

JUN 9 1967

MEMORANDUM for the Record

From: AD/Deputy Administrator

Subject: June 1, 1967 meeting to discuss AAP payloads

Reference: Memorandum for those Concerned from D. D. Wyatt,
subject: Meeting to formulate action plan for making
AAP decisions, dated May 31, 1967

An informal discussion was held in my office covering the agenda outlined in the referenced memorandum. Attendees were: Dr. Mueller, Mr. Mathews, Dr. Newell, Mr. Shapley, Mr. Lilly, Mr. Wyatt, Mr. Jenkins, Mr. Disher, Mr. Williamson and Dr. Dorman (part-time).

I. Lunar Mapping and Survey System (LMSS)

With regard to the LMSS, it was the sense of the discussion that Orbiter data would suffice to meet Apollo requirements for the currently selected Apollo sites, providing that two meter resolution can be attained from the Orbiter data. Such a resolution currently appears feasible. The low resolution (100 meter) Orbiter data would probably not suffice for the site certification of additional landing sites for an AAP program. High resolution data might, however, be obtained from the next and even additional Orbiter flights if specific new landing areas can be identified. Aside from potential AAP site certification needs, no hard requirements exist for data obtainable with the current LMSS system. There are no experimenters firmly in the AAP program with requirements for data from lunar orbit. Scientists currently give lunar selenodetic data highest priority for lunar orbit missions. Gamma ray measurements of the lunar radioactivity are given second priority. There has been no expressed need for photographic resolution of the lunar surface to values lower than those attainable with the current Orbiter system. The Lunar Missions Board and the Planetary Subcommittee have previously expressed no interest in multispectral data of the moon but have been asked to reexamine the question.

The LMSS may have value as a payload module for other experiments. No requirements have been identified as yet for such experiments. The value of retaining the LMSS as a backup mission for the main-line Apollo in the event of LM developmental difficulties is questionable. The lack of requirements for manned lunar orbital missions may, however, simply reflect lack of experience in that flight mode and requirements may develop once the possibilities of the mission mode are demonstrated.

If the LMSS is retained in the AAP program for lunar purposes, it may be highly desirable, though not mandatory, to exercise the system in earth orbit to verify systems compatibility with the CSM.

Mr. Culbertson of OMSF is to summarize specific findings regarding the possible uses of the LMSS at a special meeting on June 8.

II. CSM Payload for AAP Ia Mission

The absolute value of the AAP Ia mission from a requirements standpoint will be heavily dependent on whether or not the LMSS is included as part of the mission. The experiments planned for the mission are to be reviewed by OMSF at the special June 8 meeting. From a crew operational viewpoint the mission is desirable as a precursor to the ATM mission. The mission would also provide a continuity of experience with the uprated Saturn I launch vehicle series.

III. Modification and Refurbishment Contract

The Apollo Applications Program Office recommends immediate steps to select a potential M&R contractor. They feel that during the month of June a selection should be made of preferably one, though possibly two, contractors to engage in a study of M&R task requirements to be completed about the first of September. At that time, the Government would evaluate their results and determine whether to proceed down the M&R route. If the decision is made to proceed, a single contractor would be selected for carrying out preliminary design activity during the period from September

through February 1968 leading to a design review. Final design and fabrication of the modification kit could then be timed to coincide with the availability of a CSM for the workshop mission (AAP-1). It is the opinion of the Apollo Applications Program Office, however, that the AAP-1 mission could not be ready for launch until about April 1969 with a realistic allowance for retrofit and checkout of the CSM.

The AAP-1a mission is not the critical time factor in selection of an M&R contractor since minimum nodes are envisaged for that mission. The interval between the delivery of capsule 106 and the targeted launch date of September 1968 is, however, probably low by 1 to 2 months.

Under the proposed plan, the NAA activity in support of the AAP modifications would change in July of this year to support of the M&R contractor. The current 250 to 350 man-year AAP effort at NAA would be expected to remain about constant under the new mode of operation.

The Apollo Applications Program Office considers that the matter of refurbishment of flown command modules still requires further study before the feasibility and desirability can be established.

Under the proposed plan by the Apollo Applications Program Office about \$1.6 million would be required through the August period.

The interrelationships between NAA, Boeing, the M&R contractor and the payload integration contractor will be discussed at a subsequent meeting. Mr. Mathews indicated a desire to summarize the status of the payload integration contractor selection at the special AAP meeting on June 8.

Original Signature
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