MEMORANDUM FOR DR. McLUCAS

SUBJECT: STRAWMAN 4 (2737)

PURPOSE

To obtain concurrence in the continuation of the present plan to launch STRAWMAN 4 during April 1971.

BACKGROUND

On the 25th of November 1969, EXCom canceled STRAWMAN 5 which was presented as providing a one-year overlap with STRAWMAN 4. In January 1970, we nonconcurred in the addition of long-life batteries to STRAWMAN 4 at a cost of $724K. The proposed battery change would have resulted in an 15-18 month EOB system life in contrast to the present life. (Present life estimates by the program office have ranged from 6 to greater than 12 months.) We also established a STRAWMAN schedule at that time which had two 4-5-month gaps in EOB coverage. Since that time both STRAWMAN and EOB schedules have slipped. Now there is only one gap between the end of the STRAWMAN program and the EOB operational date.

ALTERNATIVES (See TAB A)

The following options present all the major strategies for STRAWMAN 4:

Option A - Present Program

Advantage - No additional cost due to changes in the planned program.

Disadvantage - Overlapping coverage between STRAWMAN 4 and STRAWMAN 3.

Please note: comment - pg 3.
Option B - Slip STRAWMAN 4 Until STRAWMAN 3 Failure

Advantage - A launch on failure strategy would provide the greatest STRAWMAN system life.

Disadvantage - High cost; slip cost is $20K/day and additional operational support is about $15K/day. This option would provide coverage beyond that required for debugging.

Option C - Add C and X Band Capability to STRAWMAN 4 and Slip URSALA

Advantage - Eliminates overlapping coverage.

Disadvantage - Cost is about $6M for slip and limited C and X band hardware plus an undetermined cost for slipping URSALA.

Option D - Cancel STRAWMAN 4

Advantage - Save $5.68M NRO ($4.4M in FY 72), 0.72M NSA, $6.40M

Disadvantage - Lose coverage. Gap in EOR coverage up to 2000 MHz will occur after useful life of STRAWMAN 3.

DISCUSSION

Option A will over-kill the EOR requirement with overlapping coverage. Fortunately, the overlap coincides with the program. Both Options B and C result in costs that are not balanced out with improvements in coverage. Option D, cancel STRAWMAN 4, must be disregarded since the has been identified by USIB as the most important ELINT target.

RECOMMENDATION

General King has recommended Option B, launch STRAWMAN 4 on failure of STRAWMAN 3 (TAB B). He feels that such a strategy is cheap insurance.

The Staff believes that the present schedule provides better coverage than that established a year ago; ExtCom has not changed its position; and our confidence in and STRAWMAN is better. Thus, we cannot see why we should expend additional funds for additional coverage at the present time.
Since the other options do not show a clear advantage over the present plan, I recommend that the message at the right be sent which continues STRAWMAN 4 on the present schedule.

It is further recommended that the performance of the spacecraft be reviewed just before the launch of STRAWMAN 4 to determine if a later launch is appropriate. The requirement, alone, justifies the 6.4M dollar cost to fly STRAWMAN 4. Only a failure of the spacecraft would justify a delay in the launch of STRAWMAN 4. Termination of STRAWMAN 4 would be justifiable if the is intercepted and if we are willing to gamble that the

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TAB A, Options
TAB B, CHARGE 5726 (BAF D-6-a)

OPINIONATED — THERE IS ALWAYS A "NEW" REQUIREMENT TO JUSTIFY SPENDING MONEY OR TRYING TO KEEP A PROGRAM ALIVE. IN VIEW OF NO REAL EXCOM DECISION, THERE CAN BE OTHER REASONS TO TERMINATE