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... of their making a decision on inadequate information. In view
... consistency of the ... proposal, it is considered that
... of this case to ensure that would be prejudicial to the best
... of the ... program and the Air Force.

SIGNED

GEORGE E. WINTON, JR.
Colonel, USAF
Deputy Commander
Weapon Systems

127
... (2 pp) (S)
... 14 Jan. 50 WJD
... 98-18
... filed under
... date

... 98-18

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18 February 1958

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MEMORANDUM FOR GENERAL SCHEERER

SUBJECT: Preliminary Evaluation of ITRM Proposal

1. You asked me this morning to give you the subject evaluation by this evening. In order to meet your deadline, I am presenting directly.

2. From a technical point of view the proposal appears feasible and in my opinion the feasibility study proposed by ITRM should be sponsored (their estimate is \$127,000) without delay.

3. The proposed camera subsystem shows great promise and should certainly be encouraged.

4. While the ITRM Camera proposal is particularly attractive I have some concerns about the rest of their proposal. Specifically:

a. I see no particular need to get AVCO to design and build a recovery package in addition to the proposed GE scheme. Aside from considerations of engineering and cost some weight might be attributed to General Anderson's interest in involving GE in the L17L program.

b. I'm not sure I understand the reason for proposing to separate the reconnaissance equipment from the rest of the orbital vehicle (including the last stage engine) until the film package is to be brought down. It would seem to me that we might have less orbital attitude stabilization problems if we stabilized the whole L17L vehicle. This also would require less additional engineering.

FREDERIC G. R. ODER
Colonel, USAF
Assistant for WS L17L

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INTERVALS; NOT AUTOMATICALLY
DECLASSIFIED. DOD DIR 5200.10

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WDR

412
MTR

MEMORANDUM FOR COLONEL TERHUNE

FEB 14 1958

SUBJECT: R-W Participation in WS 117L

1. Reference your memorandum, same subject, 4 February 1958
2. As you know, we have been engaged in extensive justifications to Hq USAF with respect to the RADC award of the Subsystem "I" contract to R-W. The contract award was finally approved on the 7th of February by Mr. Golden at Hq USAF based upon R-W's participation in other aspects of WS 117L on a "on-call", "as requested" basis.
3. In view of AFEMD's justification on the "I" contract I feel it would be unethical and of questionable legality to extend the R-W participation in WS 117L to Systems Engineering Services.
4. Further, it should be realized that giving R-W "Systems Engineering" would require modification of the Lockheed contract. In view of our current problem at Lockheed this could well slow down the LMSD effort on an already difficult schedule.
5. None of the preceding should imply that I am unaware of the fact that WS 117L has problems where R-W's help, properly established, would be most useful. I recently received from Dr. Mettler a draft paper on "Systems Problems in using 117L as Second Stage on Thor, Atlas, or Titan Boosters". While most helpful this paper does not point up problems that we have not already recognized and are taking action on.
6. This most recent exercise on increased R-W participation was predicated on a presently inadequate number of Air Force personnel assigned to WS 117L. In view of the President's decision to place WS 117L on a Nationally co-equal priority with the ICBM and IRBM programs, I strongly recommend that the WS 117L project office be manned to authorized strength immediately. With sufficient military engineering personnel on board to carry a close monitoring of contractor efforts, we would be able to identify problem areas which might then be placed with R-W under our current call contract in a timely and effective fashion.

1-28
[Signature]
FREDERICK C. E. COLE
Colonel, USAF
Assistant for WS 117L

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WDTR

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19 FEB 1958

MEMORANDUM FOR COLONEL LEONHARD

SUBJECT: Air Technical Information Center (AFCIN-4) Requirements
In Support of WS 117L

1. The Air Technical Information Center is responsible for the special processing of certain of the information expected from Subsystem F of WS 117L.

2. ATIC has informally expressed a requirement for FY 1958 MCP funds in the estimated amount of \$300,000 to expand existing technical laboratory space to meet this requirement. They state the need for a two year lead-time to design, construct and equip this facility with a useful need date of early 1960. Therefore, FY 58 MCP funds will be required.

3. It is desired that you take the necessary actions to include these funds in the WS 117L FY 58 construction budget. ATIC will furnish such detailed description and justification as is required. Coordination of this requirement has been accomplished by AFCIN with SAC.

SIGNED:

O. J. RITLAND
Brig General, USAF
Vice Commander

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WDTR 58-94

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26 Feb 1958

TO: General Ritland - WDGW

SUBJECT: Status of ARSIC Planning

WHAT AUTH. OR DOCUMENT?

date to name to Col. Terhune w/ para 7 2d para

1. The Strategic Air Command has been assigned as the Operating Command for WS 117L. Current SAC drafts of the Preliminary Ops Plan call for the ARSIC to be located at Hq SAC, Offutt Air Force Base, Nebraska. The Central Tracking and Data Acquisition Station will be co-located with the ARSIC.

2. The agreement with SAC calls for ARDC to program for the facility and to equip the physical plant with the necessary WS 117L equipments. Form 161's have been submitted and \$5,000,000.00 of MOP funds are programmed for 1st Quarter Fiscal 59.

3. ARDC is negotiating a Prime Contract for the Data Processing Subsystem with R-W. Ramo-Wooldridge Corporation will be responsible for the development of necessary equipment and techniques for operation of the ARSIC.

4. The development of the ARSIC will progress in several phases. Initially it will take the form of a small interpretation center to interpret and evaluate the material returned from the series of early vehicles. Upon completion of the physical plant, the Center will be occupied and will progress in sophistication to meet the ever increasing data output capability of the vehicles on orbit.

5. It is planned to man the Center with military personnel as soon as it is feasible to do so. Concurrent with the military operation of the Center, R & D will continue (at some location) on new equipments and techniques for phase in as required.

ARSIC -

Charles H. Terhune, Jr.
CHARLES H. TERHUNE, JR.
Colonel, USAF
Deputy Commander
Weapon Systems

Advanced Reconnaissance
Strategic Intelligence Center

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DISPOSITION WORK

46

1. [Illegible text]

2. [Illegible text]

3. [Illegible text]

4. [Illegible text]

5. [Illegible text]

6. [Illegible text]

7. [Illegible text]

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AMTC. DMSD representatives Mr. Gavalak and Mr. Hutchins are permanently assigned at AMTC to work directly with the Douglas and Convair groups in monitoring and coordinating necessary changes. From every indication, Douglas and Convair have agreed on all points and can commence necessary work without further delay. Lt Colonel Heisler and his assistant Captain Roy, DMD WS 117L Liaison Office at AMTC, did a commendable job in coordinating the various visiting groups and committees related to the 117L test effort.

Lockheed Facilities Requirements: (SECRET)

DMSD submitted a facility brochure on 26 February reflecting land development, buildings, machine tools and test equipment estimated at \$13,000,000. This schedule consolidates all of the 117L functions under one facility with some manufacturing assistance from the Van Nuys facility. This increase in floor space and equipment resulted from implementation of the acceleration of the 117L/107A-1 tests and augmentation of the Thor tests. Delivery or firing rate capabilities are not defined in this presentation.

James S. Seay

JAMES S. SEAY
Lt Colonel, USAF
Chief, WS 117L Branch
Deputy Director/Ballistic Missiles
Directorate/Procurement & Production

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25 MAR 1958

WDIR

SUBJECT: Request for Technical Intelligence Read-out and
Processing Support for WS 117L

TO: Commander
Air Technical Intelligence Center
United States Air Force
Wright-Patterson Air Force Base, Ohio

1. Reference is made to your letter of 24 February 1958,
subject as above.

2. Your requirement for a 12,000 sq. ft. addition to Building
259 at Wright-Patterson Air Force Base has been included in our
Development Plan to support your responsibilities in the WS 117L
program. This requirement has been identified as \$300,000 of
Military Construction (P-321) funds in FY 59.

3. It is requested that your headquarters prepare the appro-
priate Forms 161 which should be forwarded to this organization,
attention: WDIR, as soon as possible. These will be submitted in
turn to Headquarters USAF as a Supplement to the Development Plan
constituting your justification for fund allocation purposes.

4. Design will be accomplished by the District Engineer in
your area through your cognizant Air Force Installations Representative.
Design authority will be issued by Headquarters USAF upon their
approval of this project.

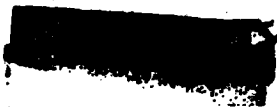
Copy furnished:
Hq USAF, Attn: AFOLE

SIGNED

O. J. RITLAND
Brig. Gen., USAF
Vice Commander

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WDIR

Col. Hilton



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Handwritten signature

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WEAPON SYSTEM 117L PROGRAM STATUS REPORT

As of 15 April 1958

RCS AF-XDD-A2

130-

**Prepared by
AIR FORCE BALLISTIC MISSILE DIVISION
HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
United States Air Force
Post Office Box 262
Inglewood, California**

DECLASSIFIED AT 12 YEAR
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DECLASSIFIED BY 60321/10

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AIR FORCE BALLISTIC MISSILE DIVISION
HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
United States Air Force
Post Office Box 262
Inglewood, California

WDPC

23 April 1958

WEAPON SYSTEM 117L PROGRAM STATUS REPORT
As of 15 April 1958
RCS AF-XDD-A2

FOREWORD

This is the first monthly status report for the Advanced
Reconnaissance System, Weapon System 117L. The report covers the
period from 15 March to 15 April 1958. The WS 117L Development
Plan, submitted to Headquarters USAF in late March, was dated as
of 15 March. Since the Development Plan contains the details of
the ARS program, this report assumes general knowledge of the
system on the part of all recipients.

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B. A. Schriever
B. A. SCHRIEVER
Major General, USAF
Commander

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WEAPON SYSTEM 117L PROGRAM STATUS REPORT
As of 15 April 1958
RCS AF-XDD-A2

I. SUMMARY

The first flight test of the Air Force Air Reconnaissance System (ARS) vehicle will be conducted from Cooke Air Force Base, California in late 1958 with a THOR-boosted ARS vehicle.

The first flight test of an ATLAS-boosted ARS vehicle is scheduled for mid-1959 from the Air Force Missile Test Center (AFMTC), Florida. The first ATLAS-boosted flight from Cooke Air Force Base is tentatively scheduled for March 1960.

A captive test ARS vehicle, for use in the ATLAS-booster test program, is scheduled for completion in February 1959. It will undergo testing at the Lockheed Missile Systems Division test base at Santa Cruz, California. The test facility was completed during April.

A functional mockup of the airframe of the ARS vehicle is nearing completion at Lockheed Aircraft Corporation.

The Eagle Picher Company has been awarded a contract for supplying non-chargeable storage batteries for use with ARS THOR-boosted guided flights.

The Hoffman Company has been awarded a contract for development, fabrication, and testing of prototype photovoltaic solar arrays. The arrays will use solar energy to charge the storage batteries of the vehicle.

A light-weight, all-inertial guidance subsystem is being developed by the Massachusetts Institute of Technology. Present plans call for the first flight of the subsystem in early 1961.

Successful measurements of infrared radiation from an intercontinental ballistic missile were made during the flight of ATLAS missile 15A. The measurements were taken to determine how an ICBM appears to a satellite-borne infrared scanner during the power and altitude stages of the missile trajectory.

Five tracking and acquisition stations for data collection from ARS launchings will be required. These stations probably will be located in the vicinities of Cooke Air Force Base; Oxnard, California; Kaena Point, Hawaii; Anchorage, Alaska; and Sitka, Alaska.

Design modifications to launch complex 75-3 at Cooke Air Force Base are completed. This complex will be used for launching THOR-boosted vehicles. Siting and design of a launch complex for ARS ATLAS-boosted vehicles at AFMTC are in progress. Design criteria have been established for modifications of the ATLAS launch complex #14 service tower.

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[REDACTED]

Siting of the Cooke Air Force Base and Kaena Point, Hawaii, test tracking stations is complete. Siting of tracking and reconnaissance data acquisition stations in northeast, northwest, and central areas of the United States is in progress.

An intelligence interpretation and dissemination facility will be established at Headquarters, Strategic Air Command, Offutt Air Force Base, to serve as the program control center, data collection center, and training center.

A facility to house equipment for the analysis of technical information will be constructed at Wright-Patterson Air Force Base, Ohio, for use by March 1960.

A teletype from Headquarters USAF requested a revision of the Financial Annex (Section III) of the ARS Development Plan, dated 15 March 1958, from 214 million to 152 million dollars. It also requested that the program remain flexible. Major revisions of program objectives will have to be made if a reduction of this magnitude takes place in the fund program.

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