

Lyndon B. Johnson Space Center
Houston, Texas
77058

1990



Reply to Attn of:

SD/90-197

TO: SD/EDO Project Manager

FROM: SD/EDO Project Manager

SUBJECT: Supplementary Information Concerning EDO Flight Hardware

REFERENCE: SD/90-193

The attached material provides information regarding hardware plans which support the referenced memorandum. Detailed schedules and appropriate flight manifesting will follow as required to meet the objectives of this plan.

Each new apparatus will receive an inflight evaluation by means of a DTO. The DTO will be used to certify the particular device and to develop reasonable operational procedures for it. Realistic constraints on flight opportunities will result in a DTO being followed by a dependent DSO often during the same mission, or in some cases on subsequent missions.

A handwritten signature in cursive script, appearing to read "C. Sawin".

Chuck Sawin

cc:
SD/S. Pool
SD/W. Thornton
SD5/M. Greenisen

Hardware Plans

Item

1	Force Plate	a. Proceed b. Develop DT0 c. Utilize custom built or modified Kistler as available d. Metabolic gas measurements as equipment permits
2	Isometric Dynamometer	a. Proceed b. Develop DT0 c. Use on orbit and modify for immediate use after wheel stop at landing
3	Heavy Isotonic Exerciser	a. Proceed b. Develop DT0
4	MKI-TM (Shuttle Flight Units)	a. Proceed b. Develop DT0 c. Attempt to include metal scale on STS-35 (Assess bungee loading)
5	MKII-TM	a. Proceed with procurement ASAP (9-12 months delivery AR0) b. Includes built-in force measurements c. Design accommodates motor driven belt <u>option</u> d. Redesign of wooden tread possibly required by safety
6	MFED	a. In work b. Overweight for Shuttle middeck but should pursue for SSF unless evaluation discloses a "fatal flaw".
7	"GYM" Upper Body Exerciser and Dynamometer	a. Prototype due at JSC 9/90-Will be tested; then proceed to Flt. Unit b. This unit would replace #3 above if successful c. Unit should function as an isotonic, isometric and isokinetic dynamometer
8	Rowing Machine	a. Flight unit available - in test and certification b. Prepare DT0-manifest
9	Cycle Egometer	a. Work progressing toward contract b. Will be used for quantitative aerobic exerciser c. Stowable in middeck locker
10	Lockheed Dynamometer	a. Need to learn purpose b. This hardware is being developed by SP