

CENTER SERIES

SAMUEL H. NASSIFF PAPERS

The collection consists of Mr. Nassiff's project work in the Engineering and Development Directorate including the Manned Remote Work Station, Solar Power Satellite System, Space Construction, Space Crane System, and Space Operations Center; Flight Crew Operations Division work in Simulation; Spacecraft Design Division work for the Payload Integration Office; Space Station Program Office for International and External Affairs; Systems Engineering Division as Space Station Technical Manager; and a General History of accumulated items. The bulk of the collection contains reports, drafts, reference, and various presentation material, including black and white and color transparencies, slides, and photographs. Samuel Henry Nassiff was born to Margaret Richardson and Mike Nassiff in 1931 in Jacksonville, Florida. The youngest of five children with two older brothers and sisters, he attended Fishweir Grammar, and John Gorrie Junior High. He was graduated from Robert E. Lee Senior High in January, 1949 and attended Jacksonville Junior College for one year. At age 17, he joined the Naval Air Research for two years. When called to active duty in September 1950, he was assigned to the U.S.S. Valley Force, CV-45. He attended the University of Florida in Gainesville, graduating in 1955. In the summer of 1955, he worked for General Dynamics (Convair) in Fort Worth, Texas, returning there after graduation. He worked as an aerophysics engineer in the stability and control group, performing analyses and handling quality characteristics on the Supersonic B-58 until 1963. Sam Nassiff joined the Manned Spacecraft Center in 1963 working in the Simulation Branch, Flight Crew Operations Directorate where he developed a Gemini reentry simulator with six-degrees-of-freedom and trained the first two classes of astronauts. In 1964 he was named Head of the Simulation Dynamics Section, supervising eight scientist and engineers. He continued in the Simulation Requirements and Design office through 1973, where he designed and built the Lunar Landing Research Vehicle Simulator, and served as project manager for the Lunar Landing Training Vehicle, responsible for contractor liaison with Bell Aero systems and supervised Flight Readiness Review meetings. In addition, Sam Nassiff performed a study to determine Shuttle crew operations and crew station functional requirements. The results of the study were presented at the Space Shuttle Sortie Symposium Workshop at Goddard Space Flight Center in 1972. He then worked as a member of the Apollo-Soyuz Test Project (ASTP) Working Group No. 2 Guidance and Control. Between 1974-1975, Sam worked in the Spacecraft Design Division of the Payload Integration Office determining requirements and conducting studies for the design of the Shuttle aft crew station. In 1975 he moved into the Engineering & Development Directorate, Systems Design Office as a Technical Manager developing a Manned Remote Work Station (MRWS) and Open Cherry Picker Development Test Article. The Open Cherry Picker was renamed Manipulator Foot Restraint. He was next assigned as Technical Manager to determine the Space Station on-orbit construction equipment, a study performed by Martin Marietta. He participated as a team member responsible for identifying a construction base concept for building a Solar Powered Satellite System (SPS). Three candidate SPS configurations were analyzed to determine the range of Orbital Construction Support Equipment needed. He also worked as assistant manager for design for the "Space Station Systems Analysis Study", two parallel studies conducted with MDAC Huntington Beach and Rockwell. In 1979 he moved to the Program Development Office, also in the Engineering & Development Directorate. There he was assigned the responsibility for coordinating and administering the Space Operations Center (SOC) Symposium held at JSC in November 1979. He was appointed technical manager of the "Space Construction Systems Analysis Study" performed by Rockwell International. He served as Technical manager for two concurrent studies: The Space Operations Center System Analysis Study conducted by Boeing and the SOC/Shuttle Interaction Study performed by Rockwell. From 1982-1985 he worked in the Systems Engineering Division as Technical Manager for the Space Station, responsible for formulating and maintaining division approaches and plans relative to Space Station systems engineering, including organizing the SE&I Configuration Control board. He was detailed to the "Skunk Works," to develop a report outline for technical content needed in performing conceptual design of the Space Station. From 1985-1987 he worked as Technical Assistant to the Manager of the International and External Affairs Office in the Space Station Program Office, where they formulated plans and schedules relative to international projects for implementation in the Space Station Program. Sam Nassiff retired from NASA Johnson Space Center in 1987 and worked for Eagle Engineering, Inc. where he participated in the preparation of the MDAC proposal for the Space Station Program in the area of SE&I, managed a study for an international space contractor to develop requirements and designs for an Astronaut Training Facility and designed an Earth Orbiting Transportation Node for a NASA contracted study in the area of advanced space craft design. Samuel H. Nassiff left behind seven boxes of JSC and personal papers in the garage of his former home in Friendswood in August 2006. The new owner arranged the physical pickup of Mr. Nassiff's donation and Mr. Nassiff mailed a signed Deed of Gift a few days later.

Inventory

SubHeading:	Box Number: 01	
Manned Remote Work Station	Manned Remote Work Station (MRWS)	1979-1980
Manned Remote Work Station	Color Transparencies	1980

Manned Remote Work Station	Manned Remote Work Station Cost Proposal and Development Article	1979-1980
Manned Remote Work Station	Manned Remote Work Station Development Article Program Plan	nd
Manned Remote Work Station	Development Article, vol. 2: Business Proposal (Grumman)	October 1977
Manned Remote Work Station	Development Article, vol. 2: Business Proposal (Martin Marietta)	October 1977
Manned Remote Work Station	Manned Remote Work Station (MRWS) Development and Task	1980
Manned Remote Work Station	Dextrous Manipulator and Grappler Candidates and Specs	1975-1982
Manned Remote Work Station	Manned Remote Work Station Invention	1978-1985
Manned Remote Work Station	Manned Remote Work Station which enhances Space Shuttle / Satellite and Space Construction Operations	March 30, 1979
Manned Remote Work Station	Maneuverable Subsatellite for Shuttle (MTV)	June 1982
Manned Remote Work Station	Open Cherry Picker (OCP)	1978
Manned Remote Work Station	Open Cherry Picker Development Test Article. Grumman Contract NAS 9-15881	1979
Manned Remote Work Station	Orbital Construction Support Equipment MRWS Abstract	1978
SubHeading: Box Number: 02		
Manned Remote Work Station	Orbital Construction Support Equipment MRWS Draft	1978
Manned Remote Work Station	Manned Remote Work Station Photographs	1978-1980
Manned Remote Work Station	Photographs for AIAA 4th annual technical mini-symposium presentation	March 30, 1979
Manned Remote Work Station	Photographs Open Cherry Picker (OCP)	1979
Manned Remote Work Station	Photographs Spar Shuttle Manipulator Arm	1979
Manned Remote Work Station	Request for Proposal (RFP) No. 9-BC-241-A03-7-36P	August 29, 1977
Manned Remote Work Station	Safety & Rescue Considerations (C. Allan Nathan)	nd
Solar Power Satellite System	SPS Solar Dynamic Power System	nd
Solar Power Satellite System	Solar Power Satellites	April 1978
Solar Power Satellite System	Solar Power Satellite Design Considerations	nd
Solar Power Satellite System	Space Solar Power Review, vol. 1, No. 1-2, Special Inaugural Issue	1980
Space Construction	Commercial Construction Base using the External Tank	January 1981
Space Construction	Design Guidelines Low-Cost Construction	abt. 1978
Space Construction	Role of Man in the Space Construction of Large Structures	September 1980
Space Construction	Space Construction Base Design Guidelines	1977-1979
Space Construction	Space Construction Bases for Solar Power Satellites and Near Term Technology Steps	1979
Space Construction	SPS Construction Base	1976-1977
Space Construction	Space Station Systems Analysis Study Space Construction Base Design Guidelines and Criteria	January 1977
SubHeading: Box Number: 03		
Space Crane System	Space Crane System	1977

Space Crane System	Statement of Work and Research & Technology Objectives and Plans (SOW & RTOP)	1977-1978
Space Crane System	Statement of Work for Concept Design and System Analysis Study of Orbital Construction Support Equipment Space Crane System	October 21, 1977
Space Operations Center	Advance Studies Color Stills Photographs Space Operations Center (SOC)	1980
Space Operations Center	NSTS Cost / Flight (National Space Transportation System)	1986
Space Operations Center	Photographs and Transparencies Space Operations Center	1980
Space Crane System	Crane Dynamics Simulator MDAC Briefing to JSC	November 17, 1977
Space Operations Center	Advance Studies Viewgraphs	1980
Space Operations Center	Color Transparencies	1979
Space Operations Center	Correspondence from National Space Development Agency of Japan (NASDA)	1982
Space Operations Center	Docking / Berthing Meeting at Johnson Space Center (JSC)	July 30, 1980
Space Operations Center	The Key to Space Industrialization	February 2-4, 1981
Space Operations Center	Mission Utility Influences on Space Operations Center Design	nd
SubHeading:	Box Number: 04	
Space Operations Center	Photographs - Black & White / Colored Stills	1980
Space Operations Center	Photographs / Viewgraphs	1979-1983
Space Operations Center	Presentation 35 mm slides	1979
Space Operations Center	Rationales for a Space Station: A proposed approach to shuttle system evolution	March 4, 1982
Space Operations Center	Request for Proposal Space Operations Center (RFP)	1980
Space Operations Center	Shuttle Interaction Study Extension, Final Report Executive Summary. SSA 81-0194	February 1982
Space Operations Center	Shuttle / SOC Operations SSD 81-0118	July 1981
Space Operations Center	Sources of Orbital Debris and the Projected Environment for Future Spacecraft	May 1980
Space Operations Center	Spaceport of the Future. SSD 81-0120	July 1981
Space Operations Center	Space Shuttle Development and Flight Results, AIAA Houston Section Mini-Symposium	April 20, 1982
Space Operations Center	Spar Capabilities Applicable to the Space Operations Center (SOC) System Analysis	January 1980
Space Operations Center	Space Operations Center Study Planning Charts	1981
Space Operations Center	Space Operations Center System Analysis Study Extension Final Report Vol. IV D180-26785-4 Addendum 1	April 1982
Space Operations Center	Space Operations Center System Analysis Technical Evaluation	1979
SubHeading:	Box Number: 05	
Simulation	Apollo Flight Crew Training in Lunar Landing Simulators	1968
Simulation	Comparison of Gemini Mission Simulator Flight Performance	June 1, 1966

	Characteristics with Gemini VI-A Flight Data. Gemini Working Paper No. 5051	
Simulation	Crew Training Neutral Buoyancy Training (Skylab)	1970
Simulation	Fundamentals of Aerodynamics and Stability and Control	nd
Simulation	Integrated Operating Mode of the Apollo Mission Simulator (AIAA #65-266)	April 1965
Simulation	Lunar Landing Training Vehicle (LLTV) Model 7260 Pilot Flight Checklist	March 3, 1969
Simulation	Photographs – ASTP (Apollo Soyuz Test Project)	1973
Simulation	Photographs – EVA Training (25 images)	1966-1970
Simulation	Photographs – Gemini Simulator	December 25, 1963
Simulation	Photographs - LLTV (Bell, Neil Armstrong, NASA)	1968
Simulation	Photographs – Underwater EVA Training	1966-67, 1969, 1980
Simulation	Six-degrees-of-Freedom Gemini Reentry Simulation. Gemini Working Paper #5003	September 12, 1963
Simulation	Skylab Program MSC Trainer Specification Performance and Operation Requirements	1970
Simulation	Space Rescue Considerations (Rodney G. Rose) MSC-04901	September 1971
SubHeading:	Box Number: 06	
Payload Integration Office	Space Shuttle Payload Accommodations on the Aft Flight Deck. JSC-09343	January 20, 1975
Payload Integration Office	Correspondence Functional Requirements for Orbiter Mission Specialist and Payload Specialist Stations	nd
Payload Integration Office	Crew Participation in Payload Development Planning and Ops	1973-1974
Payload Integration Office	Crew Functions and Crew Stations for Support of Payload Operations	1974
Payload Integration Office	Facilities for Orbiter/Payload Interface Engineering Development Support	March 5, 1976
Payload Integration Office	JSC Facilities and Engineering Tools (Mockups) Capabilities for Orbiter/Payload Interface Engineering Evaluation	August 18, 1975
Payload Integration Office	Space Shuttle Mission Specialist and Payload Specialist Stations Sizing Requirements	December 15, 1972
Payload Integration Office	Space Shuttle Presentations for the NASA Space Shuttle Sortie Symposium / Workshops held at the Goddard Space Flight Center, July 31-August 4, 1972	July & August 1972
SSPO International & External Affairs	Canada Correspondence and MOU	1985-1986
SSPO International & External Affairs	Canadian MSS – Mobile Servicing Centre	1986
SSPO International & External Affairs	ESA (European Space Agency) Correspondence MOU	1984-1986
SSPO International & External Affairs	ESA-CRO (European Space Agency- Columbus Resident Office) Activity Reports	1985-1986
SSPO International & External Affairs	Government to Government Cooperation in Space Station Development	September 1985
SSPO International & External Affairs	Historial Information	1986-1989

SSPO International & External Affairs	Humor	nd
SSPO International & External Affairs	International Multilateral Program Review	1985
SubHeading:	Box Number: 07	
SSPO International & External Affairs	Space Station. The Next Logical Step	1985
Space Station Technical Manager	Advancing Automation and Robotics Technology for the Space Station and for the U.S. Economy (TM-89190)	September 1986
Space Station Technical Manager	An Approach to Space Station Information Flow & Display	November 26, 1984
Space Station Technical Manager	Characteristics of Phase B Experience and Lessons Learned	1986
Space Station Technical Manager	Charts	1986
Space Station Technical Manager	Configuration Viewgraphs & Color Photographs	1984
SSPO International & External Affairs	NASA / Canada MOU	1986
SSPO International & External Affairs	NASA / ESA (European Space Agency) Meeting in Europe	August 1985
SSPO International & External Affairs	NASDA (Japan) H-II Rocket/H-II Orbiting Plane (HOPE)	1986
SSPO International & External Affairs	Personnel Directory	1986
SSPO International & External Affairs	Photographs, Space Station International configuration	1986
SSPO International & External Affairs	Space Policy – International	1982, 1985
SSPO International & External Affairs	Space Station International Meetings (Agendas & Attendees)	1984-1985
SubHeading:	Box Number: 08	
Space Station Technical Manager	Correspondence	1984-1985
Space Station Technical Manager	Data Management System (DMS) Test Beds Advanced Development	1985
Space Station Technical Manager	Documentation and Tracking List	1985-1986
Space Station Technical Manager	Fact Sheet – National Space Strategy	abt. 1984
Space Station Technical Manager	High Strength Steel clippings	1984
Space Station Technical Manager	Orbital Maneuvering Vehicle (OMV) Preliminary Definition Study rev. 1985	1983, 1985
Space Station Technical Manager	Orbital Maneuvering Vehicle (OMV) Requirements Document, Revision 2	1985
Space Station Technical Manager	Phase B Studies. International FRR Data Book	March 8, 1985
Space Station Technical Manager	Presentation to Phillips Review Committee	May 27, 1986
Space Station Technical Manager	Presentations	November 1986
Space Station Technical Manager	Satellite Service Catalog Tools & Equipment	1983
SubHeading:	Box Number: 09	
Space Station Technical Manager	Soviet Space Systems as Analogs (Boeing)	October 1983
Space Station Technical Manager	Space Station Control Board Directives – Level B	1985-1986
Space Station Technical Manager	Space Station Program Managers Meeting at JSC	March 14, 1985
Space Station Technical Manager	Space Station Program Overviews	1985
Space Station Technical Manager	Space Station Program Update. Presentation to Committee on Science & Technology. US. House of Representatives	February 10, 1986
Space Station Technical Manager	Space Station Reference Configuration Description	August 1984
SubHeading:	Box Number: 10	

Space Station Technical Manager	Space Station Subsystem White Papers JSC-20054	August 1984
Space Station Technical Manager	Space Station Subsystem White Papers (microfiche) JSC-20054	nd
Space Station Technical Manager	SRR-ISR (System Requirements Review – Interim Systems Review) SE&I Managers Meeting	April 1986
Space Station Technical Manager	Typical Definition of Responsibilities in the Phase B MOU's	1985
Space Station Technical Manager	Work Breakdown Structure (WBS)	April 1985
General History	Astronaut Fact Sheet	October 1976
General History	Honor Awards Ceremony Programs	December 1970
General History	Horizons: Grumman at the Smithsonian	1986
General History	John Young Memos	1986
General History	NASA Guide to Careers; Manned Spacecraft Center	1963-1965
General History	NASA JSC Research and Technology Annual Report	1980-1981
SubHeading:	Box Number: 11	
General History	NASA Total Agency FY 1987 Budget	1987
General History	The New Age magazine (Masonic)	November 1969
General History	Russian Space Station Proposed Commercial Experiments	1979, 1981, 1983
General History	Space Station Freedom Media Handbook	April 1989
General History	Special / Historical Information	1965-1986
General History	Special / Historical Information Clippings	1970-1975
General History	TRW Space Log & Orders of Magnitude: A History of NACA/NASA 1915-1976	1978-1979