

17 May April  
SELENE JURAP Debrief  
Update

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## SELENE DSN Station Requirement Request (No changes from last JURAP)

- **L-4h to L+8h**
  - 2 Antennas of DSN (Launch Date Dependent)
    - MAD, 26m (DSS66) and 34m (DSS54)
    - GDS, 26m (DSS27) and 34m (DSS24)
- **L+ 8h to L + 20 Days/Lunar Orbit Insertion (LOI) requested support**
  - 12 hours per day
  - 8 hours each for 7 critical events periods during the 20 days
- **L+20Days/LOI to L+38 Days requested support time**
  - 16 hours per day
  - 8 hours each for 16 critical events periods during the 18 days
- **Until the end of mission (L+ 13 Months)**
  - Spacecraft Emergency Support
  - Lunar Eclipse:GDS(DSS24) or MAD(DSS54) depending on launch month



## JAXA Launch Hold Criteria Request

- Four DSN stations Green
  - Madrid
    - » DSS 66 26-meter (IAP station)
    - » DSS 54 34-meter (IAP station)
  - Goldstone
    - » DSS 24 34-meter
    - » DSS 27 34-meter HSB
- NOCC
  - TELEMETRY SLE Server 1
  - TELEMETRY SLE Server 2
- NAV
  - OSCAR or e-mail/FAX backup for file exchange



## SELENE/JPL Status

- SELENE was transported to the launch site (Tanegashima, Kagoshima Prefect.) in March 2007.
- LAUNCH DATE is 15 August, 2007
- DSN Mission Service Training Activity (MSTA) program is complete.
- DSN Operations Readiness Test (ORTs) have started in May
  - JAXA SELENE Operations have been asked to participate
- Upcoming JPL/JAXA tests currently being negotiated
  - NASA Rehearsal
  - Dress Rehearsal
  - Data Flow Check (DFC)



## SELENE Misc Operational Notes

- The SELENE HII launch vehicle , once fueled can only stay fueled less than 24 hours.
  - HII launch vehicle start fueling is at L-9 hours.
  - If launch is scrubbed after HII fueling has started, there is a 5 day re-cycle time. This means a 5 day launch slip.
  - If launch is scrubbed prior to start of fueling, launch can slip 24 hours each time.
- Madrid is the Initial Acquisition Pass IAP station with DSS-66 and DSS-54 after JAXAs ground stations in Santiago Chile (SNT1)
  - Downlink black out during first 15 minutes of Madrid view due to spacecraft spin.
  - Critical commanding over Madrid
  - Several critical spacecraft events occur such as S/C Spin stop, sun acq, HGA deploy over the IAP Madrid pass.
- Goldstone acquires about 5 hours after the Madrid IAP, with DSS-24 and DSS-27
  - LGA RF switched to HGA over Goldstone
- JAXA also had a new requirement request during the 40 days of support
  - Canberra support during the JAXAs Usuda antenna keyholes (if able to negotiate station time and or if station time is available)

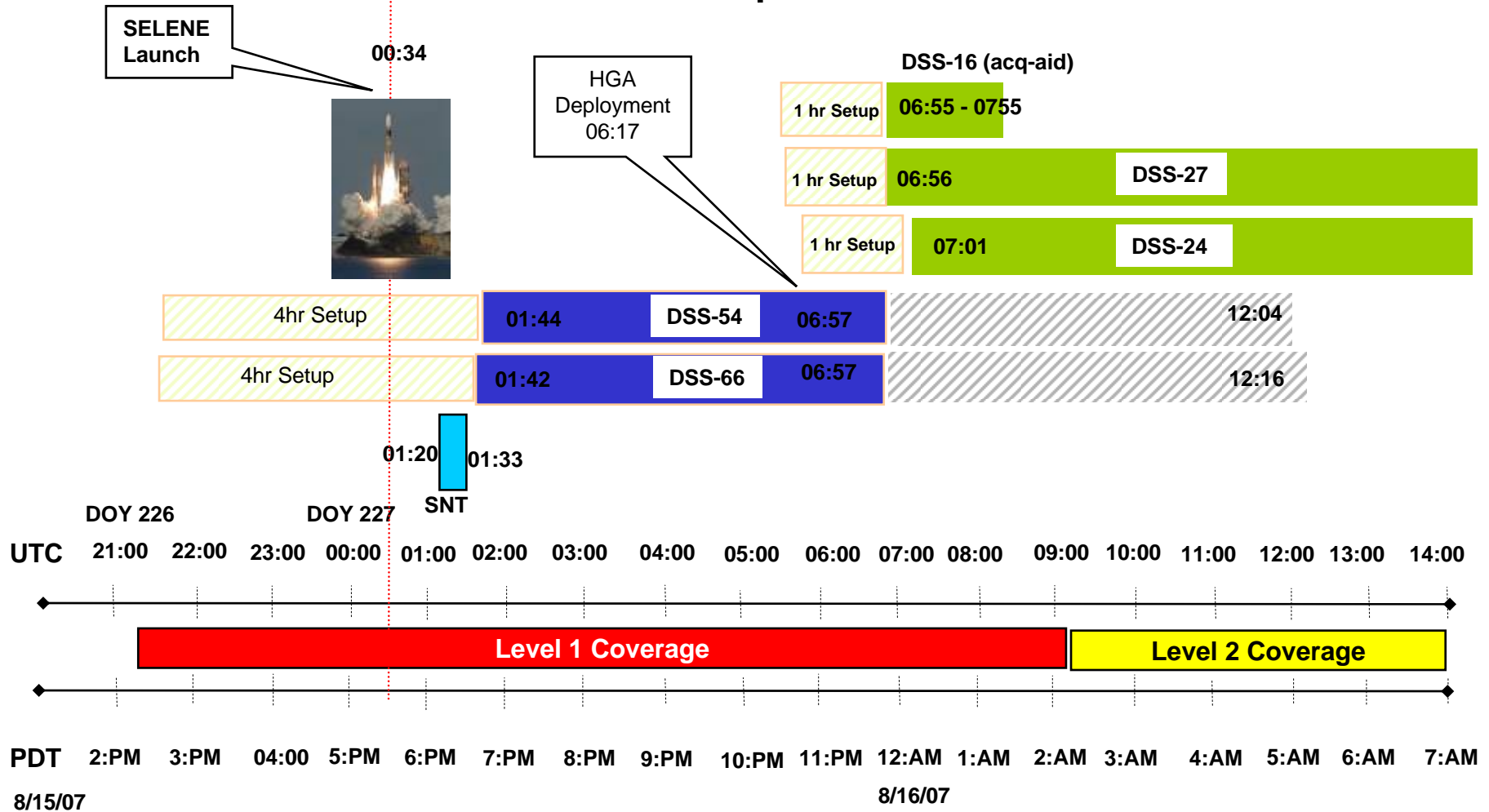


# SELENE Network Operations Working Group



Jet Propulsion Laboratory  
California Institute of Technology

## DSN Initial Acquisition Timeline



Note – tentative timeline based on 15 Aug, 07 launch

Slide  
Provided by  
the SELENE  
NOPE