

|                                   |            |                          |                                      |                     |                          |                                                         |                                |                                                                                  |  |
|-----------------------------------|------------|--------------------------|--------------------------------------|---------------------|--------------------------|---------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------------|--|
| TOST REV59 SEGMENT                |            | 2008-053T03:51:00        |                                      | 002T07:30:00        | 2008-055T11:21:00        |                                                         |                                |                                                                                  |  |
| SP_059TI_WAYPTTURN053_PRIME       |            | 2008-053T03:51:00        |                                      | 000T00:30:00        | 2008-053T04:21:00        | ISS_NAC TO TITAN                                        | POS_X TO NORTH_POLE_DIR        | 10.62 MIN TURN FROM +X TO NEP                                                    |  |
| <b>NEW WAYPOINT</b>               |            | <b>2008-053T04:21:00</b> |                                      | <b>000T08:26:07</b> | <b>2008-053T12:47:07</b> | <b>ISS_NAC TO TITAN</b>                                 | <b>POS_X TO NORTH_POLE_DIR</b> |                                                                                  |  |
| <b>SP_059TI_DEADTIME053_PRIME</b> |            | <b>2008-053T04:21:00</b> |                                      | <b>000T00:08:07</b> | <b>2008-053T04:29:07</b> | <b>ISS_NAC TO TITAN</b>                                 | <b>POS_X TO NORTH_POLE_DIR</b> |                                                                                  |  |
| CIRS_059TI_FIRNADCMP001_PRIME     | C, I, R, V | 2008-053T04:29:07        | GMB_E059_TITAN41+000T13:03:00        | 000T03:03:00        | 2008-053T07:32:07        | CIRS_FP1 TO TITAN                                       | PIC                            |                                                                                  |  |
| ISS_059TI_PHOTOMWAC001_PRIME      | C, R, V    | 2008-053T07:32:07        | GMB_E059_TITAN41+000T10:00:00        | 000T01:00:00        | 2008-053T08:32:07        | ISS_NAC TO TITAN                                        | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| VIMS_059TI_MEDRESDRK001_PRIME     | C, I, R    | 2008-053T08:32:07        | GMB_E059_TITAN41+000T09:00:00        | 000T03:45:00        | 2008-053T12:17:07        | ISS_NAC TO TITAN                                        | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| SP_059TI_WAYPTTURN453_PRIME       | R          | 2008-053T12:17:07        | GMB_E059_TITAN41+000T05:15:00        | 000T00:30:00        | 2008-053T12:47:07        | NEG_Z TO TITAN                                          | NEG_X TO 30.0/42.0             | 20.24 MIN TURN                                                                   |  |
| <b>NEW WAYPOINT</b>               |            | <b>2008-053T12:47:07</b> |                                      | <b>000T06:06:00</b> | <b>2008-053T18:53:07</b> | <b>NEG_Z TO TITAN</b>                                   | <b>NEG_X TO 30.0/42.0</b>      |                                                                                  |  |
| RADAR_059TI_T41INRAD001_PRIME     | M          | 2008-053T12:47:07        | GMB_E059_TITAN41+000T04:45:00        | 000T03:15:00        | 2008-053T16:02:07        | NEG_Z TO TITAN                                          | POS_Y TO NORTH_POLE_DIR        | USE +Y_NTP AND +X_NTP FOR THE TWO POLARIZATIONS.                                 |  |
| RADAR_059TI_T41INSCAT001_PRIME    | M          | 2008-053T16:02:07        | GMB_E059_TITAN41+000T01:30:00        | 000T00:38:00        | 2008-053T16:40:07        | NEG_Z TO TITAN                                          | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| ENGR_059SC_RADRCS053_PRIME        | M          | 2008-053T16:40:07        | GMB_E059_TITAN41+000T00:52:00        | 000T00:01:00        | 2008-053T16:41:07        | NEG_Z TO TITAN                                          | PIC                            | (0.5,0.5,2.0)                                                                    |  |
| RADAR_059TI_T41INALT001_PRIME     | M          | 2008-053T16:41:07        | GMB_E059_TITAN41+000T00:51:00        | 000T00:36:00        | 2008-053T17:17:07        | NEG_Z TO TITAN                                          | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| BEGIN HIGH VALUE SCIENCE          |            | 2008-053T17:09:07        | GMB_E059_TITAN41+000T00:23:00        | 000T00:00:01        | 2008-053T17:09:08        |                                                         |                                |                                                                                  |  |
| RADAR_059TI_T41INLSAR001_PRIME    | M          | 2008-053T17:17:07        | GMB_E059_TITAN41+000T00:15:00        | 000T00:08:00        | 2008-053T17:25:07        | NEG_Z TO TITAN                                          | NEG_X TO TITAN_SC_RAM          |                                                                                  |  |
| RADAR_059TI_T41HISAR001_PRIME     | M          | 2008-053T17:25:07        | GMB_E059_TITAN41+000T00:07:00        | 000T00:14:00        | 2008-053T17:39:07        | NEG_Z TO TITAN                                          | NEG_X TO TITAN_SC_RAM          | RADAR MUST CONTROL BOTH PRIMARY AND SECONDARY AXES FOR POLARIZATION OPTIMIZATION |  |
| 59TI (T) T41 TITAN OUTBOU...      |            | 2008-053T17:32:07        |                                      | 000T00:00:01        | 2008-053T17:32:08        |                                                         |                                |                                                                                  |  |
| RADAR_059TI_T41OULSAR001_PRIME    | M          | 2008-053T17:39:07        | GMB_E059_TITAN41+000T00:07:00        | 000T00:08:00        | 2008-053T17:47:07        | NEG_Z TO TITAN                                          | NEG_X TO TITAN_SC_RAM          |                                                                                  |  |
| RADAR_059TI_T41OULTAL001_PRIME    | M          | 2008-053T17:47:07        | GMB_E059_TITAN41+000T00:15:00        | 000T00:15:00        | 2008-053T18:02:07        | NEG_Z TO TITAN                                          | NEG_Y TO NORTH_POLE_DIR        |                                                                                  |  |
| END HIGH VALUE SCIENCE            |            | 2008-053T17:50:07        | GMB_E059_TITAN41+000T00:18:00        | 000T00:00:01        | 2008-053T17:50:08        |                                                         |                                |                                                                                  |  |
| RADAR_059TI_T41OUTSCT001_PRIME    | M          | 2008-053T18:02:07        | GMB_E059_TITAN41+000T00:30:00        | 000T00:42:00        | 2008-053T18:44:07        | NEG_Z TO TITAN                                          | NEG_Y TO NORTH_POLE_DIR        |                                                                                  |  |
| SP_059TI_WAYPTTURN553_PRIME       | M          | 2008-053T18:44:07        | GMB_E059_TITAN41+000T01:12:00        | 000T00:09:00        | 2008-053T18:53:07        | ISS_NAC TO TITAN                                        | NEG_X TO SUN                   | ON THRUSTERS; 8 MIN TURN ON RCS                                                  |  |
| <b>NEW WAYPOINT</b>               |            | <b>2008-053T18:53:07</b> |                                      | <b>000T17:39:00</b> | <b>2008-054T12:32:07</b> | <b>ISS_NAC TO TITAN</b>                                 | <b>NEG_X TO SUN</b>            |                                                                                  |  |
| SP_059ST_WAYPTTURN453_PRIME       | M          | 2008-053T18:53:07        | GMB_E059_TITAN41+000T01:21:00        | 000T00:02:00        | 2008-053T18:55:07        | UVIS_FUV TO 111.023/-29.303 (0.258,0.0,0.0 DEG. OFFSET) | NEG_X TO SUN                   | ON THRUSTERS . TURN TO RADEC FOR UVIS TO OBSERVE DURING THE RWA TRANSITION.      |  |
| ENGR_059SC_DFPWBIA053_PPS         | C, M, U    | 2008-053T18:55:07        | GMB_E059_TITAN41+000T01:23:00        | 000T00:22:42        | 2008-053T19:17:49        | UVIS_FUV TO 104.656/-28.972 (0.258,0.0,0.0 DEG. OFFSET) | NEG_X TO SUN                   |                                                                                  |  |
| UVIS_059ST_ETACMA002_PRIME        | C, M       | 2008-053T19:18:07        | GMB_E059_TITAN41+000T01:46:00        | 000T00:44:00        | 2008-053T20:02:07        | UVIS_FUV TO 111.023/-29.303 (0.258,0.0,0.0 DEG. OFFSET) | NEG_X TO SUN                   |                                                                                  |  |
| UVIS_059TI_EUVFUV002_PRIME        | C, I, V    | 2008-053T20:02:07        | GMB_E059_TITAN41+000T02:30:00        | 000T02:30:00        | 2008-053T22:32:07        | UVIS_FUV TO TITAN                                       | NEG_X TO SUN                   |                                                                                  |  |
| ISS_059TI_GLOBMAP001_PRIME        | C, V       | 2008-053T22:32:07        | GMB_E059_TITAN41+000T05:00:00        | 000T03:36:00        | 2008-054T02:08:07        | ISS_NAC TO TITAN                                        | NEG_X TO SUN                   |                                                                                  |  |
| ISS_059TI_PHOTOMWAC002_PRIME      | C, V       | 2008-054T02:08:07        | GMB_E059_TITAN41+000T08:36:00        | 000T00:24:00        | 2008-054T02:32:07        | ISS_NAC TO TITAN                                        | NEG_X TO SUN                   |                                                                                  |  |
| CIRS_059TI_FIRNADCMP002_PRIME     | C, I, U, V | 2008-054T02:32:07        | GMB_E059_TITAN41+000T09:00:00        | 000T02:00:00        | 2008-054T04:32:07        | CIRS_FP1 TO TITAN                                       | PIC                            |                                                                                  |  |
| ISS_059TI_MONITORNAD001_PRIME     | C, V       | 2008-054T04:32:07        | GMB_E059_TITAN41+000T11:00:00        | 000T02:00:00        | 2008-054T06:32:07        | ISS_NAC TO TITAN                                        | NEG_X TO SUN                   |                                                                                  |  |
| VIMS_059TI_GLOBMAP002_PRIME       | C, I       | 2008-054T06:32:07        | GMB_E059_TITAN41+000T13:00:00        | 000T01:00:00        | 2008-054T07:32:07        | ISS_NAC TO TITAN                                        | NEG_X TO SUN                   |                                                                                  |  |
| SP_059EA_DLTURNO54_PRIME          | C          | 2008-054T07:32:07        | GMB_E059_TITAN41+000T14:00:00        | 000T00:30:00        | 2008-054T08:02:07        | XBAND TO EARTH                                          | POS_X TO NEP                   | ?? MIN TURN                                                                      |  |
| SP_059EA_G70METNON054_PRIME       | C          | 2008-054T08:02:07        | GMB_E059_TITAN41+000T14:30:00        | 000T04:00:00        | 2008-054T12:02:07        | XBAND TO EARTH                                          | ROLLING                        |                                                                                  |  |
| SP_059TI_WAYPTTURN054_PRIME       | C          | 2008-054T12:02:07        | GMB_E059_TITAN41+000T18:30:00        | 000T00:30:00        | 2008-054T12:32:07        | ISS_NAC TO TITAN                                        | POS_X TO NORTH_POLE_DIR        | ?? MIN TURN                                                                      |  |
| <b>NEW WAYPOINT</b>               |            | <b>2008-054T12:32:07</b> |                                      | <b>000T23:22:53</b> | <b>2008-055T11:55:00</b> | <b>ISS_NAC TO TITAN</b>                                 | <b>POS_X TO NORTH_POLE_DIR</b> |                                                                                  |  |
| CIRS_059TI_MIDIRTMAP002_PRIME     | C, I, V    | 2008-054T12:32:07        | GMB_E059_TITAN41+000T19:00:00        | 000T02:53:00        | 2008-054T15:25:07        | CIRS_FPB TO TITAN                                       | NEG_X TO SUN                   |                                                                                  |  |
| UVIS_059ST_EPSCMA003_PRIME        | C, M, V    | 2008-054T15:25:07        | GMB_E059_TITAN41+000T21:53:00        | 000T02:30:00        | 2008-054T17:55:07        | UVIS_FUV TO 104.656/-28.972 (0.258,0.0,0.0 DEG. OFFSET) | NEG_X TO SUN                   |                                                                                  |  |
| CIRS_059TI_TEMPMAPO37_PRIME       | I, M, V    | 2008-054T17:55:07        | GMB_E059_TITAN41+001T00:23:00        | 000T03:25:00        | 2008-054T21:20:07        | CIRS_FPB TO TITAN                                       | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| UVIS_059ST_EPSCMA004_PRIME        | C, I, M, V | 2008-054T21:20:07        | GMB_E059_TITAN41+001T03:48:00        | 000T02:15:00        | 2008-054T23:35:07        | UVIS_FUV TO 104.656/-28.972 (0.258,0.0,0.0 DEG. OFFSET) | NEG_X TO SUN                   |                                                                                  |  |
| CIRS_059TI_TEMPMAPO38_PRIME       | I, M, V    | 2008-054T23:35:07        | GMB_E059_TITAN41+001T06:03:00        | 000T01:52:00        | 2008-055T01:27:07        | CIRS_FPB TO TITAN                                       | POS_X TO NORTH_POLE_DIR        |                                                                                  |  |
| <b>SP_059TI_DEADTIME055_PRIME</b> | <b>M</b>   | <b>2008-055T01:27:07</b> | <b>GMB_E059_TITAN41+001T07:55:00</b> | <b>000T00:23:53</b> | <b>2008-055T01:51:00</b> | <b>ISS_NAC TO TITAN</b>                                 | <b>POS_X TO NTP</b>            |                                                                                  |  |
| SP_059EA_DLTURNO55_PRIME          | M          | 2008-055T01:51:00        |                                      | 000T00:30:00        | 2008-055T02:21:00        | XBAND TO EARTH                                          | POS_X TO NEP                   | 17.33 MIN TURN                                                                   |  |
| SP_059EA_G70METNON055_PRIME       | C, M       | 2008-055T02:21:00        |                                      | 000T09:00:00        | 2008-055T11:21:00        | XBAND TO EARTH                                          | ROLLING                        |                                                                                  |  |