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National Air and Space Museum

Apollo-Soyuz Test Project Earth Observation
and Photography Experiment, 1975

Hank Brown

1999



APOLLO SOYUZ TEST PROJECT PRIME CREWMEN
ПЕРВЫЕ ЭКИПАЖИ ЭКСПЕРИМЕНТАЛЬНОГО ПРОЕКТА АПОЛЛОН-СОЮЗ

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Collection Overview

Repository:	National Air and Space Museum Archives
Title:	Apollo-Soyuz Test Project Earth Observation and Photography Experiment
Identifier:	NASM.1988.0127
Date:	1975
Extent:	3.36 Linear feet 3.6 Cubic feet (8 legal document boxes)
Creator:	El-Baz, Farouk, 1938-
Language:	English; Russian
Summary:	This collection consists of the files of Dr. Farouk El-Baz, principle investigator for the Earth Observation and Photography Experiment (EOPE). The material includes documentation on the Apollo-Soyuz Test Project (ASTP) including correspondence, notes, and reports dealing with all aspects of the mission, as well as crew training and post-flight evaluations.

Administrative Information

Acquisition Information

National Air and Space Museum, Center for Earth and Planetary Studies (CEPS), Gift, 1988, 1988-0127

Processing Information

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Preferred Citation

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Biographical Note

The Apollo-Soyuz Test Project (ASTP) took place 15 July through 24 July 1975. The mission, the first cooperative international space flight, was a joint effort between the United States and the Soviet Union in which a three-man Apollo spacecraft docked with a two-man Soyuz spacecraft in Earth orbit. While docked the crews exchanged goodwill messages and gifts and carried out a number of joint activities. The Earth Observation and Photography Experiment (EOPE) was among the experiments carried out during the mission. EOPE used trained observers to identify, describe, and photograph surface features of scientific interest in support of ongoing research in geology, oceanography, hydrology, meteorology, desert studies, and environmental science.

Scope and Contents

The Apollo-Soyuz Test Project Earth Observation and Photography Experience Collection consists of the files of Dr. Farouk El-Baz, principle investigator for the Earth Observation and Photography Experience (EOPE). The material includes correspondence, notes, transcripts, and reports on the Apollo-Soyuz Test Project (ASTP) mission, as well as crew training and post-flight evaluations.

Arrangement

The Collection is arranged as follows:

Series I: ASTP Earth Observation Team Preliminary Planning Notes Series II: Flight Data File Series III: Air to Ground Tapes [transcripts] Series IV: Technical Air to Ground Tapes [transcripts] Series V: CSM Voice Dump Transaction Series VI: Soviet Crew Transcripts Series VII: ASTP Flight Directors Mission Log and Status Report Series VIII: Astronaut Observations Series IX: ASTP Summary Science Reports Series X: ASTP Summary Science Reports, Correspondence

Names and Subject Terms

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

Subjects:

- Astrogeology
- Astronautics
- Astrophysics
- Lunar geophysics

Types of Materials:

- Correspondence
- Notes
- Reports

Names:

- Apollo Soyuz Test Project

Earth Observation and Photography Experiment
El-Baz, Farouk, 1938-
National Aeronautics and Space Administration

Container Listing

Series 1: ASTP Earth Observation team preliminary planning notes, circa 1975

9 Folders

Box 1, Folder 1	Geology Notes
Box 1, Folder 2	Desert studies notes
Box 1, Folder 3	Oceanography notes
Box 1, Folder 4	Meteorology notes
Box 1, Folder 5	Hydrology notes
Box 1, Folder 6	Short-lived phenomena notes
Box 1, Folder 7	Skylab 4 comparison notes
Box 1, Folder 8	Impact Craters -- Libyan desert notes
Box 1, Folder 9	folder 9: Test Site maps

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Series 2: Flight data file, 1975

15 Folders

Box 1, Folder 10	Earth Observations book
Box 1, Folder 11	Experiments checklist, vol. 1
Box 1, Folder 12	Experiments checklist, vol. 2
Box 1, Folder 13	Flight plan, vol.1
Box 1, Folder 14	Flight plan, vol. 2/crew activities rev. 70 through 106
Box 1, Folder 15	Crew activities rev. 106 through 136
Box 1, Folder 16	Flight plan supplement
Box 1, Folder 17	Launch checklist
Box 1, Folder 18	Rendezvous book, 2 parts
Box 1, Folder 19	Docking Module checklist 1
Box 1, Folder 20	Docking Module checklist 2
Box 1, Folder 21	Joint operations checklist
Box 1, Folder 22	Systems checklist
Box 1, Folder 23	Malfunction procedures
Box 1, Folder 24	Entry checklist

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Series 3: Air to ground tapes , 1975

31 Folders

[transcripts]

Box 1, Folder 25	Tapes 1
Box 1, Folder 26	Tapes 2
Box 1, Folder 27	Tapes 3
Box 1, Folder 28	Tapes 4
Box 1, Folder 29	Tapes 5
Box 1, Folder 30	Tapes 6
Box 1, Folder 31	Tapes 7
Box 2, Folder 1	Tapes 8
Box 2, Folder 2	Tapes 9
Box 2, Folder 3	Tapes 10
Box 2, Folder 4	Tapes 11
Box 2, Folder 5	Tapes 12
Box 2, Folder 6	Tapes 13
Box 2, Folder 7	Tapes 14
Box 2, Folder 8	Tapes 15
Box 2, Folder 9	Tapes 16
Box 2, Folder 10	Tapes 17
Box 2, Folder 11	Tapes 18
Box 2, Folder 12	Tapes 19

Box 2, Folder 13	Tapes 20
Box 2, Folder 14	Tapes 21
Box 2, Folder 15	Tapes 22
Box 2, Folder 16	Tapes 23
Box 2, Folder 17	Tapes 24
Box 2, Folder 18	Tapes 25
Box 2, Folder 19	Tapes 26
Box 2, Folder 20	Tapes 27
Box 2, Folder 21	Tapes 28
Box 2, Folder 22	Tapes 29
Box 2, Folder 23	Tapes 30
Box 2, Folder 24	Tapes 31

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Series 4: Technical air to ground tapes , 1975

10 Folders

[transcripts]

These are transcripts of the technical air-to-ground (TAG) voice communications that start with Julian date 196.

Box 2, Folder 25 Introduction and Day 196

Box 2, Folder 26 Day 197

Box 2, Folder 27 Day 198

Box 3, Folder 1 Day 199

Box 3, Folder 2 Day 200

Box 3, Folder 3 Day 201

Box 3, Folder 4 Day 202

Box 3, Folder 5 Day 203

Box 3, Folder 6 Day 204

Box 3, Folder 7 Day 205

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Series 5: CSM voice dump transaction, 1975

12 Folders

These are miscellaneous transcripts of TAG communications.

Box 3, Folder 8	Day 196
Box 3, Folder 9	Day 197
Box 3, Folder 10	: Day 198
Box 3, Folder 11	Day 199
Box 3, Folder 12	Day 200, 1
Box 3, Folder 13	Day 200, 2
Box 3, Folder 14	Day 201
Box 4, Folder 1	Day 202
Box 4, Folder 2	Day 203
Box 4, Folder 3	Day 204
Box 4, Folder 4	Day 205, 1
Box 4, Folder 5	Day 205, 2

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Series 6: Soviet crew transcripts, July 1975

8 Folders

These are TAG communications of the ASTP.

Box 4, Folder 6	July 15, 1975, 1975-07-15
Box 4, Folder 7	July 16, 1975, 1975-07-16
Box 4, Folder 8	July 17, 1975, 1975-07-17
Box 4, Folder 9	July 18, 1975, 1975-07-18
Box 4, Folder 10	July 19, 1975, 1975-07-19
Box 4, Folder 11	July 20, 1975, 1975-07-20
Box 4, Folder 12	July 21, 1975, 1975-07-21
Box 4, Folder 13	July 22, 1975, 1975-07-22

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Series 7: ASTP Flight Directors Mission log and status report, 1975

2 Folders

Box 4, Folder 14 ASTP Flight Directors Mission log and status report

Box 4, Folder 15 ASTP Flight Directors Mission log and status report

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Series 8: Astronaut observations, 1975

9 Folders

The "Earth Observations and Photography Experiment" (EOPE) was carried out as one of the major objectives of the Apollo-Soyuz Test Project in July 1975. The orbiting astronauts collected valuable information by means of observations and photography of the Earth. This book is the end result of a highly successful experiment. In it the reader will find a detailed account of experiment planning, selection of observation sites, training for the astronauts, preparation of aids for their use and the nature of scientific support of mission operations.

Box 4, Folder 16	Manuscript pages: title to 70.
Box 4, Folder 17	Manuscript Pages: 71 to 159.
Box 4, Folder 18	Manuscript Pages: 160 to 184 (references, terms and appendix 1, 2 and 3)
Box 5, Folder 1	Manuscript Pages: 185 to 241 (appendix 4, revised 15/16-90)
Box 5, Folder 2	Manuscript Pages: 242 to 312 (appendix 4, revised 91-137)
Box 5, Folder 3	Manuscript Pages: 313 to 415 (appendix 4, technical crew debriefing and usual observations debriefing)
Box 5, Folder 4	Manuscript Pages: 416 to 475 (index and captions).
Box 5, Folder 5	Correspondence

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Series 9: ASTP Summary science report, circa 1975

41 Folders

Box 5, Folder 6	ASTP summary science report-folder #1 Geologic Analysis of ASTP photographs of parts of Southern California
Box 5, Folder 7	ASTP summary science report-folder #2 The Marda Fault zone and the opening of the Red Sea
Box 5, Folder 8	ASTP summary science report-folder #3 Evaluation of Satellite images of the Levantine Rift Zone
Box 5, Folder 9	ASTP summary science report-folder #4 Analysis of Skylab and Apollo- Soyuz photographs of the Levantine (Dead Sea) Fault Zone.
Box 5, Folder 10	ASTP summary science report-folder #5 Analysis and Synthesis of ASTP photographs and supplemental Landsat images of the Southeastern Turkey --Northwestern Iran Mobile Belt.
Box 5, Folder 11; Box 5, Folder 11	ASTP summary science report-folder #6 The dstructural pattern of the Northern part of the Eastern Desert of Egypt as viewed from Apollo-Soyuz photographs.
Box 5, Folder 12	ASTP summary science report-folder #7 Photolineaments in the ASTP stereo strip of the Western Desert of Egypt.
Box 5, Folder 13	ASTP summary science report-folder #8 Utilization of ASTP Photographs in the study of small structures in Abu Rowash and Wadi El-Natrun, Egypt.
Box 5, Folder 14; Box 5, Folder 14	ASTP summary science report-folder #9 Phototectonic Analysis of Southeastern Spain from ASTP photographs and Landsat images
Box 5, Folder 15	ASTP summary science report-folder #10 E-W Pervasive Lineaments detected on Apollo-Soyuz photographs of Central and Southeastern Spain.
Box 5, Folder 16; Box 5, Folder 16	ASTP summary science report-folder #11 Photogeologic analysis of ASTP photographs of the Lake Torrens-Flinders Ranges-Lake Blanche Area, South Australia.
Box 5, Folder 17	ASTP summary science report-folder #12 Volcanic Landforms and Astroblemes.
Box 5, Folder 18	ASTP summary science report-folder #13

Riachao Ring, Brazil: A possible meteorite crater discovered by the Apollo-Soyuz Astronauts.

- Box 6, Folder 1 ASTP summary science report-folder #14
Color zoning in the Western desert of Egypt
- Box 6, Folder 2 ASTP summary science report-folder #15
Orbital observations of sand distribution in the Western Desert of Egypt.
- Box 6, Folder 3 ASTP summary science report-folder #16
Preliminary analysis of color variations of sand deposits in the Western Desert of Desert of Egypt.
- Box 6, Folder 4 ASTP summary science report-folder #17
Temporal changes as depicted on orbital photographs of Arid Regions in North Africa.
- Box 6, Folder 5; ASTP summary science report-folder #18
Box 6, Folder 5 ASTP photographs of Southeastern Angola.
- Box 6, Folder 6; ASTP summary science report-folder #19
Box 6, Folder 6 The color of desert surfaces in the Arabian Peninsula.
- Box 6, Folder 7; ASTP summary science report-folder #20
Box 6, Folder 7 The Monte desert of San Juan, Argentina, as photographed by ASTP.
- Box 6, Folder 8; ASTP summary science report-folder #21
Box 6, Folder 8 Dunes and other windforms of Central Australia (and a Comparison with Linear Dunes on the Moenkopi Plateau, Arizona).
- Box 6, Folder 9; ASTP summary science report-folder #22
Box 6, Folder 9 Locating photographs taken over the oceans.
- Box 6, Folder 10; ASTP summary science report-folder #23
Box 6, Folder 10 Interpreting ASTP photographs of the ocean and locating the area of photographs (case study of the gulf of Mexico).
- Box 6, Folder 11; ASTP summary science report-folder #24
Box 6, Folder 11 Visual observations over the oceans during ASTP.
- Box 6, Folder 12 ASTP summary science report-folder #25
A report on ocean color observations during the Apollo-Soyuz mission.
- Box 6, Folder 13 ASTP summary science report-folder #26
Analysis of the Maltese front and the strait of Sicily ocean pattern.

Box 6, Folder 14	ASTP summary science report-folder #27 An analysis of water color as seen in orbital and aerial photographs of cape cod, Nantucket and Martha's Vineyard, Massachusetts.
Box 6, Folder 15	ASTP summary science report-folder #28 ASTP at Barbados: Mesoscale pools of Amazon river water in the Western Tropical Atlantic.
Box 6, Folder 16	ASTP summary science report-folder #29 Estimate of total reflectance from the Orinoco River outflow.
Box 6, Folder 17	ASTP summary science report-folder #30 Observations of internal wave surface signatures in ASTP photographs.
Box 6, Folder 18	ASTP summary science report-folder #31 Detection of a probable ancestral delta of the Nile River.
Box 6, Folder 19; Box 6, Folder 19	ASTP summary science report-folder #32 Suspended sediment dispersal patterns of river deltas photographed by ASTP.
Box 6, Folder 20; Box 6, Folder 20	ASTP summary science report-folder #33 Use of Apollo-Soyuz photographs in coastal studies.
Box 7, Folder 1	ASTP summary science report-folder #34 An analysis of South American river morphology and hydrology from ASTP imagery.
Box 7, Folder 2; Box 7, Folder 2	ASTP summary science report-folder #35 Snow hydrology studies utilizing ASTP photography.
Box 7, Folder 3; Box 7, Folder 3	ASTP summary science report-folder #36 Mesoscale cloud patterns revealed by Apollo-Soyuz photographs.
Box 7, Folder 4	ASTP summary science report-folder #37 Comparison of astronaut visual color observations with ASTP photographs.
Box 7, Folder 5; Box 7, Folder 5	ASTP summary science report-folder #38 Film selection for the earth observations and photography experiment.
Folder 7, Folder 6	ASTP summary science report-folder #39 ASTP exposure calculations.
Box 7, Folder 7; Box 7, Folder 7	ASTP summary science report-folder #40 ASTP photographic film processing and sensitometric summary.

Box 7, Folder 8

ASTP summary science report-folder #41

Photogrammetric analysis of Apollo-Soyuz test project earth observations,
experiment data.

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Series 10: ASTP Summary Science reports, correspondence, circa 1975

33 Folders

Box 7, Folder 9	ASTP summary science report, correspondence - Abdel-Rahman
Box 7, Folder 10	ASTP summary science report, correspondence - Apel
Box 7, Folder 11	ASTP summary science report, correspondence - Baker
Box 7, Folder 12	ASTP summary science report, correspondence - Barnes
Box 7, Folder 13	ASTP summary science report, correspondence - Black
Box 7, Folder 14	ASTP summary science report, correspondence - Borstad
Box 7, Folder 15	ASTP summary science report, correspondence - Breed
Box 7, Folder 16	ASTP summary science report, correspondence- Brill
Box 7, Folder 17	ASTP summary science report, correspondence - Dietz
Box 7, Folder 18	ASTP summary science report, correspondence - Dunkelman
Box 7, Folder 19	ASTP summary science report, correspondence - El-Etr
Box 7, Folder 20	ASTP summary science report, correspondence - El-Naggar
Box 7, Folder 21	ASTP summary science report, correspondence - Foose
Box 7, Folder 22	ASTP summary science report, correspondence - Giuli
Box 7, Folder 23	ASTP summary science report, correspondence - Holz
Box 7, Folder 24	ASTP summary science report, correspondence - Lamar
Box 7, Folder 25	ASTP summary science report, correspondence - Lockwood
Box 7, Folder 26	ASTP summary science report, correspondence - Lauderdale
Box 7, Folder 27	ASTP summary science report, correspondence - Maul
Box 7, Folder 28	ASTP summary science report, correspondence - Muehlberger

Box 7, Folder 29	ASTP summary science report, correspondence - McLafferty
Box 7, Folder 30	ASTP summary science report, correspondence - McHone
Box 7, Folder 31	ASTP summary science report, correspondence - Pisharoty
Box 7, Folder 32	ASTP summary science report, correspondence - Proctor
Box 7, Folder 33	ASTP summary science report, correspondence - Shimmerman
Box 7, Folder 34	ASTP summary science report, correspondence - Silver
Box 7, Folder 35	ASTP summary science report, correspondence - Soliman
Box 7, Folder 36	ASTP summary science report, correspondence - Stanley
Box 7, Folder 37	ASTP summary science report, correspondence - Stevenson
Box 7, Folder 38	ASTP summary science report, correspondence - Terry
Box 7, Folder 39	ASTP summary science report, correspondence - Wood
Box 7, Folder 40	ASTP summary science report, correspondence - Yentsch
Box 7, Folder 41	ASTP summary science report, correspondence - Youssef

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