

UNITED STATES GOVERNMENT

# Memorandum

NASA Manned Spacecraft Center

TO : See list attached

DATE: October 29, 1969


69-PA-T-133A

FROM : PA/Chief, Apollo Data Priority Coordination

SUBJECT: Spacecraft separation procedures

I blundered into something the other day which is probably none of my business but is interesting, so I thought I would bring your attention to it. Some time before Apollo 10 the trajectory flight controllers assembled a "Cookbook" of spacecraft separation recipes condensed from the myriad of proposals and recommendations that have been floating around - both written or verbal - dealing with all of the possible separation operations involving all of the various spacecraft and booster pieces during nominal and contingency missions. Apparently this had become an overwhelming business, obviously requiring understanding and preflight agreement. And, they reacted on their own to be prepared. Subsequent to that, they requested MPAD to refine their Cookbook into a formal document presenting each of the different separation sequences in a standard format, including such things as crew procedures, diagrams of spacecraft attitude in various stages in the sequence and relative motion plots. As this work progressed, a great deal of simplification resulted due to the similarities of the various situations. On October 22, we had a pseudo Data Priority meeting at the flight controllers' request with MPAD and FCSD people to review this document (MPAD's Internal Note 69-FM-262, which Flight Analysis Branch prepared for Apollo 12) and to reach final agreement on the procedures given. Although the document proved to be in excellent shape, as well as complete, several substantial modifications were agreed upon, and it will be updated in the near future to reflect them. Currently it includes all of the separation situations that could ever be encountered on Apollo - not just Apollo 12. Furthermore, it is planned to have those dealing just with Apollo 12 included in that crew's checklist at their own request.

In order to maintain control over this business, which up til now has been informal, it is my understanding that Carl Huss intends to put this document under the authority of the Crew Procedures Control Board if they're willing, such that changes can only be made with their approval. That certainly sounds like a good thing to do to me.



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PA:HWT:js



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*Houston*

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