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DEPARTMENT OF THE AIR FORCE
WASHINGTON 20330

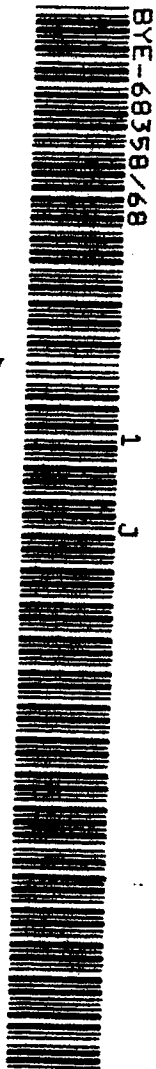
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OFFICE OF THE SECRETARY

AUG 6 1968

MAILED BY THE
SECRETARY OF
THE AIR FORCE



MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Manned Orbiting Laboratory Monthly Status Report

The attached Status Report on the Manned Orbiting Laboratory (MOL) Program covers activities through July 31, 1968 and is submitted in accordance with the July 15, 1968 memorandum from the Office of the Secretary.

for Stewart
JAMES FERGUSON
General, USAF
Director, MOL Program

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a/s

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I. PROBLEM

FY 1969 Budget and Program Realignment

The MOL Systems Office was provided guidance to structure the MOL Program based on a NOA of \$515 million in FY 1969 and \$600 million in FY 1970. This guidance was used to establish FY 1969 budget targets for the associate contractors. During the week of July 15 the MOL Systems Office met with the associate contractors at Huntington Beach and conducted a reprogramming and rescheduling meeting. No changes were made to the technical scope of the program but a new flight schedule was adopted. The new schedule provides unmanned qualification flights in December 1970 and July 1971. These flights will be followed by the first all-up manned launch which has been slipped from August to December 1971. The remaining flights will occur on 5 month centers. The estimated change in program costs due to this readjustment is from \$2.84 billion to \$2.96 billion.

II. CHANGE PAST MONTH

A. Easter Island

An agreement concerning a joint program for the conduct of search and rescue operations from Easter Island in support of Manned Space-Flights was signed July 26, 1968 by the designated representatives of the U.S. and Chilean Air Forces. The signing of this agreement climaxes almost two years of diplomatic negotiations and a week of in-country work accomplished by a USAF team headed by Brigadier General Allison C. Brooks, Commander, Aerospace Rescue and Recovery Service.

In order to obtain the approval of the Chilean Air Force, a compromise on the effective date of the agreement was accepted by the USAF team. As negotiated, the agreement becomes effective when the Ministry of Defense (MOD) transmits its approval to the U.S. Embassy. Discussions between General Brooks and the MOD indicate approval is expected by 1 September 1968. This agreement authorizes the planned deployment of 5 HC-130H aircraft to Easter Island for each MOL launch to assist in the flight crew rescue in the event of a pre-orbit abort.

B. Policy on Release of Technical Papers on MOL

Mr. Goulding, Assistant Secretary of Defense, Public Affairs, concurred with Dr. Flax' proposal to allow presentation of some carefully selected technical papers on MOL at unclassified professional

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association meetings. Potential authors of such papers will obtain tentative approval from the Systems Office prior to writing or committing themselves to present a MOL paper. Completed papers will be submitted for security and policy review at least six weeks in advance of the planned date of presentation.

C. Briefing to Mr. W. W. Woodruff

General Stewart met with Mr. William W. Woodruff, Chief Staff Member of the Senate Committee on Appropriations on July 5, 1968 for the purpose of updating Mr. Woodruff on the MOL Program. General Stewart gave Mr. Woodruff the full, in-depth MOL DORIAN briefing with particular emphasis on the FY 1969 MOL budget requirements and the sensitivity of program progress as it relates to the FY 1969 budget. It was explained to Mr. Woodruff that there was no question that the MOL program must make some contribution to the FY 1969 budget cuts, however, the amount of the cut would have a direct relationship on the resulting schedule slippage and increase in total program costs. It was pointed out that as the result of an extensive reprogramming effort in December 1967, MOL had been structured for an FY 69 NOA of \$600 million. Further, all FY 68 NOA and prior monies had been expended through the end of June with no carry over. Therefore, the program was prepared to fully and effectively employ the requested amounts. Detailed examinations had been made on the effect of various funding levels for MOL in FY 1969. From these examinations it was absolutely clear that at a level as low as \$400 million in FY 1969 it would be necessary to publicly terminate the program and continue payload development in the black.

In discussing the relationship between NOA and expenditures, General Stewart pointed out that the Bureau of the Budget had carefully examined the MOL Program and had agreed that for all practical purposes in MOL the ratio is one to one. In connection with the overall problem of the reduction of Department of Defense expenditures, Mr. Woodruff assured General Stewart that from the Senate's viewpoint, a reduction in the requested MOL authorization would be credited toward the DOD expenditure reduction goal, and the program would not be placed in double jeopardy.

At the conclusion of the meeting Mr. Woodruff expressed the view that Mr. Russell could probably hold the committee to a reasonable reduction in MOL, however, if it appeared that Senator Russell would be unable to prevent drastic cuts, he would suggest the briefing of additional committee members.

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D. NASA/PSAC Science and Technology Panel Visit

On July 19 and 20 the joint PSAC Science and Technology Panel and the NASA Science and Technology Advisory Committee visited the Marshall Space Center at Huntsville and McDonnell Douglas at Huntington Beach to discuss the AAP Orbital Workshop and MOL. Activities at MSC on July 19 consisted of a thorough review of AAP and the Orbital Workshop. There was a strong indication that the first launch of AAP will undoubtedly slip into Calendar Year 1971 as a result of the FY 1969 budget constraints. There was also some indication that the program content of AAP may have to be revised if the budget squeeze continues by the elimination or reorientation of the LEM/AIM vehicle and experiments. The AAP presentations were followed by a tour of facilities including the neutral buoyancy facility. The afternoon session consisted of discussions on experiments for manufacturing in space and contractor presentations on low cost boosters.

The meeting on July 20 at Huntington Beach began with a review of the MOL Program at the Secret-SAR level. There were a variety of questions from the group concerned with system engineering and integration responsibilities, MOL astronaut time lines, the environmental control system, etc. All of these questions were answered satisfactorily.

The McDonnell Douglas advanced planning group presented potential MOL capabilities to satisfy AAP objectives describing 30, 60 and 90 day integral launch configurations, rendezvous and resupply configurations, and a concept of modular experiments packaging for a variety of advanced technology objectives.

The group toured MOL facilities, MOL hardware and mockups, and the Saturn S-IVB hardware. The MOL pressure suit was demonstrated producing very favorable impressions on the group. In the afternoon NASA presented conceptual presentations for various alternatives for the Saturn V Workshop.

The joint panel/committee invited General Stewart to participate in their executive session. In response to questions from the group, General Stewart indicated that it was his opinion that MOL hardware could be made available to NASA for AAP purposes, however, the question is more involved than choices between available hardware. Such factors as the available NASA inventories, in-house capability, contractor base, the pace of the lunar program, etc., all had to be given appropriate consideration. In regard to the general question of the importance of AAP to the MOL Program, it was pointed out that the major MOL interest was biomedical but MOL was not dependent upon AAP in any way.

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It would appear that the panel/committee was very favorably impressed with what they saw and heard concerning the MOL Program.

E. Product Improvement Study

A study contract of approximately \$140,000 has been awarded to Eastman Kodak to identify, define and initially determine the effectiveness of modifications to the baseline DORIAN camera system considered most likely to provide measurable improvements in performance, quality, reliability, etc. In addition, necessary future study efforts and/or technology projects are to be proposed which will more firmly establish the validity, definition, effectiveness and technical priorities of the selected modifications. This study is a four month effort beginning July 22, 1968 and is to be completed no later than December 31, 1968. The work is being accomplished under a CCN to a current Special Projects contract and therefore will be a joint SP/MOL effort.

III. CURRENT STATUS

A. Funds

On July 1 an initial release of \$80 million was made available to the Systems Office to fund items deferred from FY 1968 and to sustain efforts during July. Late in July an additional \$40 million was released to fund contractor efforts through August. Present planning is to continue fund releases on a monthly basis until the Appropriation Bill is passed.

B. Congressional Status

In response to Congressional requests for additional MOL information, papers were prepared for Chairman Rivers and Mr. Morgan, House Armed Services Committee, and for Mr. Preston, Senate Appropriations Committee. Statements addressed to a Congressional Quarterly article were prepared for the JCS in response to a request from Senator Russell, and for SAFLL in response to a similar request from Senator Stennis. The House Appropriations Committee Report on the DOD FY 69 Appropriations Bill recommended a reduction of \$85 million in the MOL budget request. As of the close of this reporting period the House had not acted on the bill, and indications are that it will not be taken up until Congress reconvenes after the conventions. The Senate Appropriations Committee has not reported out their version of the Appropriations Bill and probably will not do so until after the conventions.

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C. IVS Status

General Electric has extended the Itek IVS subcontract to develop a new brassboard model. This model is to incorporate all ideas for correcting the ills of the previous model. Delivery is scheduled for early December. The previous Itek cost estimate for this brassboard has grown from \$300,000 to \$450,000. In addition, General Electric costs associated with the Itek effort will be approximately \$100,000.

D. Fuel Cell Status

General Stewart recommended to Dr. Flax that the current fuel cell effort at Pratt and Whitney be terminated and a new competitive procurement for a higher performance power cell be undertaken. Dr. Yarymovych concurred in this recommendation after conducting a separate review. Dr. Flax has taken the recommendation under advisement. If the recommendation is approved the Pratt and Whitney effort will be reduced to a very low level during the competition period and terminated just prior to the award of the new contract.

IV. FORECAST FOR FUTURE

The next MOL Executive Council meeting is scheduled for the afternoon of August 28 at McDonnell Douglas Astronautics in St. Louis.

This meeting is used as a forum for the Directors, Vice Director and Deputy Director, MOL and the associate contractor executive officials to have free discussions and dialogue on major MOL Program problems and issues and to exchange views.

The tentative meeting agenda includes discussion of the current program status and near term plans, NASA/DOD joint planning activities and the FY 1969 financial outlook.

The previous meeting was held at GE/Valley Forge in January 1968.

V. DUE DATE OF NEXT STATUS REPORT

The next Monthly MOL Program Progress Report will be submitted September 9, 1968.

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