

SMEAT  
CREW BRIEFING  
EXPERIMENT  
M-487  
HABITABILITY  
AND  
CREW QUARTERS

## OVERVIEW

- . EXPERIMENT BACKGROUND
- . FLIGHT EXPERIMENT
- . SMEAT APPLICATIONS
- . QUESTIONS AND DISCUSSION

EXPERIMENT  
BACKGROUND

- . LIMITED HABITABILITY FEATURES AND NO SYSTEMATIC DOCUMENTATION OF MAN/MACHINE OR MAN/ENVIRONMENT INTERFACE IN PREVIOUS PROGRAMS
- . FIRST ATTEMPTS AT M-487 WERE MORE PSYCHOLOGICALLY THAN ENGINEERING ORIENTED
- . EFFORT TRANSFERRED INTO E&D IN AN ATTEMPT TO OBTAIN, EVALUATE, AND REPORT DATA IN ENGINEERING TERMS
- . OBJECTIVE NOW IS TO VERIFY SKYLAB DESIGN CRITERIA AND FEED RESULTS INTO FUTURE DESIGN EFFORTS
- . MSC/MSFC INTERFACE

FLIGHT  
EXPERIMENT

HABITABILITY

THOSE FEATURES NECESSARY TO MAINTAIN THE CREW'S  
SUSTENANCE AND WELL BEING WHILE PROVIDING AN  
OPERATIONAL ENVIRONMENT WITHIN WHICH MISSION  
OBJECTIVES CAN BE ACCOMPLISHED

ELEMENTS OF  
HABITABILITY

- o ENVIRONMENT
- o ARCHITECTURE
- o MOBILITY AND RESTRAINTS
- o FOOD AND WATER
- o GARMENTS AND PERSONAL ACCOUTERMENTS
- o PERSONAL HYGIENE
- o HOUSEKEEPING
- o COMMUNICATIONS
- o OFF-DUTY ACTIVITIES

## FLIGHT EXPERIMENT (CONT'D)

### CONCEPT

#### NONINTERFERENCE:

- o ATTEMPT TO INTEGRATE M-487 REQUIREMENTS INTO DAILY ROUTINE - NO STAGED DEMONSTRATIONS.
- o MAKE REAL-TIME REPORTS OF OFF NOMINAL SITUATIONS, AND OBTAIN QUANTITATIVE DATA IF POSSIBLE.
- o RUN THROUGH INFLIGHT DEBRIEFING CHECKLIST DURING PLANNED WEEKLY SESSION.
- o AS OPPORTUNITY ALLOWS, GATHER NOMINAL MEASUREMENTS OF ENVIRONMENTAL DATA TO ESTABLISH TREND INFORMATION.

### DATA RECORDING

- o PRIMARILY VOICE COMMENTS
- o NO REQUIRED WRITTEN LOGGING
- o 16 mm MOTION PICTURES (3 CASSETTES, TOTAL)
- o TELEVISION (NO UNIQUE PROGRAMING)
- o POST FLIGHT DEBRIEFINGS

## FLIGHT EXPERIMENT (CONT'D)

- . TOOL KIT TYPE CONTAINER STOWS IN W749
  - . SOUND LEVEL METER (B&K 2203)
  - . OCTAVE FILTER SET (B&K 1613)
- } (3 "D" CELLS)
- . THERMISTOR THERMOMETER (BACHARACH - SERVITEMP H, 12-0262) (1 "AA" CELL) - 50-200
  - . DIAL PUSH/PULL GAUGE (CHATILLION - MODEL DPP) - 0-50 #
  - . AIR METER (HASTINGS - MODEL AB-12) (2 "D" CELLS)
  - . THERMOMETER (WESTON - MODEL 2261) 20-125
  - . METAL MEASURING TAPE (MATHIAS KLEIN & SONS #922-10)
  - . SPARE BATTERIES

## SMEAT APPLICATIONS

### PRIME OBJECTIVE

- . USE SMEAT AS A TEST BED TO OBTAIN USE DATA ON M/487 EQUIPMENT AND SUBJECTIVE RATING FORMATS
- . WHERE POSSIBLE ATTEMPT TO CATALOG BASELINE HABITABILITY DATA FOR COMPARISON WITH FLIGHT DATA

### SECONDARY OBJECTIVE

- . PROVIDE SUPPORT TO OTHER SMEAT OBJECTIVES WHERE POSSIBLE

QUESTIONS & DISCUSSION

- . M-487 HARDWARE AVAILABILITY FOR SMEAT