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 (L MSS)

With regard to the L MSS, 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 L MSS 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 IMSS 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 IMSS as a backup mission for the main-line Apollo in the event of LM developmental difficulties is questionable. The lack of requirements for reused 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 IMSS 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 CM.

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

II. CSM Payload for AAP In Mission

The absolute value of the AAP In mission from a requirements standpoint will be heavily dependent on whether or not the IMSS is included as part of the mission. The experiments planned for the mission are to be reviewed by OMSF at the special June 3 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 upgraded Saturn I launch vehicle series.

III. Modification and Refurbishment Contract

The Apollo Applications Program Office recommends immediate steps to select a potential IMSS 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 IMSS 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 IMSS 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 1969 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-I). It is the opinion of the Apollo
Applications Program Office, however, that the AAP-I mission
could not be ready for launch until about April 1969 with
a realistic allowance for retrofit and checkout of the CSM.

The AAP-Ia mission is not the critical time factor in
selection of an HSR contractor since minimum needs are
envisioned for that mission. The interval between the
delivery of capsule 116 and the targeted launch date of
September 1969 is, however, probably low by 1 to 2 months.

Under the proposed plan, the HRA activity in support of the
AAP modifications would change in July of this year to
support of the HSR contractor. The current 250 to 350 man-
year AAP effort at HRA 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 desirabi-

lity 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 HRA, Boeing, the HSR con-
tractor and the payload integration contractor will be
discussed at a subsequent meeting. Dr. Mathews indicated
a desire to summarize the status of the payload integration
contractor selection at the special AAP meeting on June 8.