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SESSION Session 3: Accuracy and scheduling

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ABSTRACT

Over a decade ago, Honeywell Technology Solutions Inc (HTSI, now KBRwyle) developed an intelligent SLR scheduling software package during the development of the Matera Laser Ranging Observatory. This package offered a broad advanced capability to produce prioritized SLR schedules using multiple optimizations, including evolving satellite priority based on mission data requirements. HTSI further developed this software package for NASA and installed it at the NASA Data Operation Center to be used for all routine scheduling for participating NASA operational stations and the NGSLR. Although a number of the software's capabilities were used in scheduling the NASA stations, much of the broader capability, including coordinated Network scheduling, was left unused due to of the lack of system automation as well as the lack of satellite scheduling interferences. As the satellite roster continues to increase with the launch of multiple navigation constellations, experimental satellites, and Earth observers, it is important to work toward scheduling networks rather than individual stations, in order to fully meet the ILRS performance requirements. In addition, with the increased automation of SLR stations, the ability to make full use of this scheduling capability is finally being realized. NASA and KBRwyle plan to further develop this Network scheduling tool to intelligently schedule the next generation Space Geodesy Satellite Laser Ranging (SGSLR) Network. This poster will explore the current NASA scheduling capabilities as well as our vision for the future of the SGSLR Network scheduling.