U.S. Government

MEMORANDUM

Lyndon B. Johnson Space Center

NASA

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CC
CA/G. W. S. Abbey
DA6/R. A. Thorson

FROM: CB/B. J. Dunbar

SIGNATURE
Bonnie J. Dunbar

SUBJ: Crew Equipment Status

1. Binoculars (all flights)

At the October 3, 1983, CB issues meeting we decided to recommend to the GFE CCB (action item 9-26-1) that the following binoculars be manifested for each flight: (1) 7 x 35 (nearest focus = 20') and (2) gyro-stabilized 14 x 40 (nearest focus = 60'). Normally, the 7 x 35 binoculars will be stowed on the aft flight deck in locker A16 and the 14 x 40 gyro-stabilized binoculars will be stowed on the mid-deck with the calculators, microcassette recorders, and enhanced DAC accessories.

For training purposes, FCOD and MOD recommended that 2 high fidelity 14 x 40 units be used to satisfy 1-G trainer, "field training," and procedural development requirements. The SMS will probably have a wood mock-up, although one of the high fidelity training units could be used there if required for a specific lesson. These recommendations were accepted by the board and are effective STS-11. Thank you to all of you who took the time to evaluate the options and/or describe your flight experiences with the hardware.

2. ICOS (STS-11 and STS-13)

The ICOS was deleted from the crew equipment list by the GFE CCB per directive C1259, and action item 9-19-5.

3. Interdeck Access Temporary Light Shades (STS-11 and subs)

Alternative designs for shading the flight deck from mid-deck lights during light-sensitive operations, e.g. proximity operations, are being coordinated by DG3/M. Vandenbrook. These designs, which must also allow for air flow from the mid-deck to the flight deck, will be constructed of either nomex or beta-cloth and attached by either velcro or friction clips. This item is being tracked by the GFE CCB as directive G1266 and action item 9-19-1. JSC is awaiting further clarification from Rockwell on airflow requirements before proceeding.

4. CCA's (Communication Carrier Assembly) (Somewhere in the distant future)

A review of the PRD for new CCA's was held on October 6, 1983, in Bldg. 44. I received review comments from office EVA representatives and based on these made several recommendations. A few of these follow:

(1) Do not change the CCA softgoods since we have positive experience with current materials.

(2) Do not use the current Apollo/ASTP design as a baseline volume. Instead, optimize earcups and electronics so that overall volume and dimensions are smaller.

(3) Minimize the potential for snagging the microphone boom on the neck ring.

(4) Improve accoustical attenuation of molded ear cups.

(5) Optimize microphone to reduce fan/EMU airflow noise.

(6) Include CB personnel and WETF operations in design evaluations as well as design certification.

Other recommendations and/or comments are welcome.

5. Middeck Locker Configuration (All flights)

CB is involved in the effort to standardize crew equipment stowage for all four flight vehicles with MOD, the GFE CCB, and the Crew Station Integration Section (EN43). It is obvious that such an arrangement will significantly reduce flight specific documentation costs as well as simplify training and trainer configuration. However, we all know that specific mission requirements do surface which affect crew hardware and stowage, e.g. planned EVA's. These changes can best be accommodated if recognized prior to L - 22 weeks since this is the level II deadline for changes. Although it is not always possible, try to evaluate the stowage configuration and available hardware for your flight prior to L-22 weeks. If you think you will have changes due to specific mission requirements, please notify me. All changes will require a GFE CCB directive, preferably initiated outside CB, e.g. MOD. For the future, that milestone is "approximately" as follows:

Flight	L-22 Weeks
STS-11	Aug. 29, 1983 (was)
STS-13	Oct. 30, 1983 (soon to be)
STS-14	Jan. 9, 1984

STS-15	Feb. 6, 1984
STS-16	March 5, 1984
STS-17	March 28, 1984
STS-18	April 24, 1984
STS-19	May 15, 1984
STS-20	June 19, 1984
STS-21	July 17, 1984

6. PAM-D EVA tool (STS-14 and subs)

The phillips screwdriver no longer has use as a PAM-D EVA tool since the phillips-heads have been replaced with hex-heads. However, this tool will remain part of the EVA tool caddy until the Cargo Bay Stowage Assembly (CBSA) is replaced by the Payload Stowage Assembly (PSA) which will "probably" occur by STS-14. The directive, G1284, to delete this tool was approved at the October 17, 1983, GFE CCB.

The crew equipment status memo is an attempt to keep everyone up to date with the mercurial world of crew equipment. Your suggestions for further improving this task are welcome.