

IMPACT Plans to Reach Telemetry Reduction Goals

- 10% - We can reach a reduction of 10% simply by eliminating much of what we bring down in “real time”. Currently, everything (all science and housekeeping data) is brought down in real time during a pass. Usually, this is unnecessary. To reach the 10% goal, we can eliminate all but the most essential IMPACT housekeeping data from the real time stream. However, APL must guarantee that we can turn back on the full real time IMPACT stream in contingency scenarios. Normally, though, we would only bring down:
 - 200h: IMPACT state of health
 - 241h: SEP housekeeping
 - 240h: SEP command response

IMPACT Plans to Reach Telemetry Reduction Goals (2)

- 25% - We can reach a total 27% reduction by reducing the volume of burst data brought down to the equivalent of one current burst per day.
- 35% - We can reach a total 33% reduction if we then reduce the time resolution of the SWEA 3D product from 30s to 60s. If we absolutely must reach 35%, we can shave a bit more by tweaking the SWEA PAD product.
- 40% - We can reach a total 40% reduction several different ways. One proposal is to reduce the MAG time resolution from 8 Hz to 2 Hz. (Remember, though, that we would still be getting that one burst per day which would include much higher resolution for MAG and SWEA.) Obviously, this is a step we want to avoid, and we are investigating other possible ideas.