# FINDING AID FOR THE CARL HUSS PAPERS, 1957-1999 (#2015-0010)

#### **Contact Information**

University of Houston-Clear Lake Archives Neumann Library 2700 Bay Area Blvd. Houston TX 77058

Phone: 281-283-3936 Email: archives@uhcl.edu URL: www.uhcl.edu/library

#### **Descriptive Summary**

Repository (049): University Archives

Collection # (099): 2015-0010

Title (245): Carl Huss Papers

Creator (100/110): Carl Huss

Inclusive Dates: 1957-1999

**Bulk Dates: 1966-1982** 

Extent (300): 15 linear feet (26 boxes)

Language (546): English

#### **Administrative Information**

Restrictions on Access (506): None

Restrictions on Use (540): None

**Acquisition Information** (541): Materials donated by Herb Kavanaugh in 2004 and Greg Linebaugh on December 22, 2009

Processed by (583): Erin Henry

**Preferred Citation** (524): Carl Huss Papers (#2015-0010), University of Houston-Clear Lake Archives.

## Biographical/Historical Note (545)

Carl R. Huss joined the Mission Analysis Branch of the Langley Memorial Aeronautical Laboratory at NACA in 1959. His work involved trajectory analysis for the launch, orbit, and reentry of the Mercury capsule, taking into account the evolving mission rules and constraints. This Section developed nominal and contingency trajectories and numerous abort conditions for different missions and determined the logic and equations for the computers.

As lead engineers for the Mercury Atlas orbital flights, Huss worked closely with John Mayer, Clay Hicks, Charlie Allen, Ted Skopinski, and John Maynard on the preliminary definition of the

mission planning process. Having specialized in planning the de-orbit maneuver, he became the first Retrofire Officer (RETRO) in the Mercury Control Center.

Later Huss moved with the Mission Analysis Branch to Houston and continued supporting the flights out of Cape Mercury Control Center. A mild heart attack shortly after Project Mercury was concluded with the MA-9 flight in May 1963 prompted Huss to move into management of the newly named Mission Analysis and Planning Division. In 1967 he became the Assistant Chief for Mission Design, a position that he held through the duration of the distinguished career. He received the NASA Outstanding Leadership Medal in 1981.

-Excerpt from The Birth of NASA: The Work of the Space Task Group, America's First True Space Pioneers by Dutch von Ehrenfried

### Scope and Content (520)

The collection contains 26 boxes of materials pertaining to the work of Carl R. Huss from the period of 1957 - 1999. It consists of two donations, a collection of his papers brought over from Lone Star Flight Museum in 2004 and one donated directly to UHCL Archives in 2009. The collection includes newspaper articles, journal articles, photographs, memoranda, technical reports, and other materials.

### **Arrangement**

Folders are arranged chronologically within 27 series, including but not limited to Gemini, Apollo, Viking, Mariner, Shuttle (Space Transportation System), and Skylab programs, and General Mission Planning, Federation Aeronautique Internationale, American Institute of Aeronautics, and Confederate Air Force.

### Index Terms (6xx):

**Personal Names** 

Huss, Carl R.

Corporate Names

United States. National Aeronautics and Space Administration

United States. National Advisory Committee for Aeronautics

Rockwell International

Confederate Air Force

Federation Aéronautique Internationale

American Institute of Aeronautics and Astronautics

Subjects

Project Apollo (U.S.)

Computer software—Development

Aviation

Places

Clear Lake (Tex.)

Hampton (Va.)

**Document Types** 

Newspapers

Journals

**Photographs** 

Memoranda

Technical reports

#### **Items Separated**

Items with an asterisk (\*) in Box 26 have been moved to flat file and cross-listed on the Consolidated Posters Inventory.

# **Related Material** (544)

Richard Boudreau Apollo Mission Techniques Documents, 1966-1967 (#2015-0009) Gloria Wells Papers, 1961-2008 (#2016-0010) Roger E. Bilstein Papers, 1950-2007 (#2008-0002) John M. Eggleston Papers, 1946-1987 (#2010-0007)

# Inventory

<u>Box</u>	Folder	Title	<u>Date</u>
1	1	Series I: General Correspondence Correspondence between Carl Huss & Carl Hirsch	1967
	2	regarding review of Hirsch's book Correspondence between Carl Huss & Carrie Karegeannes regarding comments on NASA article	1983
	3 4	Series II: Gemini Program  Memoranda & Accompanying Documents  MSC Internal Note No. 65-FM-?: A Decay Safe  Mission Plan for the First Manned Gemini Flight (GT-	1970-1974 Jan 13, 1965
	5	3) (copy, incomplete title page) MSC Internal Note No. 65-FM-?: A Proposed Mission Plan forthe Fourth Gemini Flight (GT-?) (copy, incomplete title page)	Jan 5, 1965
	6	MSC Internal Note No.?: A Proposed Mission Plan for(GT-3) Utilizing a Retrograde (copy, incomplete title page)	Feb 9, 1965
	7	MSC Internal Note No. 65-FM-70: Preflight Rendezvous Exercise Mission Plan for the Second Manned Gemini Flight (GT-4)	May 27, 1965
	8	MSC Internal Note No. 65-FM-139: "Project Gemini Orbital Parameter Plots For Use in Mission Planning" by Charles E. Allday	Oct 15, 1965
	9	Partial radio interview of Carl R. Huss at New York radio station concerning Gemini 9	Undated
		Series III: Apollo Program	
	10-14	Memoranda & Accompanying Documents	1964-1967
2	1	Memoranda & Accompanying Documents	1967-1968
	2-6	Memoranda & Accompanying Documents	1968-1969
3	1-3	Memoranda & Accompanying Documents	1969
	4-5	Memoranda & Accompanying Documents	1970-81
	6	Catalog of Memoranda & Documents, Apollo	1966-1968
	7	Lists of Memoranda & Internal Notes, Apollo Mission F	1968-1969
	8	Catalog of Memoranda & Documents, Apollo	1971-1973
4	1-2	Mission Planning - AS-200 Series (2 folders)	1964-1966
	3	Mission Planning – Apollo Rendezvous	Undated
	4 5	Mission Objectives - Apollo 10-17	Undated
	5	NASA Project Apollo Working Paper No. 1005: "Preliminary Survey of Retrograde Velocities for Insertion into Low Lunar Altitude Orbits"	Dec 5, 1960
	6	NASA General Working Paper No. 10,020: "Directory of Station Locations for Use in Gemini and Apollo Planning Studies"	Feb 14, 1964
	7	MSC Internal Note No. 64-OM-2: Project Apollo Second-Variational Calculus of Variations Method	Mar 5, 1964

	8	NASA General Working Paper No. 10,020A: "Directory of Station Locations for Use in Gemini and Apollo Planning Studies"	Feb 25, 1965
	9	"Effort Expended on Apollo Mission AS-502" by Richard D. Nelson	1965-1968
	10	MSC Internal Note No. 65-FM-169: "AS-201 Spacecraft Alternate Mission and Abort Trajectory"	Jan 17, 1966
	11	MSC Internal Note No. 66-FM-28: "Entry Corridor Definition and SM/RCS Deorbit Requirements for Apollo Block I Earth Orbit Missions"	Mar 10, 1966
	12	MSC Internal Note No. 66-FM-32: "Project Apollo- Estimation of Deorbit Parameters for Out-of-Plane Maneuvers and Bank-Angle Modulation"	Mar 23, 1966
	13	MSC Internal Note No. 66-FM-57: "Apollo Spacecraft Parametric Deorbit Data for Near-Earth Orbits"	Jun 10, 1966
	14	AS-504 Altitude Charts	July 10, 1968
	15	TRW Working Paper: "Apollo Entry Corridor for Near- Earth Orbital Missions" by R.L. Morris	Apr 26, 1967
	16	MSC Internal Note No. 68-FM-189: Translunar LM DPS for Advanced Lunar Missions by Gus R. Babb,	Aug 1, 1968
5	1	Jr. MSC Internal Note No. 68-FM-222: Preliminary Contingency Procedures for the Translunar Coast	Sept 11, 1968
	2	Apollo 8 Commentary	Dec 21, 1968
	3	MSC Internal Note No. 69-FM-162: Project Apollo	Jun 13, 1969
		Operational Abort Plan for Apollo 11 (Mission G)	
	4	MSC Internal Note 01524: Apollo Mission Techniques Mission H-2 an Subsequent Contingency Procedures – Techniques Description, Final Issue	Feb 2, 1970
	5	NASA Technical Memorandum TM X-58040: Apollo Lunar Descent and Ascent Trajectories	Mar 1970
	6	MSc Internal Note No. 70-FM-76: Abort Planning for Apollo Missions	Apr 15, 1970
	7	MSC-01266 Revision I: "Apollo Program (Phase I Lunar Exploration) – Mission Definitions"	Aug 15, 1970
	8	NASA SP-287: "What Apollo a Success?"	1971
	9	JSC Internal Note No. 73-FM-82: "Chronological Summary of the Apollo Abort Working Group Activities"	May 17, 1973
	10	JSC Internal Note No. 73-FM-140: "Activities of the Apollo Flight Limits Subpanel"	Sept 28, 1973
	11	NASA TN D-7822: "Apollo Experience Report – The Role of Flight Mission Rules in Mission Preparation and Conduct" by Larry W. Keyser	Nov 1974
	12	NASA TN D-7920: "Apollo Experience Report – Spacecraft Relative Motion and Recontact Analysis" by Robert E. McAdams, et al.	Apr 1975
	13	"Spirit of Apollo: A Collection of Reflective Interviews", AIAA Houston Section	Jul 1989
	14	EP-66: "Apollo 8: Man Around the Moon"	Undated
	15	"Apollo Mission Planning" by C.C. Kraft, J.P. Mayer, C.R. Huss, & R.P. Parten	Undated
	16	Apollo 11 Staff Lists	Undated
	17	Apollo Mission Patch Images	Undated

		Series IV: Mercury Atlas	
6	1	Memoranda & Accompanying Documents	1962
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		Series V: Viking Program	
	2	Memoranda & Accompanying Documents	1970
	_	Wemoranda a 7.000mpanying 200amento	1373
		Series VI: Mariner 9 Program	
	3	Memoranda & Accompanying Documents	1973
	J	Memoranda & Accompanying Documents	1373
		Series VII: Shuttle Program (Space Transportation	
		System)	
	4	Memoranda & Accompanying Documents	1965-1968
	5	Memoranda & Accompanying Documents	1969-1970
	6-8	Memoranda & Accompanying Documents	1971
	9	Memoranda & Accompanying Documents	1972
7	1-2	Memoranda & Accompanying Documents	1973
-	3	Memoranda & Accompanying Documents	1974
	4-5	Memoranda & Accompanying Documents	1977-1981
	6	Memoranda & Accompanying Documents	1983-1984
8	1	Memoranda & Accompanying Documents	1984-1985
	2	Memoranda & Accompanying Documents	1989-1990
	3	Abort Region Determinator Module Feasibility Report,	Jan 1976
		Mission Planning Analysis Division	
	4	Baseline Oft Abort Plan	Oct 1977
	5	Memoranda & Accompanying Documents concerning	1977-1981
		Baseline Oft Abort Plan	
	6	MSC Internal Note No. 69-FM-226: Mission	Aug 19, 1969
		capabilities of MSC Shuttle	<b>3</b> ,
	7-8	STS Mission Planning Descriptions	1970-1982
	9	MSC Internal Note No. 71-FM-82: Typical Shuttle	Mar 1, 1971
		Mission Profiles and Attitude Time Lines Volume IV-	
		Four Shuttle Mission Profiles	
	10	MSC Internal Note No. 72-FM-121: Shuttle Suborbital	Apr 28, 1972
		Vertical Flight Test-Applicability to Incremental	
		Testing	
9	1	MSC Internal Note No. 72- FM-153: Candidate Orbital	Jun 20, 1972
		Mission for First Manned Vertical Flight Test of the	
		Space Shuttle	
	2	JSC Internal Notes No. 73-FM-173: Analysis of	Dec 18, 1973
		shuttle Payload Direct Injection with Suborbital Tank	
		Staging for Due East Missions by John T. McNeely	
	3	"Space Shuttle" (Booklet)	Feb 1975
	4	STS Flight Assignment Baseline	Feb 1, 1982
	5	Press kit for STS-1, STS-2, & STS-3	Mar 29, 1982
	6	STS-7 Information Packet, Rockwell International	1983
	7	Events Timeline Charts, STS-11 through STS-50	1984-1990
	8	"Early Shuttle Failure Launch Area Hazard" by R.L.	Nov 1984
	_	Anderson & R.M. Blackstock	
	9	Report to the President by the Presidential	Jun 1986-Jun
		Commission on the Space Shuttle Challenger	1987
	40	Accident	D 0 1000
	10	Space Shuttle Columbia Photos	Dec 8, 1999
	11	Informational leaflets, "Space Shuttle" and "STS-4"	Nd
	12	JSC Internal Note No. 75-FM-79: Effects of L/D	Dec 8, 1975
		Variations on Orbiter Entry Performance	

	13	JSC Internal Note No. 76-FM-49: Orbital Flight Test	Sept 23, 1976
		Abort Region Determinator, Level B Formulation	•
	14	JSC Internal Note No. 76-FM-88: Orbital Flight Test	Oct 4, 1976
	15	Abort Region Determinator, Level C Formulation	Nov. 24, 4076
	15	JSC Internal Note No. 76-FM-50, Rev 1: Mission Control Center Level B Requirements for Orbital	Nov 24, 1976
		Flight Test Missions – Abort Maneuver Evaluator and	
		Contingency Maneuver Generator	
	16	JSC Internal Note No. 76-FM-118: Delta Abort	Dec 13, 1976
		Region Determinator Level C Formulation	
4.0		Requirements	
10	1	"First Shuttle Orbiter Free Flight Test" Press Kit	Aug 3, 1977
	2	"STS-1: First Space Shuttle Mission" Press Kit "STS-2: Second Space Shuttle Mission" Press Kit	Apr 1981 Sept 1981
	4	"STS-4: Fourth Space Shuttle Mission" Press Kit	Jun 1982
	5	STS-5 Press Information	October 1982
	6	STS-7 Operational Flight Profile - Profile Summary,	Feb 1983
		Cycle 2	
	7	STS-13 Conceptual Flight Profile	Mar 1983
	8	STS-7 Press Information	Jun 1983
	9 10	STS-20 Conceptual Flight Profile – Profile Summary Flight 41-D Operational Flight Profile – Profile	Dec 1983 Mar 1984
	10	Summary, Cycle 1A	Iviai 1304
	11	STS-26 Challenger logo & launch manifest	1985
		o o	
		Series VIII: Skylab Program	
	12	Catalog of technical notes, internal notes, and	1965-1973
	13	memoranda Skylab News Reference	Mar 1973
	14	Skylab Events, Second Manned Mission	Jul 1973
	15	Key Space Station Engineering Studies,	Feb 5, 1986
		Chronological Listing	
		Series IX: General Mission Planning	
	16	Memoranda & Accompanying Documents	1963-1969
11	1	Memoranda & Accompanying Documents	1971-1984
	2	Memorandum: Presentation on "The Effect of	Jul 18, 1967
		Constraints on Lunar Mission Launch Windows"	
	3	Memorandum: Solar Rotation	Mar 2, 1973
	4	NACA Research Memorandum RM L5I05: Effect of	Dec 7, 1951
		Formation on Load Factors Obtained on F2H Airplanes by Carl R. Huss & Harold Hamer	
	5	NACA Research Memorandum RM L53D22:	Jun 16, 1953
	Ü	Preliminary Results from a Limited Investigation of	<b>July 10, 1000</b>
		the Use of Controls During Service Operational	
		Training with Fighter Airplanes by Carl R. Huss, et. al.	
	6	NACA Research Memorandum RM L54E18:	Jul 7, 1954
		Comparison of Normal Load Factors Experienced	
		with Jet fighter Airplanes During Combat Operations with those of Flight Tests Conducted by the NACA	
		During Operational Training by HA Hamer, CR Huss,	
		and JP Mayer	
	7	NACA Research Memorandum RM L54L16: Study of	May 20, 1955
		Some Effects of Structural Flexibility on the	
		Longitudinal Motions and Loads as Obtained from	

		Flight Measurements of a Swept-Wing Bomber by	
	8	James J. Donegan and Carl R. Huss NACA Technical Note 3897: Time Response to a Unit Impulse and its Application to Lightly Damped Linear	Dec 1956
	9	Systems by James J. Donegan and Carl R. Huss NACA Technical Note 3598: Method and Tables for Determining the Time response to a Unit Impulse	Jan 1956
		from Frequency-Response Data and for Determining the Fourier Transform of a Function of Time by Carl R. Huss and James J. Donegan	
	10	NACA Technical Note 4073: Tables for the Numerical Determination of the Fourier-Transform of a Function of Time and the Inverse Fourier-Transform of a Function Frequency, with Some Applications to Operational Calculus Methods by Carl R. Huss & James J. Donegan	Oct 1957
	11	NACA Report 1324: Comparison of Several Methods for Obtaining the Time Response of Linear Systems to Either a Unit Impulse or Arbitrary Input From Frequency – Response Data by James J. Donegan and Carl R. Huss (2 copies)	1957
	12	NACA Technical Note 4250: Effect of the Proximity of the Wing First-Bending Frequency and the Short- Period Frequency on the Airplane Dynamic-response Factor by Carl R. Huss & James J. Donegan	Jun 1958
	13	NASA Technical Report R-122: Parameter Studies of Conditions for Lunar Missions Including Various Trajectory Considerations (plus advance copy)	1961
	14	Articles on Orbit & Trajectory	1961-1962
	15	NASA Technical Note D-1262: Statistical Study of Effects of Insertion Errors on Ascent Trajectories for Lunar Missions	May 1962
	16	NASA General Working Paper no. 10,005: Parametric Study of the Separation Distance and Velocity Between a Spacecraft and an Ejected Object	Mar 5, 1963
	17	NASA General Working Paper No. 10,009: A Compilation of Various Circular and Elliptical Orbits	Aug 16, 1963
12	1	NASA General Working Paper No. 10,019: A Rapid Geological Technique for Obtaining Radar Data Time History for Close Earth Orbits	Nov 25, 1963
	2	MSC Internal Note NO. 64-OM-10: Change in Velocity Magnitude and Direction Due to Applying an Incremental Velocity Instantaneously at Any Angle	Jun 10, 1964
	3	MSC Internal Note No. 65-FM-33: "Graphical Determination of Some Orbital Parameters, Part I: Orbits About the Earth" by Charles. E Allday	Mar 30, 1965
	4	MSC Internal Note No. 65-FM-45: "General Parametric Reentry Study for Near Earth Orbits"	April 29, 1965
	5	MSC Internal Note No. 65-FM-39: "Graphical Determination of Some Orbital Parameters, Part II: Orbits About the Earth (Apogees up to 40,000 n. mi.)" by Charles. E Allday	Sept 16, 1965
	6	NASA Technical Note D-3069: Separation Trajectory Characteristics Resulting From Separating Two Vehicles in Near-Earth Orbits (plus review copy)	Dec 1965

	7	MSC Internal Note No. 66-FM-4: "Graphical Determination of Some Orbital Parameters, Part III: 4 Orbits About the Earth (Apogees up to 400,000 n.	Jan 21, 1966
	8	mi.)" by Charles. E Allday MSC Internal Note No. 66-FM-5: "Graphical Determination of Some Orbital Parameters, Part IV: Orbits About the Earth (Apocynthion Altitudes Up To	Jan 24, 1966
	9	1100 n. mi.)" by Charles. E Allday MSC Internal Note No. 66-FM-16: "Graphical Determination of Some Orbital Parameters, Part V: Orbits About the Earth (Apocynthion Altitudes Up To	Mar 2, 1966
	10	35000 n. mi.)" by Charles. E Allday MSC Internal Note No. 66-FM-47: "General Parametric Reentry Study for Circular Earth Orbits Up To 20000 n. mi." by William R. Pruett	May 20, 1966
	11	MSC Internal Note No. 66-FM-79: "A Parametric Study of Central Angle of Travel and Time for Reentry from Near-Earth Orbits" by William R. Pruett	Aug 12, 1966
	12	MSC Internal Note No. 67-FM-15: "General Parametric Reentry Study For Several Synchronous Earth Orbits" by William R. Pruett	Feb 3, 1967
	13	TRW Working Paper 3423.5-80: "Half Lift Entry Range, a Tool for Preliminary Touchdown Target	Mar 23, 1967
13	1	Positioning" by CD Calvin MSC Internal Note No. 67-FM-35: "Parametric reentry Study of Elliptic Earth Orbits with Apogees Up To	Apr 6, 1967
	2	10000 n. mi."  MSC Internal Note No. 67-FM-43: Trajectory Data for High Speed Reentries	Apr 14, 1967
	3	MSC Internal Note No. 67-FM-92: Orbital Elements Following Premature translunar Injection Shutdowns	Jul 3, 1967
	4	MSC Internal Note No. 67-ET-16: Percentage of Time in Sunlight for Spacecraft in Circular Orbits	Sept 8, 1967
	5	MSC Internal Note No. 67-FM-177: Service Module Entry Characteristics	Nov 22, 1967
	6	NASA SP-8015: Guidance and Navigation for Entry Vehicles	Nov 1968
	7	MSC Internal Note No. 69-FM-294: basic Characteristics of Parking Orbits about Mars for Use in Preliminary Mission Planning	Nov 28, 1969
	8	VMMPS (Vehicle Management and Mission Planning Systems) Chronology	1969-1974
	9	Launch Vehicle Estimating Factors	Jan 1970
	10	MSC Internal Note No. 70-FM-61: Parametric Trajectory Analysis of the 1986 Mars Conjunction Class Mission Using Two- and Three-Impulse Trans- Mars Trajectories	Apr 7, 1970
	11	NASA SP-3053: Relative Geometries of the Earth, Sun, and Mars from the Year 1973 to the Year 2000	1970
	12	TRW Mission Trajectory Program Note	Mar 10, 1971
	13	MSC Internal Note No. 71-FM-119: Determination of Earth Orbit Inclination and Period for Special Types of Repeating Orbits	Apr 21, 1971
	14	National Science Foundation Grant PRA-76-18441: Final Report on Technical Information Flows and Innovation Processes	Oct 1978

14	15 16 1 2 3 4 5 6	Basic Orbital Mechanics Workbook Reporter's Space Flight Notepad Payload Launch Schedules/Flight Assignments Facts & Figures Program Schedules Secondary Payload Flight Projection Aerospace Executive Directory Aerospace Division Note AND 96-1: 1995 Space Launch Activities Airspeed and Altitude Charts Differentiation, Integration, & Curve Fitting Formulas	Oct 1, 1985 Apr 1985 1984-1990 Aug 1988 1988-1990 Feb 1989 Jun 1989 Jan 1996 Undated Undated
	9 10 11	Series X: Federation Aeronautique Internationale Memorandum & Accompanying Documents Records file for Valentina Tereshkova Sporting Code, Section 8 – Astronautics: Regulations Applying to Spacecraft and Aerospacecraft, Classes P & K	1971-1982 Jun 1963 1979
	12	United States Submittal for Register if Most Significant Achievement by Unmanned Spacecraft	Jul 15, 1982
	13	Request for Approval of Non-Program Foreign Travel, Carl R. Huss	1982
	14	Award Nominations, Carl R. Huss, National Aeronautic Association	1982
	15	Meetings	1982-1983
	16	Request for Registration of First Priority Achievements for United States Unmanned Space Flight by S.A. Sjoberg and C.R. Huss	Undated
15	1	Status of Federation Aeronautique Internationale Mission record Activities, STS-1 through STS-5	Undated
	2	Dossier for Homologation of World Records for Aerospacecraft, STS-1 through STS-5	1981-1982
	3	Dossier for Homologation of World Records for Aerospacecraft, STS-6 through STS-9	1983
	4	Series XI: American Institute of Aeronautics AIAA Paper No. 66-904: Flight Operations Planning and Preparation for Manned Orbital Missions by JH Boynton and CC Kraft, Jr.	1966
	5	AIAA Paper No. 67-822: Mission Design for Flight Safety by CR Huss, CR Hicks, and CC Allen	1967
	6	AIAA Paper No. 67-839: Historical Perspectives on Apollo by Eugene M. Emme	Oct 23-27, 1967
	7	AIAA Brochures	1981-1992
	8	AIAA Houston Bylaws	Jan 11, 1985
	9	AIAA Membership Forms	Mar 2, 1990
	10 11	AIAA Career Enhancement Committee 16th Annual Technical Symposium "Challenges of the 90's" held at University of Houston-Clear Lake	1990 1991-1992
		Series XII: Computer Information	
16	12-13 1-2 3 4	Memoranda & Accompanying Documents Memoranda & Accompanying Documents NASA-S-66-6847: Software Considerations Johnson Space Center Human Rights Seminar	1969-1974 1975-1981 Jun 1966 1973

	5	Project Categories Presentation (primarily categories 3&4)	FY1973- FY1976
	6	Data Systems & Analysis Division Staffing Information	1974-1978
	7	Institutional Data Systems Division Long Range Planning Outline	May 10, 1974
	8 9	Institutional Data Systems Division Functional Review Discussion Topics for IDSD Briefing – On the Job Satisfaction Questionnaire	May 1974 Jul 9, 1974
	10	Data Systems Development Branch Project List	FY1974- FY1976
	11	Contract No. NAS 9-15700: Institutional Computers Systems Engineering, Development, and Production Operations	Jul 1978
	12	Contract No. NAS 9-15700: Work Management Plan for Data Systems Analysis Directorate Computer Sciences Corporation	May 1979
	13	NASA Internal Note 78-FD-008: Award Fee Evaluation Plan and Process for Contract NAS 9- 15700, Computer Sciences Corporation	Sept 1979
	14	NASA Internal Note 80-FD-010: Yearly Institutional Data Systems Division Management and Reporting Activities	Sept 1980
17	1	Institutional Data System Central Computing Planning & Reporting Activities (update)	Sept 16 1980
	2-3	Institutional Data System Central Computing Facility Procedures Manual (2 folders	May 1981
	4 5	Software Compatibility with Lunar Mission Objectives NASA's Impact on Computer Development by James	Undated Undated
	6	E. Tomayko IDSD Cartoon	Undated
	S	eries XIII: Standards & Constants	
	7	Conversion Factors: Factors for Converting Miscellaneous Units to Units of the International Systems of Units of 1960, Edition 1963 prepared by	Sept 28, 1963
	8	E.A. Mechtly MSC Internal Note 64-OM-06: Projects Gemini & Apollo: Standard Constants & Parameters	Apr 6, 1964
	9 10	All-Purpose Space Rule NASA SP-7012: the International system of Units, Physical Constants, and Conversion Factors, Revised	Feb 17, 1967 1969
	11	by E.A. Mechtly JSC Internal Note 77-FM-45: Manpower and Computer Utilization	Sept 1977
	S	eries XIV: Confederate Air Force	
	12	Organizational Timeline	1957-1972
	13	Brochures	c. 1970s
	14 15	Awards Confederate Air Force Cheet Squadren Silver, Jubilee	1980-1982
	15	Confederate Air Force Ghost Squadron Silver Jubilee News Issue	Oct 1982
	16 17	Correspondence Images	1982-1989 Undated
	18	Logos	Undated

18	1	Series XV: Flight Safety MSC Internal Note No. 65-FM-8: Graphical Method for Estimating Earth Surface Lighting Conditions for	Jan 29, 1965
	2	Any Given Time MSC Internal Note No. 67-FM-175: Mission Design for Flight Safety by CR Huss, CR Hicks, and CC Allen (plus presentation)	Nov 17, 1967
		Carias VIII. Aviation Catalons	
	•	Series XVI: Aviation Catalogs	
	3	1983-1990	
	4	1991-1993	
		Series XVII: Periodicals	
	5	Aerospace and Engineering Magazine	1959-1962
	6	Aviation Week and Space Technology	1959-1962
	7		
		Space News Roundup	Dec 13, 1961
	8	"Why Should Man Go To The Moon?" Time Magazine	Feb 10, 1967
	9	"Engineering Your Writing and Writing Your	Mar 1968
		Engineering" by Arthur E. Judd, Engineering	
		Opportunities	
	10	Journal of Spacecraft and Rockets, vol. 5, no. 6	Jun 1968
	11	"Carbon Dioxide Control for Manned Spacecraft" by	Sept 1968
		Rex B. Martin, reprint from Aerospace Medicine, vol.	
		39, no. 9	
	12	"Carbon Dioxide Control for Manned Spacecraft" by	Undated
		Rex B. Martin (manuscript with edits)	
	13	Articles from The Slide Rule Magazine	Jul 1970
	14	"Guest Editorial: To Survive, New Wisdom" by Glenn	Oct 1970
	17	T. Seaborg, Astronautics & Aeronautics	001 1370
	15	Harvard Business Review	1971-1972
10			
19	1	The Bell System Technical Journal, vol. 51, no. 5	1972
	2	"From Steeples to Stamps: Personnel Profiles", The	Jun 16, 1978
		Langley Researchers	
	3	"NASA Activities" newsletters	1979-1989
	4	Obituary for James Donegan (personal letter included)	Feb 4, 1980
	5	"Norwegian World War II Seaplane Restored", News	Dec 5. 1980
	_	of Norway	
	6	"Development Status of a Preprotype Water	1981
		Electrolysis Subsystem" The American Society of	
		Mechanical Engineers	
	7	"NASA's Budget History" and "Scorecard: Major	Oct 1983
		Milestones in NASA's 25-Year History" (publication	
		unknown)	
	8	"Space Shuttle Entry Guidance Performance results"	1983
		by JC Harpold and DE Gavert, Journal of Guidance,	
		Control, & Dynamics, vol. 6, no. 6	
	9	Crew Manifests, Space News Roundup	1984-1991
	10	"The Shuttle: Triumph or Turkey?" by Alex Roland,	Nov 1985
	10		1404 1900
	11	Discover Magazine "A Toyan and His Toya" by Goorge Magine	Nov 1006
	11	"A Texan and His Toys" by George Macias	Nov 1986
	40	(newspaper article)	0-400 400=
	12	Rockwell News, vol. 15, no. 20	Oct 28, 1987
	13	Machine Design Magazine	Nov 22, 1990

	4.4	Series XVIII: Career Information	1050 1000
	14 15	Management Articles, memos, info Resume & Job Info/memos	1959-1988 1959-1994
	16	A Study of Innovation and Organizational Information	undated
	10	Flows in Three Research and Development	undated
		Organizations" by Bob Keller and Dutch Holland	
	17	Work Planning & Progress Review Guide	May 1977
	18	User's Guide to the NASA Performance Appraisal	1981-1982
		Systems for Non-Supervisory Employees	
	19	F-15 Multi-Stage Improvement Booklet	1986
	20	Johnson Space Center Strategic Game Plan	Oct 1987
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