

Responsive Records FOIA 2019-03955-F



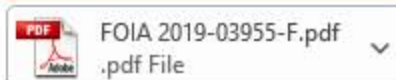
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To john@greenewald.com

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Mr Greenewald,

This responds to your 16 April 19, Freedom of Information Act (FOIA) request 2019-03955-F received on 16 Jun 19, which seeks the following:

A copy of records, electronic or otherwise, of the following document: AD0232327 SR-183 Lunar Observatory. Lunar Observatory Study Liaison Visits 9/30/1959

We reviewed 8 pages for release and determined they are fully releasable in accordance with 5 U.S.C. §552a. The records are attached.

You may contact the Air Force FOIA Public Liaison Officer, Ms. Anh Trinh, concerning this final response at Air Force FOIA Public Liaison Office, 1800 Air Force Pentagon, Washington, DC 20330-1800 or usaf.pentagon.saf-cio-a6.mbx.af-foia@mail.mil or (703) 614-8500. You may also seek dispute resolution services from the Office of Government Information Services, and can find information on this Office at <https://ogis.archives.gov/mediation-program/request-assistance.htm>. Using the dispute resolution services, will not affect your appeal rights.

Direct questions to richard.butts@us.af.mil or call 310-653-3342 and reference FOIA case number 2019-03955-F .

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SR-183 LUNAR OBSERVATORY

Final Report Submitted By
BOEING AIRPLANE COMPANY

Seattle, Washington, September 30, 1959

For AFBMD, ARDC

"Until further notice, this report may be announced to Air Force agencies only. All requests for it may be addressed to AFBMD, Air Force Unit Post Office, Los Angeles 45, California, Attention: WDSOT. No requests may be satisfied without prior approval of this office."

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DOCUMENT NO. D7-2596

UNCLASSIFIED TITLE LUNAR OBSERVATORY STUDY LIAISON VISITS

MODEL NO. SR-183 CONTRACT NO. _____

ISSUE NO. 3 ISSUED TO BMD-2122R

CLASSIFIED TITLE _____
(STATE CLASSIFICATION)

WORK ORDER NO. _____ UNIT NO. _____ ITEM NO. _____

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PREPARED BY J. Blanton Sept 21, 1959
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APPROVED BY E. G. Van Law 9/21/59
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DOCUMENT TITLE PAGE

1.0

INTRODUCTION

~~This document lists~~ the visits made to gather information
and discuss problems relating to the Lunar Observatory
~~ARE LISTED.~~
Study SR-183. The persons and places ~~visited~~ were con-
sidered to be the best sources of information on the latest
state-of-the-art in their respective fields.

2.0 LIAISON VISITS

- 2.1 Dr. Gerard P. Kuiper, Lick Observatory visited Boeing October 25, 1958. He discussed steps for moon exploration, lunar environment, recommended experimentation.
- 2.2 Dir P. A. Castruccio and Dr. K. N. Satyendra, Air Arm of Westinghouse, visited Boeing November 4, 1958, to discuss Westinghouse activities and participation in this program.
- 2.3 Prof. Derek F. Lawden, University of Canterbury, Christchurch, New Zealand, visited Boeing January 13 - January 16, 1959. He held eight lectures on the application of the generalized Mayer problem in the calculus of variations to trajectory optimization problems. He also discussed optimal transfer trajectories between planetary orbits, escape from and entry into circular orbits, orbits of small eccentricity, correctional and perturbational maneuvers, and other topics.
- 2.4 Dir. Konrad Buettner, University of Washington, visited Boeing January 27, 1959. He discussed topics of concern to lunar systems, lunar environmental conditions, especially lunar surface conditions and composition.
- 2.5 L. Giamboni, G. Levin and J. Huth of Rand Corporation, Santa Monica, California, visited Boeing February 2, 1959, to exchange information about lunar systems in general and obtain the status of the lunar observatory study at Boeing.

- 2.6 J. A. Barton, D. O. Shuck, L. G. Lane, and L. B. Eldrenkamp of Boeing visited Space Technology Laboratories, Inglewood, California, and Rand Corporation, Santa Monica, California, on March 2 and 3, to obtain information on design, instrumentation and other parameters of lunar probes and related programs.
- 2.7 Dr. W. F. Hiltner, R. H. Lienarz, F. W. Bushman, F. Hamilton, W. H. Wilcox of Boeing visited Westinghouse Electric Corporation, Air Arm, Baltimore, Md. on March 5 and 6, 1959 to discuss work schedules and outline material to be presented to BMD on March 24, 1959.
- 2.8 W. F. Hiltner of Boeing visited Dr. M. M. Miller at Columbia University on March 7, 1959 to plan a study under Dr. Miller's consulting agreement with Boeing.
- 2.9 W. F. Hiltner, et. al, of Boeing visited Dr. D. H. Menzel of Harvard College Observatory and Dr. F. L. Whipple of Smithsonian Institute Astrophysical Observatory on March 9, 1959, to discuss and obtain information relative to fields of Radio Astronomy and Meteorites.
- 2.10 Dr. P. A. Castruccio and T. A. G. Randell, Air Arm of Westinghouse visited Boeing March 19 and 20, 1959, to integrate their information with the material prepared by Boeing for the mid-term briefing.

- 2.11 C. P. Martin and B. Cohn of Boeing visited Rand Corporation, Santa Monica, California on April 21 and 22, 1959 to discuss lunar observatory programs.
- 2.12 W. F. Hiltner, et. al. of Boeing and Westinghouse visited BMD WZRS, Los Angeles on March 24, 1959 to present the mid-term briefing for the Lunar Observatory Study.
- 2.13 Dr. D. H. Menzel of Harvard College Observatory visited Boeing on March 26 and 27, 1959 in his function as a consultant to discuss problems in the field of Astronomy and related aspects of concern to the Lunar Observatory.
- 2.14 Ray Fields and Don Betts, Air Arm of Westinghouse visited Boeing April 8, 1959 to discuss terminal guidance system proposal.
- 2.15 John Kilmer, et. al. of Minneapolis-Honeywell visited Boeing May 14, 1959 to discuss their technical capabilities in the fields of guidance, controls, performance, instrumentation, etc.
- 2.16 Dr. W. F. Hiltner, F. Hamilton, W. Goss of Boeing visited T. R. Randell, et. al. at Air Arm of Westinghouse on May 14, 1959 to discuss existing sub-contract and terminal guidance proposal.
- 2.17 W. F. Hiltner, M. M. Miller, E. G. Van Law, B. Cohn, E. W. Dearborn of Boeing visited Major G. W. S. Johnson of B.M.O., Los Angeles, California on June 10, 1959 to discuss progress report #4.

- 2.18 O. C. Collins of Boeing visited Zdenek Sekerra of U.C.L.A. California on July 7, 1959 to discuss atmospheric optics.
- 2.19 H. W. Ocker of Boeing visited Harvard College Merate, Milan, Italy on July 7, 1959 to Observe Occultation of Regulus by Venus.
- 2.20 J. C. Noyes of Boeing visited Harvard College Castelgondolfo Rome, Italy on July 7, 1959 to Observe Occultation of Regulus by Venus.
- 2.21 W. A. Sibley and C. R. Caldwell of Boeing visited J. D. McKenny of Jet Propulsion Laboratory, Los Angeles, California on July 9, 1959 to discuss propulsion and storable propellants.
- 2.22 C. A. Villiers of Boeing visited C. H. Trent of Aerojet General, Azusa, California on July 17, 1959 to coordinate nuclear propulsion effort.
- 2.23 D. E. Serrill of Boeing visited Major G. W. S. Johnson of ARDC - BMD, Los Angeles on July 20, 1959 to study status and reporting information.
- 2.24 W. Goss and Dale Shuck of Boeing visited E. T. Hartman of N.A.S.A., Los Angeles on July 20, 1959 to learn about N.A.S.A. Program.
- 2.25 D. E. Serrill, W. G. Hiltner, P. Dono, L. Weihe of Boeing visited S. Eldridge, et. al. of Aerojet General, Azusa, California on July 21, 1959 to coordinate lunar observatory program.

- 2.26 W. Goss of Boeing visited ASTIA, Arlington, Virginia on July 22, 1959 for literature search.
- 2.27 P. Bono of Boeing visited E. H. Cavecche, et. al. of Aerojet General, Azusa, California on July 22, 1959 to coordinate on propulsion configurations.
- 2.28 D. Shuck, W. Goss, W. F. Hiltner, L. Weihe of Boeing visited t. Randell of Westinghouse Air Arm, Baltimore, Md. on July 23, 1959 to coordinate on electronics.
- 2.29 W. Goss of Boeing visited Captain E. A. Spearer of ARDC - AAFB, Virginia, on July 24, 1959 to discuss guidance aspects of related programs.
- 2.30 H. C. Brown, D. R. Douglass, T. L. Smith, B. Cohn of Boeing visited Dr. T. B. Taylor, et. al., of BMD, Los Angeles, California on July 24, 1959 to discuss nuclear propulsion-orion.
- 2.31 W. F. Hiltner and L. Weihe of Boeing visited R. Main and R. Shatz of United Aircraft, Hartford, Connecticut on July 24, 1959 to discuss Lunar Observatory Program.
- 2.32 W. F. Hiltner and L. Weihe of Boeing visited Warren Richards of Pratt-Whitney, Hartford, Connecticut on July 24, 1959 to discuss propulsion.
- 2.33 Dale Shuck of Boeing visited M. McKay of General recursion Laboratories, Pleasantville, New York on July 24, 1959 to discuss guidance aspects.

- 2.34 W. Goss, Dale Shuck of Boeing visited C. C. Coomes of W.A.D.C., Dayton, Ohio on July 27, 1959 to discuss guidance aspects.
- 2.35 W. Goss and Dale Shuck of Boeing visited P. E. Kendall of I.T.T., Ft. Wayne, Indiana on July 28, 1959 to discuss terminal guidance research.
- 2.36 F. L. Bartholomew, T. Levick, W. Siddons, et. al. of Boeing visited Boeing, Wichita, on August 13, 1959 to discuss reconnaissance systems, sensors, space communications guidance.
- 2.37 F. L. Bartholomew, T. Levick, W. Siddons, et. al. of Boeing visited R. A. Strasser, et. al. of Aeronautical Reconnaissance Laboratory, Patterson Air Force Base, Ohio on August 18, 1959 to discuss reconnaissance systems, sensors, space communications guidance.
- 2.38 F. L. Bartholomew, T. Levick, W. Siddons, et. al. of Boeing visited Aerial Industries, Chicago, Illinois on August 19, 1959 to discuss reconnaissance systems, sensors, space communications guidance.
- 2.39 F. L. Bartholomew, T. Levick, W. Siddons, et. al. of Boeing visited R. B. Lease of Midway Laboratories, Chicago, Illinois on August 19, 1959 to discuss reconnaissance systems, sensors, space communications guidance.
- 2.40 F. L. Bartholomew of Boeing visited Myron B. Gilbert, et. al. of Geophysics Research Directorate and A. F. Cambridge of Research Center, Bedford, Mass. on August 21, 1959 to discuss

- 2.40 (continued)
reconnaissance systems, sensors, space communications guidance.
- 2.41 F. L. Bartholomew of Boeing visited Dr. Burgess, et. al, ARDC, Rome, New York on August 24, 1959 to discuss reconnaissance systems, sensors, space communications guidance.
- 2.42 W. Goss of Boeing visited Captain D. M. Mixon of A. F. Base Kirtland on August 24, 1959 to discuss project orien.
- 2.43 D. E. Serrill of Boeing visited AEMA on August 25, 1959 to obtain information on Saturn.
- 2.44 F. L. Bartholomew of Boeing visited C. R. Schneeberger of Westinghouse, Pittsburg on August 25, 1959 to discuss reconnaissance systems.
- 2.45 C. A. Villiers, R. Hardy, T. L. Smith of Boeing visited E. A. Cavecche, et. al. of Aeroject Corporation, Azusa, California on August 26, 1959 to discuss propulsion and SR-183.
- 2.46 C. A. Villiers of Boeing visited E. A. Cavecche, et. al. of Aeroject Corporation, Azusa, California on September 15, 1959 to discuss nuclear propulsion.

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