



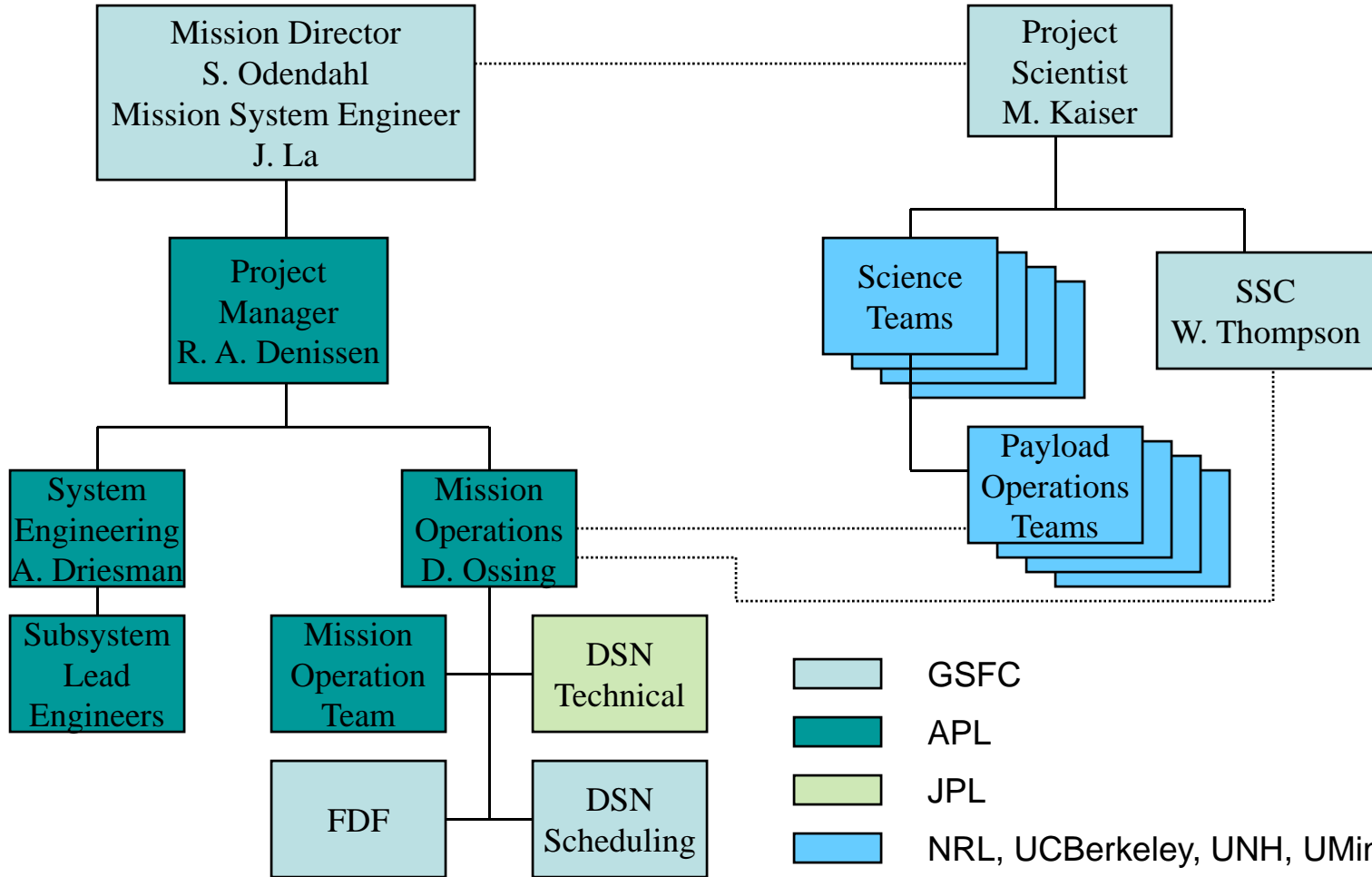
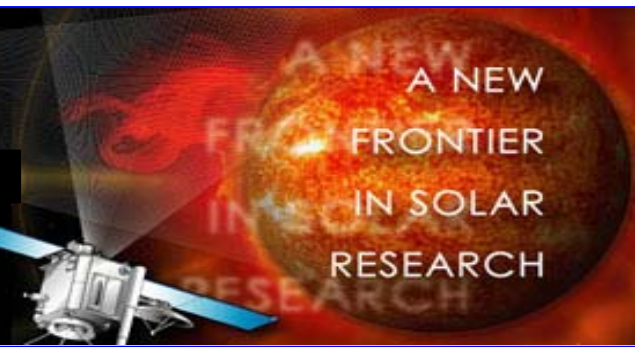
STEREO Project

Ron Denissen – APL Project Manager
Andy Driesman – APL Mission System Engineer



STEREO Phase E Organization Chart

UNH • UCB • NRL • Obs. Paris • UMN • JHU/APL • NASA GSFC



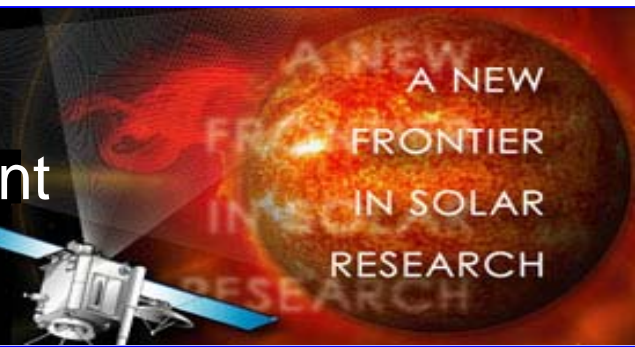
- GSFC
- APL
- JPL
- NRL, UC Berkeley, UNH, UMinn





Program Assessment

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Technical

Schedule

Programmatic

| | | |
|-----|-----|-----|
| Nov | Dec | Jan |
| G | G | G |

| | | |
|-----|-----|-----|
| Nov | Dec | Jan |
| G | G | G |

| | | |
|-----|-----|-----|
| Nov | Dec | Jan |
| G | G | G |

| | | |
|-----|-----|-----|
| Nov | Dec | Jan |
| G | G | G |

❖ Technical

- Both Observatories operational. Completed the prime science mission successfully and are now in our first extended mission.

❖ Schedule

- Routine operations – HGA and instrument calcs, momentum dumps.

❖ Resources

- Extended mission proposal has been accepted and we are now under contract until the end of September 2010.

❖ Programmatic

- No issues at this time.

G No current problem
All commitments can be met

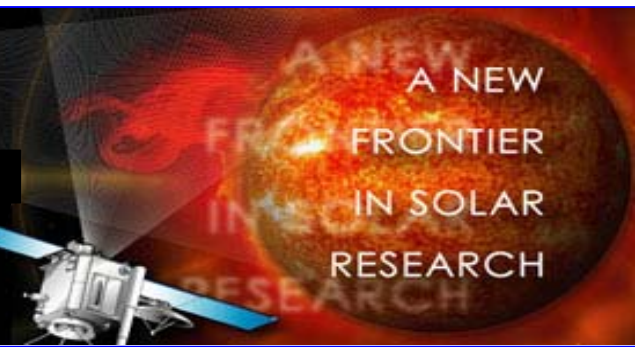
Y Major problem
Identified solution
Commitment is in jeopardy

R Major problem
No identified solution
Commitment cannot be met



Program Status

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❖ Mission Operations

- Operations team reduced 6
- 1 attended track per week on each observatory (more if requested)
- Collecting on Average over 7 Gbits/day

❖ Special Observatory Events

- *55 instrument calibration events*
- *15 High Gain Antenna Calibrations*
- *31 Momentum Dumps (~every 6 weeks on ahead, 9 weeks on behind)*
- *Software Patches and Parameter adjustments to RAM*
- *Autonomy Rule Changes in RAM and EEPROM*
- Beginning the planning cycle for:
 - *G&C/Autonomy load*
 - *IMU#2 test on SCB*
 - *GT Saturation test*





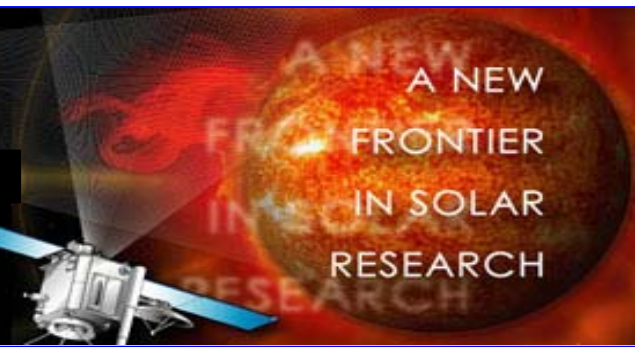
From STEREO Mission Events Schedule

| | Spacecraft A | Spacecraft B |
|--|---------------|--------------|
| Begin 6 hour daily DSN tracks | 11-May-2009 | 11-May-2009 |
| Switch downlink rate to 360 kbps downlink rate | 18-May-2009 | 8-Jun-2009 |
| Begin 7 hour daily DSN tracks | 3-Aug-2009 | 3-Aug-2009 |
| Switch downlink rate to 240 kbps downlink rate | 10-Aug-2009 | 31-Aug-2009 |
| Begin 8 hour daily DSN tracks | 19-April-2010 | 7-Dec-2009 |
| Switch downlink rate to 160 kbps downlink rate | 26-April-2010 | 8-Dec 2009 |



Program Summary

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- ❖ Began extended mission January 22nd, 2009
- ❖ The observatories are in operational mode and about 90 degrees apart.
- ❖ Beginning the planning cycle for:
 - *G&C/Autonomy load*
 - *IMU#2 testing on SCB*
 - *GT Saturation test*
- ❖ Continuing to collect science data, averaging about 6.5 Gbits/day.

