



Guide to the  
Pioneer Project Collection, 1952-1996  
AFS8100.15A

NASA Ames Research Center Archives

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## **Descriptive Summary**

### **Title:**

Pioneer Project Collection, 1952-1996

### **Collection Number:**

AFS8100.15A

### **Creator:**

Ames Research Center

### **Dates:**

Inclusive: 1952-1996

Bulk: 1970-1979

**Extent:** Approximately 215 cubic feet

### **Repository:**

Ames Research Center Archives  
Moffett Field, California 94035

### **Abstract:**

The NASA Pioneer Program, managed by Ames Research Center, ultimately sent into outer space eight craft to orbit the sun and to explore the nearby and far away reaches of the solar system. This collection is made up of records maintained by the Pioneer Program Management Office at NASA Ames Research Center. Materials in the collection include contractor records, proposals, engineering and science documentation, reviews, reports, drawings, specifications, audiovisual materials, and correspondence related to the construction and design of the Pioneer 6, 7, 8, 9, 10, 11 and 12 spacecraft.

## **Administrative Information**

**Access:** Restricted Possibly; This collection may contain information that has Controlled Unclassified Information (CUI), privacy, company proprietary, export control, or International Traffic in Arms Regulations (ITAR) restrictions.

**Distribution Limits:** Partly Public; NASA employees contact archivist regarding restricted materials.

**Publication Rights:** This collection may contain copyrighted material. The researcher assumes full responsibility for conforming with the laws of copyright. Securing permission to publish or use materials is the sole responsibility of the researcher.

### **Languages and Scripts:**

All records are in English.

### **Acquisition Information:**

Materials transferred to the ARC Archives by the Pioneer Program Management Office in October 2005 (Accession 2006-008). An accrual of materials was transferred by the San Francisco Federal Records Center in March 2025 (Acc. ARC-TR-2025-006).

### **Custodial History**

The 2025 accrual to this collection (Pioneer 6-9 records) was transferred from Ames Research Center's Space Sciences Division to the San Francisco Federal Records Center in 1970 and 1971, then transferred to the ARC Archives as a permanent withdrawal in March 2025.

### **Other Finding Aids**

Series I Master Index (file-level container list)  
Item-level metadata for digitized materials

### **Related Material**

*Related collections at the Ames Research Center Archives*  
*PP05.22-JM: John D. Mihalov Papers, 1960-1997*  
*AFS1070.8A: Archives Reference Collection, 1939-*

### **Administrative History**

Launched from 1965 to 1968, Pioneer 6-9 were four cylindrical, solar-powered, spin-stabilized spacecraft sent to orbit the sun outside of Earth's magnetosphere and provide simultaneous measurements at widely dispersed locations. Together, the satellites returned valuable data on the solar environment, including solar wind, storms, cosmic rays, interplanetary magnetic fields, the Earth's magnetic tail, and other phenomena. The spacecraft, which were designed to last six months, far exceeded their design lifespan. Pioneer 6 operated into the 1990s and the last contact was achieved in December 2000.

Launched on 2 March 1972, Pioneer 10 was the first spacecraft to travel through the Asteroid belt, and the first spacecraft to make direct observations and obtain close-up images of Jupiter. Famed as the most remote object ever made by man through most of its mission, Pioneer 10 is now over 8 billion miles away.

Pioneer 10 made its closest encounter to Jupiter some thirty years ago on 3 December 1973, passing within 81,000 miles of the cloudtops. This historic event marked humans' first approach to Jupiter and opened the way for exploration of the outer solar system: for Voyager to tour the outer planets, for Ulysses to out of the ecliptic, for Galileo to investigate Jupiter and its satellites, and for Cassini to go to Saturn and probe Titan. During its Jupiter encounter, Pioneer 10 imaged the planet and its moons, and took measurements of Jupiter's magnetosphere, radiation belts, magnetic field, atmosphere, and interior. These measurements of the intense radiation environment near Jupiter were crucial in designing the Voyager and Galileo spacecraft.

Pioneer 10 made valuable scientific investigations in the outer regions of our solar system until the end of its science mission on 31 March 1997. The Pioneer 10 weak signal continued to be tracked by the DSN as part of an advanced concept study of communication technology in support of NASA's future interstellar probe mission. The power source on Pioneer 10 finally degraded to the point where the signal to Earth dropped below the threshold for detection in its latest contact attempt on 7 February 2003. Pioneer 10 will continue to coast silently as a ghost ship through deep space into interstellar space, heading generally for the red star Aldebaran, which forms the eye of Taurus (the constellation The Bull). Aldebaran is about 68 light years away and it will take Pioneer over 2 million years to reach it.

Launched on 5 April 1973, Pioneer 11 followed its sister ship to Jupiter (1974), made the first direct observations of Saturn (1979) and studied energetic particles in the outer heliosphere. The Pioneer 11 Mission ended on 30 September 1995, when the last transmission from the spacecraft was received. There have been no communications with Pioneer 11 since. The Earth's motion has carried it out of the view of the spacecraft antenna. The spacecraft cannot be maneuvered to point back at

the Earth. It is not known whether the spacecraft is still transmitting a signal. No further tracks of Pioneer 11 are scheduled. The spacecraft is headed toward the constellation of Aquila (The Eagle), Northwest of the constellation of Sagittarius. Pioneer 11 will pass near one of the stars in the constellation in about 4 million years.

The Pioneer Venus Orbiter (Pioneer 12) was launched on 20 May 1978 on an Atlas-Centaur launch vehicle. On 4 December 1978, the orbiter was injected into a highly elliptical orbit around Venus. The periapsis, or low orbital point, of the orbit was about 150 km (93 miles) above the surface of the planet. The apoapsis, or highest orbital point, was 66,000 km (41,00 miles) from the planet. The orbital period was 23 hours 11 minutes.

The orbit of Pioneer 12 permitted global mapping of the clouds, atmosphere and ionosphere; measurement of upper atmosphere, ionosphere, and solar wind-ionosphere interaction; and mapping of the planet's surface by radar. For the first 19 months of the mission, the periapsis was maintained at about 150 km by periodic maneuvers. As propellant began to run low, the maneuvers were discontinued, and Solar gravitational effects caused the periapsis to rise to about 2,300 km. By 1986, the solar gravitational effects caused the periapsis to start falling again, and the orbiter instruments could again make direct measurement within the main ionosphere.

During the Orbiter's mission, opportunities arose to make systematic observations of several comets with the Ultraviolet Spectrometer (OUVS). The comets and their date of observation were: Encke April 13 through April 16, 1984; Giacobini-Zinner, September 8 through 15, 1985; Halley, December 27, 1985 to March 9, 1986; Wilson, March 13 to May 2, 1987; NTT, April 8, 1987; and McNaught, November 19 through 24, 1987. For Halley, the results showed that, near perihelion, the water evaporation rate was about 40 tons per second.

Starting in September 1992, controllers used the remaining fuel in a series of maneuvers to keep raising periapsis altitude for as long as possible. The fuel supply was exhausted on 8 October 1992, and the Orbiter ended its mission as a meteor flaming through the dense atmosphere of Venus.

#### Sources

Drawn from "The Pioneer Missions" accessed October 2005 from

<http://www.nasa.gov/centers/ames/missions/archive/pioneer.html> )

Bugos, Glenn E. Atmosphere of Freedom: Seventy Years at the NASA Ames Research Center. Washington, D.C.: NASA SP-4314, 2010

#### Scope and Content

The Pioneer Project Collection consists of documents relating to the design, construction, and engineering of the Pioneer 6-9 space probes that orbited the sun, the Pioneer 10 and 11 space probes that studied the outer planets, and the Pioneer 12 spacecraft that studied the planet Venus. While there are some photographs, slides, and audiovisual materials, most of the materials in the collection are documents. Spanning the lives of the spacecraft, the collection includes contractor and investigator grants, equipment and instrument proposals, notes from meetings such as Science Steering Groups, correspondence from main contractors such as the Hughes Aircraft Company and TRW, and drawings of the assembly of equipment. Program and quarterly reviews, operations manuals, descriptions, data books, engineering documentation and drawings of equipment and instrumentation, design reviews, and test documentation can also be found in the collection. General descriptive materials about the spacecraft and their missions are also represented in the collection, such as press releases, news and magazine articles, official NASA press kits, and newsletters. Records of the early years of the Pioneer Program can be found among the papers of Richard O. Fimmel, the second project manager for the Pioneer Program.

The bulk of this collection relates to the Pioneer 10 and 11 and Pioneer Venus spacecraft.

This finding aid presents only an overview of the types of materials found in the Pioneer Project Collection. See also the supplemental guides associated with this collection.

### **System of Arrangement**

This collection is arranged in the creator's original order. Series II is arranged into three subseries, by format.

Series I. Project Records, 1952-1996

Series II. Audiovisual Materials, 1964-1995

1. Photograph Binders
2. Video and Data Tapes
3. Negatives

Series III. Pioneer 6-9 project files, circa 1965-1971

### **Processing Information**

Portions of Series I, primarily engineering documentation and Pioneer Venus large probe drawings, have been digitized. All of the video footage in Series II and some of the photographs in the collection have been digitized.

### **Series Descriptions**

#### **Series I: Project Records, 1952-1996 (24 filing cabinets)**

This series comprises a full set of documentation about the Pioneer 6, 7, 8, 9, 10, 11 and 12 spacecraft that was retained at Ames by the Pioneer Project Office (an identical set was sent to the Federal Records Center but only records scheduled as permanent would have been retained there).

#### **Series II: Audiovisual Materials, 1964-1995 (15 boxes, 26 audiovisual items)**

This series contains audiovisual materials and data tapes that were compiled and organized by the project office. All of the video footage has been digitized.

#### **Series III: Pioneer 6-9 Project Files, circa 1965-1971 (8 boxes)**

This series contains project files pertaining to the Pioneer 6-9 plasma probes, also known as Pioneers A-D.

### **Indexing Terms**

The following terms may be used to index this collection.

#### Corporate Name

Ames Research Center

#### Geographic Name

Moffett Field (Calif.)

#### Subjects

Pioneer 6 space probe  
Pioneer 7 space probe  
Pioneer 8 space probe  
Pioneer 9 space probe  
Pioneer 10 space probe  
Pioneer 11 space probe  
Pioneer Venus spacecraft

Pioneer Venus 1 spacecraft  
Pioneer Venus 2 entry probes  
Pioneer Venus 2 transporter bus

## Container List

### Series I: Pioneer Project Records, 1952-1996

Note: See also the Series I Master Index (file-level container list). Digitized versions of portions of this series, along with item-level metadata are also on file with this collection.

File Cabinet	Drawer	Title
1	1	Pioneer 10/11 Investigator Reports and Publications
1	2	Pioneer 10/11 Investigator Grant and Letters of Agreement Files
1	3	Pioneer 10/11 Investigators Miscellaneous
1	4	Pioneer 10/11 Meetings 1988-1996
1	5	Pioneer 10/11 Proposals
2	1	Pioneer 12 Investigator Reports and Publications, and Program Reviews
2	2	Pioneer 12 Investigator Grants and Letters of Agreement Files, A-Kli
2	3	Pioneer 12 Investigator Grants and Letters of Agreement Files, Knu-Rus
2	4	Pioneer 12 Investigator Grants and Letters of Agreement Files, Rus-Z
2	5	Pioneer 12 Proposals
3	1	Pioneer Venus Guest Investigators A-E
3	2	Pioneer Venus Guest Investigators F-L
3	3	Pioneer Venus Guest Investigators M-S
3	4	Pioneer Venus Guest Investigators T-Z
3	5	Pioneer Venus Science Steering Group Meetings 1977-1993
4	1	Propellant Supply Assembly and Line Heater Assembly 1970-1972
4	2	1977 Hughes Aircraft Company Correspondence, Changes to Documents 1977
4	3	1977 Hughes Aircraft Company Correspondence, Changes to Documents 1977
4	4	1978 Hughes Aircraft Company Correspondence, Changes to Documents 1978
4	5	Thruster Cluster Assembly
5	1	Pioneer Venus Specifications, PC-454 to PC-496
5	2	Pioneer Venus Specifications, PC-400 to PC-453
5	3	Pioneer Venus Specifications and Procurement Specifications, Development Specifications, and Specification Changes and Other Data 1975-1978
5	4	Pioneer Venus Test Specifications and Specifications Change Notices 1975-1978
5	5	Pioneer Venus Various Materials 1975-1989
6	1	Quarterly Reports, Deviations and Waivers, Mass Property Reports, Schedule Status Reports 1975-1978
6	2	Readiness Reviews, Launch Vehicle, Atlas SLV 3D, Centaur D-A1 1976-1979
6	3	Hughes Aircraft Company, General Electric Subcontract Test Program Plan 1974-1977
6	4	Ames Research Center, Hughes Aircraft Company Management Meetings, NAS2-8300 Contract, Negotiations 1973-1992
6	5	Pioneer Venus NFRs, CFRs, EMLs 1976-1979

7	1	Reviews, Closeout Documents, Data Packages, etc. 1975-1978
7	2	Reviews, Closeout Documents, Data Packages, etc. 1976
7	3	Pre-Ship Reviews, Final Design Reviews, etc. 1973-1975
7	4	Pioneer Venus Proposals, Design and Development 1973
7	5	Pioneer Venus Proposals, Design and Development and SEB 1972-1974
8	1	Pioneer Venus Assorted Files 1979-1991
8	2	Pioneer Venus Assorted Files 1970-1978
8	3	Pioneer Venus Assorted Files 1975-1979
8	4	ORAD V-34 and Long Eclipse Seasons and Assorted Files 1976-1986
8	5	Pioneer Venus Hughes Aircraft Company Specifications Control Documents and Assorted Files 1973-1991
9	1	Pioneer Photos, Videos, Film, Slides - Material from this cabinet was rehoused and relocated to Series II
9	2	Pioneer Photos, Videos, Film, Slides - Material from this cabinet was rehoused and relocated to Series II
9	3	Pioneer Photos, Videos, Film, Slides - Material from this cabinet was rehoused and relocated to Series II
9	4	Pioneer Photos, Videos, Film, Slides - Material from this cabinet was rehoused and relocated to Series II
9	5	Pioneer Photos, Videos, Film, Slides - Material from this cabinet was rehoused and relocated to Series II
10	1	Pioneer F/G (10/11) Assorted Data 1969-1982
10	2	Pioneer F/G (10/11) Specifications
10	3	Pioneer F/G (10/11) Specifications
10	4	Pioneer F/G (10/11) Specifications
11	1	Spacecraft Attitudes, Science Instruments and Miscellaneous 1964-1981
11	2	Program Reviews, Quarterly Reviews 1969-1976
11	3	Encounters, Pioneer F/G, 10/11 1964-1976
11	4	Encounters, Experiments and Experimenters 1969-1981
12	1	Experiments, Experimenters, Instruments 1967-1979
12	2	Experiments, Experimenters, Instruments 1968-1994
12	3	Pioneer Venus, Assorted Data 1974-1979
12	4	Pioneer Venus, Assorted Data 1974-1991
13	1	Press Kits and Informational Articles 1972-1993
13	2	R.O. Fimmel, Records 1964-1970
13	3	Deep Space Network, Pioneer Project, Pioneer Program 1964-1995
13	4	Pioneer 6-11, Assorted Data 1973-1994
14	1	NAS2-8300 Change Proposals 1975-1977
14	2	Data Printouts, Sigma-S On-Line and IBM Information 1970-1974
14	3	Pioneer F/G (10/11) Design Audits, Closeout Docs, Reviews, etc. 1970-1975
14	4	Pioneer 10/11 Reviews, Closeout Docs, Data Packages, etc. 1970-1973
15	1	Pioneer F/G (10/11) Reviews, Review Meetings, Test Data Packages, etc. 1969-1971
15	2	Pioneer F/G (10/11) Reviews, Review Meetings, Test Data Packages, etc. 1970-1972



15	3	Library Information, Information Systems Management, Computer, Communications System and Data Processing 1964-1966
15	4	Library, General 1952-1980
16	1	Pioneer Venus Electrical Systems Tests
		1976 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
16	2	1976
16	3	Pioneer Publications
16	4	Pioneer 10/11 Propulsion Drawings 1966-1969
17	1	Pioneer Venus Microfiche
17	2	Pioneer Venus Microfiche
17	3	Pioneer Venus Microfiche
17	4	Pioneer Venus Microfiche
17	5	Empty
17	6	Pioneer F/G Microfiche
17	7	Pioneer F/G Microfiche
17	8	Unidentified Microfiche
17	9	Unidentified Microfiche
17	10	Unidentified Microfiche
18	1	1974 Hughes Aircraft Company Correspondence 1974
18	2	M.A. Smith Pioneer 10/11/12, Headquarters, PSG and SSG Meetings
18	3	M.A. Smith Pioneer Venus Engineering
18	4	M.A. Smith Pioneer Venus Engineering
18	5	M.A. Smith Pioneer Venus Engineering
19	1	Pioneer Venus Spacecraft System Design Study 1973
19	2	Pioneer Venus Star Sensor/Sun Sensor
19	3	Pioneer Venus Awards and Bibliography, Eclipse Seasons, UADS 1981-1985
19	4	Pioneer Venus ACS, DCE, ADP, BAPTA, Propulsion, etc. 1971-1978
19	5	Empty
20	1	Pioneer 6-9 1966-1971
20	2	TRW 1965 Black Box Test, Acceptance, Qualification Reports 1965-1967
20	3	Hughes Aircraft Company 1975 Correspondence, Documents, etc. 1975
20	4	Hughes Aircraft Company 1975 Correspondence, Documents, etc. 1975
21	1	Pioneer F/G Project Management Reports and POP 79-2 Cost Analysis 1969-1974
		1975 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
21	2	1975
21	3	Pioneer, Mixed 1973-1975
21	4	Pioneer, Mixed 1973-1977
21	5	Pioneer, Mixed 1962-1978
		1975 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
22	1	1975
		1975 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
22	2	1975
		1975 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
22	3	1975

		1975 Hughes Aircraft Company Correspondence, Changes to Documents, etc.
22	4	1975
23	1	G/E Pioneer Venus 1974-1975
23	2	Pioneer Venus, Monthly Progress Reports and Miscellaneous 1971-1983
23	3	Pioneer Venus Assorted Data 1973-1979
		Pioneer Venus, Large and Small Probe Communications Systems Documents 1975-
23	4	1978
23	5	B. Jackson, Pioneer Venus Orbiter and Multiprobe Journals 1977-1992
24	1	Pioneer Miscellaneous
24	2	Pioneer Awards, Graphs

## **Series II: Pioneer Audiovisual Materials, 1964-1995 (15 boxes, 23 items)**

Note: Digitized versions of video footage and some photographs, along with item-level metadata are on file with this collection.

### **1. Photograph Binders**

Box	Folder	Title
1	1	Photographs 1964 (1), 1 of 3
1	2	Photographs 1964 (1), 2 of 3
1	3	Photographs 1964 (1), 3 of 3
1	4	Photographs 1964 (2), 1 of 2
1	5	Photographs 1964 (2), 2 of 2
1	6	Untitled, 1965
1	7	Photographs 1965 (1), 1 of 2
1	8	Photographs 1965 (1), 2 of 2
1	9	Photographs 1965 (2), 1 of 2
1	10	Photographs 1965 (2), 2 of 2
2	1	Untitled, 1965
2	2	Pioneer F Photos, 1972
2	3	Property of Pioneer Mission Operations, Richard O. Fimmel, 1970-1973, 1 of 3
2	3a	Property of Pioneer Mission Operations, Richard O. Fimmel, 1970-1973, 2 of 3
2	4	Property of Pioneer Mission Operations, Richard O. Fimmel, 1970-1973, 3 of 3
2	5	Pioneer 10 Photos, 1973, 1 of 2
2	6	Pioneer 10 Photos, 1973, 2 of 2
2	7	Pioneer 10 Pictures of Jupiter, 1974, 1 of 3
2	8	Pioneer 10 Pictures of Jupiter, 1974, 2 of 3
3	1	Pioneer 10 Pictures of Jupiter, 1974, 3 of 3
3	2	Pioneer 10 Award Photos Book I, 1974
3	3	Pioneer 10 Award Photos Book II, 1974
3	4	Cape Facility Operational Photos, 1968-1971, 1 of 4
3	5	Cape Facility Operational Photos, 1968-1971, 2 of 4
3	6	Cape Facility Operational Photos, 1968-1971, 3 of 4
3	7	Cape Facility Operational Photos, 1968-1971, 4 of 4

3	8	Photographs Pioneer F&G, n.d., 1 of 2
3	9	Photographs Pioneer F&G, n.d., 2 of 2
4	1	Pioneer 10 Pictures, 1971-1973
4	2	Untitled, 1969-1972, 1 of 2
4	3	Untitled, 1969-1972, 2 of 2
4	4	Photos Pioneer F/G, 1970-1972, 1 of 6
4	4a	Photos Pioneer F/G, 1970-1972, 2 of 6
4	5	Photos Pioneer F/G, 1970-1972, 3 of 6
4	6	Photos Pioneer F/G, 1970-1972, 4 of 6
4	7	Photos Pioneer F/G, 1970-1972, 5 of 6
4	8	Photos Pioneer F/G, 1970-1972, 6 of 6
4	9	Untitled, 1970-1972, 1 of 4
5	1	Untitled, 1970-1972, 2 of 4
5	2	Untitled, 1970-1972, 3 of 4
5	3	Untitled, 1970-1973, 4 of 4
5	4	Pioneer 10/11, 1973-1979, 1 of 2
5	5	Pioneer 10/11, 1973-1979, 2 of 2
5	6	Pioneer DIAS, 1973-1974
5	7	Pioneer 11, 1973-1979
5	8	Pioneer 11, 1974-1975, 1 of 2
5	9	Pioneer 11, 1974-1975, 2 of 2
6	1	Untitled, 1974-1975, 1 of 2
6	2	Untitled, 1974-1975, 2 of 2
6	3	Untitled, 1975-1976, 1 of 3
6	4	Untitled, 1975-1976, 2 of 3
6	5	Untitled, 1975-1976, 3 of 3
6	6	Pioneer F, 1979-1980, 1 of 3
6	7	Pioneer F, 1979-1980, 2 of 3
6	8	Pioneer F, 1979-1980, 3 of 3
7	1	Pioneer Venus Orbiter, 1972-1973, 1 of 3
7	2	Pioneer Venus Orbiter, 1972-1973, 2 of 3
7	3	Pioneer Venus Orbiter, 1972-1973, 3 of 3
7	4	Untitled, 1977, 1 of 2 (Pioneer Venus Small Probe 1)
7	5	Untitled, 1977, 2 of 2 (Pioneer Venus Small Probes 1, 2, and 3)
7	6	Book 3 Small Probes #1 #2 #3, 1978, 1 of 3
7	7	Book 3 Small Probes #1 #2 #3, 1978, 2 of 3
8	1	Book 3 Small Probes #1 #2 #3, 1978, 3 of 3
8	2	Untitled, 1978, 1 of 2 (Pioneer Venus Large Probe)
8	3	Untitled, 1978, 2 of 2 (Pioneer Venus Large Probe, Bus)
8	4	Pioneer Venus Orbiter CCAFS Pictures BLDG & AO, 1978, 1 of 2
8	5	Pioneer Venus Orbiter CCAFS Pictures BLDG & AO, 1978, 2 of 2
8	6	Pioneer Venus Multiprobe CCAF Operations 6/6/78-6/28/78, 1978, 1 of 3

8	7	Pioneer Venus Multiprobe CCAF Operations 6/6/78-6/28/78, 1978, 2 of 3
8	8	Pioneer Venus Multiprobe CCAF Operations 6/6/78-6/28/78, 1978, 3 of 3
9	1	Pioneer Venus Orbiter CCAFS Pictures SAEF-2 & Pad 36A, 1978, 1 of 2
9	2	Pioneer Venus Orbiter CCAFS Pictures SAEF-2 & Pad 36A, 1978, 2 of 2
9	3	Pioneer Venus Multiprobe CCAFS Operations 6/29/78-7/13/78, 1978, 1 of 3
9	4	Pioneer Venus Multiprobe CCAFS Operations 6/29/78-7/13/78, 1978, 2 of 3
9	5	Pioneer Venus Multiprobe CCAFS Operations 6/29/78-7/13/78, 1978, 3 of 3
9	6	Pioneer Venus Multiprobe CCAFS Pictures SAEF-2 & Pad 36A, 1978, 1 of 2
9	7	Pioneer Venus Multiprobe CCAFS Pictures SAEF-2 & Pad 36A, 1978, 2 of 2
10	1	Untitled, 1978-1979, 1 of 2
10	2	Untitled, 1978-1979, 2 of 2
10	3	Pioneer Venus Orbiter Cloud Photopolarimeter (OCP), 0001 0801, 1978, 1 of 3
10	4	Pioneer Venus Orbiter Cloud Photopolarimeter (OCP), 0001 0801, 1978, 2 of 3
10	5	Pioneer Venus Orbiter Cloud Photopolarimeter (OCP), 0001 0801, 1978, 3 of 3
10	6	Pioneer Venus Orbiter, 1972-1995, 1 of 4
11	1	Pioneer Venus Orbiter, 1972-1995, 2 of 4
11	2	Pioneer Venus Orbiter, 1972-1995, 3 of 4
11	3	Pioneer Venus Orbiter, 1972-1995, 4 of 4

## 2. Video and Data Tapes

Box	Folder	Item ID and Title
11	4	AFS8100.15A : 001. "Pioneer E Launch Vehicle Failure. Delta Aerobatics with Pioneer E." 16mm. Reel 1 of 1.
11	5	AFS8100.15A : 002. "Pioneer—Jupiter Encounter," October 22, 1973. 16mm. Reel 1 of 1. Scene list included.
11	6	AFS8100.15A : 003. "Pioneer 10 Mission Control." Magnetic Tape. Reel 1 of 1.
11	7	AFS8100.15A : 004. "Pioneer 10: Twenty Years of Exploring Space." U-Matic Cassette, 1 of 1. 0:10:35. Ames AAV-1390. Scene descriptions included.
11	8	AFS8100.15A : 005. "Jupiter Odyssey, HQ-243." 16mm. Reel 1 of 1. NASA #11912.
11	9	AFS8100.15A : 006. "Jupiter Odyssey." 16mm. Reel 1 of 1.
11	10	AFS8100.15A : 007. "Pioneer 11 TV Clip." 16mm. Reel 1 of 1. Scene list included.
11	11	AFS8100.15A : 008. "Pioneer 11 TV Clip," November 13, 1974. 16mm. Reel 1 of 1.
11	12	AFS8100.15A : 009. "Saturn Encounter, Computer Simulation." 16mm. Reel 1 of 1.
11	13	AFS8100.15A : 010. "Pioneer Venus & Venera 15 & 16 Data Merge. Altimetry data; simple cylindrical projection." October 24, 1990. Magnetic Tape. Reel 1 of 1. File list and supporting documentation included.
11	14	AFS8100.15A : 011. "The Venus Pioneers, PPO Copy 3." 16mm. Reel 1 of 1. NASA #05989.
11	15	AFS8100.15A : 012. "Venus Reveals Secrets. Russian Soundtrack." 16mm. Reel 1 of 1.
11	16	AFS8100.15A : 020. "Jupiter Odyssey, HQ-243" (Copy 2). 16mm. Reel 1 of 1.
11	17	AFS8100.15A : 021. "The Universe." 16mm. Reel 1 of 1.
11	18	AFS8100.15A : 022. "Probing the Clouds of Venus." 16mm. Reel 1 of 1.
11	19	AFS8100.15A : 024. Untitled. Magnetic Tape. Reel 1 of 1.

- 12 AFS8100.15A : 013. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 1 of 7. Run time, 0:60:00. ID 07220. Imaging Technology Branch.
- 12 AFS8100.15A : 014. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 2 of 7. Run time, 0:60:00. ID 07221. Imaging Technology Branch.
- 12 AFS8100.15A : 015. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 3 of 7. Run time, 0:60:00. ID 07222. Imaging Technology Branch.
- 12 AFS8100.15A : 016. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 4 of 7. Run time, 0:60:00. ID 07223. Imaging Technology Branch.
- 12 AFS8100.15A : 017. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 5 of 7. Run time, 0:60:00. ID 07224. Imaging Technology Branch.
- 12 AFS8100.15A : 018. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 6 of 7. Run time, 0:60:00. ID 07225. Imaging Technology Branch.
- 12 AFS8100.15A : 019. "Pioneer Venus, Magellan, Galileo Science Workshop," October 17, 1991. VHS Cassette 7 of 7. Run time, 0:31:00. ID 07226. Imaging Technology Branch.
- 13 AFS8100.15A : 023 (A-C). Untitled. 70 mm Safety Film. Reels 1-3 of 3.

### 3. Negatives

Box	Folder	Title
14	1	Untitled, 1969-1973.
14	2	Pioneer Venus, M-1 to M-8, June 6-23, 1978.
14	3	Pioneer Venus, M-9 to M-13, June 26-July1, 1978.
14	4	Pioneer Venus, M-14 to M-18, July 5-8, 1978
15		Unprocessed negatives, M-19 to M-32.

### Series III: Pioneer 6-9 Project Files, circa 1965-1971 (8 boxes)

Box	Title
16	ARC Plasma Probe (Pioneer A and B (6-7) Project Files, 1965-1967 (Box 1 of 4)
17	ARC Plasma Probe (Pioneer A and B (6-7) Project Files, 1965-1967 (Box 2 of 4)
18	ARC Plasma Probe (Pioneer A and B (6-7) Project Files, 1965-1967 (Box 3 of 4)
19	ARC Plasma Probe (Pioneer A and B (6-7) Project Files, 1965-1967 (Box 4 of 4)
20	Plasma Probe for Pioneer C and D (8-9) Project Files, 1.0-9.5.3, circa 1965-1971
21	Plasma Probe for Pioneer C and D (8-9) Project Files, 10.0-12.2, circa 1965-1971
22	Plasma Probe for Pioneer C and D (8-9) Project Files, 12.4-14.0, circa 1965-1971
23	Plasma Probe for Pioneer C and D (8-9) Project Files, 14.0 (Drawings), circa 1965-1971