NASA TECHNICAL MEMORANDUM

NASA TM X-73393

(NASA-TM-X-73393) APOLLO TELESCOPE MOUNT. A PARTIAL LISTING OF SCIENTIFIC PUBLICATIONS AND PRESENTATIONS, SUPPLEMENT 1 (NASA) 51 p HC A04/MF A01 CSCL 03A

N77-24495

Unclas

G3/37 29157

APOLLO TELESCOPE MOUNT—A PARTIAL LISTING OF SCIENTIFIC PUBLICATIONS AND PRESENTATIONS SUPPLEMENT 1

Edited by John M. Reynolds and William C. Snoddy
Space Sciences Laboratory

May 1977

NASA

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama

MSFC - Form 3190 (Rev June 1971)

TECHNICAL REPORT STANDARD TITLE PAGE

1. REPORT NO.	2. GOVERNMENT ACCESSION NO.	3. RECIPIENT'S CATALOG NO.
NASA TM X-73393		

4. TITLE AND SUBTITLE	5. REPORT DATE
Apollo Telescope Mount — A Partial Listing of Scientific Publications and Presentations, Supplement 1	May 1977
	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT #
Edited by John M. Reynolds and William C. Snoddy	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. WORK UNIT NO.
George C. Marshall Space Flight Center Marshall Space Flight Center, Alabama 35812	11. CONTRACT OR GRANT NO.
	13. TYPE OF REPORT & PERIOD COVERED
12. SPONSORING AGENCY NAME AND ADDRESS	Technical Memorandum
National Aeronautics and Space Administration Washington, D. C. 20546	14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES

Prepared by Space Sciences Laboratory, Science and Engineering

16. ABSTRACT

This report supplements NASA TM X-73300, April 15, 1976. These reports are compilations of bibliographies from the principal investigator groups of the Apollo Telescope Mount (Skylab solar observatory facility) that gathered data from May 28, 1973, to February 8, 1974. The analysis of these data is presently under way and is expected to continue for several years.

The publications listed in this report are divided into the following categories: (1) Journal Publications, (2) Journal Publications Submitted, (3) Other Publications, (4) Presentations — National and International Meetings, and (5) Other Presentations. An author index is included together with errata for the first report.

17. KEY WORDS	18. DISTRIBUTION STATEMENT
	William C. Snoddy Unclassified — Unlimited

19. SECURITY CLASSIF. (of this report)	20. SECURITY CLASSIF. (of this page)	21. NO. OF PAGES	22. PRICE
Unclassified	Unclassified	54	NTIS

For sale by National Technical Information Service, Springfield, Virginia 22151

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1.73 Coronal Changes Associated with a Disappearing Filament. N. R. Sheeley Jr., J. D. Bohlin, G. E. Brueckner, J. D. Purcell, V. E. Scherrer, R. Tousey, J. B. Smith Jr., D. M. Speich, E. Tandberg-Hanssen, R. M. Wilson, A. C. deLoach, R. B. Hoover, and J. P. McGuire. Solar Physics 45, 1975, 377.

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2.55 Preliminary Results with Microchannel Array Plates Employing Curved Microchannels to Inhibit Ion-Feedback. J. G. Timothy and R. L. Bybee. Submitted to Rev. Sci. Instr., 1976.

2.56 Plasma Heating by Intense Localized Strong Turbulence. T. Chang, M. Rosenberg, and S. Serio. Submitted to Plasma Physics.

2.57 The MSFC Image Data Processing System – IDAPS. R. M. Wilson, D. L. Teuber, J. R. Watkins, D. T. Thomas, and C. M. Cooper. Submitted to IEEE Computer Magazine.

2.58 The Profile of the 977 Å Line of C III. O. K. Moe, K. R. Nicolas, and J.~D. F. Bartoe. Submitted to Proceedings of the NASA Workshop on the Physical Output of the Sun, 1976.

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2.60 Observations of the O_2 Column Density between 120 km and 70 km and Absorption Cross Section in the Vicinity of H-Lyman Alpha. D. K. Prinz and G. E. Brueckner. Submitted to J. Geophys. Res.

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2.62 The 3s-3p and 3p-3d Lines of Mg II Observed above the Solar Limb from Skylab. U. Feldman and G. A. Doschek. Submitted to Astrophys. J. Lett.

2.63 A Search for a Turbulent Free Region in the Solar Transition Zone. U. Feldman and G. A. Doschek. Submitted to Ap. J. Lett.

2.64 Physical Parameters of a Solar Flare as Derived from Skylab X-Ray Data. J. B. Smith Jr., R. M. Wilson, and W. Henze Jr. Submitted to Astrophys J. Lett.

2.65 Dilation of Force-Free Magnetic Flux Tubes. S. Frankenthal. Submitted to Astrophys. J. Lett.

2.66 High Resolution Spectra of the Solar Mg II H and K Lines. G. A. Doschek and U. Feldman. Submitted to Ap. J. Suppl.

2.67 Open Magnetic Structures on the Sun. R. H. Levine, M. D. Altschuler, J. W. Harvey, and B. V. Jackson. Astrophys. J. (in press).

2.68 Observation of a Kink Instability in a Solar Flare. C. C. Cheng. Submitted to Astrophys. J.

2.69 The Emission Spectrum of the Hydrogen Balmer Series Observed above the Solar Limb from Skylab, I. A Quiet-Sun and Polar Coronal Hole. F. D. Rosenberg, U. Feldman, and G. A. Doschek. Submitted to Astrophys. J.

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2.73 XUV Spectra of the 15 June 1973 Solar Flare Observed from Skylab, I. Allowed Transition in Chromospheric and Transition Zone Ions. G. A. Doschek, U. Feldman, and F. D. Rosenberg. Submitted to Ap. J.

2.74 XUV Spectra of the 15 June 1973 Solar Flare Observed from Skylab, II. Intersystem and Forbidden Transitions in Transition Zone and Coronal Ions. U. Feldman, G. A. Doschek, and F. D. Rosenberg. Submitted to Ap. J.

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2.76 Hα Macrospicules: Identification with EUV Macrospicules and with Flares in X-Ray Bright Points. R. L. Moore, F. Tang, J. D. Bohlin, and L. Golub. Submitted to Astrophys. J.

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2.79 Physical Conditions in the Corona for a Bipolar Magnetic Region. J. A. Vorpahl. Submitted to Ap. J.

2.80 Physical Parameters Defining the Changing Structure of a Coronal Hole. J. A. Vorpahl and R. M. Broussard. Submitted to Ap. J. Lett.

2.81 Bright X-Ray Arcs and the Emergence of Solar Magnetic Flux. G. A. Chapman and R. M. Broussard. Ap. J. (accepted for publication).

2.82 Physical Parameter Determination of the 9 August 1973 Subflare. R. M. Wilson, J. B. Smith, Jr., and D. M. Speich. Submitted to Astrophys. J. Lett.

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2.85 Determination of Plasma Parameters from Soft X-Ray Images for Coronal Holes (Open Magnetic Field Configurations) and Coronal Large-Scale Structures (Extended Closed-Field Configurations). C. W. Maxson and G. S. Vaiana. Astrophys. J. (in press).

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2.89 Numerical Image Manipulation and Display in Solar Astronomy. R. H. Levine and J. C. Flagg. Applied Optics (in press).

2.90 The Extreme Ultraviolet Spectroheliometer on ATM. E. M. Reeves, M. C. E. Huber, and J. G. Timothy. Applied Optics (in press).

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2.94 The Apollo Telescope Mount of Skylab — An Overview. R. Tousey. Submitted to Applied Optics.

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2.96 Exploring the Earth's Atmosphere by Photography from Skylab. D. M. Packer and I. G. Packer. Submitted to Applied Optics.

2.97 The Extreme Ultraviolet Spectrograph ATM Experiment S082B. J. D. F. Bartoe, G. E. Brueckner, J. D. Purcell, and R. Tousey. Submitted to Applied Optics.

2.98 Observing and Recording Instantaneous Images on ATM Television Monitors. N. P. Patterson, R. Tousey, and W. A. Delamere. Submitted to Applied Optics.

2.99 Experience with Schumann-Type XUV Film on Skylab. M. E. VanHoosier, J.~D. F. Bartoe, G. E. Brueckner, N. P. Patterson, and R. Tousey. Submitted to Applied Optics.

2.100 The Extreme Ultraviolet Spectroheliograph ATM Experiment S082A. R. Tousey, J.~D. F. Bartoe, G. E. Brueckner, and J. D. Purcell. Submitted to Applied Optics.

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2.107 Low- Energy Particle Events Associated with Sector Boundaries. Z. Svestka, L. Fritzova-Svestkova, J. T. Nolte, H. W. Dodson-Prince, and E. R. Hedeman. Solar Physics (in press).

2.108 Transequatorial Loops Interconnecting McMath Regions 12472 and 12474. Z. Svestka, A. S. Krieger, R. C. Chase, and R. Howard. Solar Physics (in press).

2.109 Magnetic Properties of X-Ray Bright Points. L. Golub, J. W. Harvey, A. S. Krieger, and G. S. Vaiana. Submitted to Solar Physics.

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4.378 Observations of Coronal Holes throughout Sunspot Cycle 20. R. M. Broussard, J. H. Underwood, R. Tousey, and N. R. Sheeley, Jr.

4.379 Large-Scale Changes in Coronal Hole Boundaries. J. T. Nolte, M. Gerassimenko, A. S. Krieger, and C. V. Solodyna.

4.380 Expansion and Broadening of Coronal Loop Transients. Telemachos Ch. Mouschovias and A. I. Poland.

4.381 The Structure and Fluctuations of A Coronal Streamer. A. I. Poland.

4.382 The Coronal Emission Line Transient of 20 April 1976. R. Fisher.

4.383 Coronal Mass Ejections Observed at 1 AU? E. Hildner and J. T. Gosling.

4.384 Physical Conditions in the 5 September 1973 Flare from Skylab X-Ray Observations. W. Henze. Bull. AAS 8, 1977, 556.

4.385 Analyses and Interpretation of Solar X-Ray Photographs. J. H. Underwood and D. L. McKenzie. Bull. AAS 8, 1977, 557.

4.386 Low-Energy Particle Events Associated with Sector Boundaries. Z. Svestka, L. Fritzova-Svestkova, J. T. Nolte, H. W. Dodson-Prince, and E. R. Hedeman. Bull. AAS 8, 1977, 370.

AAS/AGU/APS Joint Symposium on Solar and Interplanetary Physics, Tucson, Arizona, January 12-15, 1977:

4.387 Polar Plumes and the Solar Wind Mass Flux. I. A. Ahmad.

4.388 The Origin of Coronal Holes and a Hypothesis for Their Occurrence During the Solar Cycle. J. D. Bohlin

4.389 ATM Skylab Observations of Flare Lyman-α Line Profiles. R. C. Canfield and M. E. Van Hoosier.

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4.406 The Physical Nature of Interconnecting Coronal Loops. Z. Svestka.

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4.408 Spicule Production Due to Excess Network Heating. S. T. Wu, E. Tandberg-Hanssen, and J. O. Stenflo.

4.409 A Random Walk through the Results of the Solar Experiments of the Skylab Mission. J. D. Bohlin. National Capital Section of Optical Society of America, Washington, D. C., January 25, 1977.

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4.410 X-Ray Spectral Analysis of the Decay of a Solar X-Ray Flare. J. K. Silk, I. Little-Marenin, and A. S. Krieger.

4.411 Enhancement of Dielectronic Recombination by Plasmas. V. L. Jacobs, J. Davis, and P. C. Kepple.

4.412 The Influence of Metastable Levels on the Oxygen Impurity Radiation from Flare-Like Plasmas. J. E. Rogerson, J. Davis, and V. L. Jacobs.

4.413 EUV Solar Spectroscopy from Skylab and Some Implications for Atomic Physics. E. M. Reeves and A. K. Dupree. Proceedings of the Fourth International Conference on Beam-Foil Spectroscopy 1, 1976, Plenum Press, New York, pp. 885-905.

4.414 Recenti Risultati Di Fisica Solare (Invited paper). G. S. Vaiana. XX Congresso S. A. IT, Frascati, Italy.

4.415 Identificazione Di Due Classi Di Brillamenti X Mediante Osservazioni Di Eventi Al Bordo Con Lo Esperimento, Skylab S-054. R. Pallavicini, S. Serio, and G. S. Vaiana. Proceedings XX Meeting Soc. Astron. Italiana, Mem. Soc. Astron. Italiana.

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5.92 Preliminary Results from the S-056 Experiment. J. H. Underwood. NASA/JSC, Houston, Texas, January 24, 1974.

5.93 Analysis of Spatially Resolved Soft X-Ray (Photographic) Data Obtained by the Skylab/ATM Borne S-056 Telescope. J. B. Smith, Jr. Lund University, Lund, Sweden, 1975.

5.94 Solar X-Ray Astronomy from Skylab. G. S. Vaiana. University of Wisconsin Physics Department, Madison, Wisconsin, March 14, 1975.

5.95 The Solar X-Ray Corona: New Insights from Skylab. G. S. Vaiana. Center for Astrophysics, Cambridge, Massachusetts, April 10, 1975.

5.96 Solar X-Radiation Observed by Skylab. J. A. Vorpahl. Colloquium, University of California Irvine, Irvine, California, October 15, 1975.

5.97 X-Ray Telescope Observations of the Solar Corona. J. H. Underwood. Seminar, University of Michigan, November 25, 1975.

5.98 The Physics of Solar Flares. Z. Svestka. Goddard Space Flight Center, Greenbelt Maryland; and Boston University, January 1976.

5.99 Some Aspects of Skylab. C. Moore-Sitterling. Eistophos Science Club, Washington, D. C., January 9, 1976.

5.100 Some Recent Results from S-056 X-Ray Telescope on Skylab. R. M. Broussard. Solar Neighborhood Meeting, Space Science Laboratory, University of California, Berkeley, California, January 16, 1976.

5.101 Colloquium. R. M. MacQueen. AS&E, Inc., Cambridge, Massachusetts, January 21, 1976.

5.102 Resistive Kink Model of a Solar Flare. D. S. Spicer, Bartol Institute, Swarthmore, Pennsylvania, February 17, 1976.

5.103 Atlas of Coronal Hole Boundaries from Observations Made Prior to the Skylab Mission. J. H. Underwood and R. M. Broussard. Skylab Workshop on Coronal Holes, February 23, 1976.

5.104 Prominences in the EUV. E. J. Schmahl. Marshall Space Flight Center, Huntsville, Alabama, March 1976.

5.105 Observations of Prominences with the HCO Spectroheliometer. E. J. Schmahl. Invited presentation, Kitt Peak Workshop on Solar Prominences, Tucson, Arizona, March 1976.

5.106 Skylab Observations of the Solar Corona. D. M. Rust. University of Maryland, College Park, Maryland, March 1976.

5.107 Observations of Solar X-Ray Bright Points. L. Golub. Harvard College Observatory Seminar, March 1976.

5.108 Seminar. E. Hildner. Los Alamos Scientific Laboratory, Los Alamos, New Mexico, March 2, 1976.

5.109 Mechanisms for Particle Acceleration in Solar Flares. D. S. Spicer. Goddard Space Flight Center/University of Maryland High Energy Astrophysics Seminar, March 15, 1976.

5.110 X-Ray Observations of the Sun. G. S. Vaiana. Boston College Physics Department, Boston, Massachusetts, March 31, 1976.

5.111 Measures of the Solar Spectral Irradiance Between 300 Å and 1200 Å. J. G. Timothy. The Physical Outputs of the Sun, Proceedings of Workshop on Physical Outputs of the Sun, Boulder, Colorado, April 1976.

5.112 The Morphology and Evolution of Coronal Holes. J. D. Bohlin. Colloquium, Observatorie de Paris, Paris, France, April 9, 1976.

5.113 Sunspots and the Coronal Mass and Energy Balance. P. V. Foukal. Solar and Stellar Physics Division Meeting, Harvard College Observatory, May 1976.

5.114 Characteristics of Flares Observed by S-056. J. A. Vorpahl. Seminar, University of Tubingen, Tubingen, West Germany, August 23, 1976.

5.115 Colloquium. A. I. Poland. Colorado State University, Greeley, Colorado, September 1976.

5.116 Solar X-Ray Astronomy. A. S. Krieger. International Conference on the Physics of X-Ray Spectra, NBS, Gaithersburg, Maryland, September 2, 1976; Colloquium, New York Section of the Society for Applied Spectroscopy, Philips Electronic Institute, Inc., Mount Vernon, New York, September 14, 1976; Colloquium, Cornell University, Ithaca, New York, October 14, 1976.

5.117 The Physics of a Flarelike Energy Release Observed by Skylab. J. A. Vorpahl. Seminar, Arcetri Observatory, Florence, Italy, September 13, 1976.

5.118 Initial Results from the S-056 X-Ray Telescope on Skylab. D. L. McKenzie. ATM/OSO-I Workshop, Boulder, Colorado, September 16-18, 1974.

5.119 Analysis of Solar X-Ray Photographs. J. H. Underwood. Solar Neighborhood Meeting, Lockheed Palo Alto Research Laboratories, Palo Alto, California, October 1, 1976.

5.120 The Evolution of Coronal Holes through the Solar Cycle. R. M. Broussard. Solar Neighborhood Meeting, Lockheed Palo Alto Research Laboratories, Palo Alto, California, October 1, 1976.

5.121 A General Review of Present Day Knowledge of Solar Flares. Z. Svestka. Colloquium, State University of California, Northridge, California, October 1, 1976.

5.122 Colloquium. E. Hildner. HAO, Boulder, Colorado, October 21, 1976.

5.123 Ultraviolet Astronomy. A. K. Dupree. Invited lecture in the series New Windows on the Universe, National Air and Space Museum, Washington, D. C., November 1976.

5.124 Seminar. E. Hildner. SEL/NOAA, Boulder, Colorado, November 30, 1976.

5.125 Non-Force-Free Solar Magnetic Fields. H. Comfort. MSFC Space Sciences Colloquium, February 23, 1977.

5.126 Determination of Peak Physical Parameters for Selected Flares Based on Skylab Proportional Counter Data. R. M. Wilson. Skylab Solar Workshop Newsletter, March 1977.

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ERRATA

NASA TECHNICAL MEMORANDUM X-73300

APOLLO TELESCOPE MOUNT — A PARTIAL LISTING OF SCIENTIFIC PUBLICATIONS AND PRESENTATIONS

Edited by John M. Reynolds and William C. Snoddy

April 15, 1976

Page 9: Delete Item 2.5.
Item 2.7: Change "Submitted to Solar Physics" to "Solar Physics (in press)".

Page 10: Item 2.9: Change "Submitted to Solar Physics" to "Solar Physics (in press)".

Page 11: Delete Item 2.25.

Page 14: Delete Item 2.51.

Page 19: Item 3.54 should read: Synoptic Maps of Coronal Holes Boundaries Derived from He II 304 Spectroheliograms from the Manned Skylab Missions. J. D. Bohlin and D. M. Rubenstein, NOAA World Center A for Solar Terrestrial Physics, Report UAG-51, 1975.

Page 25: Item 4.34: Add "Bull. AAS 5, 1973, p. 419."

Page 36: Add publication applicable to Items 4.135 through 4.139: "International Conference on X-Rays in Space (Proceedings), D. Venketesan, ed., University of Calgary, Calgary, Canada, 1975."

Item 4.139: Add "p. 518."

Page 37: Delete Item 4.148.

Pages 38-39: Add publication applicable to Items 4.160 through 4.166:
"Scientific Investigations on the Skylab Satellite, M. I. Kent, E. Stuhlinger, and S. T. Wu, eds., Progress in Astronautics and Aeronautics, Vol. 48, American Institute of Aeronautics and Astronautics, New York, 1976."

Page 38: Item 4.161: Add "pp. 161-177."

Item 4.162: Change "Champan" to "Chapman". Add "pp. 179-196."

Page 41: Item 4.189: Add "Bull. AAS 7, 1975, p. 347."

Page 45: Add publication applicable to Items 4.223 through 4.228:
"Space Research, Vol. 16, Akademie-Verlag Press, Berlin, Germany, 1976."

Item 4.229: Add "Lecture Notes in Physics 48, p. 65.

Page 49: Item 4.266: Add "Bull. AAS 7, 1975, p. 473."

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APOLLO TELESCOPE MOUNT — A PARTIAL LISTING OF SCIENTIFIC PUBLICATIONS AND PRESENTATIONS SUPPLEMENT 1

Edited by John M. Reynolds and William C. Snoddy

The information in this report has been reviewed for security classification. Review of any information concerning Department of Defense or Atomic Energy Commission programs has been made by the MSFC Security Classification Officer. This report, in its entirety, has been determined to be unclassified.

This document has also been reviewed and approved for technical accuracy.

Charles A. Lundquist

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