

**SOST**

**Rev 15**

2005-268T14:12 - 2005-269T19:20

Amanda Hendrix, Bonnie Buratti

4/17/02



SOST Rev 15 CIMS TOL

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| Request                       | Start Time        | Duration     | EndTime           | Rate       | DataVolume   | Pointing   |
|-------------------------------|-------------------|--------------|-------------------|------------|--------------|--|
| SOST Rev 15 4/16/02           |                   |              |                   |            |              |  |
| MAG_0150T_SURVEY001_PRIME     | 2005-257T16:21:52 | 011T21:28:08 | 2005-269T13:50:00 | 600        | 616.61       | None   |
| CAPS_0155A_SURVEY001_RIDER    | 2005-265T18:50:00 | 003T06:31:56 | 2005-269T01:21:56 | 1000       | 282.716      | Control of 2nd axis when possible                                      |
| INMS_0155A_SURVEY002_RIDER    | 2005-265T19:39:00 | 002T18:11:00 | 2005-268T13:50:00 | 50         | 11.913       | Ride along.  |
| MIMI_015CO_SURVEY002_MAPS     | 2005-267T07:40:00 | 001T17:11:56 | 2005-269T00:51:56 | 900        | 133.5        | If poss, keep corot ram in -X, +/-Z half-plane; B field in X, Z plane. |
| UVIS_015SW_IPHSURVEY003_RIDER | 2005-268T04:50:00 | 000T09:00:00 | 2005-268T13:50:00 | 76 bps     | No DataVolum | any  |
| CDA_015DR_1900DUST085_RIDER   | 2005-268T10:53:33 | 000T03:42:52 | 2005-268T14:36:25 | 150        | 1.912        | CDA to Kepler RAM  |
| RPWS_0155A_OUTSURVEY013_PRIME | 2005-268T13:10:00 | 000T12:11:56 | 2005-269T01:21:56 | 1310       | 58           | don't care   |
| INMS_0155A_SURVEY003_RIDER    | 2005-268T13:50:00 | 000T11:31:56 | 2005-269T01:21:56 | 50         | 2.0758       | Ride along.  |
| ISS_015HY_ROT01010_PRIME      | 2005-268T14:13:00 | 000T00:01:45 | 2005-268T14:14:45 |            | 8.39         | Boresight to target, +Z to North Saturn Pole                           |
| ISS_015HY_COLORF010_PRIME     | 2005-268T14:14:45 | 000T00:09:15 | 2005-268T14:24:00 |            | 37.75        | Boresight to target, +Z to North Saturn Pole                           |
| VIMS_015HY_HYPERION001_PRIME  | 2005-268T14:22:56 | 000T02:24:00 | 2005-268T16:46:56 | VIMS_18432 | 7.3          | VIMS boresight to hyperion   |
| CIRS_015HY_HYPERIONV001_VIMS  | 2005-268T14:22:56 | 000T02:24:00 | 2005-268T16:46:56 |            | 31.4         | -Y to Hyperion   |
| CDA_015T1_2000TORX010_RIDER   | 2005-268T14:37:26 | 000T02:00:00 | 2005-268T16:37:26 | 200        | 1.373        | CDA to Kepler RAM  |
| RSS_015HY_THERMAL001_RSS      | 2005-268T15:26:56 | 000T02:00:00 | 2005-268T17:26:56 | 0          | 0            | No pointing requirement  |
| CDA_015DR_2100DUST086_RIDER   | 2005-268T16:38:26 | 000T13:40:28 | 2005-269T06:18:54 | 150        | 7.042        | CDA to Kepler RAM  |
| CIRS_015HY_HYPERION002_ISS    | 2005-268T16:46:56 | 000T00:11:00 | 2005-268T16:57:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_ROT0BS001_PRIME     | 2005-268T16:48:00 | 000T00:01:45 | 2005-268T16:49:45 |            | 8.39         | Boresight to target, +Z to North Saturn Pole                           |
| ISS_015HY_COLORF011_PRIME     | 2005-268T16:49:45 | 000T00:08:10 | 2005-268T16:57:55 |            | 37.75        | Boresight to target, +Z to North Saturn Pole                           |
| VIMS_015HY_HYPERION002_PRIME  | 2005-268T16:57:56 | 000T00:29:00 | 2005-268T17:26:56 | VIMS_18432 | 10           | VIMS boresight to hyperion   |
| CIRS_015HY_HYPERIONV002_VIMS  | 2005-268T16:57:56 | 000T00:29:00 | 2005-268T17:26:56 |            | 31.4         | -Y to Hyperion   |
| RSS_015HY_MASS001_PRIME       | 2005-268T17:26:56 | 000T02:20:00 | 2005-268T19:46:56 | 0          | 0            | Primary axis = KABAND to Earth. Secondary axis is free.                |
| CDA_015HY_DUST003_RIDER       | 2005-268T17:51:56 | 000T01:40:00 | 2005-268T19:31:56 | 200        | 1.2          | secondary axis: -x = (ra: 223.2, dec: 6.6)                             |
| CIRS_015HY_HYPERION003_ISS    | 2005-268T19:46:56 | 000T00:11:00 | 2005-268T19:57:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_ROT0BS002_PRIME     | 2005-268T19:48:00 | 000T00:01:45 | 2005-268T19:49:45 |            | 46.14        | Boresight to target, +Z to Earth                                       |
| UVIS_015HY_ICYMAP011_RIDER    | 2005-268T19:48:00 | 000T03:21:00 | 2005-268T23:09:00 | 32096      | No DataVolum | Ride-along w/ ORS; continuous slew mosaics preferred at 30 urad/sec    |
| ISS_015HY_COLORF012_PRIME     | 2005-268T19:49:45 | 000T00:08:10 | 2005-268T19:57:55 |            | 37.75        | Boresight to target, +Z to North Saturn Pole                           |
| VIMS_015HY_HYPERION003_PRIME  | 2005-268T19:57:56 | 000T00:49:00 | 2005-268T20:46:56 | VIMS_18432 | 7.3          | VIMS boresight to hyperion   |
| CIRS_015HY_HYPERIONV003_VIMS  | 2005-268T19:57:56 | 000T00:49:00 | 2005-268T20:46:56 |            | 31.4         | -Y to Hyperion   |
| CIRS_015HY_HYPERION004_ISS    | 2005-268T20:46:56 | 000T00:11:00 | 2005-268T20:57:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_ROT0BS003_PRIME     | 2005-268T20:48:00 | 000T00:01:45 | 2005-268T20:49:45 |            | 46.14        | Boresight to target, +Z to Earth                                       |
| ISS_015HY_COLORF013_PRIME     | 2005-268T20:49:45 | 000T00:08:10 | 2005-268T20:57:55 |            | 37.75        | Boresight to target, +Z to North Saturn Pole                           |
| VIMS_015HY_HYPERION004_PRIME  | 2005-268T20:57:56 | 000T00:49:00 | 2005-268T21:46:56 | VIMS_18432 | 7.3          | VIMS boresight to hyperion   |
| CIRS_015HY_HYPERIONV004_VIMS  | 2005-268T20:57:56 | 000T00:49:00 | 2005-268T21:46:56 |            | 31.4         | -Y to Hyperion   |
| VIMS_015HY_HYPERIONC001_ISS   | 2005-268T21:00:00 | 000T00:45:00 | 2005-268T21:45:00 | VIMS_18432 | 8.65         | Ride Along with ISS  |
| CIRS_015HY_HYPERION005_ISS    | 2005-268T21:46:56 | 000T00:11:00 | 2005-268T21:57:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_ROT0BS004_PRIME     | 2005-268T21:48:00 | 000T00:01:45 | 2005-268T21:49:45 |            | 46.14        | Boresight to target, +Z to Earth                                       |
| ISS_015HY_COLORF014_PRIME     | 2005-268T21:49:45 | 000T00:08:10 | 2005-268T21:57:55 |            | 37.75        | Boresight to target, +Z to North Saturn Pole                           |
| CIRS_015HY_FP3GLOBAL001_PRIME | 2005-268T21:57:56 | 000T00:50:00 | 2005-268T22:47:56 | 4000       | 11.8         | -Y to Hyperion   |
| CIRS_015HY_HYPERION006_ISS    | 2005-268T22:47:56 | 000T00:20:00 | 2005-268T23:07:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_ROT0BS005_PRIME     | 2005-268T22:49:00 | 000T00:20:00 | 2005-268T23:09:00 |            | 83.89        | Boresight to target, +Z to Earth                                       |
| CIRS_015HY_HYPERIONU001_UVIS  | 2005-268T23:07:56 | 000T00:59:00 | 2005-269T00:06:56 |            | 26.2         | -Y to Hyperion   |
| UVIS_015HY_ICYMAP012_UVIS     | 2005-268T23:09:00 | 000T00:59:00 | 2005-269T00:08:00 | 32096      | No DataVolum | -Y to target, slit parallel to equator                                 |
| MAG_015HY_HYTAR001_RIDER      | 2005-268T23:51:56 | 000T04:00:00 | 2005-269T03:51:56 | 1376       | 19.82        | none   |
| CIRS_015HY_HYPERION007_ISS    | 2005-269T00:06:56 | 000T00:30:00 | 2005-269T00:36:56 |            | 22.3         | -Y to Hyperion   |
| ISS_015HY_MORPH001_PRIME      | 2005-269T00:08:00 | 000T00:05:00 | 2005-269T00:13:00 |            | 67.11        | Boresight to target, +Z to Earth                                       |
| UVIS_015HY_ICYMAP014_RIDER    | 2005-269T00:10:00 | 000T01:58:00 | 2005-269T02:08:00 | 32096      | No DataVolum | Ride-along w/ ORS; continuous slew mosaics preferred at 30 urad/sec    |
| ISS_015HY_COLORF015_PRIME     | 2005-269T00:13:00 | 000T00:20:00 | 2005-269T00:33:00 |            | 75.5         | Boresight to target, +Z to Earth                                       |
| ISS_015HY_MORPH002_PRIME      | 2005-269T00:33:00 | 000T00:03:55 | 2005-269T00:36:55 |            | 50.33        | Boresight to target, +Z to Earth                                       |
| CIRS_015HY_FP1GREEN001_PRIME  | 2005-269T00:36:56 | 000T00:20:00 | 2005-269T00:56:56 | 4000       | 4.8          | -Y to Hyperion   |
| ISS_015HY_COLORF016_CIRS      | 2005-269T00:38:00 | 000T00:20:00 | 2005-269T00:58:00 |            | 67.11        | Boresight to target, +Z to Earth                                       |
| CIRS_015HY_HYPERION008_ISS    | 2005-269T00:56:56 | 000T01:10:00 | 2005-269T02:06:56 |            | 32.2         | -Y to Hyperion   |

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|                               |                   |              |                   |            |              |   |  |  |  |
|-------------------------------|-------------------|--------------|-------------------|------------|--------------|---|--|--|--|
| ISS_015HY_MORPH003_PRIME      | 2005-269T00:58:00 | 000T00:10:00 | 2005-269T01:08:00 |            | 50.33        | Boresight to target, +Z to Earth  |  |  |  |
| ISS_015HY_COLORFO17_PRIME     | 2005-269T01:08:00 | 000T00:05:00 | 2005-269T01:13:00 |            | 37.75        | Boresight to target, +Z to Earth  |  |  |  |
| ISS_015HY_MORPH004_PRIME      | 2005-269T01:13:00 | 000T00:15:00 | 2005-269T01:28:00 |            | 58.72        | Boresight to target, +Z to Earth  |  |  |  |
| MIMI_015HY_ENCOUNTER001_ISS   | 2005-269T01:21:56 | 000T01:00:00 | 2005-269T02:21:56 | 1800       | 6.5          | B field in X,Z plane, -X to corotation  |  |  |  |
| CAPS_015HY_ENCOUNTER001_ISS   | 2005-269T01:21:56 | 000T01:00:00 | 2005-269T02:21:56 | 16000      | 57.6         | ??? within 75 deg of -Y (95 deg if towards -X)                                |  |  |  |
| RPWS_015HY_HYCA001_PRIME      | 2005-269T01:21:56 | 000T01:00:00 | 2005-269T02:21:56 | 100000     | 360          | Don't care  |  |  |  |
| ISS_015HY_MORPH005_PRIME      | 2005-269T01:28:00 | 000T00:20:00 | 2005-269T01:48:00 |            | 8.39         | Boresight to target, +Z to Earth  |  |  |  |
| INMS_015HY_ICYSATCLO01_ISS    | 2005-269T01:36:56 | 000T00:30:00 | 2005-269T02:06:56 | 1498       | 2.6964       | -x to spacecraft ram  |  |  |  |
| CDA_015HY_HYPDUST001_PRIME    | 2005-269T01:36:56 | 000T00:30:00 | 2005-269T02:06:56 | 524        | 1            | CDA boresight to dust RAM   |  |  |  |
| RSS_015HY_THERMAL002_RSS      | 2005-269T01:37:26 | 000T02:00:00 | 2005-269T03:37:26 | 0          | 0            | No pointing requirement   |  |  |  |
| ISS_015HY_COLORFO18_PRIME     | 2005-269T01:48:00 | 000T00:10:00 | 2005-269T01:58:00 |            | 37.75        | Boresight to target, +Z to Earth  |  |  |  |
| ISS_015HY_MORPH006_PRIME      | 2005-269T01:58:00 | 000T00:03:55 | 2005-269T02:01:55 |            | 8.39         | Boresight to target, +Z to Earth  |  |  |  |
| INMS_015HY_ICYSATOB001_ISS    | 2005-269T02:06:56 | 000T01:00:00 | 2005-269T03:06:56 | 1498       | 1.3482       | ride along w/ISS  |  |  |  |
| CIRS_015HY_FP1DSKOUT001_PRIME | 2005-269T02:06:56 | 000T00:12:00 | 2005-269T02:18:56 | 4000       | 2.88         | -Y to Hyperion  |  |  |  |
| CIRS_015HY_HYPERIONU002_UVIS  | 2005-269T02:18:56 | 000T01:23:00 | 2005-269T03:41:56 |            | 26.2         | -Y to Hyperion  |  |  |  |
| UVIS_015HY_ICYMAP013_UVIS     | 2005-269T02:19:00 | 000T01:18:00 | 2005-269T03:37:00 | 32096      | No DataVolum | -Y to target, slit parallel to equator  |  |  |  |
| RPWS_015SA_OUTSURVEY003_PRIME | 2005-269T02:21:56 | 000T11:28:04 | 2005-269T13:50:00 | 1310       | 54           | don't care  |  |  |  |
| CAPS_015SA_SURVEY002_RIDER    | 2005-269T02:21:56 | 000T11:28:04 | 2005-269T13:50:00 | 1000       | 41.284       | Control of 2nd axis when possible   |  |  |  |
| MIMI_015CO_SURVEY003_MAPS     | 2005-269T02:21:56 | 001T18:03:04 | 2005-270T20:25:00 | 900        | 137.9        | If poss, keep corot ram in -X, +/-Z half-plane; B field in X, Z plane.        |  |  |  |
| CDA_015HY_DUST002_RIDER       | 2005-269T03:03:56 | 000T01:40:00 | 2005-269T04:43:56 | 200        | 1.2          | secondary axis: -x = (ra: 223.2, dec: 6.6)                                    |  |  |  |
| INMS_015SA_SURVEY004_RIDER    | 2005-269T03:06:56 | 000T10:43:04 | 2005-269T13:50:00 | 50         | 1.9292       | No Pointing Information.  |  |  |  |
| RSS_015HY_MASS002_PRIME       | 2005-269T03:37:26 | 000T01:45:00 | 2005-269T05:22:26 | 0          | 0            | Primary axis = KABAND to Earth. Secondary axis is free.                       |  |  |  |
| RADAR_015HY_WARIMDAT001_RIDER | 2005-269T04:57:26 | 000T00:43:16 | 2005-269T05:40:42 | 250        | 0.65         | No constraint.  |  |  |  |
| RADAR_015HY_SCATTRAD001_PRIME | 2005-269T05:22:26 | 000T03:01:46 | 2005-269T08:24:12 | 36677      | 400          | RADAR must control primary and secondary axes to obtain correct polarization. |  |  |  |
| CDA_015HY_240OHYORX007_RIDER  | 2005-269T06:19:55 | 000T02:00:00 | 2005-269T08:19:55 | 524        | 3.598        | CDA to Kepler RAM   |  |  |  |
| CDA_015DR_2500DUST087_RIDER   | 2005-269T08:20:54 | 006T14:39:26 | 2005-275T23:00:20 | 150        | 81.705       | CDA to Kepler RAM   |  |  |  |
| VIMS_015HY_HYPERION005_PRIME  | 2005-269T08:24:12 | 000T01:38:00 | 2005-269T10:02:12 | VIMS_18432 | 7.3          | VIMS boresight to hyperion  |  |  |  |
| CIRS_015HY_HYPERIONV005_VIMS  | 2005-269T08:31:56 | 000T03:00:00 | 2005-269T11:31:56 |            | 38.4         | -Y to Hyperion  |  |  |  |
| RPWS_015SA_OUTSURVEY014_PRIME | 2005-269T13:50:00 | 001T05:35:00 | 2005-270T19:25:00 | 1087       | 116          | don't care  |  |  |  |
| CAPS_015SA_SURVEY005_RIDER    | 2005-269T13:50:00 | 001T05:35:00 | 2005-270T19:25:00 | 830        | 88.395       | Control of 2nd axis when possible   |  |  |  |
| INMS_015SA_SURVEY005_RIDER    | 2005-269T13:50:00 | 001T06:35:00 | 2005-270T20:25:00 | 50         | 5.505        | No Pointing Information.  |  |  |  |
| MAG_015OT_SURVEY002_PRIME     | 2005-269T13:50:00 | 001T05:35:00 | 2005-270T19:25:00 | 498        | 53.04        | None  |  |  |  |

SOST Rev 15 Attitude Strategy

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EPOCH\_015HY=2005 269 01:51:55.82

NSP= Saturn North Pole

| Request              | Riders  | Start (SCET)          | Start (Epoch) | Dur          | End (SCET)            | Observation Attitude   |                     | Comments |
|----------------------|---------|-----------------------|---------------|--------------|-----------------------|------------------------|---------------------|----------|
|                      |         |                       |               |              |                       | Primary                | Secondary           |          |
| turn to new waypoint |         | 2005-268T13:50        |               | 00:22        | 2005-268T14:12        | NAC to HYPERION        | +X to NSP           |          |
| <b>NEW WAYPOINT</b>  |         | <b>2005-268T14:12</b> |               | <b>20:31</b> | <b>2005-269T11:43</b> | <b>NAC to HYPERION</b> | <b>+X to NSP</b>    |          |
| ISS prime            | V, C, U | 2005-268T14:12        | HY-11:40      | 00:11        |                       |                        |                     |          |
| VIMS prime           | C, U, I | 2005-268T14:23        | HY-11:29      | 02:24        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-268T16:47        | HY-09:05      | 00:11        |                       |                        |                     |          |
| VIMS prime           | C, U, I | 2005-268T16:58        | HY-08:54      | 00:29        |                       |                        |                     |          |
| RSS                  |         | 2005-268T17:27        | HY-08:25      | 02:20        |                       | KABAND to EARTH        | +X to NSP           |          |
| ISS prime            | V, C, U | 2005-268T19:47        | HY-06:05      | 00:11        |                       |                        |                     |          |
| VIMS prime           | C, U, I | 2005-268T19:58        | HY-05:54      | 00:49        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-268T20:47        | HY-05:04      | 00:11        |                       |                        |                     |          |
| VIMS prime           | C, U, I | 2005-268T20:58        | HY-04:54      | 00:49        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-268T21:47        | HY-04:05      | 00:11        |                       |                        |                     |          |
| CIRS prime           | V, U, I | 2005-268T21:58        | HY-03:54      | 00:50        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-268T22:48        | HY-03:04      | 00:20        |                       |                        |                     |          |
| UVIS prime           | C, V, I | 2005-268T23:08        | HY-02:44      | 00:59        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-269T00:07        | HY-01:45      | 00:30        |                       |                        |                     |          |
| CIRS prime           | V, U, I | 2005-269T00:37        | HY-01:15      | 00:20        |                       |                        |                     |          |
| ISS prime            | V, C, U | 2005-269T00:57        | HY-00:55      | 01:10        |                       |                        |                     |          |
| CIRS prime           | V, U, I | 2005-269T02:07        | HY+00:15      | 00:12        |                       |                        |                     |          |
| UVIS prime           | C, V, I | 2005-269T02:19        | HY+00:27      | 01:18:30     |                       |                        |                     |          |
| RSS                  |         | 2005-269T03:37:30     | HY+01:45:30   | 01:45        |                       | KABAND to EARTH        | +X to NSP           |          |
| RADAR                |         | 2005-269T05:22:30     | HY+03:30      | 03:01:46     |                       | -Z to HYPERION         | +X to NSP           |          |
| VIMS prime           | C, U, I | 2005-269T08:24:16     | HY+06:32:16   | 01:38        |                       |                        |                     |          |
| turn to Earth        |         | 2005-269T10:02        |               | 00:18        | 2005-269T10:20        | XBAND to EARTH         | +X to 270.0/+66.561 |          |
| downlink             |         | 2005-269T10:20        |               | 09:00        | 2005-269T19:20        | XBAND to EARTH         | rolling             |          |

# SOST Rev 15 OpMode and Telemetry Mode Strategy

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| Start Time   | Dur      | End Time     | OpMode    | OpMode Transition Time (from prev.) | Telemetry Mode | Comments                 |
|--------------|----------|--------------|-----------|-------------------------------------|----------------|--------------------------|
| 268T04:51:56 | 09:00    | 268T13:51:56 | DFPW      | 00:00:05                            | RTE_N_SPB_X    | Downlink                 |
| 268T13:51:56 | 00:20    | 168T14:11:56 | ORS_RWA   | 00:00:05                            | S_N_ER_3       | turn to WP               |
| HY-11:40     | 01:35    | HY-10:05     | ORS_RWA   |                                     | S_N_ER_3       | ORS Hyperion             |
| HY-10:05     | 01:40    | HY-08:25     | unique    | ??                                  | S_N_ER_3       | RSS warmup, ORS Hyperion |
| HY-08:25     | 00:12    | HY-08:13     | RSS3_RWA  | ??                                  | S_N_ER_3       | RSS warmup, turn to RSS  |
| HY-08:13     | 01:56    | HY-06:17     | RSS3_RWA  |                                     | S_N_ER_3       | RSS Hyperion             |
| HY-06:17     | 00:20    | HY-06:05     | ORS_RWA   | 0:01:04                             | S_N_ER_3       | turn to WP               |
| HY-06:05     | 06:15    | HY+00:10     | ORS_RWA   |                                     | S_N_ER_3       | ORS Hyperion             |
| HY+00:10     | 01:35:30 | HY+01:45:30  | unique    | ??                                  | S_N_ER_3       | RSS warmup, ORS Hyperion |
| HY+01:45:30  | 00:25    | HY+02:10:30  | RSS3_RWA  | ??                                  | S_N_ER_3       | RSS warmup, turn to RSS  |
| HY+02:10:30  | 00:55:00 | HY+03:05:30  | RSS3_RWA  |                                     | S_N_ER_3       | RSS Hyperion             |
| HY+03:05:30  | 00:25    | HY+03:30:30  | RADAR_WU  | 00:01:12                            | S_N_ER_8       | RADAR W/U, turn to WP    |
| HY+03:30:30  | 00:18:16 | HY+03:48:46  | RADAR_WU  |                                     | S_N_ER_8       | RADAR W/U, turn to RADAR |
| HY+03:48:46  | 02:25:30 | HY+06:14:16  | RADAR_RWA | 00:00:42                            | S_N_ER_8       | RADAR Hyperion           |
| HY+06:14:16  | 00:18:00 | HY+06:32:16  | ORS_RWA   | 00:05:29                            | S_N_ER_3       | turn to WP               |
| HY+06:32:16  | 03:00    | HY+09:32:16  | ORS_RWA   |                                     | S_N_ER_3       | ORS Hyperion             |
| 269T11:23:42 | 00:20    | 269T11:43:42 | ORS_RWA   |                                     | S_N_ER_3       | turn to Earth            |
| 269T11:43:42 | 09:00    | 269T20:43:42 | DFPW      | 00:00:06                            | RTE_N_SPB_X    | Downlink                 |

| Playback    | Start<br>doy hh:mm | End<br>doy hh:mm | Volume<br>(Mb) | 5%<br>(Mb) | ENG+HK<br>(Mb) | SCIENCE<br>(Mb) | TOTAL<br>(Mb) | MARGIN<br>(Mb) |
|-------------|--------------------|------------------|----------------|------------|----------------|-----------------|---------------|----------------|
| PLAYBACK*   | 268 04:35          | 268 13:49        | 24617          | 1231       | 0              | 923             | 923           | 22464          |
| PLAYBACK*   | 268 17:12          | 268 19:47        | 184            | 9          | 26             | 240             | 266           | -91            |
| PLAYBACK*   | 269 03:22          | 269 05:22        | 669            | 33         | 37             | 2035            | 2072          | -1437          |
| PLAYBACK*** | 269 11:28          | 269 20:43        | 3661           | 183        | 74             | 647             | 721           | 2757           |
| Leftover:   |                    |                  |                |            | 0              | 357             | 357           | -357           |

| Event       | Start<br>doy hh:mm | End<br>doy hh:mm | CAPS<br>(Mb) | CDA<br>(Mb) | CIRS<br>(Mb) | INMS<br>(Mb) | ISS<br>(Mb) | MAG<br>(Mb) | MIMI<br>(Mb) | RADAR<br>(Mb) | RPWS<br>(Mb) | UVIS<br>(Mb) | VIMS_<br>(Mb) | VIMS<br>(Mb) | ENG<br>(Mb) | SCIENC<br>(Mb) | TOTAL<br>(Mb) |
|-------------|--------------------|------------------|--------------|-------------|--------------|--------------|-------------|-------------|--------------|---------------|--------------|--------------|---------------|--------------|-------------|----------------|---------------|
| OBSERVATION | undef min          | 268 04:35        | 207.9        | 0.0         | 0.0          | 10.2         | 0.0         | 544.8       | 67.8         | 0.0           | 0.0          | 0.0          | 0.0           | 0.0          | 0.0         | 0.0            | 830.7         |
| PLAYBACK*   | 268 04:35          | 268 13:49        | 33.3         | 1.6         | 0.0          | 1.7          | 0.0         | 20.0        | 30.0         | 0.0           | 3.1          | 2.5          | 0.0           | 0.0          | 0.0         | 0.0            | 92.1          |
| OBSERVATION | 268 13:49          | 268 17:12        | 12.1         | 2.2         | 39.3         | 0.6          | 92.3        | 7.3         | 10.9         | 0.0           | 15.9         | 0.0          | 12.2          | 0.0          | 8.7         | 2.9            | 204.2         |
| PLAYBACK*   | 268 17:12          | 268 19:47        | 9.3          | 2.6         | 3.6          | 0.5          | 0.0         | 5.6         | 8.4          | 0.0           | 12.2         | 0.0          | 5.1           | 0.0          | 14.3        | 0.2            | 61.7          |
| OBSERVATION | 268 19:47          | 269 03:22        | 81.3         | 5.3         | 99.4         | 9.1          | 796.9       | 33.8        | 26.2         | 0.0           | 391.1        | 507.7        | 23.2          | 0.0          | 19.6        | 6.4            | 2000.1        |
| PLAYBACK*   | 269 03:22          | 269 05:22        | 7.2          | 2.1         | 4.7          | 0.4          | 0.0         | 6.7         | 6.5          | 0.6           | 9.4          | 23.7         | 0.0           | 0.0          | 10.9        | 0.2            | 72.3          |
| OBSERVATION | 269 05:22          | 269 11:28        | 21.9         | 6.0         | 21.1         | 1.1          | 0.0         | 13.2        | 19.7         | 399.9         | 28.7         | 0.0          | 7.3           | 0.0          | 15.7        | 5.2            | 539.9         |
| PLAYBACK*** | 269 11:28          | 269 20:43        | 29.1         | 5.0         | 0.5          | 1.7          | 6.3         | 17.5        | 30.0         | 0.0           | 38.1         | 0.0          | 0.0           | 0.0          | 53.2        | 0.2            | 181.5         |
| Leftover:   | 269 20:43          | undef max        | 67.8         | 78.9        | 0.0          | 4.3          | 0.0         | 40.7        | 76.8         | 0.0           | 88.8         | 0.0          | 0.0           | 0.0          | 0.0         | 0.0            | 357.3         |

| Event       | Start<br>doy hh:mm | End<br>doy hh:mm | CAPS<br>(Pkts) | CDA<br>(Pkts) | CIRS<br>(Pkts) | INMS<br>(Pkts) | ISS<br>(Pkts) | MAG<br>(Pkts) | MIMI<br>(Pkts) | RADAR<br>(Pkts) | RPWS<br>(Pkts) | UVIS<br>(Pkts) | VIMS_<br>(Pkts) | VIMS<br>(Pkts) | TOTAL<br>(Pkts) |
|-------------|--------------------|------------------|----------------|---------------|----------------|----------------|---------------|---------------|----------------|-----------------|----------------|----------------|-----------------|----------------|-----------------|
| OBSERVATION | undef min          | 268 04:35        | 26000          | 0             | 0              | 1300           | 0             | 69000         | 8500           | 0               | 0              | 0              | 0               | 0              | 104800          |
| PLAYBACK*   | 268 04:35          | 268 13:49        | 4200           | 400           | 0              | 300            | 0             | 2600          | 3800           | 0               | 500            | 300            | 0               | 0              | 12100           |
| OBSERVATION | 268 13:49          | 268 17:12        | 1600           | 600           | 5000           | 100            | 12200         | 1000          | 1400           | 0               | 2100           | 0              | 2100            | 0              | 26100           |
| PLAYBACK*   | 268 17:12          | 268 19:47        | 1200           | 700           | 500            | 100            | 0             | 800           | 1100           | 0               | 1600           | 0              | 900             | 0              | 6900            |
| OBSERVATION | 268 19:47          | 269 03:22        | 10200          | 1300          | 12500          | 1200           | 104700        | 4300          | 3300           | 0               | 51400          | 58400          | 4000            | 0              | 251300          |
| PLAYBACK*   | 269 03:22          | 269 05:22        | 900            | 500           | 600            | 100            | 0             | 900           | 900            | 100             | 1300           | 2800           | 0               | 0              | 8100            |
| OBSERVATION | 269 05:22          | 269 11:28        | 2800           | 1500          | 2700           | 200            | 0             | 1700          | 2500           | 52700           | 3800           | 0              | 1300            | 0              | 69200           |
| PLAYBACK*** | 269 11:28          | 269 20:43        | 3700           | 1200          | 100            | 300            | 900           | 2300          | 3800           | 0               | 5100           | 0              | 0               | 0              | 17400           |
| Leftover:   | 269 20:43          | undef max        | 8500           | 18900         | 0              | 600            | 0             | 5200          | 9600           | 0               | 11700          | 0              | 0               | 0              | 54500           |

\* = back-to-back or multirate playbacks; first one listed

**SOST Rev 15 DSN Requests [4/16/02]**

| DSN                | Type   | Track Start<br>(ERT) | Track End<br>(ERT) | Track Dur. | 2-way Dur. | Downlink Start<br>(SCEI) | Downlink End<br>(SCEI) | Downlink<br>Duration | Data Rate<br>(kbps) | OWLT  | Comments      |
|--------------------|--------|----------------------|--------------------|------------|------------|--------------------------|------------------------|----------------------|---------------------|-------|---------------|
| Goldstone DSS-25   | 34 BWG | 2005-268T16:00       | 2005-268T21:10     | 00T05:10   | 00T02:20   | 2005-268T17:27           | 2005-268T19:47         | 00T02:20             | 22, 27              | 82.64 | RSS, downlink |
| Madrid             | 70 m   | 2005-269T02:10       | 2005-269T06:45     | 00T04:35   | 00T01:45   | 2005-269T03:37:30        | 2005-269T05:22:30      | 00T01:45             | 110, 124            | 82.64 | RSS, downlink |
| Goldstone/Canberra | 70 m   | 2005-269T13:05       | 2005-269T22:05     | 00T09:00   | 00T06:15   | 2005-269T11:43           | 2005-269T20:43         | 00T09:00             | 110, 124, 142       | 82.64 | downlink      |

# Open Issues

- UVIS requests need to be put in epoch-relative time