1988	Discussion of SRB Fragmentation Models	October 26, 1988
OCTOBER - NOVEMBER 1988	Minutes of LASP 25 - 26	October 1988
OCTOBER - NOVEMBER 1988	RTG Safety Monthly Management Report (MMR) for Galileo and Ulysses Missions	November 1, 1988
OCTOBER - NOVEMBER 1988	Minutes of Management Wrap Up Meeting, Valley Forge, PA 9/21/88	November 2, 1988
OCTOBER - NOVEMBER 1988	Addendum to INSRP - LASP Meeting	November 4, 1988

	Minutes dated November 3, 1988	
OCTOBER - NOVEMBER 1988	Independence Assessment of FSC and NSWC SRM Fragment Velocity Predictions	November 7, 1988
OCTOBER - NOVEMBER 1988	Additions to Data Book for RTG Safety Analysis	November 11, 1988
OCTOBER - NOVEMBER 1988	Editorial Change Regarding NSWC Work	November 145, 1988
OCTOBER - NOVEMBER 1988	Review of NSWC SRB Fragment Model as it Relates to NSTS-08116	November 16, 1988
DECEMBER 1988	Probability Environments for Abort Crash Landing Resulting from Recent Telecons on the Subject	December 8, 1988
DECEMBER 1988	RTG Safety Monthly Management Report (MMR) for Galileo and Ulysses Missions	December 12, 1988
DECEMBER 1988	Bending Wave Propagation	December 12, 1988
DECEMBER 1988	Minutes of INSRP - LASP 13 - 14 December 1988 Meeting	December 14, 1988
DECEMBER 1988	The Velocity Distributions from the 100,000 Trial Runs	December 15, 1988
DECEMBER 1988	Final Safety Analysis Report for the Galileo Mission Volume II (Book 1) Volume II (Book 2) Appendices Volume II Summary	December 15, 1988
DECEMBER 1988	Assessment of SRB Fragment Velocity Analyses	December 20, 1988
DECEMBER 1988	Documentation Package of Various Transmittals Regarding the SRB Fragment Models	December 21, 1988
DECEMBER 1988	STS Solid Rocket Booster Fragment Environments in Event of Range Destruct or Random Failure -	December 1988
	Background and Technical Rationale (Draft)	
SubHeading:		
SubHeading: PRESENTATIONS 1988	(Draft)	March 1988
-	(Draft) Box Number: 22 Supporting Data for Probability	March 1988 n.d.
PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments	
PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo,	n.d.
PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of	n.d.
PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET	n.d. n.d. n.d.
PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG	n.d. n.d. n.d.
PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment	n.d. n.d. n.d. n.d.
PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment Environments Orbiter Aircraft Operations Crash	n.d. n.d. n.d. n.d. n.d.
PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment Environments Orbiter Aircraft Operations Crash Scenarios and RTG Environments	n.d. n.d. n.d. n.d. n.d.
PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment Environments Orbiter Aircraft Operations Crash Scenarios and RTG Environments PAM-S Safety, Previous emphasis Section II Upper Stage Orbital ecay	n.d. n.d. n.d. n.d. n.d. n.d. n.d. n.d.
PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment Environments Orbiter Aircraft Operations Crash Scenarios and RTG Environments PAM-S Safety, Previous emphasis Section II Upper Stage Orbital ecay and Errant Reentry Final Safety Analysis Report for the Galileo Mission Volume III (Book 2) Nuclear Risk Analysis Document	n.d. n.d. n.d. n.d. n.d. n.d. n.d. n.d.
PRESENTATIONS 1988 PRESENTATIONS 1988	(Draft) Box Number: 22 Supporting Data for Probability Estimates An Analysis of 51-L SRB Fragments as Seen from the Patrick Igor Camera STS Uncontrolled Reentry (Galileo, Ulysses) Administrative Details, Directorate of Nuclear Surety Fragment Velocity Models for ET Propellant Explosions Space Shuttle Orbiter Aircraft Operations Crash Scenarios and RTG Environments Sec 5 SRB and Orbiter Fragment Environments Orbiter Aircraft Operations Crash Scenarios and RTG Environments PAM-S Safety, Previous emphasis Section II Upper Stage Orbital ecay and Errant Reentry Final Safety Analysis Report for the Galileo Mission Volume III (Book 2) Nuclear Risk Analysis Document Appendices Interim Progress Report of the Shuttle Criticality Review and Hazard Analysis	n.d. n.d. n.d. n.d. n.d. n.d. n.d. n.d.

JANUARY- FEBRUARY 1987	2.0 Safety Plans	February 2, 1987
JANUARY- FEBRUARY 1987	Interagency Nuclear Safety Review Panel (INSRP) Program STS 51-L Explosion Working Group Meeting	February 5 - 6, 1987
JANUARY- FEBRUARY 1987	Updated Schedules on the JPL Inputs to the JSC-08116 Update	February 11, 1987
JANUARY- FEBRUARY 1987	Minutes of Shuttle Nuclear Safety Data Book Meeting on February 3 - 4, 1987	February 11, 1987
JANUARY- FEBRUARY 1987	Updated Schedules on the JPL Inputs to JSC-08116 Subject Range Safety for the STS Galileo & Ulysses Missions	February 12, 1987
JANUARY- FEBRUARY 1987	Accident Environment Workshop - January 26-27, 1987	February 13, 1987
JANUARY- FEBRUARY 1987	Minutes of the Galileo Payload Integration Plan REview	February 17, 1987
JANUARY- FEBRUARY 1987	Accident Environment Workshop	February 18, 1987
JANUARY- FEBRUARY 1987	Revision to NSWC Shuttle Break - up Analysis	February 19, 1987
JANUARY- FEBRUARY 1987	Accident Environment Workshop	February 26 - 27, 1987
SubHeading:	Box Number: 23	
FEBRUARY - MARCH 1987	Memo - Trip Report - Shuttle Data Book for Nuclear Payloads	February 1987
FEBRUARY - MARCH 1987	Article: An Alternative to "Launch on Hunch" (FMEA vs PRA)	March 1987
FEBRUARY - MARCH 1987	Confidence Category: Level Assigned to the Failure Mode for the Mission, Phases and Components Relative to the Final Effect; RTG Assessment Worksheet; Orbiter Critical Items Lists	March 1987
FEBRUARY - MARCH 1987	RTG Assessment Charts	March 1987
FEBRUARY - MARCH 1987	Memo: Shuttle Data Book Review & Approval Schedule	March 1987
FEBRUARY - MARCH 1987	Presentation: Galileo / Ulysses RTG Safety Monthly Management Report	March 1987
APRIL 1987	Release / Ulysses Launch Date	April 3, 1987
APRIL 1987	Addenda for Sections 3, 4, 5, JSC-08116 Update	April 13, 1987
APRIL 1987	SEM (Mr. Ullian / 494-5077), Comments Concerning Shuttle Data Book Draft of Revision A Section 4.4, Chapter 4, SRB Segment Ground Impact	April 14, 1987
APRIL 1987	Summary of Recent Changes to JSC- 08116	n.d.
APRIL 1987	Review of Shuttle Data Book Update	April 7, 1987
APRIL 1987	Attendance List for Shuttle Data Book	April 15-16, 1987
APRIL 1987	Section 7 Fireballs, Fires & Thermal Environments	April 15 - 16, 1987
APRIL 1987	Section 4 Blast Environments	April 15 -16, 1987
APRIL 1987	Section 8 IUS / PAM-S Vehicle Descriptions	April 13, 1987
APRIL 1987	Section 10 - Upper Stage Environments	April 10, 1987
APRIL 1987	Space Shuttle Data Book Revisions Safety Plans - Section 2	April 1987
APRIL 1987	Galileo / Ulysses Mission Spacecraft Description	April 15 -16, 1987
APRIL 1987	Breakup of STS as a Result of Inadvertent Separation of an SRB	April 9, 1987
APRIL 1987	Space Shuttle Range Safety Command Destruct System Analysis &	March 1981

	Verification Phase I	
APRIL 1987	JSC-08116 Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis, Appendix B	April 15, 1987
APRIL 1987	ET Pool Explosion Blast Environment SRB Initiated or Tower Impact	n.d.
APRIL 1987	Review of Orbiter Crash Environment	April 28, 1987
APRIL 1987	Review of Shuttle Data Book Update	April 7, 1987
APRIL 1987	RTG Safety Monthly Management Report for Galileo / Ulysses Missions	April 13, 1987
APRIL 1987	Galileo Earth Avoidance Study Plan & Preliminary Assessment	April 15, 1987
APRIL 1987	Test Report for the Rendezvous Proximity Operations Trajectory Control Expert System (RENEX), JSC- 22528	April 1987
APRIL 1987	Presentation: Rendezvous Automation	n.d.
APRIL 1987	Presentation: Fuzzy Set Model of a Rendezvous Pilot	n.d.
APRIL 1987	Presentation: Rendezvous Automation	n.d.
APRIL 1987	Preliminary MOD / MPAD Approach to Rendezvous Automation	April 17, 1987
APRIL 1987	Presentation: Orbiter Implementation in OOS	n.d.
APRIL 1987	Memo: Project XFAS, An Expert System for Mission Maneuver Scheduling Design: Status Report	May 7, 1987
MAY 1987	Blast Environments	May 14, 1987
MAY 1987	Minutes from Meeting to Consider Prevention of a Hight Velocity Intact Impact as a Credible Failure Mode for Galileo / Ulysses Missions	May 20, 1987
MAY 1987	NASA Called Shortsighted on Information Systems	May 2, 1987
MAY 1987	RTG Safety Monthly Management Report for Galileo / Ulysses Missions	May 28, 1987
MAY 1987	Distribution of Johnson Space Center (JSC) Document #08116 Revision	May 18, 1987
MAY 1987	Final Briefing: Space shuttle Orbiter 1/20 Scale Dynamic Model Ditching Test	May 1, 1975
MAY 1987	Structural Evaluation of Orbiter Ditching	n.d.
MAY 1987	Orbiter Ditching Studies	May 1, 1987
SubHeading:	Box Number: 23 *	
MAY 1987	Summary of the Effects of Water Ditching on the OV-103 Orbiter Structure * This 254 page document has been scanned	n.d.
SubHeading:	Box Number: 24	
JUNE 1987	Safety Analysis - Appendix B, JSC- 08116	June 25, 1987
JUNE 1987	Prevention of Shuttle Intact High Velocity Impact	June 12, 1987
JUNE 1987	Request for Orbiter Component Size & Weight Data	June 15, 1987
JUNE 1987	RTG Safety Monthly Management Report for Galileo / Ulysses Missions	June 9, 1987
JUNE - JULY 1987	Minutes of Joint INSRP LASP Meeting	June 25, 1987
JUNE - JULY 1987	C.M. Seaborn Letter of May 19, 1987 Re: JSC-08116 Data Book	June 8, 1987
JUNE - JULY 1987	Planned Modification Section 5 - SRB	June 17, 1987

Fragments

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JUNE - JULY 1987	Memo to J. Lombardo From R. Kohrs	June 29, 1987
JUNE - JULY 1987	Prevention of Shuttle Intact High Velocity Impact	June 1987
JUNE - JULY 1987	Request for Additional Shuttle Orbiter Component Size & Weight Data	June 2, 1987
JUNE - JULY 1987	Presentation: Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis NSTS-08116	July 14, 1980
JUNE - JULY 1987	Memo: Program Office / INSRP Meeting on Shuttle Data Book, Due Test Planning & Explosive Hazards Test Program	June 29, 1987
JUNE - JULY 1987	Report: Summary of Interagency Nuclear Safety Review Panel Meeting	July 14 - 16, 1987
JUNE - JULY 1987	Memo: Baselining of Document NSTS- 08116, Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis	July 17, 1987
JUNE - JULY 1987	Presentation: IUS Section 10 - Upper Stage Environments Status Summary	July 7, 1987
JUNE - JULY 1987	Presentation: LO2 / LH2 Explosive Hazards Program - Task 1 Mixing Processes & Properties	July 16, 1987
JUNE - JULY 1987	Presentation: LO2 / LH2 Explosive Hazards Program Overview	July 16, 1987
JUNE - JULY 1987	Presentation: Section 11 Update (Failure Modes)	July 14 - 15, 1987
JUNE - JULY 1987	Memo: Level 2 PRCB Telecon	July 2, 1987
JUNE - JULY 1987	Memo: Draft to Richard Kohrs from John Casani (Assessment of Shuttle Data Book Progress)	July 18, 1987
JUNE - JULY 1987	Memo: Plan for Reconciliation of Disparity of Fragment Models	July 16, 1987
JUNE - JULY 1987	Agenda: Tuesday	July 14, 1987
JUNE - JULY 1987	Presentation: Modifications to SRB Fragment Section - Section 5	July 14 - 15, 1987
JUNE - JULY 1987	Report: Summary of Interagency Nuclear Safety Review Panel Meeting	July 14 - 16, 1987
JUNE - JULY 1987	Memo: Intact High Velocity Impact Scenario Viability	July 21, 1987
JUNE - JULY 1987	Memo: From J. Casani to Parker Counts (NSTS Shuttle Data Book)	July 20, 1987
JUNE - JULY 1987	Memo: Personnel & Facility Security Clearance for Receipt, Storage & Handling Classified Volumes of Final Safety Analysis Reports for the Galileo / Ulysses Missions & Light Weight Radioisotope Heater Unit	July 9, 1985
JUNE - JULY 1987	PROFS Note: Continuation of Support of Breakup Analysis	July 30, 1987
JUNE - JULY 1987	Presentation: Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis	July 14, 1987
JUNE - JULY 1987	Memo: Meeting in Albuquerque, New Mexico	July 10, 1987
JUNE - JULY 1987	Presentation: Section 4 Blast Environments	July 14 - 16, 1987
JUNE - JULY 1987	Report: RTG Safety Monthly Management Report for Galileo / Ulysses Missions	July 6, 1987
AUGUST 1987	Shuttle Data Book Status & Related RTG Safety Interface Activities	August 31, 1987

AUGUST 1987	Shuttle Data Book Environment & Probability Review	August 17, 1987
AUGUST 1987	Minutes of RTG Safety Analysis Action Item Disposition Cover Sheet	August 17, 1987
AUGUST 1987	RTG Assessment - Appendix B	August 18, 1987
AUGUST 1987	Breakup of Orbiter During Uncontrolled Descents from Orbit	August 12, 1987
SubHeading:	Box Number: 25	
AUGUST 1987	Flight Safety Review Process for Space Nuclear Power Sources	August 10 - 14, 1987
AUGUST 1987	Development & Implementation of a Space Nuclear Safety Program	January 12 - 16, 1987
AUGUST 1987	Technology Development of Dynamic Isotope Power Systems for Space Applications	August 10 - 14, 1987
AUGUST 1987	Nuclear Electric Power for Space Systems: Technology Background & Flight Systems Program	August 9 - 14, 1981
AUGUST 1987	The General - Purpose Heat Source Radioisotope Thermoelectric Generator: Power for the Galileo / Ulysses Missions	August 25 - 29, 1986
AUGUST 1987	IUS Response Meeting	August 28, 1989
AUGUST 1987	Inadvertent SRB Separation During Flight	August 21, 1987
AUGUST 1987	List of Attendees	August 19, 1987
AUGUST 1987	Action Item Summary or NSTS-08116 Updates	August 3, 1987
AUGUST 1987	Memo: NSTS Shuttle Data Book	August 14, 1987
AUGUST 1987	RTG Safety Monthly Management Report for Galileo / Ulysses Missions	August 3, 1987
AUGUST 1987	High Yield CBM External Tank Failure Mode	August 11, 1987
AUGUST 1987	Changes to NSTS	n.d.
SEPTEMBER 1987	JPL Request for Redesigned SRM Data	September 16, 1987
SEPTEMBER 1987	Changes to NSTS-08116	n.d.
SEPTEMBER 1987	From Guy Spitale, List of Data Items	n.d.
SEPTEMBER 1987	Agenda for Galileo / Ulysses Safety Meetings at DOE / Germantown_bSeptember 30 - October 1	September 30 - October 1,
SEPTEMBER 1987	Dry Run & NASA/ DOE Project Review of Shuttle Data Book Updates Packages	September 8, 1987
SEPTEMBER 1987	Shuttle Data Book Environment & Probability Review	September 8, 1987
SEPTEMBER 1987	Reschedule Meeting Dates for Galileo / Ulysses Safety Meetings	September 10, 1987
SEPTEMBER 1987	Shuttle Data Book - Addendum B (Accident Trees)	September 23, 1987
SEPTEMBER 1987	A Method of Combinational Failure Probability Analysis	July - August 1982
SEPTEMBER 1987	SRB Fragment Model Issues Update	September 30, 1987
	IUS Probability Data Update	September 25, 1987
SEPTEMBER 1987	Shuttle Data Book Update Review	September 30, 1987
SEPTEMBER 1987	IUS Data for Shuttle Data Book	September 15, 1987
SEPTEMBER 1987	Memo form J. Casani to R. Kohrs (Shuttle Data Book)	September 10, 1987
SEPTEMBER 1987	RTG Safety Monthly Management Report for Galileo / Ulysses Missions	September 8, 1987

SEPTEMBER 1987	Presentation: Plan for Galileo FSAR II	September 29, 1987
SEPTEMBER 1987	Presentation: Galileo / Ulysses Safety Test Plan Analytical Studies & Pre-test Predictions	September 29, 1987
SEPTEMBER 1987	Presentation: Safety Evaluation Plans	n.d.
SEPTEMBER 1987	Presentation: LWRHU FSAR Preparation Status	September 29, 1987
SEPTEMBER 1987	Presentation: Status of Risk Assessment Methods for the Galileo / Ulysses Missions Updated FSAR	September 29 - 30, 1987
SEPTEMBER 1987	Presentation: Status of Particle Size Reference Manual	September 29 - 30, 1987
SEPTEMBER 1987	Annotated Outline for Particle Size Reference Manual	n.d.
SEPTEMBER 1987	Report: Orbiter Crash on Abort	September 30, 1987
SEPTEMBER 1987	Presentation: Shuttle Data Book Updates Project Dry Run Review Package	September 23, 1987
SEPTEMBER 1987	Memo: From J. Cork to W. Askew (SRB Propellant Mass)	October 6, 1987
SubHeading:	Box Number: 25 *	
SEPTEMBER 1987	Mission Scenarios & Status of Probability Results High Velocity Intact Impact & AFT SRB Segment Impact * this 16-page document has been scanned	September 29, 1987
SubHeading:	Box Number: 26	
MARCH - OCTOBER 1987	STS Command Destruct System Characteristic Accident Environment Schedule Update	March 3, 1987
MARCH - OCTOBER 1987	Range Safety for the STS Galileo & Ulysses Missions	March 9, 1987
MARCH - OCTOBER 1987	RTG Safety Monthly Management Report for Galileo & Ulysses Missions	March 10, 1987
MARCH - OCTOBER 1987	Review of 1978 -79 Shuttle Accident Scenarios in Comparison to Current Jet Propulsion Laboratory (JPL) Study	March 12, 1987
MARCH - OCTOBER 1987	MSFC (ET Thermal Protection System Failure)	March 12, 1987
MARCH - OCTOBER 1987	Shuttle Data Book Review & Approval Schedule	March 13, 1987
MARCH - OCTOBER 1987	JSC ICAT Project Appendix Format for SADP Program Plan	March 13, 1987
MARCH - OCTOBER 1987	Format of the JSC-08116 Document	March 17, 1987
MARCH - OCTOBER 1987	Shuttle Data Book Review and Approval Schedule Range Safety for the STS Galileo / Ulysses Mission	March 18, 1987
MARCH - OCTOBER 1987	Contract F04701-85C-0101, IUS Program; Submittal of Additional BAC RTG Safety Data	March 21, 1987
MARCH - OCTOBER 1987	Request for Shuttle Orbiter Component Size and Weight Data	March 24, 1987
MARCH - OCTOBER 1987	Range Safety for the STS Galileo / Ulysses Missions	March 25, 1987
MARCH - OCTOBER 1987	Contract NAS9-14000, Schedule B, Orbiter Data for RTG Safety Analysis	April 3, 1987
MARCH - OCTOBER 1987	Analyses in Support of Range Destruct Action or Nuclear Payloads	April 9, 1987
MARCH - OCTOBER 1987	Request for Data to Update Doc. No. JSC-08116	April 15, 1987
MARCH - OCTOBER 1987	Scheduling of Program / INSRP Meeting on Shuttle Data Book and DOE Test Planning	June 8, 1987
MARCH - OCTOBER 1987	Prevention of Shuttle Intact High Velocity Impact	June 12, 1987

MARCH - OCTOBER 1987	Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator Safety Analysis NSTS- 08116	July 14, 1987
MARCH - OCTOBER 1987	Assessment of the Shuttle Data Book Process	July 18, 1987
MARCH - OCTOBER 1987	Shuttle Risk Assessment and Control Program	August 5, 1987
MARCH - OCTOBER 1987	Probabilistic Risk Assessment off the Space Shuttle Main Propulsion Pressurization System, Vol. 1 Sec. 1-7	September 1987
MARCH - OCTOBER 1987	Mission Scenarios and Status off Probability Results High Velocity Intact Impact and AFT SRB Segment Impact	September 29, 1987
MARCH - OCTOBER 1987	Proposed Change to Sec 3.2.3.1 of the NSTS-08116 Document	October 1, 1987
MARCH - OCTOBER 1987	Update to Shuttle Data Book	October 5, 1987
MARCH - OCTOBER 1987	Comparison of the SRB Fragment Model (Titan 34D-9 STS 51-L)	October 6, 1987
MARCH - OCTOBER 1987	Request STS Drawings	October 13, 1987
MARCH - OCTOBER 1987	Information Needed on IUS Accidents and Environments	October 13, 1987
MARCH - OCTOBER 1987	RTG Assessment NSTS-08116 Rev. A App. B	October 14, 1987
MARCH - OCTOBER 1987	Letter from M. Cork (SRB Fragment Test, Accident Scenarios)	October 16, 1987
MARCH - OCTOBER 1987	Reference Scenarios to Mission Phases	October 28, 1987
NOVEMBER - DECEMBER 1987	NASA Phone List	November 1, 1987
NOVEMBER - DECEMBER 1987	Probabilities for an Impact	November 2, 1987
NOVEMBER - DECEMBER 1987	Risk Assessment	November 12, 1987
NOVEMBER - DECEMBER 1987	Draft of Charts for SRB Fragment	November 12, 1987
NOVEMBER - DECEMBER 1987	Galileo / Ulysses Mission Information	November 27, 1987
NOVEMBER - DECEMBER 1987	Automation of Shuttle Operations	December 2, 1987
NOVEMBER - DECEMBER 1987	Code QS Shuttle RTG Accident Scenario Probabilistic Analysis	November 1987
NOVEMBER - DECEMBER 1987	Alternate Solution Regarding Probability Estimates for DOE	December 9, 1987
NOVEMBER - DECEMBER 1987	Galileo / Ulysses Missions Safety Testing and Analysis Program	December 10, 1987
NOVEMBER - DECEMBER 1987	Nuclear Safety Ad Hoc Working Group	December 10, 1987
NOVEMBER - DECEMBER 1987	STS Reference Accident Scenarios and Environments Summaries	December 10, 1987
NOVEMBER - DECEMBER 1987	Risk Assessment Methodology	December 10, 1987
NOVEMBER - DECEMBER 1987	Questions and Data Related to the STS High Inclination Hazards Study ACTA Job No. 199	December 15, 1987
NOVEMBER - DECEMBER 1987	A Set of Probability Estimates	December 29, 1987
NOVEMBER - DECEMBER 1987	Flight Safety Review Process for Space Nuclear Power Sources	December 1987
SubHeading:	Box Number: 27	
NOVEMBER - DECEMBER 1987	Space Shuttle Probabilistic Risk Assessment Proof of Concept Study, Volume 1 Management Overview; Volume II FMEA / CIL Comparison; Volume III Auxiliary Power Unit and Hydraulic Power Unit Analysis Report; Volume IV PRA Preparation Instructions	December 18, 1987
NOVEMBER - DECEMBER 1987	Titan 34D Recovery Program "A Corporate Challenge"	February 24, 1987
JANUARY - SEPTEMBER 1986:	SSME Reliability Methodology	January 7, 1986

JANUARY - SEPTEMBER 1986:	Centaur Flight Rules Status	January 16, 1986
JANUARY - SEPTEMBER 1986:	Shuttle Accident Background	February 3, 1986
JANUARY - SEPTEMBER 1986:	Development of STS Failure Probabilities	February 19, 1986
JANUARY - SEPTEMBER 1986:	82-1404 Development of STS / Centaur Failure Probabilities Liftoff to Centaur Separation	February 1986
JANUARY - SEPTEMBER 1986:	HQS Message 601 from Norm Schulze / Code DE	February 28, 1986
JANUARY - SEPTEMBER 1986:	Disposition off Nuclear Power Supplies in Earth Orbit	March 1986
JANUARY - SEPTEMBER 1986:	Letter to Graham from Markey, news clippings re: 51-L	March 4, 1986
JANUARY - SEPTEMBER 1986:	An Evaluation of Sandia Report Sand84-1549	April 10, 1986
SubHeading:	Box Number: 28	
JANUARY - SEPTEMBER 1986:	Comparison of Probability of Failure and Environment SER Draft and JSC- 08116	April 22, 1986
JANUARY - SEPTEMBER 1986:	Minutes of Joint INSRP LASP and Program Office (JPL) Meeting	April 24, 1986
JANUARY - SEPTEMBER 1986:	Nuclear Power in the Soviet Union	May 6, 1986
JANUARY - SEPTEMBER 1986:	House Panel Considers Canceling Shuttle Centaur Due to Safety Concerns	May 6, 1986
JANUARY - SEPTEMBER 1986:	Split RTLS Firs Stage Ascent GN&C Assessment	July 22, 1986
JANUARY - SEPTEMBER 1986:	Development of Strawman Accident Scenarios, Environment Characterization & Probability Ranges for RTG Shield Safety Assessment	July 25, 1986
JANUARY - SEPTEMBER 1986:	Meeting of Interagency Nuclear Safety Review Panel (INSRP) and Galileo / Ulysses Program Personnel	July 31, 1986
JANUARY - SEPTEMBER 1986:	Launch Approval Planning	September 2, 1986
JANUARY - SEPTEMBER 1986:	Minutes of the Interagency Nuclear Safety Review Panel Program STS 51- L Explosion Working Group	September 9, 1986
JANUARY - SEPTEMBER 1986:	Update of JSC Document 08116, Letter	October 17, 1986
JANUARY - SEPTEMBER 1986:	Update to JSC for Galileo / Ulysses Missions	November 4, 1986
JANUARY - SEPTEMBER 1986:	Minimum Risk Assessment for Phase 1	November 25, 1986
JANUARY - SEPTEMBER 1986:	Upper Stage Data for Planetary Mission Radioisotope Thermoelectric Generator - (RTG) Safety Analysis - Technical	December 1, 1986
JANUARY - SEPTEMBER 1986:	Comments on Review Draft on Input for Update to JSC-08116	December 3, 1986
JANUARY - SEPTEMBER 1986:	Revision to Shuttle Destruct Breakup Data	December 5, 1986
JANUARY - SEPTEMBER 1986:	Update and Revision to NSTS-08116 Document (Space shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator Safety Analysis)	December 10, 1986
JANUARY - SEPTEMBER 1986:	Phase O Event Summary	December 12, 1986
JANUARY - SEPTEMBER 1986:	Galileo / Ulysses RTG Safety Task Force Kick Off Meeting for JSC-08116 Update	October 29, 1986
JANUARY - SEPTEMBER 1986:	Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis Review Draft	October 27, 1986

SubHeading:	Box Number: 29	
JANUARY - DECEMBER 1985:	Interagency Nuclear Safety Review Panel Meeting	February 1985
JANUARY - DECEMBER 1985:	Early Shuttle Failure Launch Area Hazard	March 1, 1985
JANUARY - DECEMBER 1985:	Nuclear Safety Status	April 2, 1985
	Space Shuttle Data for Planetary Mission RTG Safety Analysis	May 13, 1985
JANUARY - DECEMBER 1985:	USAF May Delay Vandenberg Shuttle	May 8, 1985
JANUARY - DECEMBER 1985:	USAF May Delay Vandenberg Shuttle	February 1985
JANUARY - DECEMBER 1985:	Support Requirements for the Interagency Nuclear Safety Review Panels Risk Evaluation of the Galileo and Ulysses Missions	August 8, 1985
JANUARY - DECEMBER 1985:	Interagency Nuclear Safety Review Panels (INSRP) Launch Abort Subpanel (LASP) Meeting	August 28, 1985
JANUARY - DECEMBER 1985:	Galileo / Ulysses Launch Approval Request Review Process	September 9, 19854
JANUARY - DECEMBER 1985:	Launch Abort Subpanel Addendum to Galileo / Ulysses SER - Proposed Outline	October 25, 1985
JANUARY - DECEMBER 1985:	Launch Abort Subpanel Status	October 10, 1985
JANUARY - DECEMBER 1985:	Results from 2-Dimensional TUULI Code	October 29, 1985
JANUARY - DECEMBER 1985:	Artificial Intelligence	October 1985
JANUARY - DECEMBER 1985:	Summary of STS Accident Environment Probabilities for the Galileo Mission	December 1985
1985 LAUNCH ABORT:	Ltr. to Caspar Weinberger From James Beggs	November 5, 1985
1985 LAUNCH ABORT:	Ltr. to James Beggs from Joseph Salgado	n.d.
1985 LAUNCH ABORT:	Ltr. to James Beggs from Caspar Weinberger	n.d.
1985 LAUNCH ABORT:	Ltr. to James Lombardo	October 25, 1985
1985 LAUNCH ABORT:	Aviation Week: Fuel Cell, Reaction Control System Problems Follow Launch	November 4, 1985
1985 LAUNCH ABORT:	Classification Determination: Presidential Directive / NSC-25	October 4, 1985
1985 LAUNCH ABORT:	Tests Performed or Analyzed Since the Last Technical Exchange Meeting Date of September 5	November 13, 1985
1985 LAUNCH ABORT:	SEM Examination of a CST-7 CLAD Fragment	October 16, 1985
1985 LAUNCH ABORT:	Distribution for the INSRP Launch Abort Subpanel (LASP)	December 2, 1985
1985 LAUNCH ABORT:	Interagency Nuclear Safety Review Panel Meeting	April 3-4, 1985
1985 LAUNCH ABORT:	Data Proposed by Lloyd D. Parker for Parametric FSAR Assessment	July 19, 1985
1985 LAUNCH ABORT:	Failure Rate Distributions	May 2, 1985
1985 LAUNCH ABORT:	Close - in Shock Overpressures from LH / LOX Explosions	n.d.
1985 LAUNCH ABORT:	Table of Contents (INSRP)	n.d.
1985 LAUNCH ABORT:	Major Areas of Concern New JSC Data Book, JSC-08116	n.d.
1985 LAUNCH ABORT:	Map, VAB	n.d.
1985 LAUNCH ABORT:	Presentation: Orbiter Pressure Vessel Data	November 1, 1979
1985 LAUNCH ABORT:	Support REquirements for the	n.d.

Interagency Nuclear Safety Review
Panels (INSRPs) Risk Evaluation of
the Galileo & Ulysses Missions

JULY - DECEMBER 1984:	Theoretical Calculation of Centaur Propellant Explosion in Space Shuttle Cargo Bay	October 2, 1984
SubHeading:	Box Number: 31	
JULY - DECEMBER 1984:	Pre-Ignition Mixing Analysis for the STS LOX Overpressure Accident	August 1984
JULY - DECEMBER 1984:	Vehicle Launch Working Group	August 13, 1984
JULY - DECEMBER 1984:	Section 14 & 18 of the Databook	August 8, 1984
JULY - DECEMBER 1984:	Review of RTG Safety Analysis Data	August 3, 1984
JULY - DECEMBER 1984:	Safety Program Considerations for Space Nuclear Reactor Systems (Sandia Reports)	August 1984
JULY - DECEMBER 1984:	Shuttle Launch Abort Investigation Safety Program Considerations for	July 10, 1984
JULY - DECEMBER 1984:	Panel Meeting	July 10-12, 1984
JULY - DECEMBER 1984:	Explosion Working Group Interagency Nuclear Safety Review	July 10-12, 1984
JULY - DECEMBER 1984:	Review of Galileo and Solar Polar USAR	July 1984
JANUARY - JULY 1984:	Motors Launch Abort Subpanel (LASP)	July 1984
JANUARY - JULY 1984:	GPHS - RTG Safety Summary / Plans Detonability of Large Solid Rocket	July 1984
JANUARY - JULY 1984:	of RTG Response to Direct Course Explosion and to Shock Tube Test	July 10-13, 1984
	International Solar - PolarMission I-D Lagrangian Hydrodynamic Studies	·
JANUARY - JULY 1984:	Review Updated Safety Analysis Report for the Galileo Mission and the	July 10-12, 1984
JANUARY - JULY 1984:	Review of the Update Safety Analysis Report (USAR) for the Galileo Mission and the International Solar - Polar Mission	July 5, 1984
JANUARY - JULY 1984:	Review and Evaluation of Space Shuttle Range Safety Hazards Issues	June 1984
JANUARY - JULY 1984:	Review of LASP USAR Review Report	June 27, 1984
JANUARY - JULY 1984:	Application of "PYRO" Data	June 9, 1984
JANUARY - JULY 1984:	Review of Potential Galileo and ISPM RTG Environments	June 1984
JANUARY - JULY 1984:	Key Differences / Concerns GE Analysis Compared to NASA - DOD Baseline	June 9, 1984
JANUARY - JULY 1984:	Contract NAS3-22901, Radioisotope Thermoelectric Generator (RTG) Safety Analysis	January 25, 1984
JANUARY - JULY 1984:	Formation and Organizational Meeting of Space Transportation System	January 12, 1984
SubHeading:	Box Number: 30	
Presented to Launch Abort Panel 6-7 August at Patrick AFB	Fault Tree Safety Analysis - Space Shuttle Nuclear Safety	March 1985
1985 LAUNCH ABORT:	Paper Action Teams for LASP / SEM	August 1985
1985 LAUNCH ABORT:	LASP Meeting August 6-7	August 1985
	Voyager (MIS-77) Nuclear Safety Evaluation Report	April 1977
1985 LAUNCH ABORT:	Presentation: MPAD Status	n.d.
1985 LAUNCH ABORT:	Distribution of Change No. 2 JSC- 08116	July 10, 1985
1985 LAUNCH ABORT:	Launch Abort Subpanel Report to the Interagency Safety Report Panel Coordinators, JSC Data Book 08116	May 13, 1985
	the Galileo & Ulysses Missions	

JULY - DECEMBER 1984:	Plan for Preparation of the Final Safety Analysis Report for the Galileo and Ulysses Missions	October 23, 1984
JULY - DECEMBER 1984:	Ulysses Shield Concepts	October 24, 1984
JULY - DECEMBER 1984:	Ulysses RTG Shield Options Meeting Agenda	November 5, 1984
JULY - DECEMBER 1984:	SRM Reliability Data for Radioisotope Thermoelectric Generator (RTG) Safety Analysis	November 6, 1984
JULY - DECEMBER 1984:	Early Shuttle Failure Launch Area Hazard	November 1984
JULY - DECEMBER 1984:	Combinatorial Failure Probability Analysis	December 1984
JULY - DECEMBER 1984:	Minutes, Space Operations Workshop	December 3, 1984
JULY - DECEMBER 1984:	Safety Verification Test Plan, General Purpose Heat Source Explosion Overpressure Tests	December 3, 1984
JULY - DECEMBER 1984:	LANL Report, Independent Evaluation of GPHS Reentry Impact Data Base in the Galileo Ulysses (ISPM) USAR	December 13, 1984
JULY - DECEMBER 1984:	SiGe Radioisotope Thermoelectric Generator (RTG) Program or Space Missions	December 3, 1984
JULY - DECEMBER 1984:	Combinatorial Failure Probability Analysis Using MIL-STD-882B	December 1984
JULY - DECEMBER 1984:	Updated Safety Analysis Report for the Galileo Mission and the International Solar - Polar Mission - Volume 1: Reference Design Document Volume 2: Accident Model Document	April 1984
1984:	RTG Hazard Analysis Maximum Impact Velocity	n.d.
1984:	Review of Potential Galileo and ISPM RTG Environment	June 6, 1984
1984:	NASA / DOE Coordination Meeting	April 3, 1984
1984:	Letter to John Casani (re: RTG)	April 21, 1984
1984:	Comparison of Wiggins & Sera Reports by the Launch Abort Subpanel (LASP)	May 1, 1989
1984:	INSRP Launch Abort Subpanel (List of Attendees)	n.d.
1984:	Actions from NASA / DOE Meeting	April 25, 1987
1984:	Letter to Gordan Chipman from B.I. Edelson (re: RTG)	April 27, 1984
1984:	NASA Support to the RTG Explosion Working Group	April 16, 1984
1984:	State of the Art for Solid Rocket Motor Design, Manufacture and Use	January 18, 1984
1984:	Launch Abort Subpanel Status and Recent Recommendations	n.d.
1984:	Proposed Galileo / ISPM RTG Analysis	n.d.
1984:	RTG Study Support Plan	n.d.
1984:	Space Shuttle Launch Failure Scene Generation Task Description	n.d.
1984:	Precis of the Directed Subcontract to Review the Teledyne Critique of Shuttle / Centaur Failure Probability Reports	n.d.
1984:	ACTA Inc. Memo to R.H. Brown	April 30, 1984
1984:	Space Shuttle Launch Failure Scene Generation	May 9, 1984
1984:	Launch Abort Subpanel Meeting	April 12, 1984
1984:	Langley Research - Distribution List	n.d.

1984:	Interagency Nuclear Safety Review Panel (INSRP) Launch Abort Subpanel Action Items	April 10, 1984
1984:	Security Clearance for Updated Safety Analysis Report (USAR)	April 24, 1984
1984:	Interagency Nuclear Safety Review Panel (RP) R Review	n.d.
1984:	Launch Abort Subpanel Meeting	May 18, 1984
SubHeading:	Box Number: 32	
1984:	Appendix 5 - Explosion / Fire Pattern & Scenario Development	n.d.
1984:	Action Items from August 13-14 Meeting on Cryogenic Mixing and Explosion Analysis	August 1984
1984:	Listing of Names, Address & Telephone Numbers	n.d.
1984:	Memo from John Casani (RTG Assessment)	August 14, 1984
1984:	Presentation on Radioisotope Thermoelectric Generator (RTG) Risk Assessment Study Plan	n.d.
1984:	Table II RTG Study - Centaur Secondary Failure Effects	n.d.
1984:	Memo to J. Casani / JPL, Nuclear Safety on Galileo	n.d.
1984:	Action Items from August 21 Telecon	August 1984
1984:	Letter from A.M. Weston / Lawrence Livermore Laboratory "The Space Shuttle Propellant"	August 1, 1984
1984:	Support for RTG Shielding Task	October 25, 1984
1984:	RTG Plans	October 18, 1984
1984:	Informal Review of Fragmentation Chapter (Sec. 6)	September 9, 1984
1984:	JPL - Glynn Lunney (RTG Accident Survivability)	September 14, 1984
1984:	STS Accident Scenarios for RTG Safety Analysis	August 31, 1984
1984:	DOE RTG Test Plan and Analysis Review	August 31, 1984
1984:	Radioisotope Thermoelectric Generator (RTG) Safety Analysis - Roles & Responsibilities	September 10, 1984
1984:	Comments on Proposed NSWC Study / Test	September 10, 1984
1984:	DOE RTG Test Plan & Analysis Review	September 10, 1984
1984:	General Comments by Melvin Seaborn	June 8, 1984
1984:	Comments on the Updated Safety Analysis Report (USAR) for the Galileo Mission and the International Solar Polar Mission (ISPM)	n.d.
1984:	EWG Report Review / Meeting Minutes	May 24, 1984
1984:	Review of "Explosion Overpressure Report" NUS-4464, Rev. 1, By NUS Corporation, MSFC Memo	n.d.
1984:	Comments on Updated Safety Analysis Report	June 8, 1984
1984:	Comparison of Failure Probabilities	n.d.
1984:	Format for Presentations	n.d.
1984:	Miscellaneous / Unlisted	1984

JANUARY - DECEMBER 1983:	Proposed Program Plan or the AF / NASA Development of Space Propulsion Hazards Analysis Manual	January 5, 1983
JANUARY - DECEMBER 1983:	Scenario for Deflagration to Detonation Transition in Energetic Materials	February 1983
JANUARY - DECEMBER 1983:	STS-7 Enhancement	February 7, 1983
JANUARY - DECEMBER 1983:	Centaur G Prime Reliability Analysis for the Radioisotope Thermoelectric Generator Safety Study	March 1983
JANUARY - DECEMBER 1983:	Centaur G Prime Vehicle Description for the RTG Safety Study	May 1983
JANUARY - DECEMBER 1983:	Safety Analysis Report of Elimination of Helium Inserting of the Facility Gaseous Hydrogen Cross - Country Line Launch Operations Area	March 1983
JANUARY - DECEMBER 1983:	INSRP (LASP) Data Schedule in Support of Galileo and Solar Polar Updated Safety Analysis Report	July 13, 1983
JANUARY - DECEMBER 1983:	CG-TE-2 DOE - DOD - NASA Classification Guide for Thermoelectric Converter Information	October 6, 1983
JANUARY - DECEMBER 1983:	Orbiter PRSD System Layout Review	October 21, 1983
JANUARY - DECEMBER 1983:	Powered Entry Breakup Analysis for Galileo and ISPM	October 31, 1983
JANUARY - DECEMBER 1983:	Trip to Jet Propulsion Laboratory (Civil Missions Advisory group - CMAG)	October 31, 1983
JANUARY - DECEMBER 1983:	Review of Shuttle / Centaur Failure Probability Estimates for Space Nuclear Mission Applications	December 1983
JANUARY - DECEMBER 1983:	Miscellaneous Unlisted	1983
SubHeading:	Box Number: 33	
1983:	CPIA 194 Hazards of Chemical Rockets and Propellants Handbook - Volume 1, General Safety Engineering	June 10, 1983
1983:	Review of Potential Galileo and ISPM RTG Environments	November 1983
1983:	JSC-16087, Space Shuttle Data for Nuclear Safety Analysis (Revision 2)	November 1983
JANUARY - DECEMBER 1982:	Centaur Vehicle Misalignment Probabilities, Galileo Mission	January 7, 1982
JANUARY - DECEMBER 1982:	Estimates of Centaur Tank Failure Sites for RTG Safety Study, Galileo Mission	January 19, 1982
JANUARY - DECEMBER 1982:	Convolving Lognormal Failure Rate Distributions	March 2, 1982
JANUARY - DECEMBER 1982:	Data Needed for Safety Analysis of Galileo	March 5, 1982
JANUARY - DECEMBER 1982:	Estimated Orbital Lifetime for the Galileo Mission with Two Stage IUS Launch	March 26, 1982
JANUARY - DECEMBER 1982:	Data for Nuclear Safety Analysis of Galileo	April 5, 1982
JANUARY - DECEMBER 1982:	Inputs Required for Updated Safety Analysis Report	April 6, 1982
JANUARY - DECEMBER 1982:	SAR Publication Schedules IUS Meeting Vehicle Level Working Group	April 12, 1982
JANUARY - DECEMBER 1982:	STS Range Safety Hazards Analysis	April 1982
JANUARY - DECEMBER 1982:	Recommended Assumptions to be Used in Calculation of Galileo V-Y Maps	May 10, 1982
JANUARY - DECEMBER 1982:	SAR Publication Schedule	May 17, 1982
JANUARY - DECEMBER 1982:	Galileo and ISPM Trajectory Parameters	May 21, 1982
JANUARY - DECEMBER 1982:	Galileo / IUS V-Gamma Analysis	June 7, 1982

JANUARY - DECEMBER 1982:	Review of Nuclear Safety Criteria / Specification for SP-100 Reactor System	June 30, 1982
JANUARY - DECEMBER 1982:	International Solar Polar Mission (ISPM) / IUS V-Gamma Analysis	July 2, 1982
JANUARY - DECEMBER 1982:	Development of STS / IUS / Spacecraft Failure Probabilities	October 13, 1982
JANUARY - DECEMBER 1982:	STS / IUS / Spacecraft Failure Mode Study	November 2, 1982
JANUARY - DECEMBER 1982:	Blast Hazards Analysis of Spacecraft and Missiles	February 1983
1982:	Development of STS / Centaur Failure Probabilities Liftoff to Centaur Separation	February 1982
SubHeading:	Box Number: 34	
1981:	Space Shuttle Range Safety Command Destruct System Analysis and Verification Phases I-III	August 13, 1981
1981:	Development and Use of Nuclear Power Sources for Space Applications	October 1981
1981:	Space Shuttle Data for Planetary Mission Radioisotope Thermoelectric Generator (RTG) Safety Analysis NSTS-08116 (Presentation)	n.d.
1981:	Miscellaneous / Unlisted	1981
1980:	International Solar Polar Mission	June 3, 1980
1980:	Establishment of Official Aerospace Nuclear Distribution List	June 13, 1980
1980:	Transmittal of PSAR Document GEM- 805D-54228: Silicon Germanium (SiGe) Radioisotope Thermoelectric Generator (RTG) Program	July 30, 1989
1980:	Galileo Breakup Analysis Schedule	October 3, 1980
1980:	Attendance 10-21-22 Meeting of Vehicle Level Working Group in Support of INSRP	October 10, 1980
1980:	Safety Analysis Report, Memo	October 22, 1980
1980:	Agreed to Schedule for the Galileo Safety analysis Report	October 23, 1980
1980:	NASA / DOD / DOE Interagency Nuclear Safety Review Panel	November 4, 1980
1980:	Review of Galileo and International Solar Polar	December 18, 1980
1979:	Review of Space Shuttle Data for Nuclear Safety Analysis Preliminary report	February 28, 1979
1979:	Nuclear Safety Analysis	February 27, 1979
1979:	NASA Planning & Scheduling Conference	March 20, 1979
1979:	Space Shuttle Data for Nuclear Safety Analysis, Preliminary Report	March 26, 1979
1979:	STS Range Safety Hazards Analysis	April 26, 1979
1979:	Galileo Interagency Nuclear Safety Review Panel Requirements	July 27, 1979
1979:	PSAR on the Isotope Power System for the NASA Galileo Mission	August 2, 1979
1979:	Document Review by the INSRP	October 19, 1979
1979:	Range Safety	November 9, 1979
1979:	STS Blast Hazards Analysis Briefing	April 1974
1979:	Nuclear Regulatory Commission Ltr.	February 1, 1979
SubHeading:	Box Number: 34 *	
1981:	Space Shuttle Range Safety Hazards	July 1981

Analysis * All 340 pages of this
document have been scanned

	document have been scanned	
1979:	Development of STS Failure Probabilities MECO to Payload Separation * All 53 pages of this document have been scanned	October 11, 1979
SubHeading:	Box Number: 35	
JANUARY - DECEMBER 1978:	Review of Data Requests from DOE	January 1, 1978
JANUARY - DECEMBER 1978:	Satellite A - Fuel May Have Burned Up	February 5, 1978
JANUARY - DECEMBER 1978:	Satellites Safeguards Urged	February 16, 1978
JANUARY - DECEMBER 1978:	Soviets Will Continue Use of A - Powered (Atomic) Satellite	February 20, 1978
JANUARY - DECEMBER 1978:	Vehicle - Level Working Group Safety Study	March 9, 1978
JANUARY - DECEMBER 1978:	DOE Requirements List	March 27, 1978
JANUARY - DECEMBER 1978:	Excerpts from Candidate Environment Impact Statement for USAF Strategic Satellite System	April 5, 1978
JANUARY - DECEMBER 1978:	Project Galileo Support to INSRP and STS Vehicle - Level Working Group	April 6, 1978
JANUARY - DECEMBER 1978:	Review of Data Request from DOE	April 10, 1978
JANUARY - DECEMBER 1978:	Data Requests STSD-15 thru 20; STSD-5, 24 & 28	May 16 & 19, 1978
JANUARY - DECEMBER 1978:	Voyager Project RTG Handling	May 25, 1978
JANUARY - DECEMBER 1978:	Space Shuttle Data Requirements for Nuclear Safety Analysis	June 19, 1978
JANUARY - DECEMBER 1978:	Mac Fields & SR&QA INSRP - WG File	July 14, 1978
JANUARY - DECEMBER 1978:	Shuttle Nuclear Safety Analysis Support to Galileo Experiment	August 2, 1978
JANUARY - DECEMBER 1978:	Minutes of Technical Interchange Meeting, NASA Rockwell on Shuttle Nuclear Safety Analysis in Support of Galileo Experiment	August 2, 1978
JANUARY - DECEMBER 1978:	Clarification of Space Shuttle Operations Data request for Kennedy Space Center	August 3, 1978
JANUARY - DECEMBER 1978:	Comparison of Failure Probabilities from SSS Candidate Environmental Impact Statement (Shuttle Launch) with Failure Probabilities for Voyager (Titan Launch)	August 4, 1978
JANUARY - DECEMBER 1978:	SIG / GM Handout for STS Safety Meeting NASA / JSC	September 13 - 14, 1978
JANUARY - DECEMBER 1978:	KSC Documentation Requested by DOE	September 25, 1978
JANUARY - DECEMBER 1978:	Rockwell Study of Galileo RTG Cooling	October 20, 1978
JANUARY - DECEMBER 1978:	Research Triangle Institute Activities: Agenda, Priorities, STS Destruct	October 23, 1978

JANUARY - DECEMBER 1978:	Space Shuttle Data Requirements for Nuclear Safety Analysis	June 19, 1978	
JANUARY - DECEMBER 1978:	Mac Fields & SR&QA INSRP - WG File	July 14, 1978	
JANUARY - DECEMBER 1978:	Shuttle Nuclear Safety Analysis Support to Galileo Experiment	August 2, 1978	
JANUARY - DECEMBER 1978:	Minutes of Technical Interchange Meeting, NASA Rockwell on Shuttle Nuclear Safety Analysis in Support of Galileo Experiment	August 2, 1978	
JANUARY - DECEMBER 1978:	Clarification of Space Shuttle Operations Data request for Kennedy Space Center	August 3, 1978	
JANUARY - DECEMBER 1978:	Comparison of Failure Probabilities from SSS Candidate Environmental Impact Statement (Shuttle Launch) with Failure Probabilities for Voyager (Titan Launch)	August 4, 1978	
JANUARY - DECEMBER 1978:	SIG / GM Handout for STS Safety Meeting NASA / JSC	September 13 - 14, 1978	
JANUARY - DECEMBER 1978:	KSC Documentation Requested by DOE	September 25, 1978	
JANUARY - DECEMBER 1978:	Rockwell Study of Galileo RTG Cooling	October 20, 1978	
JANUARY - DECEMBER 1978:	Research Triangle Institute Activities: Agenda, Priorities, STS Destruct System Delay Times; Shuttle Safety Analysis Report	October 23, 1978	
JANUARY - DECEMBER 1978:	Environmental Impact Statement Final	April 1978	
JANUARY - DECEMBER 1977:	Technical Article on Limits of Yield, Ltr.	May 12, 1977	
JANUARY - DECEMBER 1977:	Appendices to & Excerpts from TES- C-0077-35, Candidate Environmental Impact Statement for USAF Strategic Satellite Systems (SSS) Formerly AFSATCOM - Volume 1	November 1977	
JANUARY - DECEMBER 1977:	Minutes of INSRP Shuttle (STS~) Data Meeting	October 26, 27, 1977	
JANUARY - DECEMBER 1977:	Interagency Nuclear Safety Review Panel	December 29, 1977	
JANUARY - DECEMBER 1977:	1976 Space Transportation System	July 1976	

Payload Safety Guidelines handbook SubHeading: Box Number: 36 1974 Orbiter Contamination Sources JANUARY - DECEMBER 1977: November 6, 1974 1971 National Aeronautics & Space JANUARY - DECEMBER 1977: May 1971 Administration 1969 Acute Toxicity of Inhaled 238 JANUARY - DECEMBER 1977: October 1969 PUO2 1968 Supplement No. 1 to SNAP-27 Safety Report - Volume II Accident JANUARY - DECEMBER 1977: n.d. Mode JANUARY - DECEMBER 1977: 1985-88 Miscellaneous / Unlisted

SubHeading: Box Number: 37

JANUARY - DECEMBER 1977: Unlisted / Undated