

Laser Ranging Ground System

- **Progress**
 - **One-way system delay measurement at NGSLR has been completed and documented in February.**
 - **Successful independent timing test at NGSLR with Instrument Scientist was completed 1/12/2009.**
 - **End to End test with LOLA performed 1/21/2009. Everything looked good except for some data transfer and some lingering clock issues.**
 - **LOLA science team has independently verified that the NGSLR laser is being fired so that the pulses will arrive at LRO when the LOLA Earth Window is open.**
 - **Requirements Verification document completed and turned in.**
 - **SCLK subroutines and documentation (for ILRS participating stations that will fire synchronously) have been delivered and are in use.**
 - **Herstmonceux and Zimmerwald have signed Agreements and are flowing test LR data, as is MLRS. Wetzell proposal has been selected but Agreement not yet finalized.**
 - **Successful LRO test with Hersmonceux, Zimmerwald, MLRS and NGSLR occurred on 3/25/2009.**
 - **New computer and timing card (which will not affect SLR OPS in any way) are in testing at MOBLAS-7. MOBLAS-5 and MOBLAS-6 will use this configuration to range to LRO.**
 - **Training of operators at NGSLR for both LRO and SLR is ramping up.**

Global LR Ground Stations

	Scheduling & <u>Synch?</u>	FireRate	in Earth Window	Events/second	Participation
NGSLR	YES	28Hz	28		Prime
MLRS	NO	10Hz	2 to 4		Secondary
Zimmerwald	YES	28Hz		28	
	Agreement signed				
Herstmonceaux	YES	7 or 14Hz	7 or 14		Agreement signed
Mt Stromlo	YES	28Hz		28	Accepted
Wettzell	Maybe	7 or 10Hz	2 to 7		Accepted
MOBLAS-5	NO	5Hz	1 to 2		Will participate
MOBLAS-6	NO	5Hz	1 to 2		Will participate

- Instrument Scientist (Xiaoli Sun) and LR Manager (Ron Zellar) are currently working with MLRS and will work with Mt Stromlo on damage concerns.

- Safe configuration for Wettzell determined. Need to complete Agreement.