

## II. Apollo 15 vs. Apollo 16

### A. Summary

Changes from the Apollo 15 hardware were brought about primarily from recommendations of both the Apollo 15 and Apollo 16 crews. Also, some recharge procedure changes were made in order to receive a more complete recharge while at the same time making the procedures less difficult to follow.

### B. Specific Changes

#### 1. Dust Covers on Electrical, Water, and OPS O<sub>2</sub> Connectors

The Apollo 15 crew commented that the thermal "booties" on the PLSS O<sub>2</sub> connectors did a good job of keeping the connectors clean. They recommended that covers be added to the remaining connectors, (PLSS electrical and H<sub>2</sub>O and OPS O<sub>2</sub>). Dust cover "booties" have been added to these connectors.

#### 2. PLSS Oxygen Ground Charge Increased

The ground charge of the PLSS oxygen tank prior to flight has been increased from 1440 psia (1.77 pounds) to 1510 psia (1.86 pounds) in order to make a greater quantity of oxygen available for EVA I. The recharges for EVA II and III remain unchanged and the pressures are governed by the LM regulator.

#### 3. Feedwater Tanks Charged Prior to Flight

For Apollo 16, the PLSS Feedwater tanks were charged on the ground prior to flight instead of being flown empty as in Apollo 15. This eliminated the need for the crew to charge the tanks prior to EVA I.

#### 4. Recharge Procedures Changes

In order to obtain a greater quantity of consumable oxygen for EVAs II and III, an additional top off of 1 minute duration prior to the EVA has been added. The initial 4 minute charge and 10 minute top off have remained unchanged.

The feedwater recharge procedure has been modified to delete the opening and closing of the LM Descent H<sub>2</sub>O valve prior to connecting to and disconnecting from the PLSS connectors. Also, reference to the feedwater "sight glass" has been deleted in order to simplify the procedure and eliminate the confusion which the "sight glass" brought about. Copies of both the Apollo 15 and Apollo 16 recharge procedure are attached. Reference pages 23 and 24.