



Smithsonian Institution Archives

Records, 1958-1968

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Collection Overview

Repository:	Smithsonian Institution Archives, Washington, D.C., osiaref@si.edu
Title:	Records
Identifier:	Record Unit 260
Date:	1958-1968
Extent:	10 cu. ft. (20 document boxes)
Creator::	Smithsonian Astrophysical Observatory. Project Celescope
Language:	English

Administrative Information

Preferred Citation

Smithsonian Institution Archives, Record Unit 260, Smithsonian Astrophysical Observatory, Project Celescope, Records

Historical Note

Conceived in 1958, Project Celescope was an experiment undertaken by the Smithsonian Astrophysical Observatory (SAO) to study the atmospheres of the hotter stars by means of photometric measurements in those regions of the ultraviolet that are accessible only from above the earth's atmosphere.

Measurements were achieved by mounting telescopes, in an orbiting satellite, that would focus starlight on ultraviolet-sensitive television cameras. Project Celescope was funded by the National Aeronautics and Space Administration (NASA) as part of its Orbiting Astronomical Observatory (OAO) program. The project reached a climax on December 7, 1968, when NASA launched the second OAO satellite containing the Celescope experiment. More than 8,500 photographs of more than 2,800 areas of the sky were made during the experiment's lifetime.

From 1958 to 1965, Project Celescope existed as a separate division of SAO. In 1965 the project was placed under administrative control of the newly created Department of Flight Operations. The project's primary staff included Fred Lawrence Whipple, project director; Robert J. Davis, project scientist; and Francis R. Nitchie, Jr., engineering administrator, 1958-1962. In 1962, the title of the latter position was changed to project manager. Project managers included G. K. Megerian, 1962; Charles A. Lundquist, acting project manager, 1963; and John J. Burke, 1964-1968.

Descriptive Entry

This record unit documents the operation of Project Celescope from its inception in 1958 until shortly before the launch of the experiment in December 1968. Records include correspondence; memoranda; TWX messages; contracts, invitations, bids and proposals; reports; and related materials concerning

the technical development of Telescope; involvement of NASA in the project; SAO administration of the project; and the selection and work of contractors producing instruments for the project.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Astrophysical observatories
Research

Types of Materials:

Manuscripts

Names:

Burke, John J.
Davis, Robert T.
Electro-Mechanical Research, Inc.
Lundquist, Charles A.
Megerian, G. K.
Nitchie, Francis R., Jr.
Smithsonian Astrophysical Observatory. Department of Flight Operations
Smithsonian Astrophysical Observatory. Orbiting Astronomical Observatory Program
United States. National Aeronautics and Space Administration
Whipple, Fred L. (Fred Lawrence), 1906-2004

Container Listing

Series 1: OUTGOING CORRESPONDENCE, 1958-1967. ARRANGED CHRONOLOGICALLY.

This series consists of copies of outgoing correspondence documenting the operation of Project Telescope, 1958-1967. Correspondents include Smithsonian Institution and National Aeronautics and Space Administration officers, electronics corporations, research firms, astrophysicists and astronomers, and colleges and universities. The correspondence concerns the technical development of Telescope; contracts for the production of instruments for the project; staff recruitment; and meetings and conferences. Also included are copies of monthly progress reports.

Box 1

Box 1 of 20 Outgoing correspondence, July 1958-June 1961.

Box 2

Box 2 of 20 Outgoing correspondence, July 1961-June 1963.

Box 3

Box 3 of 20 Outgoing correspondence, July 1963-June 1964.

Box 4

Box 4 of 20 Outgoing correspondence, July 1964-December 1965.

Box 5

Box 5 of 20 Outgoing correspondence, January 1965-June 1967.

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Series 2: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, CORRESPONDENCE, 1958-1968. ARRANGED CHRONOLOGICALLY.

This series consists of incoming and outgoing correspondence documenting the role of the National Aeronautics and Space Administration (NASA) in the operation of Project Celescope. The correspondence concerns NASA's Orbiting Astronomical Observatory (OAO) program; the installation of Celescope in the OAO satellite; NASA funding of the project; and conferences and meetings between SAO and NASA staff.

Box 6

Box 6 of 20 NASA correspondence, August 1958-June 1964.

Box 7

Box 7 of 20 NASA correspondence, July 1964-April 1968.

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Series 3: INTEROFFICE MEMORANDA, 1958-1967. ARRANGED CHRONOLOGICALLY.

This series consists of incoming and outgoing memoranda between Project Telescope staff and other administrators and staff of SAO. The memoranda concern Project Telescope staff requirements; budget and fiscal matters; meetings and conferences; contracting for the production of instruments; and the technical development of Telescope. Also included are reports on trips taken by Project Telescope staff.

Box 8

Box 8 of 20 Interoffice memoranda, August 1958-September 1961.

Box 9

Box 9 of 20 Interoffice memoranda, October 1961-June 1964.

Box 10

Box 10 of 20 Folders 1-3 Interoffice memoranda, July 1964-June 1967.

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Series 4: TWX MESSAGES, 1959-1967. ARRANGED CHRONOLOGICALLY.

This series consists of TWX messages sent to and received by the staff of Project Telescope, 1959-1967. Most of the messages are directed to firms working on contracts for the project.

Box 10

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Folders 4-7 TWX messages, November 1959-June 1963.

Box 11

Box 11 of 20

TWX messages, July 1963-June 1965.

Box 12

Box 12 of 20

Folders 1-4 TWX messages, July 1965-June 1967.

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Series 5: ELECTRO-MECHANICAL RESEARCH, INC., CORRESPONDENCE, 1961-1967. ARRANGED CHRONOLOGICALLY.

Electro-Mechanical Research, Inc. (EMR) was the primary contractor for the design and fabrication of the Project Celescope payload and ground support equipment. This series consists of incoming and outgoing correspondence with EMR concerning its work on Project Celescope, 1961-1967. Also included are EMR invoices for work performed.

Box 12

Box 12 of 20 Folders 5-6 Electro-Mechanical Research, Inc., correspondence, February
1961-December 1962.

Box 13

Box 13 of 20 Electro-Mechanical Research, Inc., correspondence, January 1963-
September 1964.

Box 14

Box 14 of 20 Electro-Mechanical Research, Inc., correspondence, October 1964-June
1966.

Box 15

Box 15 of 20 Folders 1-2 Electro-Mechanical Research, Inc., correspondence, July 1966-
June 1967.

Box 15 of 20 Folders 3-4 Electro-Mechanical Research, Inc., invoices, 1962-1966.

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Series 6: TECHNICAL DIRECTIVES FILE, 1963-1967. ARRANGED CHRONOLOGICALLY.

This series consists of incoming and outgoing correspondence between the staff of Project Celescope and contractors (especially Electro-Mechanical Research, Inc.) concerning technical questions and problems. The material usually consists of a directive issued by Celescope scientists and a response to the directive from the contractor.

Box 16

Box 16 of 20

Folders 1-4 Technical directive file, 1963-1967.

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Series 7: CONTRACTS FILE, 1958-1965. ARRANGED ALPHABETICALLY.

This series consists of correspondence, invitations to bid, bids, and proposals relating to contracts for the production of instruments and other requirements for Project Celescope. Correspondents include electronics companies, research firms, colleges and universities, government agencies, and individual scientists. Of special interest are records concerning the Westinghouse Electric Company's development of Uvicon television camera tubes for the experiment.

Box 16

- Box 16 of 20 Folder 5 General correspondence, A-Z.
- Box 16 of 20 Folder 6 Aircraft Armaments Inc., 1960-1962.
- Box 16 of 20 Folder 7 Aircraft Armaments Inc. Proposal, "Aerobie-HI Instrumentation for Project Celescope," March 1960 (bid #60-SI-812).

Box 17

- Box 17 of 20 Folder 1 Aircraft Armaments Inc. Proposal for the construction of an antenna for the Aerobee-HI Missile, January 1961.
- Box 17 of 20 Folder 2 Baird - Atomic, Inc., 1958-1963.
- Box 17 of 20 Folder 3 Bausch & Lomb Incorporated, 1959-1963.
- Box 17 of 20 Folder 4 Bendix Aviation Corporation, 1958-1961.
- Box 17 of 20 Folder 5 Bendix Aviation Corporation. Proposal, "Aerobee-HI Instrumentation for Project Celescope," March 1960 (bid #60-SI-812).
- Box 17 of 20 Folder 6 Bendix Aviation Corporation, Friez Instrument Division, 1958.
- Box 17 of 20 Folder 7 Black Light Eastern Corporation, 1958-1961.
- Box 17 of 20 Folder 8 Boller and Chivens, Inc., 1958.
- Box 17 of 20 Folder 9 Chance Vought Aircraft, Inc., 1959-1961.
- Box 17 of 20 Folder 10 Consolidated Systems Corporation, 1963.
- Box 17 of 20 Folder 11 Defense Documentation Center, 1965.
- Box 17 of 20 Folder 12 Dumont, Allen B. Laboratories, Inc., 1958-1960.

- Box 17 of 20 Folder 13 General Devices Inc., 1958-1960.
- Box 17 of 20 Folder 14 General Electric Company. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 17 of 20 Folder 15 General Electric Company. Proposal, "Ultraviolet Sensitive Camera Tubes," June 1961 (bid #61-SI-857).

Box 18

- Box 18 of 20 Folder 1 General Electric Company. "Airborne Design Study," undated.
- Box 18 of 20 Folder 2 Hallamore Electronics Company. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 18 of 20 Folder 3 HRB-Singer, Inc. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 18 of 20 Folder 4 Hughes Aircraft Company. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 18 of 20 Folder 5 A. D. Jones Optical Works, 1959.
- Box 18 of 20 Folder 6 Lockheed Aircraft Corporation, 1959-1961.
- Box 18 of 20 Folder 7 McDonnell Aircraft Corporation. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 18 of 20 Folder 8 Machlett Laboratories, Inc., 1958-1959.
- Box 18 of 20 Folder 9 Machlett Laboratories, Inc. Proposal, "Ultraviolet Sensitive Camera Tubes," July 1961 (bid #61-SI-857).
- Box 18 of 20 Folder 10 The Martin Company. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 18 of 20 Folder 11 Massachusetts Institute of Technology, 1958-1961.
- Box 18 of 20 Folder 12 Adolf Meller Company, 1959-1963.

Box 19

- Box 19 of 20 Folders 1-2 National Aeronautics and Space Administration (NASA). Copies of correspondence between NASA and contractors working on instrumentation for Project Telescope, 1963-1964.

- Box 19 of 20 Folder 3 Philco Corporation, 1960-1961.
- Box 19 of 20 Folder 4 Philco Corporation. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 19 of 20 Folder 5 Radio Corporation of America, 1958-1962.
- Box 19 of 20 Folder 6 Radio Corporation of America. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 19 of 20 Folder 7 Radio Corporation of America. Proposal, "Ultraviolet Sensitive Camera Tubes," July 1961 (bid #61-SI-857).
- Box 19 of 20 Folder 8 Radio Corporation of America. Proposal, "Technical Proposal for Telescope Payload," August 1961 (bid #61-SI-858).
- Box 19 of 20 Folder 9 Rauland Corporation, 1962.
- Box 19 of 20 Folder 10 Rauland Corporation. Proposal, "Ultraviolet Sensitive Camera Tubes," June 1961 (bid #61-SI-857).
- Box 19 of 20 Folder 11 Thompson Ramo Wooldridge, Inc., Dage Television Division. Proposal for the development of a television system for Project Telescope, March 1960.
- Box 20
- Box 20 of 20 Folder 1 United States Army Engineering Research and Development Laboratories, 1960-1963.
- Box 20 of 20 Folder 2 United States Department of Commerce, Coast and Geodetic Survey, 1961-1963.
- Box 20 of 20 Folder 3 Vought Astronautics. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 20 of 20 Folders 4-7 Westinghouse Electric Corporation, correspondence, November 1958-July 1965.
- Box 20 of 20 Folder 8 Westinghouse Electric Corporation. Proposal, "Aerobee-HI Instrumentation for Project Telescope," March 1960 (bid #60-SI-812).
- Box 20 of 20 Folder 9 Westinghouse Electric Corporation. Proposal, "Technical Proposal for Standardization and Determination of Life for Developmental Electrostatic Uvicon Tubes," April 1961.

Box 20 of 20

Folder 10 Westinghouse Electric Corporation. Proposal, "Technical Proposal for Telescope Payload and Ground Support Equipment," August 1961 (bid #61-SI-858).

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