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AFMDC-TR-63-3
Technical Report

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(U) LUNAR EXPLORATION SYSTEM (LES) LAUNCH VEHICLE GUIDANCE AND CONTROL SUBSYSTEM

SEPTEMBER 1963
TASK 618207(46)

AIR FORCE MISSILE DEVELOPMENT CENTER

DEPUTY FOR FOREIGN TECHNOLOGY

AIR FORCE SYSTEMS COMMAND

HOLLOMAN AIR FORCE BASE

NEW MEXICO

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FOREIGN TECHNOLOGY REPORT

AFMDC-TR-63-3

(Title Unclassified)
LUNAR EXPLORATION SYSTEM (LES)
LAUNCH VEHICLE GUIDANCE AND CONTROL SUBSYSTEM

September 1963

Task 618207(46)

Prepared by:

Mr. Julian S. Nichols

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DEPUTY FOR FOREIGN TECHNOLOGY
AIR FORCE MISSILE DEVELOPMENT CENTER
AIR FORCE SYSTEMS COMMAND
HOLLOMAN AIR FORCE BASE, NEW MEXICO

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(U) PREFACE

The information reflected in this document has been prepared for the use of Foreign Technology personnel engaged in the analysis of the Soviet space effort. This is an AFSC project and this contribution will be of particular interest to analysts concerned with Soviet space probe guidance systems and components. This report serves as a technical support document for Project 6182, Task 618207(46), assigned to the Air Force Missile Development Center. (U)

(U) PUBLICATION REVIEW

This Foreign Technology document has been reviewed and is approved for distribution within the Air Force Systems Command. (U)

FOR THE COMMANDER

Howard L. Conkey

HOWARD L. CONKEY
Lt Col, USAF
Deputy for Foreign Technology

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(U) SUMMARY

Purpose

This Technical Report was prepared to meet requirements established on page 52 of the Foreign Technology Division Lunar Exploration Program TOPS. It fulfills Task 618207(46) pertaining to the launch vehicle guidance of the Soviet lunar probes. (S)

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elliptical orbit. This flight again demonstrated the accuracy of the guidance system and also demonstrated the Soviet capability in celestial mechanics and orbital calculations. ~~(S)~~

Lunik IV was launched from an earth parking orbit. It is believed to have been intended to either orbit the moon or to soft land a package on the moon. Provision for midcourse guidance is almost certain to have been included in the vehicle. However, the probe is believed to have been only partially successful since it missed the moon by several thousand miles. ~~(S)~~

Future Soviet moon shots can be expected to accomplish the soft landing, the lunar orbit, and eventually manned exploration of the moon. (U)

Discussion

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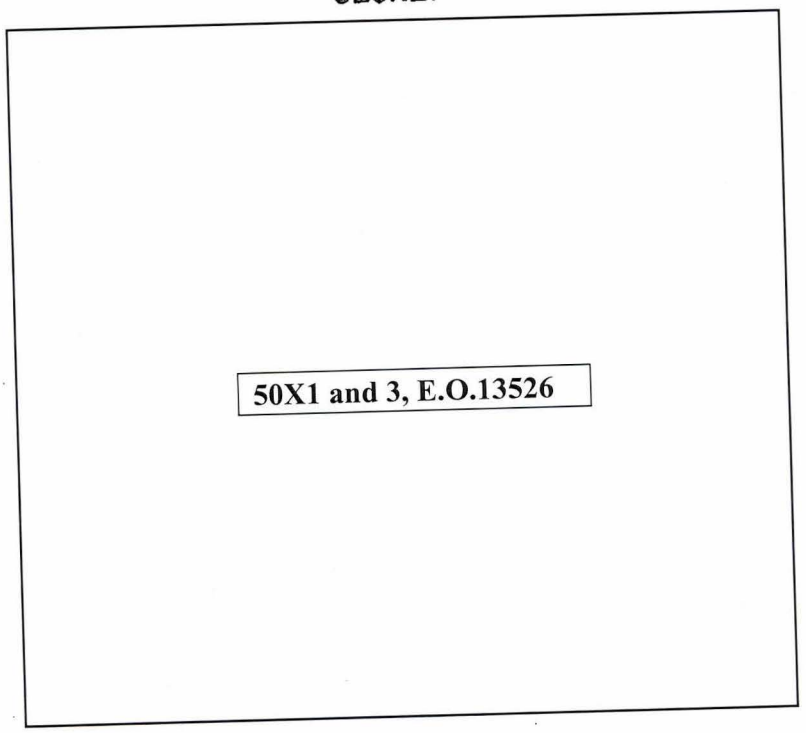
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4. (U) Guidance Evaluation Study, Electronics Laboratory, Defense Systems Department, General Electric Company, prepared for FTD, Wright-Patterson AFB, Ohio (four volumes in each of three years 1961, 1962, and 1963).

5. (U) FTD-TS-62-19.

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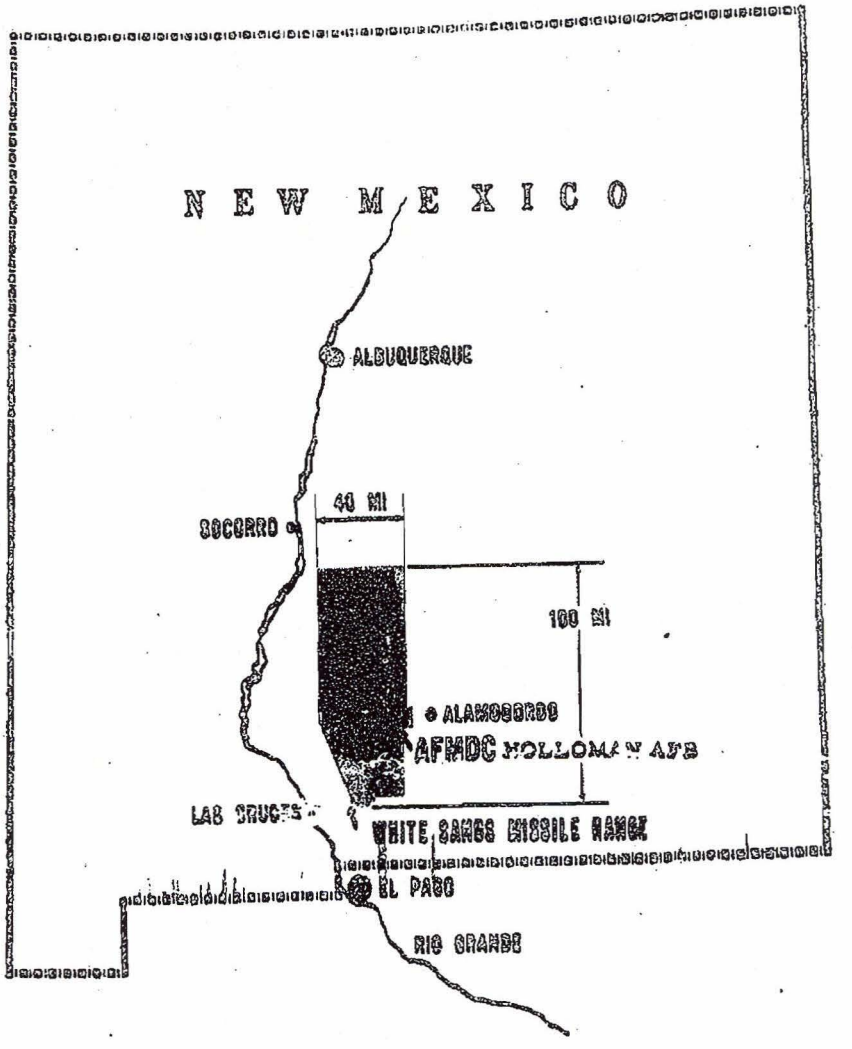

AREA MAP SHOWING LOCATION OF AFMDC