DPS YERO FDF Issues

Bob Schwank
DF/32 DPS
Malfunction Procedures

- **Common Set Split** – Has the crew bring a G2FD and will obtain time from MTU causing the GPC time to step back to day 0.
  - 1\(^{st}\) option is to work procedure as written taking the risk of software problems due to the time jump or powering off the MTU. This would take the crew about 30-45 minutes to complete. The crew would work YERO part 2 and 3 at wake-up.
  - 2\(^{nd}\) option is to have the crew work part 2 of the YERO procedure using GPC 2 and 3 only. This could take up to 1.5 hrs to complete and require real-time deltas to the procedure. At crew wake they would work YERO Part 3.
  - 3\(^{rd}\) option it do nothing and work the issue at crew wake. No auto antennas since the SM is not receiving a vector from GNC.
Malfunction Procedures cont.

- **TIME MTU Fault Summary Message** – GPCs already on GPC time and in the unlikely event of a GPC switch, DPS would require no action. (This would be an indication of a timing problem and could lead to a FTS/Common Set Split)
Orbit Pocket C/L

- **G2FD Activate** – Running the procedure as written will have the newly activated GPC come up on MTU time and flight software has not approved this step back in time.
  - Work around is to modify the procedure to leave the SM up and when the FD is activated it will come up on GPC 4 time.

- **BFS Engage** – If condition warrants a BFS engage I believe we should start working Part 2 of the YERO procedure to recover PASS.
Orbit Pocket C/L cont.

• **FF(FA) MDM Output** - If troubleshooting is no joy, the procedure has the crew work G2FD Activate.
  – 1\(^{st}\) option is to power down an MDM and send the crew back to bed.
    • We can pick which MDM (the FF or the FA).
  – 2\(^{nd}\) option to go ahead and work G2FD Activate with deltas previously mentioned.
    • I recommend option 1.

• **PASS GPC BITE** – calls the crew to work G2FD Activate or SM GPC Fail. (SM Fails has no issues)
  – Could entertain taking no action for a single bite. GPC is considered transient per the flight rules.