

FINDING AID FOR THE CARL D. SCOTT PAPERS, 1968-2005 (#2018-0007)

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): 2018-0007

Title (245): Carl D. Scott Papers

Creator (100/110): Carl D. Scott

Inclusive Dates: 1968-2005

Bulk Dates: 1987-2005

Extent (300): 3 linear feet (7 boxes)

Language (546): English

Administrative Information

Restrictions on Access (506): "Employee Private Data" folder is closed

Restrictions on Use (540): None

Acquisition Information (541): Donated May 2017 by Carl Scott

Processed by (583): Robert Heselmeyer

Preferred Citation (524): Carl Scott Papers (#2018-0007), University of Houston-Clear Lake Archives.

Biographical/Historical Note (545)

Carl Douglas Scott received his B.A. degree in physics from Rice University in Houston, Texas, and his Ph.D. in physics from the University of Texas at Austin. He joined NASA's Manned Spacecraft Center (MSC) in Houston in 1963 after he completed service in the U.S. Navy. During his career at NASA in Houston, Scott worked in the areas of arc jet flow diagnostics; aerothermodynamics; surface catalytic effects on entry heating; and on production, diagnostics, and modeling of single wall carbon nanotubes.

Scott spent a year at the University of Paris XIII as a visiting researcher. He was a lecturer for a number of short courses on hypersonics and flow diagnostics in the U.S. and Europe. He

served as co-chair of several workshops hosted by NASA, Rice University, and the Air Force on growth mechanisms of single-wall carbon nanotubes.

Scott's specialty areas of research included: hypersonic aerothermodynamics; high enthalpy flow diagnostics; chemical reaction modeling of carbon nanotube production, hydrogen microwave plasmas, and arc jet flow; technical report writing; plasma spectroscopy. Carl Scott retired from NASA Johnson Space Center in December 2005. Since retirement, he has continued to support NASA as a consultant with Jacobs Technology, who is a contractor for NASA Johnson Space Center.

Scope and Content (520):

This collection consists of technical experiment data, notes and calculations, presentations, correspondence, and personal data, created and used by Dr. Carl Scott throughout his time working at NASA Johnson Space Center in the areas of arc jet flow diagnostics; aerothermodynamics; surface catalytic effects on entry heating; and on production, diagnostics, and modeling of single wall carbon nanotubes.

Arrangement:

7 boxes, 11 series, each sorted chronologically.

Index Terms (6xx):

Personal Names:

Dr. Patrick Bernier (France), Dr. Werner Blau (France), Dr. Richard Smalley (Rice Univ)
Bob Tollson (George Washington Univ), Joe Kurtz (White Sands), John Carolowsky,
Graham Candler, Jim Mass, Ernst Messerschmid, Steve Cook, Butch Cockrill, Claude Graves

Corporate Names:

National Aeronautics and Space Administration (NASA) Johnson Space Center (JSC)

Subjects:

Presentations, Mass Spectrometer, Arc Jet, RCC Testing, Doppler, Mars, Correspondence, Personal Records

Places: France

Document Types:

Presentations, Spiral Notebooks, Test Data, Photos, Correspondence, Training Records, JSC Publications

Inventory (544):

<u>Box</u>	<u>Folder</u>	<u>Title</u>	<u>Date</u>
		<u>Series 1: Presentations</u>	
1	1	Intrusive and Nonintrusive Diagnostics of Arc Jet Flows	1/22-25-1990
1	2	Miscellaneous Presentation Viewgraphs	9/1990- 1/1992

1	3	Wall Catalytic Recombination and Boundary Conditions in Nonequilibrium Hypersonic Flows- With Applications	10/1-5/90
1	4	Diagnostics, Catalysis, and Space Shuttle Heating	10/8/1990
1	5	Chemical and Physical Modeling of the Hydrogen Microwave Plasma	2/10/1992
1	6	Simulating and Modeling Hydrogen Discharge Plasmas for Diamond Deposition	5/25-27/1992
1	7	Nonequilibrium Model for Moderate Pressure Hydrogen Microwave Plasma	5/25-27/1992
1	8	Recombinaison Catalytique Sur Les Surfaces Et Conditions Aux Limites Sur Les Parois Dans Un Ecoulement Hors Equilibre	7/8-10/1992
1	9	Nonequilibrium Model for Moderate Pressure Hydrogen Microwave Plasma	11/16/1992
1	10	Determining Electron Temperature and Density in a Hydrogen Microwave Plasma	7/6-9/1993
1	11	Characterizing Arc Jet Flows	6/18-19/1994
1	12	Recombination of Atomic Species on Surfaces: A Phenomenological Approach	5/1995
1	13	Arc Jet Characterization and Applications to High Speed Flow	11/6-7/1995
1	14	Atom Recombination Measurements on Thermal Protection Materials	4/24/1996
2	1	Fullerene Distributions in Carbon Nanotube Products Determined by Ion Mobility Measurements	6/26-7/1, 2005
2	2	Review of Catalysis Involved in Atmospheric Entry	7/15/2005
2	3	Viewgraphs of Unknown Presentations	9/90-5/95, Undated
<u>Series 2: Mass Spectrometer</u>			
2	4	U. S. Patent: Method of Bonding Two Substrate Faces Utilizing Boron-Silicon-Hydrogen Alloy Films Utilizing Boron-Silicon-Hydrogen Alloy Films	8/25/87
2	5	Mass Spectrometer Proposal and Statement of Work	2/8/91-10/10/91

2	6	Mass Spectrometer Loose Charts, Graphs, Calculations	4/91-10/91, Undated
2	7	Mass Spectrometer Computer Runs	4/22/91-10/3/91
2	8	Mass Spectrometer Fluid Interface Plate Design Drawings	4/27/92-8/10/92
2	9	DSMC Calculations for the Mass Spectrometer Probe	10/7/92
2	10	Mass Spectrometer Tip Test Data and Analyses	1/93-8/24, Undated
3	1	Mass Spectrometer Tip Coating	2/1/93-8/1/95
3	2	Mass Spectrometer Probe Calibration	2/95-8/95, Undated

Series 3: Arc Jet

3	3	NASA Publication: Identification of Excited Species In Arc Jet Flow	8/15/1987
3	4	Application of Laser Induced Fluorescence for Flow Diagnostics in Arc Jets, and Critique	12/18/90-1/14/91
3	5	Arc Process for Nanotube Production	1/1/99-5/3/00
3	6	Arc Heater-Arc Jet Heating Facility Graphics	Undated

Series 4: RCC Testing

3	7	RCC TAL Abort Test Program	12/1989
3	8	“Thermal Plugs” Memoranda	9/6-7/1990
3	9	RCC Test Article TMM and It’s Applications	9/12/1990
3	10	Engineering Directorate (ES) Activity Report	11/2/1990
3	11	RCC Arc-Jet Catalysis Test Plans	3/7/91, Undated
3	12	Data from RCC Overtemp Test	3/27/91
3	13	Data Search List	Undated

Series 5: Doppler

3	14	Unidentified Calculations	5/15/90, Undated
3	15	Data Tables	5/15/90, Undated
3	16	Doppler Temperature Determination and Error Associated With Laser Line Width Error	9/3/91

3	17	Doppler Shift and Profiles Data	Undated
3	18	Enthalpy Measurements Data	Undated
		<u>Series 6: Mars</u>	
3	19	The Geology of the Terrestrial Planets (NASA SP-469)	1984
3	20	NATA Mars Species Thermo Properties	3/30/1989
		<u>Series 7: Other Data and Photos</u>	
3	21	Technical Data Sheets	11/22/88, Undated
3	22	Cone Calorimeter Model	5/17/1993
3	23	Mass Flux Device Notes and Charts	7/19/93, Undated
3	24	Invitations/Correspondence Regarding "Single Wall Carbon Nanotube Growth Mechanisms" at Rice University	9/5/02-10/28/04
3	25	Space Station/Lunar Lab Concepts Graphics	Undated
3	26	Aeroassist Flight Experiment Graphics	Undated
4	1	Miscellaneous NASA Published Experiment Photos	Undated
4	2	Unlabeled Experiment Photos	Undated
4	3	Unexplained Calculations	Undated
4	4	Carl Scott Photo	Undated
		<u>Series 8: Working Notes</u>	
4	5	Spiral Notebook	12/16/92-8/19/93
4	6	Spiral Notebook	8/20/93-2/7/94
4	7	Spiral Notebook	2/8/94-6/17/94
4	8	Spiral Notebook	6/18/94-12/31/94
4	9	Spiral Notebook	1/1/95-5/16/95
4	10	Spiral Notebook	5/22/95-6/6/95
4	11	Spiral Notebook	6/9/95-1/30/96
4	12	Spiral Notebook	1/31/96-8/30/96

5	1	Spiral Notebook	5/3/06-10/22/97
5	2	Spiral Notebook	8/30/96-4/21/97
5	3	Spiral Notebook	12/9//96-3/3/97
5	4	Spiral Notebook	8/4/98-10/30/98
5	5	Spiral Notebook	11/9/98-7/14/99
5	6	Spiral Notebook	5/99, 7/15/99-2/15/00
5	7	Spiral Notebook	2/9/00-9/18/00
5	8	Spiral Notebook	5/11/00-11/18/03
5	9	Spiral Notebook	9/19/00-4/9/01
6	1	Spiral Notebook	4/10/01-10/16/01
6	2	Spiral Notebook	10/18/01-3/21/02
6	3	Spiral Notebook	3/22/02-10/31/02
6	4	Spiral Notebook	11/1/02-4/21/03
6	5	Spiral Notebook	4/22/03-12/22/03
6	6	Spiral Notebook	12/23/03-7/9/04
6	7	Spiral Notebook	7/10//04-12/8/04

Series 9: JSC Publications

6	8	JSC Publications Guide	6/1998
6	9	JSC Time and Labor Collection System Guide	12/2000

Series 10: Correspondence

7	1	All Correspondence	1988-9/29/94
---	---	--------------------	--------------

Series 11: Personal Data

7	2	Manned Spacecraft Center Announcements	1968-1971
7	3	Univ of Texas Doctorate in Physics Letter	5/31/69
7	4	Training Records	3/79-12/05
7	5	Commendation to AFE Project Team	7/7/86

7	6	Letters of Appreciation	9/1/86-8/8/15
7	7	Clear Lake Council of Technical Societies Fourth Annual Awards Banquet	6/12/87
7	8	Aerospace Engineering Industry Advisory Committee Meeting Recommendations	11/6/87
7	9	Resumes	8/88, 8/17/05, Undated
7	10	Information on Career Planning for Advanced Programs Division Employees	3/2/89
7	11	Personal Information Charts	7/3/90
7	12	Requests for Approval of Outside Employment	9/5/97, Undated
7	13	Federal Employees Retirement System Memo and Transfer Briefing	1998
7	14	"My Work in France" Paper	Undated
7	15	List of Carl Scott Publications from 1969 Through 1985	Undated
7	16	Employee Private Data (Closed File)	