

**CENTER SERIES**  
**MANNED MARS MISSION STUDIES**

This subseries consists in large part of contractor study reports on Manned Mars and/or Venus flyby mission designs. Of particular interest is a multi-volume report submitted to the Marshall Space Flight Center in 1967 by North American Aviation under terms of Contract NAS8-18025. The contract directed a 12 month study effort to investigate manned Mars and Venus flyby missions using Saturn / Apollo hardware derivatives. Complementing these contractor documents are copies of journal articles, news reports, correspondence, technical memoranda, and presentation material related to planetary missions to Mars and Venus. The vast majority of the material is dated between 1959 and 1967.

**Inventory**

<b>SubHeading:</b>	<b>Box Number: 01</b>	
	Comparison of Several Propulsion Systems for a Mars Mission	March 9-12, 1959
	On the Requirements of the Manned Interplanetary Vehicle, Part I: Manned Space Cabin Requirements	May 13, 1959
	News Articles	May 1960
	Impulsive Midcourse Correction of an Interplanetary Transfer	June 1959
	An Interplanetary Exploratory Vehicle	April 5-8, 1960
	USAF Project Rand: Powerplants for Atmospheric and Surface Vehicles on Mars and Vehicles for Exploration on Mars	April 1960
	Interplanetary Navigation System Study	April 1960
	A System Analysis of Fast Manned Flights to Venus and Mars	June 8, 1960
	NASA TN: Analysis of Trajectory Parameters for Probe and Round-Trip Mission to Mars	June 1960
	Presentation of Results of Saturn Study by Ad Hoc Saturn Study Committee to Space Exploration Council	September 30, 1960
	Survival Consideration for Interplanetary Missions	October 10-14, 1960
	NASA Fourth Semi-Annual Staff Conference	October 16-19, 1960
	NASA Office of Program Planning and Evaluation: A Proposed Long Range Plan	November 4, 1960
	PSAC - Report of Ad Hoc Panel on Man-In-Space	November 14, 1960
	A Study of Manned Nuclear-Rocket Missions to Mars	January 1961
	ARF - Life in Extraterrestrial Environments	1961
<b>SubHeading:</b>	<b>Box Number: 01 *</b>	
	The Determination of Round-Trip Planetary Reconnaissance Trajectories * This 61 page document has been scanned	January 26-29, 1959
	A Study of Manned Nuclear-Rocket Missions to Mars * This 10 page document has been scanned	July 1961
	Manned Entry Missions to Mars and Venus * This 65 page document has been scanned	October 1961
<b>SubHeading:</b>	<b>Box Number: 02</b>	
	NASA TN: Nuclear Powered Mars	January 1962

	Vehicles	
	On the Internal Constitution of the Inner Planets	July 1962
	Work Statement for Study of Manned Scientific Missions to Mars and Venus	1962
	Task VIII Initial Mission Selection and Preliminary Vehicle Sizing	1962
	Dual Plasma Nuclear Rocket	1962
	Vehicle Design for Mars Landing and Return to Orbit	1963
	Flight Mechanics Proposed Studies Relating to Interplanetary Missions	1963
	Lockheed: Preliminary Design of a Mars Mission Earth Reentry Module	January 7, 1964
	Martin - Spacecraft Propulsion Study for Manned Mars and Venus Missions	May 1964
<b>SubHeading:</b>	<b>Box Number: 02 *</b>	
	NAA - Manned Martian Mission * This 30 page document has been scanned	August 22, 1962
	Mission Oriented Launch Windows * This 25 page document has been scanned	1962
	Manned Interplanetary Missions Based on Current Programs * This 31 page document has been scanned	September 30, 1963
	Manned Planetary Missions * This 23 page document has been scanned	April 15, 1964
	Reconnaissance Flyby Missions to Mars and Venus * This 76 page document has been scanned	May 14, 1964
	Manned Planetary Missions Development Plan * This 60 page document has been scanned	June 2, 1964
<b>SubHeading:</b>	<b>Box Number: 03</b>	
	Retro-Rocket Parachute Landing System Study for Earth and Martian Entry Vehicles	June 1964
	Statement of Work for Integrated Manned Planetary Spacecraft Concept Definition	September 1965
	Interplanetary Mission Support Requirements	1964
	Boeing - Interplanetary Mission Support Requirements Reading Files (2 folders)	1964-1965
	Manned Mars and/or Venus Flyby Vehicle Systems Study	1964-1965
<b>SubHeading:</b>	<b>Box Number: 04</b>	
	Manned Mars and Venus Exploration Study Introduction to Final Report	June 8, 1965
	Mission Oriented Advanced Nuclear System Parameters Study	March 1965
	NAA - Manned Mars and/or Venus Flyby Vehicle Systems Study Final Report, Vol. 1 - 3	June 1965
<b>SubHeading:</b>	<b>Box Number: 05</b>	
	NAA - Manned Mars and / or Venus Flyby Vehicle Systems Study Final Report, Vol 4 - 6	June 1965
<b>SubHeading:</b>	<b>Box Number: 06</b>	
	NAA Mars Soil Sample and Retrieval Probe Research and Development Study Report	January 1966
	NAA Proposal for the Definition of	March 24, 1966

	Experimental Tests for a Manned Mars Excursion Module	
	TRW - Proposal for Definition of Experimental Tests for a Manned Mars Excursion Module	March 28, 1966
	Boeing - Technical Proposal Definition of Experimental Tests for a Manned Mars Excursion Module	March 1966
	Notes on Planetary Studies	May 20, 1966
	Spacecraft Configurations, Weights and Subsystems Approach for Mars Missions	June 29, 1966
	Mars Flyby Mission Subsystem Study	June 30, 1966
<b>SubHeading:</b>	<b>Box Number: 07</b>	
	Abort Techniques and Velocity Requirements for Interplanetary Missions	September 6, 1966
	Manned Surface Exploration of Mars - Comments	September 1966
	Planetary Exploration Utilizing a Manned Flight System	October 3, 1966
	Study of Manned Planetary Flyby Missions Based on Saturn / Apollo Systems - Monthly Status Report #4	December 1966
	Philco Sampler Data	1966
	MSC Mars Mission Data	1966-1967
	Planetary Missions Study - Mars / Venus Manned Missions (Phase II) Information Book	February 24, 1967
	Statement of Work - Spacecraft for Manned Planetary Encounter / Retrieval Missions	March 23, 1967
	Planetary Missions Joint Action Group Meeting at MSFC	March 28-29, 1967
	Mission Module Study	March 1967
	Comparison of Fixed and Variable Time-of-Arrival Guidance Schemes for a Martian Probe Launched from a Manned Flyby Spacecraft	April 3, 1967
<b>SubHeading:</b>	<b>Box Number: 08</b>	
	Request for Proposal - Planetary Surface Sample Return Probe Study for Manned Mars / Venus Reconnaissance / Retrieval Missions	August 3, 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 1, Summary	August 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 3, Missions Data Book	August 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 4, ELV/OLV Requirements	August 1967
<b>SubHeading:</b>	<b>Box Number: 09</b>	
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 5, Spacecraft Design	August 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 6, parts I & II, Subsystems Analysis	August 1967
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	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 6, parts III & IV, Subsystems Analysis	August 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 7, Scientific and Engineering Data	August 1967
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	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 8, Probe Designs	August 1967
	NAA - Final Report Manned Planetary Flyby Missions Based on Saturn / Apollo Systems vol. 9, Resource Analysis & Evaluation	August 1967
	General Dynamics - Proposal to NASA MSC for a Planetary Surface Sample Return Probe Study for Manned Mars / Venus Reconnaissance/Retrieval Missions	September 5, 1967
	Nortronics ( Northrop Corporation ) - Proposal for Planetary Surface Sample Return Probe Study for Manned Mars / Venus Reconnaissance / Retrieval Missions	September 5, 1967
	TRW - Proposal for a Planetary Surface Sample Return Probe Study for Manned Mars / Venus Reconnaissance/Retrieval Missions	September 5, 1967
<b>SubHeading:</b>	<b>Box Number: 12</b>	
	NAA - Technical Proposal for a Study of Spacecraft for Manned PlanetaryEncounter / Retrieval Missions	September 14, 1967
	General Dynamics - Proposal to Study Spacecraft for Manned Planetary Encounter/Retrieval Missions, vol. 1, Technical	September 18, 1967
	Douglas - Proposal to Perform a Definition and Preliminary Design Study of a Spacecraft for Manned Planetary Encounter/Retrieval Missions	September 1967
	MSC Configuration Concepts for Mars/Venus Flyby Missions - Report to the Headquarters Joint Action Group (JAG)	1967
	Planetary Mission Module Subsystems Data	1967, nd
	Mars Flyby Mission Probes and Experiments Data	1967, nd
<b>SubHeading:</b>	<b>Box Number: 13</b>	
	Rockwell - Final Report Definition of Experimental Tests for a Manned Mars Excursion Module, vol. 1 - Summary	January 12, 1968
	Rockwell - Final Report Definition of Experimental Tests for a Manned Mars Excursion Module, vol. II - Design	January 12, 1968
	Rockwell - Final Report Definition of Experimental Tests for a Manned Mars Excursion Module, vol. III - Test Program	January 12, 1968
<b>SubHeading:</b>	<b>Box Number: 14</b>	
	A Historical Note on the Genesis of Manned Interplanetary Flight	June 1969
	Manned Planetary Study	October 30, 1969
	Manned Mars Exploration Requirements and Considerations	February 1971

AAS - American Astronautical Society,  
The NASA Mars Conference  
Proceedings

July 21 - 23, 1986

Manned Mars Mission. Working Group  
Summary Report, Revision A

September 1986

**SubHeading:**

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Conceptual Drawings	1964-1971
Chronological/Correspondence	1958-1962
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Comparative Performance of Ballistic and Low-Thrust Vehicles for Flight to Mars	nd
JAG (Joint Action Group) Configuration Study Ground Rules	nd
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