

NASA Ames Research Center History Office and Archives

Secondary Inventory

002-2004

Described below are the papers and other materials donated to the History Office by Elliott Levinthal on April 7, 2004.

Box #1: "DIFF Pics by Sequence #" (1/4 full)

- Viking Lander DIFF Pics: 12" x 6" positive/negative stereo pairs, Sequence #1-102 (12/78-2/79)
- Viking Lander Special Pics: 12" x 6" positive/negative stereo pairs, Special #001, 002, 003-Backhoe Magnet Cleaning Sequence (8-9/78)

Box #2: "Office Box C: Anaglyph (3D) glasses, Mars & Multivator Slides; Stereo viewer & Slide Mount Vectograph" (includes 3 1/4x4 glass lantern slides)

- Abrams Model CB-1 Two or Four Power Stereoscope
- Taylor Merchant Stereo Viewer: cardboard and in sleeve
- Taylor Merchant Stereo Viewer: cardboard Stereopticon 707
- Realist Electric Stereo Viewer Model #2062 in box
- Box of Red & Blue cardboard Anaglyph 3D glasses
- Bag of Red & Green cardboard Anaglyph 3D glasses labeled JPL
- 2 booklets: *Viking '76 and Mars: The Search Begins* (presentation script for slides of the Viking Project)
- 1 4x3 black & white Viking Lander image
- Hubbard Scientific Co. Stereoscope Viewer: plastic & metal glasses
- 2 Stereo Vision Systems plastic rimmed glasses
- Pair of sunglasses: rims out of tubing and falling apart
- Box of EMDE Aluminum Mask Stereo Mounts
- 3 Boxes of 337 black & white 35mm slides produced from the Primary Mission Lander Imaging Team Data Record (TDR). Boxes labeled "Jones Photocolor" and includes a letter explaining the numbering system used (which is used elsewhere in the collection, as well).
- Metal carrying case containing a tray of 585 numbered Viking Lander color slides and a tray of misc. slides including duplicates of the other tray, Multivator design images, and images of Saturn.
- Metal carrying case containing a tray misc. color and black & white slides Viking slides: launch, schematics, lander, and equipment.
- 2 sets of 100 numbered color slides of the Viking Mission (in 4 blue and white containers)
- Set of 38 numbered color slides of the Viking Mission (container labeled AAAS slides)
- 4 smaller boxes of color slides of Jupiter
- 10 color Kodak stereo slides of Viking Lander equipment and testing (#7730 5 H56 81240 4)
- 8 color Kodak stereo slides of medical/surgery images (#7741 2 H56 81240 4)
- TDC Stereo Selectray for Stereo Selectron changer: contains 26 color/B&W slides of the Viking Mission
- 26 - 3 1/4 x 4 Lantern glass slides from Mariner 9 (black and white)
- 21 - 3 1/4 x 4 Lantern glass slides from Mariner 9 (black and white) has some type fungus growth between the glass on about half of the slides.
- 21 - 3 1/4 x 4 Lantern glass slides of Mariner and Viking Lander 3D images; loose 35mm slides of equipment, models, and schematics

- 10 3¼ x 4 Lantern glass slides of Multivator

Box #3: "Color 1 of 2; Specials-Mosaics, Stereo & Projections" (contains 8x10 negatives)

- Viking Lander 1: 12" x 6" color photos in labeled envelopes and unlabeled clear sleeves (appear to be in somewhat of an sequential order) (4/77-3/78)
- Viking Lander 2: 12" x 6" color photos in labeled envelopes and unlabeled clear sleeves (appear to be in somewhat of an sequential order) (4-7/77)
- Viking Lander 1 & 2: 2 identical sets of 14 (TDR) Team Data Record 12" x 6" color photos
- Viking Lander: Mosaics (Range Dataset): 8x10 prints (3-10/79)
- Viking Lander: Mosaics (Range Dataset) 8x10 negatives (3-10/79)
- Viking Lander: Mosaics (Orthographic Projection): 8x10 prints (10-12/79)
- Viking Lander: Mosaics (Orthographic Projection): 8x10 negatives (10-12/79)
- Viking Lander: High Resolution Donut Projection 8x10 negatives (1/78)
- Viking Lander: Standard VL Stereo 8x10 negatives (8-12/78)
- Viking Lander: High Resolution Mosaic 8x10 negatives (10-12/77)
- Viking Lander: Special Stereo 8x10 negatives (7/78 - 2/79)
- Viking Lander: High Resolution Donut Projection and Mosaic 8x10 prints (10-77-1/78)

Box #4: Viking Lander photo mosaics

- Viking Lander 2 Rectified Photomosaics Evening Scene Camera 1, Map I-1517 (Sheets 1-5)
- Viking Lander 2 Rectified Photomosaics Evening Scene Camera 2, Map I-1518 (Sheets 1-5)
- Viking Lander 2 Rectified Photomosaics Morning Scene Camera 2, Map I-1516 (Sheets 1-5)
- Viking Lander 2 Rectified Photomosaics Morning Scene Camera 1, Map I-1515 (Sheets 1-5)
- Shaded Relief Map of Mercury, Map I-1149
- Mercury: Relief and Albedo Marking Visible on Mariner 10 Images, Map I-1171
- Shaded Relief Map of Mars, Map I-940
- Topographic Map of Mars, Map I-961
- High Resolution Mariner 9 Pictures in the Cydonia Region of Mars, Map I-990
- Shaded Relief Map of the Chryse Region of Mars, Map I-939
- High Resolution Mariner 9 Pictures in the Cydonia Region of Mars, Map I-991

Box #5: 2 black binders

- *Mars in 3D* (correspondence, etc. re: movie, loan, rental and reproduction)
- clippings, notes, correspondence, etc. re: *Mars in 3D* film (scrapbook-like)

Box #6: 3 16mm tapes, magnetic sound recording tapes, *Mars in 3D*:

- Mix-Voice and Music-Master Stereo (conservation—mold)
- Stereo 2 channel Mix; Protector; Voice and Music (conservation—mold)
- Voice track (conservation—mold)

Box #7: Ampex Tape

- *Mars in 3D* 1/4" Protection Master (conservation—mold, rust)

Box #8: "Instrumentation Research Laboratory (IRL) Reports" (in labeled folders, but some of the numbered folders in the sequence are missing). Dates range from 1960-1970.

- *Pioneer Saturn Encounter* brochure (9/79)
- *Voyager Encounters Jupiter* brochure (7/79)
- 4 Bibliographies of the Instrumentation Research Laboratory (IRL) Reports
- Folders: IRL #1000-1003
- Folder: IRL #1010
- Folders: IRL #1012-1024
- Folder: not numbered, but contents are the same as IRL #1037

- Folders: IRL #1027-1044
- Folders: IRL #1047-1048
- Folders: IRL #1051-1055
- Folders: IRL #1057-1060
- Folders: IRL #1062-1075
- Folders: IRL #1077-1081
- Folders: IRL #1083-1086
- Folders: IRL #1088-1090
- Folders: IRL #1093-1095
- Folders: IRL #1097-1104
- Folders: IRL #1107-1108
- Folders: IRL #1110-1121

Box #9: "IRL Reports, Misc. Corresp, *Mars in 3D* Stereo Setup & screens, Clippings/Publicity, Equipment Accountability, Linc Acme etc;" Box 4 A & B" (in labeled folders). Instrumentation Research Laboratory (IRL) Reports" (in labeled folders, but some of the numbered folders in the sequence are missing). Dates range from 1970-1977.

- Folder: IRL #1122
- Folders: IRL #1124-1127
- Folders: IRL #1129-1143
- Folder: IRL #1145
- Folders: IRL #1151-1158
- Folder: IRL #1175
- Folders: IRL #1191-1192
- Instrumentation Research Lab Report Numbers and Publication List
- Not Included on Biblio.: various articles and reports - Biochemistry, Apollo 11 Lunar Science Conference, Mass Spectrometers (1963-71)
- *A Small Computer Approach to Low Resolution Mass Spectrometry* report (11/1/67)
- *Quantitation of B-Aminoisobutyric Acid in Urine By Mass Fragmentography* report (8/73)
- *Mars in 3D* sound and picture editing notes
- Misc. Inquires: correspondence from American Museum of Natural History (11/29/79)
- Palmer Films: price list, notes, newsletters for film producing/processing company (1977-80)
- 3D Movies: *Mars in 3D* - outline, notes, correspondence (8/77-3/78)
- Academy of Motion Picture Arts & Sciences: Academy rule book and correspondence regarding the submittal of *Mars in 3D* for the 52nd Annual Academy Awards Documentary Award (1978)
- Viking Fund: correspondence, flyers, and solicitations regarding the fund established by the SF section of the American Astronautical Society (1980)
- Deep Vision: order form for 3D glasses
- Log of Rentals, Sales, & Screenings-Anaglyph Version: a few handwritten notes
- Log of Rentals, Sales, & Screenings-Polarization Version: movie log notes (1979)
- Misc. Correspondence: regarding *Mars in 3D* (2/79-1/80)
- Correspondence re Rentals, Sales, & Screening—Completed: *Mars in 3D* (11/77 & 1-11/79)
- Exploratorium: correspondence regarding *Mars in 3D* (7-8/79)
- Thank you's & Testimonials: regarding *Mars in 3D* (4-11/79)
- Clippings/Publicity re *Mars in 3D*: Newspaper and magazine articles, NASA *Impact* Vol.1, No.3, The New Yorker 6-18-79, and 2 - 8x10 color photos of Levinthal at a presentation (1979-80)
- P.B.S.: correspondence regarding *Mars in 3D* (11/79-4/80)
- Stanford Auditoriums: Sherman Fairchild floor plans, Dinkelspiel floor plans, Beckman seating plan, list of all auditoriums @ the university.
- New York Institute of Technology: correspondence, NYIT 1977-78 catalog, report, 3 4x5 photos of digital graphic art
- Stereo Screens: Kodak and Stewart brochures regarding film projection screens

- NIH Equipment Accountability: correspondence regarding equipment (2-5/75)
- Acme & Other Equipment Accountability File: correspondence, notes, inventory lists (2/75-8/78)
- *An Operating System for the LINC Computer* IRL#1035 (11/1/65)
- *LINC Evaluation Program* report (3/65)
- LINC Sale: invoices, correspondence, user list (1965-75)
- Viking Fund, American Astronautical Society Sale (7/8/80): purchase agreement of *Mars in 3D*
- Stereo Hardware: invoices and expense reports for equipment (1975-76)
- Buhl Planetarium sale 6/12/80: purchase agreement, invoice, and correspondence for *Mars in 3D*
- UC Extension Berkeley Rental: rental agreement and correspondence for *Mars in 3D*, *World of Our Stars* brochure (4-5/80)
- American Astronautical Society sale 3/13/80: purchase agreement and correspondence for *Mars in 3D*
- USGS / Menlo Park Rental 3/4/80: rental agreement and invoice for *Mars in 3D*
- EDGE Rental 2/27/80: rental agreement and flyer for *Mars in 3D*
- Brown University Rental 11/5-6/79: rental agreement and correspondence for *Mars in 3D*
- Exploration sale 10/16/79: purchase agreement and correspondence for *Mars in 3D*
- Hayden Planetarium / American Museum of Natural History pending sale: correspondence for *Mars in 3D*
- Jet Propulsion Lab sale 12/27/79: purchase agreement, invoice, and correspondence for *Mars in 3D*
- 32 Minute Version Final Script: Master and 3 copies of *Mars in 3D* script (1/13/79)
- 23 Minute Version Final Script: Master and 2 copies of *Mars in 3D* script (2/22/80)
- *Mars in 3D* A Technical Description: 2 page version (8/28/79)
- Technical Description 3 page "B" Version (AMPAS/Oscar version) (8/28/79)
- *Mars in 3D* A Technical Description: 4 page version
- Technical Description of Film: 2 & 3 page versions
- Purchase & Rental Agreements (old style forms)
- Copyright for *Mars in 3D*: correspondence and forms (12/77-10/79)
- *Mars in 3D*: correspondence, technical description, purchase and rental agreements, *Planetary Report* - Vol.5, No.1; Vol. 3, No. 2, *Lunar & Planetary Information Bulletin* (10/80), Set-up procedures, PRC of America Catalog 8100 and Lafayette Instrument Co. Catalog (both deal with film equipment) (1977-85)
- Stereo Set up for the *Mars in 3D* film

Box #10: "Viking Letters, Photos; Piece No. 13-10" (in labeled folders)

- Viking Lander 2: 18 11x5 b/w photos originals and duplicates (2-6/77)
- Viking Lander 1&2: color and b/w 8x10 photos some with captions (labeled as duplicates) (7-9/76)
- Viking Lander: b/w 8x10 photos (many duplicates and no date)
- Viking Lander/Orbiter 1 (duplicates): color and b/w 8x10 photos some with captions (7-9/76)
- Viking Lander/Orbiter 1 (duplicates): color and b/w 8x10 photos some with captions (7-9/76)
- Viking Lander/Orbiter 1&2 (duplicates): color and b/w 8x10 photos some with captions (7-9/76)
- Viking Lander/Orbiter 2 (duplicates): color and b/w 8x10 photos some with captions (9/76-11/78); "Commemorative Statement by the Viking Scientist" (7/20/76); copy of New York Times article (7/24/76)
- Mars Photos - Gifts: Viking Lander/Orbiter 1&2 (duplicates): color and b/w 8x10 and panoramic photos some with captions (9/76-8/79)
- Viking Lander/Orbiter 2: color and b/w 8x10 photos some with captions (8/76-1/77)
- Viking Pictures not Numbered – Misc. (Single Copies): Viking Lander/Orbiter 1&2, color and b/w 8x10 photos some with captions (7/76-5/78)

- Viking Pictures (Single Copies): Viking Lander/Orbiter 1, numerous color and b/w 8x10 photos some with captions (6/76-2/77)
- Viking Orbiter 1: 6 b/w 8x10s of same photo (6/23/76), 3 color 4x5 photos
- Mission Operations Status Bulletins: Viking Project (no.1-46) (3/31/75 - 10/31/78)
- Newsletter and (Viking) Science Activities No. 1-33 (1970-71)
- Newsletter and (Viking) Science Activities No. 34-50 (1972)
- Newsletter and (Viking) Science Activities No. 51-65 (1973)
- Newsletter and (Viking) Science Activities No. 66-79 (1974)
- Newsletter and (Viking) Science Activities No. 80-86 (1975)
- Newsletters Mariner Venus/Mercury Pioneer/Jupiter (1973-4)
- Optronics Science Art (1): Viking Lander, b/w 8x10 mosaic photos; 4 - 8x10 sheets of mosaic negatives
- *Multispectral and Stereo Imaging on Mars*: International Astronautical Federation paper by Levinthal (10/76)
- Science Magazine Articles and Photos: August, 27 1976 Volume 193, No. 4255; October, 1 1976 Volume 194, No. 4260; December, 17 1976 Volume 194, No. 4271

15 folders of 8x10 Viking Mission Photos:

- Figure 1 Viking Lander
- Figure 2 Field of View of Cameras
- Figure 3 Cutaway of Camera
- Figure 4 Photosensor Array
- Figure 5 Spectral Responsivities of Photosensor Array
- Figure 6 Lander 2 Color Mosaic
- Figure 7 Camera gains and Offsets
- Figure 8 BB1 Diode 1st Picture Lander 1 Footpad
- Figure 9 Survey Mode Panorama Lander 1
- Figure 10 BB3 Diode Image of 3m Rock Lander 1
- Figure 11 BB4 Diode Lander 1
- Figure 12 Rescan Mode Footpad Lander 1
- Figure 13 Interactive Stereo Station
- Figure 14 Stereo Pair Verticle Profiling
- Figure 15 Verticle Profile
- *The Photomosaic Globe of Mars*: International Colloquium on Mars at the JPL (11/28 – 12/1/1973)
- Viking Project Bulletin *The Colors of Mars* (12/76)
- Ortho Projections - Mosaics: 8x10 b&w photos
- *The Mosaics of Mars: As Seen by the Viking Lander Cameras* report (9/80); numerous Viking Lander 8x10 b&w photos
- Vectorgraph: brochure, articles, samples of the Polaroid Vectorgraph Prints
- Vectorgraph Literature: articles and notes on the process
- Stereo Mosaics: *The Mosaics of Mars: As Seen by the Viking Lander Cameras* report (9/80); 8x10 b&w mosaic photos and negatives
- Anaglyphs: Viking Lander 3D articles, prints, glasses, negatives
- Stereo Pairs: Viking Lander 4x5 and 8x10 black and white photos and corresponding negatives
- Stereo Set-up: Procedures for setting up stereo movie equipment
- Stereo Photos and Negatives: 4x4 and 8x10, color and b&w
- Stereo Pairs: 6 negatives
- Viking Orbiter Stereo pairs (8/16/77)

Box #11: "Reprints, Public Talks, Speeches, Personal Data, Date Books: Box 3" (mostly in labeled folders)

- Proceedings of SPIE-The International Society for Optical Engineering, Vol. 360 "Robotics and Industrial Inspection"
- *Investigation of a Photoelastic Shutter at its Fundamental Mode of Vibration* May 1943
- 24 Misc. Articles (Viking Related) 1964-1976

- 6 copies of the *Biological Exploration of Mars Papers* 1963-1964
- 2 copies of the *Mission Constraints and Yields Papers*
- Misc. Papers/Reports 1976
- Notes/Outlines for Talks 1965-1976
- UC Lecture Material and Correspondence: *Biological Exploration of Mars Lectures* 1964, correspondence 9/24/63 to 5/15/64, Lifelong Learning brochures - *Horizons in Space biosciences: Exobiology* 2/17/64, *Lunar Missions and Exploration* 2/18/63, *Space Science* Fall 1961.
- Viking TALR-EL: Lecture notes that correspond with slide shows 1976-1980; Reports – *Multispectral and Stereo Imaging on Mars, Exploring the Surface of Mars with the Viking Camera, Stanford's Trip to Mars, Lander Imaging as a Detector of Life on Mars, Topography from the Lander Camera* ca. 1976; Viking 2 photos 8/23/76, Test photo 6-74; correspondence 1976-1977; chart depicting team leaders and key personnel with various missions and projects.
- Levinthal, Elliott (Public Service, NASA, etc. thru 1973): correspondence and forms relating to employment and finances 1963-1973.
- Public Relations-News Bureau: correspondence 1964-1965; articles pertaining to the Multivator 1963-1964; 14 newspaper clippings 1962-1963.
- Lectures and other Public Service: correspondence and articles pertaining to lectures 1977.
- Stanford Personnel Data: correspondence, personnel forms, resume, ID badge 1970-1977.
- Personnel Data - 1979: Biographical Sketch, publication listing, resume, news paper article about 3-D Mars movie.
- JPL Consulting: consultant invoices, receipts, correspondence, notes 1977-1979
- Levinthal, Elliott (Public Service, NASA, HEW): records relating to employment and financial interests 1974-1977
- 12 Calendar Date Books, 1968-1980

Box #12: "Viking Material; Piece No. 13-14" (clippings, reports, computer print-outs, publications, tapes)

- Viking Project Head 7/28/76 uncut photographs on a spool
- One-Sheet Reference Skyline Drawing (Camera 1&2 View) 83700020100
- 2 Certificate of Acknowledgements for Viking Project
- Overhead transparency of cross-section of Lander camera system
- Buttons: 2 "Smile Hello Mars", 1 "Smile Again!"
- 7 Viking Project pamphlets
- *Viking Mission to Mars* book published by NASA (1974)
- *Viking Mission* book published by AAS (1973)
- 2 *Viking Mars Lander Camera* articles from *Space Science Instrumentation* (1975)
- Stickers: 3 "Project Viking Mission to Mars", 2 "Hello Mars" bumper stickers
- 2 Polalite 3D Viewer cardboard glasses
- ¼" Audio tape of Viking News Conference 6/25/76 (copy)
- 4 Science Magazines: August, 27 1976 Volume 193, No. 4255
October, 1 1976 Volume 194, No. 4260
December, 17 1976 Volume 194, No. 4271
June, 1 1979 (reprint collection)
- Picture of Lander Imaging Flight Team logo (stuck onto back of Science Magazine)
- 11 sheets of slides
- 13 8x10 photographs of Mars with captions (Viking News Center)
- Correspondence -Tim Mutch 10/28/76, Kermit Watkins 1/28/83, Ken Jones
- Photo captions for slides (1976)
- Viking Project Library 35mm slide catalog
- Viking Project Library Viking Lander (TDR) Team Data Record Slides catalog
- Misc: Script for slides, 2 articles on 3D, 2 photos of Mars, Reports

Box #13: "Viking Project" sticker; labeled folders (site selection, etc); "Piece No. 13-6"

- Mars Scientific Model, Vol. 1 Document No. 606-I
- Memorandums, articles, and reports about TDR Color Processing
- Stanford Artificial Intelligence Project (Stan-CS-71-219): *Computer Comparison of Pictures* by Lynn Quam (5/71)
- Bibliography of Viking Mars Science, Reprints of articles pertaining to Mars/Viking Mission (1972-77)
- *Mosaicking Description* report, Ranging documents: Ranger-Vlgeom & Ranger-Marscor, *Location of Viking 1 Lander on the Surface of Mars* article from *Icarus* Vol. 34 (1978)
- Edward Ezell (Viking Project Historian): correspondence and draft of *Selection and Certification: The Vikings' Search for Landing Sites on Mars* manuscript (1977)
- NASA History related to Viking Missions: Newspaper clippings & Viking Bulletin (1976), Viking Newsletter (8/9/74), reports, notes, and correspondence pertaining to Voyager and Mariner Missions
- New Yorker articles pertaining to the Mars Missions and articles about Carl Sagan (1976-77), *Martin Marietta News* No.4/1979
- Memorandum and article pertaining to the Russian Mars 4-7 spacecraft from an issue of *Pravda* (8/15/73)
- Newspaper clippings about the Viking Mission, Magazines: *Today Martin Marietta-Viking: Intellect and Ingenuity Triumphant* No.3 (1976); *Aviation Week & Space Technology* Vol. 105, No. 15 (10/11/76); *Time Magazine* (12/13/71); *Time Magazine* (8/2/76)
- 3 copies of Viking Project II Bulletin, No. 27 about Viking 3&4
- Galileo: PD 625-50 Project Galileo Science Requirements Documents Rev. A (3/29/79); 625-1 Project Plan for Galileo 1982 Mission; *Galileo to Jupiter: Probing the Planet and Mapping its Moons* brochure published by NASA
- Galileo JPL Image Processing Plans: reports, notes, minutes (1978-80)
- Voyager Mission Status Bulletins (1978-89), *Voyager to Jupiter & Saturn* NASA SP-420 (1977), *Voyager Encounters Jupiter* book (7/79), *Science* Vol. 204, No. 4396 (6/79), 4 color 8x10 photos with captions of Neptune and Triton (1989)
- Voyager Photos and Press Kits: numerous 8x10 photos of Jupiter (mostly color with captions), NASA News Voyager press kits- Release No. 79-23 and 79-22 (1979)
- Imagery Team Proposal Drafts and correspondence for the Viking Missions (1969)
- Viking '75 Photomosaics and Geologic Maps of Chryse and Cydonia Landing Sites, and Report on the landing sites (11/23/73)
- American Society of Photogrammetry: correspondence, article and report (1978-80)
- American Association for the Advancement of Science (AAAS) Meeting in San Francisco (1/5/80): correspondence and notes; National Geographic article *Mars as Viking Sees It* (1/77); *Viking Mars Expedition 1976* book published by Martin Marietta
- 2nd International Colloquium on Mars (NASA Conference Publication 2072), abstracts, expense reports, correspondence, and *Procedures for Setting Up Stereo Movie Equipment* (1978-79)
- Cospar: Twentieth Plenary Meeting – *Four Symposia and Open Meetings of Working Groups* program and abstracts book (6/77)
- *Viking '75 Mars Lander Interactive Computerized Video Stereophotogrammetry* report (9/30/77)
- Range Dataset for the Viking Lander: correspondence, reports, notes (1975-80)

Box #14: "Piece No. 13-7;" labeled folders ("multivator, Mariners Mars '71, etc)

- Multivator 3 (Mark III) (Tech. Notes): photos
- Multivator 2 (Mark II) (Tech. Notes): photos & negatives
- Multivator 1 (Mark I) (Tech. Notes): photos & negatives
- Multivator and Lander (Tech. Notes): photos, negatives, charts
- Multivator (Tech. Notes): photos, negatives, reports, schematics, correspondence 1962-1965
- Platt - Signs of Life Notes, July-September 1963
- Signs of Life - MSS and Notes: reports, correspondence, notes 1964-1966

- Manned Mars Missions (Tech. Notes): Reports 1963-1964
- Surveyor I Photos: June 16, 1966
- Surveyor: photos and correspondence 12/14/67-2/28/68
- Mariner and Ranger Photos (Tech. Notes): lunar and model photos, reports 1964-1965
- Mariner 7 photos and notes
- Mariner 4 Pictures: photos 7/14 & 17/65, Mariner Mars Bulletin 8/4/65
- Mariner 1965: technical report 1964, photo 7/14/65, Status Report 1971
- Mariner Microscope (Tech. Notes): Reports, invitation to Lederberg to become an experimenter Feb. & Oct. 1961
- Quasi-Microscope (S. Liebes): reports, notes 10/1/69
- Huck/Multispec: NASA Technical Memorandums and notes, memorandum, reports April - August 1975
- Imagery for a 90 day mission by T.A. Mutch: Reports, correspondence March - April 1969
- Mariner Mars Photographs & Status Bulletins: Mariner Mars 1971, Mariner Venus/Mercury 1973, correspondence
- Mariner 1971 photos
- Computer Matching of Areas in Stereo Images by Marsha Jo Hannah, July 1974
- Motion Detection: reports 10/1/69, memorandum 5/30/73
- Mariner 9 TV: report 11/6/72, article 7/20/73
- Extraterrestrial Life: reports 1962-1966, article 1974
- Misc. Reports: Voyager 1967, Martian Clouds 1966, Mars Spectral Reflectance 1976, Remote Reconnaissance of the Earth 1965

Box #15: "*Mars in 3D* – Glasses, U-matic tape, Cables; Piece No. 13-12"

- Instructions for hook-up of Mars in 3-D
- Mars in 3-D Technical Description (numerous copies)
- 3-D TV Corp Stereo Driver
- AC Power Adapter
- Assorted Cables: Mini Y-Plug, RCA, RF Adapters

Box #16: "Viking Material – Press Releases" (in labeled folders)

- Envelope with 3 Viking Lander 2 color positives
- 5 Jupiter photos in color 8x10
- Viking Lander 2 photos 10x5 (9/76)
- 5 Viking 1 & 2 photos with captions 8x10 (9/76 to 10/77), 5 test photos 8x10 (5/27/75)
- 18 IPL Special Photos Viking Lander 2: 8x10
- 9 Special Photos Viking Lander 1: 8x10 (8/76), 2 Positives
- 2 Flagstaff Color Positives (7/21&26/76)
- Viking 1&2 Color and B&W photos: 8x10 with captions (6/76 – 6/77). Many Duplicates.
- 4 Levinthal photos B&W 8x10; Goddard Trophy Award with photo of trophy and letter from President Jimmy Carter (4/1/77)
- Viking Lander 2 Photos, mostly B&W 8x10 (9/76)
- 2 Mercury Stereo Pair photos B&W 8x10
- Reports and correspondence with the Center of Astrogeology (10/74-4/75)
- Viking 1&2 Photos, some with captions, 1 Orbiter photo (7/76-10/76)
- 9 Mars Viking articles (1975-1980)
- Viking Grand Dunes Tests: Viking Newsletter (8/9/74); 20 photos of tests at Martin Marietta Denver facility- color, B&W, 8x10 with captions (6/74)
- Orbiter Stereo Photos 2x3 (4-6/77)
- Megatek: brochures, correspondence, and notes regarding manufacturer of 3D glasses (4-8/79)
- Viking 1&2 Image Difference: 31 8x10 photos, technical notes (4-5/77)
- Papers by Levinthal & Liebes: 2 *Topography from the Lander Camera-Methodology & Results* and Viking article from Journal of Geophysical Research Vol.82, No.28 (9/30/77)

- *Lander Imaging as a Detector of Life on Mars* article from Journal of Geophysical Research Vol.82, No.28 and the photographic prints and positives that were used for the article (9/30/77)
- *Processing the Viking Lander Camera Data* article from Journal of Geophysical Research Vol.82, No.28 and the photographic prints and text that were used for the article (9/30/77)
- 5 Newspaper clippings about Viking Mission (11/76), Viking Mission Bulletin, No.24 (4/30/76), *Planned Viking News Briefings* (5/11/76), *Viking Mission Timeline* (5/3/76 and 6/7/76 rev.1)
- Viking Press Kit – release no. 75-183
- Preliminary 8x10 versions of Viking mosaics (8-10/77)
- Final 8x10 versions of Viking mosaics (10-12/77) and notes
- Interface Age magazine Vol.2, Issue 9 (8/77)
- Industrial Research magazine Vol. 18, No. 11 (11/76)
- Aviation Week & Space Technology- *Viking on Mars* (1976)
- Hewlett-Packard Keyboard 1977/2 magazine
- 3 Astronomy magazines: 11/76, 1/77, 2/77
- *Viking 1 Early Results*, published by NASA # SP-408 (1976)
- *Why Man Explores*, published by NASA # EP-125 (7/2/76)
- Today Martin Marietta- *Viking: Intellect and Ingenuity Triumphant* No.3 1976
- Itek Viking Camera System Press Information Kit
- Viking Press Kit: stickers, 1 8x10 color photo of launch, and *Viking Mission to Mars* book #SP-334
- Mars/Viking Articles:
 - 4 NASA Facts, published by NASA #NF-62/6-75, NF-76/6-75, NF-61/8-75, and NF-59/12-75
 - Martin Marietta News No.12&13 (1976)
 - EOS Transactions, American Geophysical Union Vol. 57, No.10 (10/76)
 - 2 Astronautics & Aeronautics *Mars -Worth Another Look?* (11/76)
 - 2 *Viking Mars Lander Camera* articles from Space Science Instrumentation 1 (1975)
 - *Albedo Boundaries on Mars in 1972: Results from Mariner 9* from Icarus 27 (1976)
 - *Color and Feature Changes at Mars Viking Lander Site* from J. Theor. Biol. 75 (1978)
 - 2 *Mars as Viking Sees It* from National Geographic (1/77)
 - 2 copies of *Viking I: End of First Phase of 70's Space Spectacular* from Research News (11/19/76)
 - *Six Articles by Carl Sagan* from NASA News, release no: 76-74 (4/30/76)
 - *Derivation of Martian Names* report
- Viking Launch Press Kit Information and Newspaper clippings (1975)
- Itek Corporation: 3 8x10 photos, Technical Bulletins (1975)
- Geologic Map of Mars, Map I-1083
- Controlled Mosaic of the Yorktown Region of Mars (Viking 1 Lander Site), Map I-1059
- Controlled Mosaic of the Utopia Planitia Region of Mars (Viking 2 Landing Site), Map I-1061
- The Viking Mission to Mars book, published by Martin Marietta (1975)
- Viking Mars Expedition book, published by Martin Marietta (1976)
- Viking Lander System Primary Mission Performance Report, published by Martin Marietta: NASA CR-145148, April 1977
- *The Face of Mars: Mariner 9* book, published by NASA (6/72)
- Interagency Report: Astrogeology 63 – *Topographic Mapping of Mars* (12/75)
- *Mars Synthetic Topographic Mapping* from Icarus Vol. 33 No. 3 (1978)
- *Diurnal and Seasonal Behavior of Discrete White Clouds on Mars* from Icarus Vol. 16 (1972)
- Icarus: International Journal of Solar System Studies Vol. 28, No. 2 (6/76)

- *Geology of Chryse Planitia* article from Journal of Geophysical Research Vol. 82, No. 28 (9/30/77)
- Journal of Geophysical Research Vol. 82, No. 28 (9/30/77): contains some articles that are listed above.
- NASA Activities Vol. 6, No.7 (7/75)

Box #17: "Mars Conf, Shuttle Utilization, Shuttle Science Working Group, NASA Group Study on Machine Intelligence & Robotics; Box 1" (quasi-published, not in folders or arranged)

- *Strategy for Exploration of the Inner Planets: 1977-1987*
- NASA Study Group on Machine Intelligence and Robotics:
 - Workshop I: *Program Overview* Vol. 1 & 2 (6/27-29/77)
 - Workshop II-A: *Planetary Surface Rover Technology* (9/28-29/77)
 - Workshop II-B: *Computer Architecture for Future Space Missions* (9/30/77)
 - Workshop III: *Mission Operations and Data Management* Vol. 1 & 2 (11/15-18/77)
 - Workshop IV: *Robots and Man-Machine Systems Operations*
 - Workshop V: *Image Data Processing* (3/8-9/78)
- Machine Intelligence and Robotics: Report of the NASA Study Group – Executive Summary (9/79), Final Report (3/80)
- Shuttle Science Working Group: correspondence, reports, notes (1984)
- Shuttle Utilization: correspondence, reports, notes pertaining to Shuttle Science Working Group (1/84)
- Consultative Committee for Space Data Systems: Packet Telemetry (5/84), System and Implementation Aspects (6/84), Concept and Primary Label (7/84)
- *Space Science & Applications Notice* (6/14/84)
- *Announcement of Opportunity: Life Sciences Investigations in Space 1986-1991* (5/15/84)
- *Manned Mars Missions: Working Group Summary Report* (5/86)
- Mars Conference-Washington DC July 1986: reports and articles pertaining to manned missions to Mars, *Planetary Report* Vol. 6 No. 4 1986 with article about Viking Mission
- *2 Future Use and Needs of the Space Station Complex for Science and Applications*, Revised Draft 8/3/84
- *Spartan Capability Statement* 2/84 (Goddard Space Flight Center)
- Viking Mission Reports: *Development of a Reliable Flight Program* (1975), and *Remote Diagnostic Techniques Used in Viking Lander Operations* (5/19/77)
- Space Station Summer Study: schedules and reports (8/13-17/84)
- NASA Advisory Council: Minutes, correspondence, reports (2/84-6/84)
- NASA Study Group on Machine Intelligence & Robotics (9-11/77)
- SESAC task Force on the Scientific Uses of Space Station (8/84)
- Various Reports
 - Summary of NASA's Space Program* (1977)
 - Mission Independent Ground Operation Systems* (11/14/77)
 - Extended Mission Duration* (1/25/84)
 - Space Station Mission Requirements* (5/8/84)
 - NASA Space Technology Assessment* (3/84)
 - Spacelab: Payload Operations Control Center* (3/9/84)
 - Historical Review of Space Platform Payload Requirements* (8/82)
 - Office of Space Science and Applications: Program Plans* (5/25/84)
 - Geodynamics* (n.d.)
 - Earth Science and Applications* (12/6/83)
 - NASA's Support of the Space Industry "Hearth Report"* (4/3/84)

Box #18: "Mars Literature/Images" (loose material, no order)

- 16 Viking 2 panoramic photos with captions
- 2 "Smile Mars" button
- "Hello Mars" bumper sticker
- Viking Lander 2 Camera 1 Photo 9/16/76

- 5 Viking 1 photos with captions July/August 1976
- 19 Duplicate Viking 2 photos (some with captions) June 1976-March 1977
- 24 Science pictures (extra) July 1976
- 4 GRE Color Original photos July 1976
- 7 Viking 2 photos with captions July-September 1976
- 2 *Campus Report* Stanford University Newspaper April, 20 1977
- 21 Viking 1 & 2 photos June 1976 – March 1977
- Science Magazines: December 17, 1976 Vol. 194, No. 4271
October 1, 1976 Vol. 194, No. 4260
3 reprint articles – December 17, 1976 Vol. 194, p. 1277-1283
3 reprint articles – October 1, 1976 Vol. 194, p. 87-91
4 copies - August 27, 1976 Vol. 193, No. 4255
- 2 *Viking Mission Status Bulletin*, No. 46, October 31, 1978
- *Viking 1 Early Results 1976* Technical Report NASA SP-408
- *Voyager - Journey to the Outer Planets* brochure
- Spinoff 1978 Annual Report published by NASA
- American Scientist article *Viking on Mars: A Preliminary Survey* Nov.- Dec. 1976
- National Geographic *Journey to Mars* and map, February 1973
- Aviation Week & Space Technology *Viking on Mars* 1976
- Planetary Exploration Through Year 2000 Report
- Nimbus-7 Report December 1983
- *Images of Mars- Viking Extended Mission* 1980 Technical Report NASA SP-444
- *The Mosaics of Mars* NASA Contractor Report 3326, September 1980
- National Geographic *Mars as Viking Sees It*, January 1973
- National Geographic Earth's Moon map
- *Space Program in the Post-Apollo Period* report, February 1967
- Book in Russian
- NASA Technical Translation NASA TT F-698, May 1972
- *Why Man Explores*, published by NASA, July 2, 1976
- *Organic Matter and the Moon*, published by National Academy of Sciences-National Research Council #757, 1961
- 2 Journal of Geophysical Research, Vol. 76, No. 2, January 10, 1971 (Mariner 6&7)
- Icarus, Vol. 28, No. 2, June 1976
- Icarus, Vol. 50, No. 2/3, May/June 1982
- National Geographic, Vol. 151, No.1, January 1977 (Mars-Viking)
- Article from Journal of Geophysical Research, Vol. 78, No. 20, July, 10 1973 (Mariner 9)
- *Viking Mars Lander Camera* article from Space Science Instrumentation 1975
- NASA Information Kit August 1983 (Challenger)
- Viking Project Mission Status Bulletins complete set 1-41, 1975-1976
- 17 Viking Photos (1976)
- 7 Viking Logos
- Viking Awards Ceremony brochure
- Postcard and letter from Roland Sensini in Italy, 9/8/76
- Large photo of Jupiter
- Viking press-kit, 7/20/76
- Viking 1 poster: first color picture of Mars
- Mounted photo "Lander-Imagery-Team Associate Leader Dr. E.C. Levinthal"
- Mounted photo "Denver Camera-Science Test Site"
- 2 Certificate of Acknowledgements for Viking Project
- 3 copies of New York Times article - Fix Lander Arm, 7/24/76
- *Viking 1 on Mars* poem in The Nation 10/ 9/76

Box #19: "Stereo Pairs" (photos in sleeves and envelopes, numbered)

- 1 Mil Lander 1- 12" x 6" positive/negative stereo pairs (left in the order that they were found in the box)

- 1 Mil Lander 2- 12" x 6" positive/negative stereo pairs (left in the order that they were found in the box)
- Lander 12" x 6" positive/negative stereo mosaic left & right pairs (Sequence Number 001-165) date 1978-1979.

Box #20: Oversized Objects: flat photos, mounted photos, boards, images

Box #21: Oversized Tube: "Viking Lander Mosaics"

Box #22: Tube: "A Lazy Day in Utopia" (posters)

Box #23: Oversized square tube: "Lander I Mosaics"

Box #24: Record Box: "Stereo Viewers/Tim's Letter 10/28/76, Film ... Interactive Pic Processing-IRL, Stereo Mounts: special slides, slides for talks; Piece No. 13-11

Box #25: Box: "*Mars in 3D* audio original tapes, polarizing materials, keystone cards, projector lamp"

Box #26: Box: 3 globes of the moon and Mars

Box #27: Plastic Container: "Orbiter Microfiche"

Box #28: 3 folders:

"Primary Mission TDR Catalog"

"Primary Mission TDR Catalog (duplicate)"

"Informal Memorandum, March 1, 1977, re: TDR's (Team Data Records) for Lander Imaging"

Box #29: Flat Box: "Orbiter microfiche"

Box #30: 2 VHS reel-to-reel tapes in plastic containers:

"Stanford University *Mars in 3D* @ 23 min."

"23 min. anaglyph c-roll answer print"

Box #31: 3 reel-to-reel- handled cases, with straps:

"Answer print"

"1st Release, Print #2, Old Scenes"

Print #3, 2nd Release, from CRI; *Mars in 3D* Polarized ver L&R Reels"

Box #32: 5 Print boxes:

"Landers 1 & 2; 1 mil. Interpolations; Levinthal"

"Lander 2; COLOR; Levinthal"

"Lander 1; COLOR; Levinthal"

"Landers 1 & 2; STEREO PAIRS; DIFFPICS; Levinthal"

"Biological Sciences Communication Project"

Box #33: U-matic tape: unidentified

Box #34: 2 VHS tapes:

"AVC-91-091: Magellan Venus Radar Mapping Results, 3/5/91"

"AVC-91-091: Magellan Venus Radar Mapping Results, 4/22/92, 15:04"