

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
ROUTING SLIP

MAIL CODE	NAME	Action
<del>1</del> DC71	<del>Dr. Barnes</del> <i>B</i>	Approval
2 DC	Dr. Kemmerer	Call Me
<del>3</del> <i>SS</i>	<del>Dr. Hawkins</del>	Concurrence <i>1, 2, 3 X</i>
4 DA	Mr. Johnston	File
<del>5</del> DA	Dr. Berry	Information <i>4 5 X</i>
		Investigate and Advise
		Note and Forward
		Note and Return
		Per Request
		Per Telephone Conversation
		Recommendation
		See Me
		Signature <i>5 4 X</i>
		Circulate and Destroy

Based on an analysis of the Apollo 14 data I am confident that an upper limit to the Apollo 15 radiation dose is 1.6 rads to the skin and 0.8 rads to the 5 cm depth. This presumes no significant changes in the radiation environment and there are no reasons to expect a change.

I had reason to expect that the knowledgeable individual in S&AD would perform the computer runs for the analysis when the operational trajectory was published, but it is now apparent that the runs will not be made without specific request. If it is considered imperative to have a computer analysis on the planned trajectory, a memorandum of request is attached.

NAME	TEL. NO. (or code) & EXT.
J. V. Bailey	4251
CODE (or other designation)	DATE
DC71	6-4-71



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
MANNED SPACECRAFT CENTER  
HOUSTON, TEXAS 77058

REPLY TO  
ATTN OF DC71/6/MO3/71 (RH)

MEMORANDUM

TO: TA/Director of Science and Applications

FROM: DA/Director of Medical Research and Operations

SUBJECT: Pre-mission Projection of Flight Crew Radiation Exposure  
on the Apollo 15 Mission

I recognize that radiation exposure to the flight crews on Apollo missions have not been medically significant and that there are no apparent reasons to expect this to change; however, I feel that it would be prudent to perform an analysis of the expected radiation exposure for the Apollo 15 mission. This would assure all interested persons, both within and without NASA, that we are maintaining our vigilance in this area and are doing all we can to protect the health and safety of our astronauts. A pre-mission analysis will also provide a basis for evaluating the performance of the operational radiation instrumentation during the mission and give confidence to resulting measurements should a contingency arise.

It is understood that your organization does retain the capability to perform such an analysis and is the only group that has this capability. Accordingly, it is requested that an analysis of the expected Apollo 15 radiation exposure be performed and print outs of the expected radiation dose profiles be provided for use at the Space Environment Console during the Apollo 15 mission.

Charles A. Berry, M.D.

cc:  
DD/W. R. Hawkins, M.D.  
FA3/R. G. Rose  
FC9/B. T. Hervey

DC71/JVBailey:lmr:6/4/71:4251