

Using Problem Reports and LORs in the Sustainment of NASA SLR Networks

NASA has been tracking satellites for over 55 years, since 1964. Over time, SLR subsystems have changed to keep up with changes in technology. As SLR stations age, hardware failures can become more prevalent due to the age of these systems. Problem reporting is a key tool used in documenting issues as it relates to the sustainment of the SLR network. There are two key observations which can be derived from problem reporting. The first observation is frequency of occurrence, how often do stations experience problems. The second is impact, what is the impact of said occurrences, how long are stations down. The information for this presentation will be derived from mantis and LOR data. Mantis is an SLR problem reporting repository which is used to record station hardware and software problems. LOR data helps to define missed passes due to various factors one of which is hardware failure. This presentation hopes to answer:

- 1) "Does frequency of occurrence relate to station downtime".
- 2) "Can frequency and impact data be used to help focus and prioritize redesign efforts, particularly as it relates to obsolescence".