Contract, Grant, and Procurement Records, 1956-1984

by Smithsonian Institution Archives
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection Overview</td>
<td>1</td>
</tr>
<tr>
<td>Administrative Information</td>
<td>1</td>
</tr>
<tr>
<td>Historical Note</td>
<td>1</td>
</tr>
<tr>
<td>Descriptive Entry</td>
<td>1</td>
</tr>
<tr>
<td>Names and Subject Terms</td>
<td>2</td>
</tr>
<tr>
<td>Container Listing</td>
<td>3</td>
</tr>
</tbody>
</table>
Collection Overview

Repository: Smithsonian Institution Archives, Washington, D.C., osiaref@si.edu
Creator: Smithsonian Astrophysical Observatory, Contracts and Procurement Office
Title: Contract, Grant, and Procurement Records
Dates: 1956-1984
Quantity: 16 linear meters.

Administrative Information

Preferred Citation
Smithsonian Institution Archives, Record Unit 522, Smithsonian Astrophysical Observatory, Contracts and Procurement Office, Contract, Grant, and Procurement Records

Historical Note

The Contracts and Procurement Office is authorized to negotiate and administer federal and private contracts and grants for the Smithsonian Astrophysical Observatory (SAO). The Office is also responsible for providing and ensuring sufficient supplies, services, materials, and equipment in response to requests from the SAO's scientific and administrative staffs. Records maintained by the Office contain information on the formulation and administration of contracts and grants which is especially useful for documenting SAO research projects.

Descriptive Entry

These records primarily document the administration of contracts and grants supporting the Satellite Tracking Program, Project Celescope, the Meteor Research Program, and the Gravitational Redshift Space Probe Experiment. Also included are files documenting other contracts and grants, mostly with the National Aeronautics and Space Administration, the United States Army, and the United States Air Force. The records include correspondence with contracting and granting agencies, Smithsonian Institution officials, and project personnel; budgets, financial reports, and other fiscal information; progress and final reports; meeting minutes; property inventories; audits; contracts, amendments, and revisions; technical reports, drawings of instruments, and other information on project equipment; and correspondence with project subcontractors.
Names and Subject Terms

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

Subjects:
Astrophysical observatories.

Types of Materials:
Illustrations
Manuscripts

Names:
Gravitational Redshift Space Probe Experiment (SAO). Smithsonian Astrophysical Observatory
Meteor Research Program (SAO). Smithsonian Astrophysical Observatory
Project Celescope (SAO). Smithsonian Astrophysical Observatory
Satellite Tracking Program (SAO). Smithsonian Astrophysical Observatory
Smithsonian Astrophysical Observatory. Celescope, Project (SAO)
Smithsonian Astrophysical Observatory. Contracts and Procurement Office.
Smithsonian Astrophysical Observatory. Contracts and Procurement Office.
Smithsonian Astrophysical Observatory. Gravitational Redshift Space Probe Experiment (SAO)
Smithsonian Astrophysical Observatory. Meteor Research Program (SAO)
United States. Air Force
United States. Army
United States. National Aeronautics and Space Administration
Container Listing

Box 1

STP Files - Grant NGR 09-015-002 (Formerly NSG-87)

#101 STP - Proposal for Grant NSG-Y/30
#102 STP - NSF Y/30 Correspondence
#103 STP - NSF Y/30 Title to Property (Also #156)
#111 STP - NASA Supplement to NSF 30.10
#121 STP - Grant Supplements 1 to 96
#122 STP - Audits (STP Folders 1-6)

Box 2

#123 STP - Special Progress Reports (Folders 2-6)

Box 3

#123 STP - Special Progress Reports (Folder 1)
#124 STP - Monthly Progress Reports
#125 STP - Semi-Annual Progress Reports (Folders 4-5)

Box 4

#125 STP - Semi-Annual Progress Reports (Folders 1-3)
#126 STP - Financial and Procurement Reports
#127 STP - Allowable Costs-Severance Pay
#128 STP - Funding
#129 STP - Special Projects & (Phase-Out Info)
#130 STP - Cost Control

Box 5

#131 STP - Budgets
#132 STP - Carry-Over Funds
#133 STP - Security
#134 STP - Prior Years' Proposals
#135 STP - NASA Correspondence to SAO/SI
Contract, Grant, and Procurement Records
Record Unit 522

#136 STP - SI/SAO Correspondence to NASA
#136 STP - Deep Space Network
#139 STP - Cooperation with the USAF
#140 STP - Satellite Tracking Program:
#150 STP - Data Acquisition
#151 STP - Data Processing
#152 STP - Research & Analysis
#153 STP - Communications
#154 STP - Construction Meetings
#155 STP - Travel Authorizations

Box 6

#156 STP - Request for Equipment (Property Transactions)
#157 STP - Organization
#158 STP - Spending Plans (4G01 GD)

Box 7

#140 STP - Satellite Tracking Program: Agassiz Station
#140 STP - Satellite Tracking Program: Argentina Station
#140 STP - Satellite Tracking Program: Baker-Nunn Camera Agreement - CANADA
#140 STP - Satellite Tracking Program: Brazil Station
#140 STP - Satellite Tracking Program: Cold Lake Station
#140 STP - Satellite Tracking Program: Curacao Station

Box 8

#140 STP - Satellite Tracking Program: Egypt Station
#140 STP - Satellite Tracking Program: Ethiopia Station
#140 STP - Satellite Tracking Program: Florida Station
#140 STP - Satellite Tracking Program: Greece Station
#140 STP - Satellite Tracking Program: Hawaii Station
#140 STP - Satellite Tracking Program: India Station
#140 STP - Satellite Tracking Program: Iran Station
#140 STP - Satellite Tracking Program: Italy Station
#140 STP - Satellite Tracking Program: Japan Station
#140 STP - Satellite Tracking Program: Johnston Island Station
#140 STP - Satellite Tracking Program: Kwajalein Station
#140 STP - Satellite Tracking Program: New Mexico Station

Box 9
#140 STP - Satellite Tracking Program: Oslo Station
#140 STP - Satellite Tracking Program: Peru Station
#140 STP - Satellite Tracking Program: Phillipines Station
#140 STP - Satellite Tracking Program: S. Africa Station
#140 STP - Satellite Tracking Program: Spain Station
#140 STP - Satellite Tracking Program: STP Moonwatch
#140 STP - Satellite Tracking Program: Wallops Island
#140 STP - Satellite Tracking Program: Mt. Hopkins

Box 10

CELESCOPE FILES (NAS 5-1535)
00 Grants NSG 7-49 & NSG 51-60
01 Contract NAS 5-1535 (#1-4)
02 Progress Reports (#1-3)
03 Form 533 (by Fiscal Year) (#1-2)
04 Invoicing (by calendar year)
05 Funding

Box 11
06 Cost to Complete (#1-3)
07 GSFC Correspondence to SI/SAO (#1-2)
08 SAO/SI Correspondence to GSFC (#1-5)
09 SAO Correspondence to SI
10 SI Correspondence to SAO
11 Minutes of Meetings
Box 12

12 Administrative/Property
13 NASA Specifications
14 GSFC Specifications
15 Financial Statements
16 Overhead Rate
17 Auditor
18 Change Proposals to GSFC
19 Budget and P. A.
21 Contract SI-522 (Amendment 14-21, General Correspondence)

Box 13

21 Contract SI-522 (Amendment 1-13)
22 Progress Reports (#1-6)
23 (EMR) Invoicing (by calendar year) (1967-1971, Final Invoice); Subfiles: P.I. Suspended, Disapprovals, and Invoices

Box 14

23 (EMR) Invoicing (1962-1966, Disapproval & P.I. Suspended)
25 Cost to Complete
26 Funding (1964-1965)
28 SAO/SI Correspondence to EMR (1962-1971)

Box 15

29 EMR Correspondence to SAO/SI (1962-1968)
30 CEL-Series (sub-file for each) (100-106)

Box 16

31 EMR Specifications (1963-1969)
32 Cost Control
34 Form 533 from EMR to SAO (1963-1968)
35 Field Support Contract SI-661 (#1-4)
Box 17

35 Field Support Contract SI-661 (Invoices 1964-1970) & Supplements
36 Government Furnished Property

Box 18

41 EMR - Ferson (Optics)
42 EMR - General Electric
43 WEC Proposal (Westinghouse)
44 EMR-WEC SD-22-12 (WEC Additional Procurement)
45 EMR - Harshaw
46 EMR - Bausch & Lomb
47 EMR - Barry Controls
48 EMR - WEC Elmira SD-22-13
49 EMR - Troppel SD-319-844D
50 EMR - A. D. Little SD-323-342
51 EMR - ARD SD-327814-D
52 EMR/CDE SD-328346-D
61 EMR SI-538
62 Harshaw Chemical
63 WEC Pittsburgh SI-548

Box 19

64 Aircraft Armament
65 Diffraction Products
66 Semi-Elements, Inc.
67 GCA
68 GEC
69 Astro-Gear SI-631
70 A. D. Little SI-630
71 A. D. Little SI-633
72 A. D. Little SI-638
73 A. D. Little SI-644 (Shroud)
74 A. D. Little SI-645 (Vibration)
75 A. D. Little SI-660 (Optics)
76 A. D. Little SI-694 (Thermal)
77 A. D. Little SI-698
78 A. D. Little SI-752
Celescope Position Description
Consultants
EMR Incoming Correspondence
79 Vacuum Barrier Co. SI-768
80 AMPEX SI-770
81 Astro Data, Inc. SI-794 (Folder 1-2)

Box 20
81 Astro Data, Inc. SI-794 (Folders 3-5)
82 Datex Corp. SI-795
SI-793, Brazil Construction Contract

Box 21
Folder 1 General Correspondence
Folder 2 Change Order #28 (Pert)
Folder 3 Change Proposal #30 (Quartz Blank)
Folder 4 Change Order #29 (Replaceable Electronics)
Folder 5 Change Order #31 (Additional Pert)
Folder 6 Change Order #32 (Vibration Insulators)
Folder 7 Change Order #33 (Field Support Phase 1)
Folder 8 Change Order #34 (Structural Interface)
Folder 9 Change Order #35 (Containers)
Folder 10 Change Order #37 (Follow on Vibration Insulation)
Folder 11 Change Order #38 (Follow on Cross-Over and Vibration Insulation)
Folder 12 Change Order #39 (Accumulator GSE)
Folder 13 Change Order #40 (Cancelled Star Generator)
Folder 14 Change Order #41 (Additional Uvicon Tubes)
Folder 15 Change Order #42 (Spare Modules for Celescope Experiment)
Folder 16 Change Order #43 Telescope A-2 (Material Cost Justification)
Folder 17 Change Order #44, Observatory Simulator
Folder 18 Change Order #45, Mod. PCM Output
Folder 19 Change Order #46, Modification of Store Mode
Folder 20 Change Order #48, Digital Videotest Set (Cancelled)
Folder 21 Change Order #49, Spacecraft Simulator
Folder 22 Change Order #50, Pinning of Aft-End Constraining Structures
Folder 23 Change Order #51, Status Indicator
Folder 24 Change Order #52, Spares
Folder 25 Change Order #54, Observatory Simulator No. 2
Folder 26 Change Order #55, Observatory Test Set
Folder 27 Change Order #63, 4th Dummy Telescope Mod.
Folder 28 Change Proposal #64, Telescope Rework and Cleaning
Folder 29 Change Order #65, Procure, Align, and Test of 2 new telescopes
Folder 30 Change Order #66, Spare Filament Power Supply
Folder 31 Flight candidate qualification unicom (c/p #70)
Folder 32 UVicon Q/C Improvement Prog. (C/o #71)
Folder 33 Change Proposal #77, Uvicon Vibration Tests
Folder 34 Change Proposal #102, High Voltage Study Proposal (Arc over & Corona)
Folder 35 Change Proposal #106, Telescope Parts List
Folder 36 Change Proposal #163, Celescope Prototype Program
Folder 37 Change Proposal #165, Preparation of 7R-1800H Test Type
Folder 38 Change Proposal #167, Evaluate Scotch 888 Tape on 7R-1800H
Folder 39 Change Proposal #172, Mercury Calibrator Lamp/Quality Tests
Folder 40 Change Proposal #173, Thermal Model Experiment
Folder 41 Change Proposal #174, Functional Model Prototype
Folder 42 Change Proposal #176, Ground Support Equipment Manuals/Mil - STD - 806
Folder 43 Change Proposal #177, GSE Design Improvements (Cancelled)
Folder 44 Change Proposal #179, GSFC Additional Field Support, Phase IV
Folder 45 Change Proposal #184, Calibration Reports for Spare Cameras
Folder 46 Change Proposal #196, Refurbish Celescope Bay E-4, Prototype (Cancelled)
Folder 47 EMR - Westinghouse RFQ #3
Folder 48 UVicon Procurement (Sub File) EMR
Folder 49 EMR Outgoing Corr. FY 1962
Folder 50 EMR Incoming Corr. FY 1962
Folder 51 EMR Westinghouse, RDQ #2
Folder 52 Bidders' List, U/V Tube (1961)
Folder 53 IFB 61-SI-857
Folder 54 WEC SI PO-28222
Folder 55 WEC SI PO-28689
Folder 56 WEC SI PO-31861
Folder 57 WEC SI PO-32176
Folder 58 WEC SI PO-32377
Folder 59 WEC SI PO-34016
Folder 60 WEC SI PO-34139
Folder 61 WEC SI PO-34377
Folder 62 SAO Correspondence, FY 1963
Folder 63 Organization Charts
Folder 64 SAO Correspondence, FY 1962
Folder 65 SI-Internal
Folder 66 EMR Outgoing Correspondence, FY 1963

Box 22

Folder 1 SI Correspondence
Folder 2 EMR Incoming Corr., FY 1963
Folder 3 SI -- NASA
Folder 4 NASA Incoming Correspondence - FY 1963
Folder 5 NASA Outgoing Correspondence - FY 1963
Folder 6 NASA Outgoing Correspondence - FY 1962
Folder 7 NASA Incoming Correspondence - FY 1962
Folder 8 51/60 (Old Celescope)
Folder 9 Milestones
Folder 10 Procedures
Folder 11 Invitation to Bid CEL 61-SI-858
Folder 12 Change Orders #1-6 (Celescope)
Folder 13 Change Order #7
Folder 14 Change Order #8, Celescope
Folder 15 Change Order #9, Additional filters, lightweight secondaries, & Telescope Secondary Adjustment
Folder 16 Change Order #10, Uvicon Test Program
Folder 17 Change Order #12, Ninth Telescope
Folder 18 Change Order #13, Mercury Calibrator Lamp
Folder 19 Change Order #14, Spacecraft Simulation Equipment
Folder 20 Change Order #15, High Reliability Component Program
Folder 21 Change Order #16, Module & Qualification Testing
Folder 22 Change Order #17, Uvicon Changes of Scope
Folder 23 Change Order #18, Calibrator Reticles
Folder 24 Change Order #19, Spare Ground Support Equipment Storage Display Console
Folder 25 Change Order #20, Project Celescope Field Service and Support
Folder 26 Change Order #21, Payload Spare Parts
Folder 27 Change Order #22, Celescope Data Reduction Ground Support Equipment
Folder 28 Change Order #23, 10th Telescope Assembly
Folder 29 Change Order #24, (To Smithsonian Subcontract SI-522)
Folder 30 Change Order #25, Slow-Scan Conversion Using SAO Equipment and SAO Personnel at EMR

Folder 31 Change Order #26, Investigation of Uvicon Pressure Seal Fix

Folder 32 Magnetic Moment Measurements

Folder 33 Thermal Vacuum Test, EMR 2-17-65

Folder 34 Calibration of Calibrator System SI-522

Folder 35 Contamination Analysis Consultant Service Work Statement Transmittal

Folder 36 Structural Analysis - EMR/ADL

Folder 37 Spares Provisioning for GSE, Contract SI-522

Folder 38 Change Order #27, Uvicon Tube Change Proposal 27 (Amended)

Folder 39 Estimate to Complete/Phase I, II, and III - Funding Increase Request

Folder 40 Amendment 14, 15, 17 to Contract SI-522 between Smithsonian Institution and Electro-Mechanical Research, Inc.

Folder 41 Project Celescope Statement of Work, CEL-100, Revision 5 & 7 (February 27, 1967 and May 17, 1967)

Folder 42 Change Proposal #168, Bay E-4 Modifications

Folder 43 Change proposal No. 169, Celescope test program documentation

Folder 44 Change proposal #170, re-preform ctp-193

Folder 45 Change proposal #171 engineering and g.c. support phase 4

Folder 46 Change proposal #175 additional gse spares

Folder 47 Change proposal #180, s.i. telescope refurbishments

Folder 48 Change proposal #187, thermal re-work heaters

Folder 49 Change proposal #192, celescope payload manual reprint

Folder 50 Change proposal #59, alignment instrumentation for flight celescope telescope subassemblies

Folder 51 SAO contract #SI-522, February-May 1967, Change Proposal Negotiations-negotiation confirmation

Folder 52 Change proposal #80, filter transmissions sample holding fixture

Folder 53 Change proposal #81, rework of box E-4 structure

Folder 54 C/P 82, surge tanks for BEMCO T/V chambers, includes C/P 83
Folder 55 C/P 84, design and installation of inverter

Folder 56 C/P 85, non-xrayed IRC resistors

Folder 57 C/P 86, green ferrule investigation and replacements

Folder 58 C/P 87, design and fabrication of medium voltage power supply on/off switch

Folder 59 C/P 88, bay E-4 thermal interface

Folder 60 C/P 89, Uvicon gas pressure study

Folder 61 C/P 90, new telescope mounts

Folder 62 C/P 91, Uvicon high level vibration

Folder 63 C/P 92 COP thermal interface

Folder 64 C/P 93, contamination control plan

Folder 65 C/P 94, additional rework of flight COP structure

Folder 66 C/P 95, Ampex FR-1800 recorder

Folder 67 C/P 96, 250 volt regulator

Folder 68 C/P 97, WEC additional Uvicon starts

Folder 69 C/P 98, target and G-5 voltage control

Folder 70 C/P 99, additional camera calibration hardware

Folder 71 C/P 100, Uvicon vibration investigation

Folder 72 C/P 101, contamination monitor mirrors

Folder 73 C/P 103, field support training

Folder 74 C/P 104 T/V chamber penetration port for E-4

Folder 75 C/P 105, GSE HVPS replacement and test

Folder 76 C/P 107, environmental lab operation and maintenance

Folder 77 C/P 108, E-4 ground bus redesign

Folder 78 C/P 109, additional effort for GSE rework and reconnecting

Folder 79 C/P 110, general system engineering support 9/1/1966 thru 11/30/1966

Folder 80 C/P 111, program management

Folder 81 C/P 112, clean room operation and maintenance

Folder 82 C/P 113, task 47 general technical support
Folder 83 C/P 161, implementation of contamination control plan
Folder 84 C/P 53, reliability
Folder 85 C/P 56 status indicator #2
Folder 86 C/P 57, Uvicon additional tubes
Folder 87 C/P 58, Uvicon modules
Folder 88 C/P 60, manuals for GSE
Folder 89 C/P 61, T/VOB

Box 23

C/P 62, thermal vacuum chamber
Change Order 67, 2nd source for hi-voltage p/s
C/O 68, date coding of IRC MGA resistors on celescope
C/O 69, relay evaluation test
C/O 72, additional tests on HVPS
C/O 73, digital test facility
C/O 74 emergency standby power
C/P 79 Additional relay evaluation, cancelled

Amendment 16 to contract SI-522 between Smithsonian Inst.and Electro-
    mechanical Research Inc.

Project celescope statement of work, revision 6, March 22, 1967
C/P 115, video preamplifier noise study
C/P 117, additional thermal analysis-COP
C/P 119, additional Uvicon testing
C/P 120, design improvement- increased COP venting
C/P 121, GSE test plans generation
C/P 122, GSE acceptance tests
C/P 124, additional T/VOB testing, F-2 telescope
C/P 127, Bay E-4 improvements
C/P 129, additional GSE spare cards
C/P 132, extra effort, Uvicon camera, T/V calibration tests
C/P 133, extra effort telescope subassembly, T/V QA tests
C/P 136, spare telescope subassembly containers
C/P 137, engineering support to Astrodata inc.
C/P 139, calibrator lamp assemblies-new effort
C/P 142, improvements to analog, digital test sets
C/P 143, Uvicon modules, extra effort
C/P 144, telescope subassemblies, qualification test revision
C/P 146, extra effort-GSE manual revision-cancelled
C/P 147, additional Uvicon qualification testing
C/P 150, telescope clean room operation 12/1/1966 to 2/28/1967
C/P 152, program management
C/P 153, general system engineering support
C/P 154, task 47, general technical support
C/P 155, additional relay modules - cancelled
C/P 156, COP cable reworks
C/P 157, telescope NRC practice
C/P 158, additional Uvicon camera assembly and test
C/P 159, +6V access wiring for E-4
C/P 160, test jacks for E-4 bit timelines
C/P 162, independent thermal analysis conference
C/P 164, DHE acquisition subsystem training course
C/P 166, EMR participation in DHE acquisition subsystem acceptance course
C/P 178, E-4 Jumper Connectors
Revisions to project telescope manual
Revisions to manual and miscellaneous
Manual system requirements, work statements and environmental test specification
Manual revisions
EMR change proposals 59 thru 114 c.
Amendment 18 to contract SI-522
Project celescope statement of work - Revision 8 - July 26, 1967

C/P 128, field service planning and preparation
C/P 181, ESG in-house activities
C/P 182, ESG on-site activities
C/P 183 a, program management and administration
C/P 188, celescope operations manual revision "m"
C/P 189, Orbital operations planning
C/P 193, Bay E-4 re-work, beam on malfunction
C/P 194, Plasma tests
C/P 195, S-1 testing in GSFC T/V chamber
C/P 183, 190, 191, phase 4 effort 7/1/1967-6/30/1968
Celescope file: aerobee proposal
NASA-monthly progress reports and meteor research program
NSR-019-033 folder 1
NSR 019-033 folder 2

Box 24
NSR 09-015-033 Folder 3
NSR 09-015-033 folder 4
NSR 09-015-033 Meteor research FAA & FCC licences
NSR 09-015-033 meteor research progress reports 1968
NSR 09-015-033 meteor research progress reports 1967
NSR 09-015-033 meteor research progress reports 1966
NSR 09-015-033 meteor research program
Meteor research program
CST-7715/national bureau of standards - US Dept. of commerce

Box 25
SAO/STP Perkin-Elmer Book 1
NSR 09-015-033- Meteor research-financial section
Perkin-Elmer Corp. Contract
NSR 09-015-033-property accounting

NSR 09-015-022, Gamma Ray Astronomy Experiment for High Altitude Balloons

NAS 1-8342, Super-Schmidt and Maksutov Camera Operation

NASA/GSFC P.O. S-34122A

NSR 09-15-039, Update Baker-Nunn Sat. Tracker using laser...

600 - TQSY Reports

NGR 09-15-23, Contractual & Correspondence, Reports

NGR 09-15-25, Measurement of Earthshine

AF 48 (608) - 3446, "Gold Flash" continued

NASI - 7401, Super-Schmidt Camera Operation

NSF, GA-753/Analysis of Photographic Observation of comets - Fund #6074

NSF-855 - Measurement... in the Greenland Ice; Grant Request & Correspondence, P.A. #57, Progress Reports

Box 26

NSG-536 Wollops Island: contracts, leases, reports

IFB 41-7-67

NSF, GP-4318 Stellar Atmospheres

P.O. 565 use of solar furnace

NOOO 14-67-C-0161: Optical study of flare stars

CRREL 65-15

NAS 5-10648 Photo reduction of 060-2 Bakor-Nunn observations

NONR/G/00031-65 Stellar atmospheres

Lockheed Co. P.O. FVT7A4740 A

ESO49-9002-68 (ESO49-15-67) US coast & geod survey

NAS 5-3255, S-16 Gamma Ray

NAS 5-9769/ Gamma Ray experiments

National Geographic: stonehenge and callanish

AF-19(628) 4188 film and financial correspondence

AF-19(628) 4188 progress reports
AF-19(628) 4188 copies of contracts
AF-19(628) 4188 modifications 1&2
AF 19(628) 4203 progress reports
AF 19(628) 4203 contractual
AF 19(628) 4203 modification #5
AF 19(628) 4203 Financial
NAS 9-4873/major meteor streams
NAS-9-4873/major meteor streams

Box 27
AF F08637-68-C-0052 star chart overlay
AF 08(614)-4243 gold flash
NGR 09-015-021 symposium/meteoritic orbits and dust
Aeronomy symposium
NASR-158 harvard radio meteor
DA 31-124-ARO-D-473 x-ray microhardness progress reports
DA 31-124-ARO-D-473 x-ray microhardness contractual
NGR 22-024-001 abundance analysis progress report-final
NGR 22-024-001 study of abundance analysis of stars in the spectral
Celescope balloon experiment
NGR 22-024-001 suppliment 2 & 3
NGR 22-024-001 foreign travel requests
NGR 22-024-001 study of abundance analysis of stars
NAS 10-6834 location and tracking satellite intelstat III F-5
NAS 12-1183 Repro of services
F05603-69-C-0119 flight officers network field office
F05603-69-C-0270 ent. Air Force Base Colorado
AF F19628-68-C-0234 study of helium molecular spectra
AF 19(628)-6055 wind data
AF19(628)-3248 high altitude wind study
Box 28

AF 19(628)-3248 high altitude wind study
AF 19628-3248 collins radio company
NGS grant for Nasca lines Peru-Dr. Hawkins Voucher No. 5175
AF 19628-3248 high altitude wind study original contract and modifications
AF F33615-67-C1092
GP-2999 photographic investigation of comets
Secor contract-us army DA-44-009-AMC-1409 (X)
Closed Contracts
Computer Services Inc., 10/24/1960 agreement
Contracts - NASA
NSF GP-90 Stellar Atmospheres
NSF G-16337 Stellar Atmospheres (Financial Statements)
8.11 earth albedo
Y/8.11/236 albedo contractual ann. Reports
Y/8.11/236 albedo financial procurement and misc.
AF 41689-1196 air force training
CRREL 64-19 water filtration project
Request for funds from Dr. Cunningham University of California
NSF-16067 rare gases in meteorites
Lamp object 04-695 63-22
Scintellation project
Contracts AF 609
Lamp objects 04-695 64-4
AF 41 689-1132
Transmittal of contractual document, delivery order 33-616 58-2 amend 2

Box 29

Cat-eye project
Douglas aircraft PO #3A-219098-K
AF 19628-3373
AF 19623-3360 TWX and customer reports
AF 19604-7414 study for the termination of atmospheric densities from satellite observations
AF 604-5459 research directed towards the study of stellar scintillation
AF 19604-6627 studies of rate of accretion of interplanetary matter by the earth
Contracts AF 1596
AF 18 (600)-1596 Procurement, persons and things
AF 18 (600)-1596, Miscellaneous and Travel
AF 18 (600)-1596, Progress Reports and Final Reports
AF 18 (600)-1596, Financial Statements
AF 18 (600)-1596, Beginning thru Amendment 2
AF 18 (600)-1596, Contractual Amendment 3-7
AF 18 (600)-1596, Technical Reports
NGR 22-024-001, 16325

Box 30
AF 19 (628)-2949
S and E Budget Fiscal Year 1967
Meteorite Photos
NGR 09-015-004, Folder 1
NGR 09-015-004, Folder 2
NGR 09-015-004, Folder 3
NGR 09-015-004, Folder 4
NGR 09-015-007, Recovery of Space Fragments/Progress Reports
NGR 09-015-022 - 17043

Box 31
NSR 09-015-018, "Geodesy"
NGR 09-015-023 - 16319, Final Close-Out
NGR 09-015-039 - 17089, includes Transfer of Title notice
NGR 09-015-047, Folder #1
NGR 09-015-047, Folder #2
NGR 09-015-047 - 16326
NGR 09-015-047, Folder #3 (Progress Reports)
NSR 09-015-054, Geod. Sat. Techs. To Earth Sciences & Oceanography
NSR 09-015-079, The Investigation of Continental Drift

Box 32
NSR 09-015-098, Hydro-Maser Program
NGR 09-015-103, Inves. Of Earth Dynamics from Satellite Observation
NGR 09-015-105, Apollo Contamination Analysis
NGR 09-015-107, Earth Physics Date Management Study
NGR 09-015-116, Isotopic Anal. Gaseous Constitution, Lunar Sample
NGR 09-015-144 (Megrue) Lunar Samples-Laser Micro. Mass Spectrum
NGR 09-015-159; correspondence, property, foreign travel, proposals, grants & supplements
NGR 09-015-159, Folder #2
NGR 09-015-159, Folder #3

Box 33
NGR 09-015-164 - Use Passive Stable Satellite Earth Physics Applications
NGR 09-015-173, "Low Energy Gamma-Ray Gas - Cerenkiv Detector"
NGR 09-015-184, "Mission Definition Phase of the Outer P.D."
NGR 09-015-196, "Method of Calculating Retro reflector - Array Transfer Functions
NGR 09-015-198
NGR 09-015-200
NGR 09-015-201
NGR 09-015-205
NGR 09-015-208, Correspondence, Progress Reports, Grants & Supplements
NGR 09-015-209
NGR 09-015-210

NGR 09-015-211

NGR 09-015-213, Folder #1, Proposals, property, foreign travel, correspondence, grant & supplements

NGR 09-015-213, Folder #2 (includes several publications)

Box 34

GRAVITATIONAL REDSHIFT FILE, listed by file number and 307-5-71 Proposal

GR-A Proposals

GR-01 Contract (NAS 8-27969)

GR-02 Progress Reports to MSFC

GR-03 Form 533 (by FY)

GR-05 Funding

Box 35

GR-06 Red Shift: Cost-to-Complete

GR-07 Red Shift: Overhead Rate

GR-08 Red Shift: DCAA Audits

GR-09 Red Shift: Property

GR-10 Red Shift: Budgets and Project Authorizations

GR-11 Red Shift: Technical Directives from MSFC

GR-12 Red Shift: Change Orders from MSFC

GR-13 Red Shift: Change Proposals to MSFC

GR-14 Red Shift: MSFC Correspondence to SAO

GR-15 Red Shift: SAO Correspondence to MSFC/DCASR

GR-16 Red Shift: SAO/NASA Wallops Correspondence

GR-17 SAO Internal Correspondence

Box 36

GR-18 SAO/SI Correspondence

GR-19 Minutes of Meetings/Trip Reports

GR-20 MSFC Specifications
GR-21 Quality Assurance/Reliability
GR-22 Deliverable Items to MSFC
GR-23 Record of Telephone Conversations
GR-24 SAO Internal Progress Reports
GR-25 Correspondence with NASA Headquarters
GR-26 Presentations and Handouts
GR-27 Correspondence with GSFC
GR-28 GFE
GR-29 GBL's
GR-30 SAO Subcontracts
GR-31 Owens Illinois Cer Vit Cavity
GR-32 North American Aviation
GR-33 Thermal Test of EVU
GR-34 Assembly Procedures for Probe Maser
GR-35 EVU Maser Test Plan
GR-36 New Technology Reports
GR-37 GSEE Acceptance Test Plan
GR-38 Test Plan for Probe Maser Regaussing
GR-39 General Correspondence
GR-40 RFQ's
GR-41 Correspondence with LTV
GR-42 Test Equipment
GR-43 Status Review Meetings
GR-44 PDR
GR-45 CDR
GR-46 FDR
GR-47 Priority of Subcontract Items
GR-48 Schedules
GR-49 Overtime Requests
GR-50 Safety
GR-51 Design Guidelines
GR-52 Program Plan
GR-53 Data Analysis
GR-54 Test Specs
GR-55 NASA Alerts
GR-08 NAS 8-27969, Folder 1
17330, NAS 8-27969, Disposals
Box 37
17330, Folder 1
17330, Folder 2
17330, Folder 3
GR-52 Red Shift: Program Plan (Preliminary)