ARM 8mm Cloud Radar Automatic Startup Procedure

I.   Purpose:

This procedure describes the steps involved in automatic startup procedure (Cold Start) of the ARM 8mm Cloud Radar.

II.   Cautions and Hazards:

- The UPS should be turned off; however, the electronic chassis and devices connected to the input to the UPS should have their power switches ON so that when the UPS is turned ON they are all powered up at the same time.

- The TWTA should be plugged into the non-UPS power source from the wall, and its "Power Off" light should be lit.

- The roof should be clear before power is applied to the system.

III.   Procedure:

A.   Cold Start Steps:

1.   Once the power to the UPS is on, the system starts itself and begins transmission after a start-up delay. NOTE: THE ROOF SHOULD BE CLEAR BEFORE POWER IS APPLIED (see Safety section).

2.   The OS/2 machine starts running the "Cold Start" script (see OS/2 software section for a list), and the Solaris machine should boot and prompt for a user name and password (see Solaris section on "Logging On").

3.   After about five minutes the TWTA goes into "Operate" mode, and the POP program starts collecting radar data inside the Master command script.

4.   When the TWTA starts emitting RF energy, the warning light starts flashing.

5.   At the end of a data collection cycle, the POP program exits, and the command script runs programs to transfer data between the OS/2 and Solaris machines.

6.   When the POP program is not running, there is no RF input to the TWTA and no transmission of RF energy.

7.   The warning light continues to flash for about 30 seconds, which is long enough for the data to be transferred and the POP to resume

transmission. NOTE: The OS/2 screen can display the data transfer operations scripts.

8. This process will repeat indefinitely until stopped by the operator or another automatic procedure.

IV. References:

1. United States Department of Commerce (NOAA/ERL, Environmental Technology Laboratory, System Demonstration and Integration Division). Operation and Maintenance Manual for ARM's 8mm Cloud Radar, pp. 4-8. January 1998. MAN(MMCR)-001.001.