

CONFIGURATION DIFFERENCES

I. Apollo 14 vs. Apollo 15

A. Summary

The most extensive change from the Apollo 14 PLSS was the configuration update from the -6 to the -7. The basic difference was the increase in expendables in order to support three 7 hour EVAs versus two 5 hour EVAs with the -6 type PLSS. The expendable comparison of the -6 and -7 PLSS is listed below:

	<u>-6 PLSS</u>	<u>-7 PLSS</u>
Feedwater	8.5 pounds	12.0 pounds
Oxygen	EVA I 1020 psia (1.25 pounds) EVA II 980 psia (1.21 pounds)	EVA I 1440 psia (1.77 pounds) EVA II 1420 psia (1.75 pounds) & III
Battery	17.4 amp-hours	25.4 amp-hours
LiOH	3.00 pounds	3.12 pounds

B. Specific Changes

1. Auxiliary Feedwater Reservoir

This is an additional tank, containing 3.5 pounds of water, added to the right side (as worn) of the PLSS. It has its own shutoff valve (located outboard of the three other PLSS manual controls) which is in series with the primary tank. The primary tank valve must be open in order to obtain water from the auxiliary tank. It also has its own venting connector located above the oxygen recharge connector on the right side of the PLSS.

2. Battery and Battery Locking Mechanism

The battery capacity increased from 17.4 amp-hours on the -6 PLSS to 25.4 amp-hours on the -7 PLSS. Weight of the battery has increased from 5.5 pounds to 10.5 pounds.

The battery locking mechanism was completely redesigned when the battery was enlarged.

3. Oxygen Supply

The PLSS oxygen bottle capacity was increased from 1100 psia to 1500 psia. The operating pressure and flow limiting orifice of the regulator were changed to accommodate the higher pressure.

