Current NASA SLR Operations

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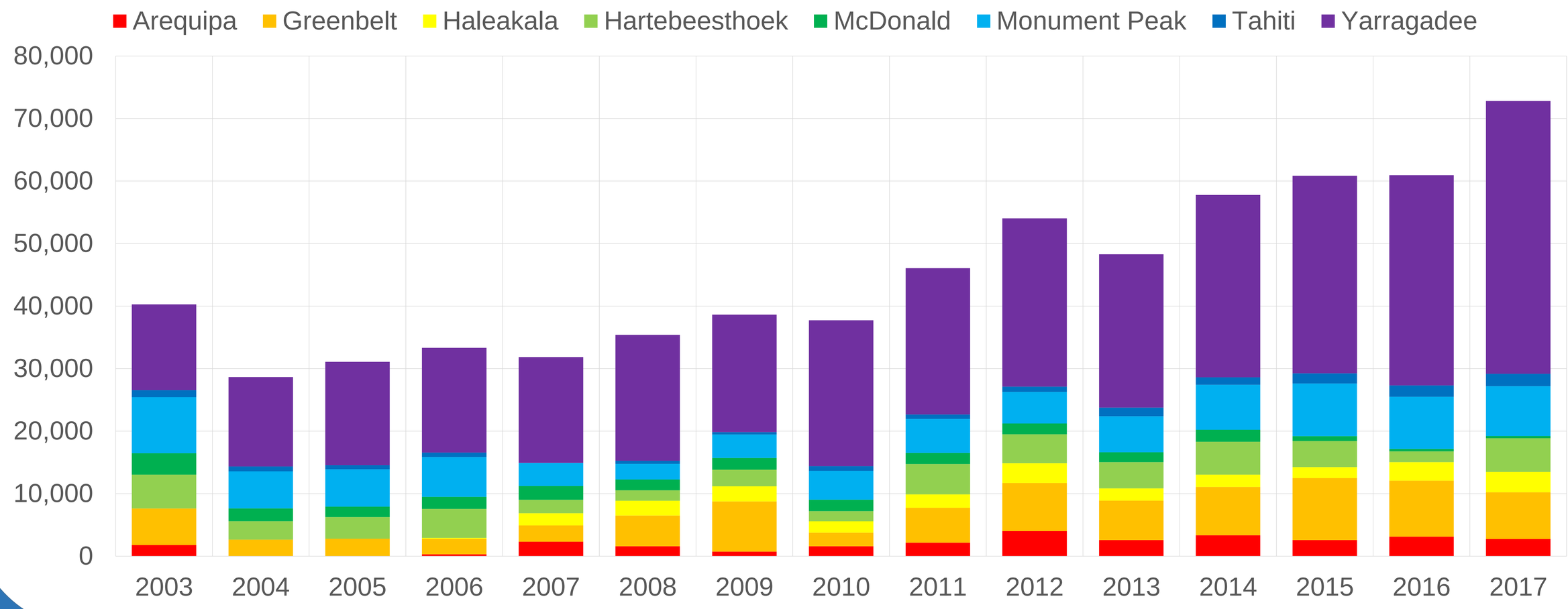
Pass Segments by Year



The **NASA SLR Network** includes eight stations, three of which are operated by universities, and three by international partners. Two stations and the NASA Operations Center are operated under a NASA contract that also provides engineering and software support to the stations across the Network. The network includes three different station designs: MOBLAS, TLRS, and MLRS.

Most stations are operating beyond expected lifetimes, some for nearly 40 years. The ongoing challenge is to maintain (and even improve) these systems without diverting substantial resources from the development of the next generation stations. Despite this challenge, **as shown above**, the data produced by the NASA SLR Network has steadily increased over the past 15 years.

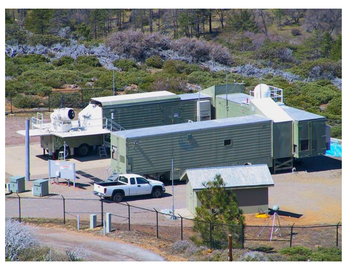
Arequipa (Peru) | TLRS-3
Southern Hemisphere location is valuable, despite earthquake activity. Currently one of two stations (Monument Peak) taking Event Timer data, but not yet in operation.

Greenbelt, MD (USA) | MOBLAS-7
Located two miles from NASA Goddard, it is considered the NASA network standard and will verify SGSLR performance. Has produced 12.0% of NASA data since 2003.

Haleakala, HI (USA) | TLRS-4
Installed and started operations in 2006 from summit of Haleakala volcano at altitude of ~10,000 feet. As a TLRS system, operates without a radar, using plane spotters instead.

Hartebeesthoek (S. Africa) | MOBLAS-6
Provides particularly valuable support, filling a hole in satellite coverage over and around Africa. It is able to support a new Russian SLR station with collocation.

McDonald, TX (USA) | MLRS
Unique system operated by one operator for one shift per weekday. Undergoing an engineering evaluation to determine the feasibility of returning to robust operation.

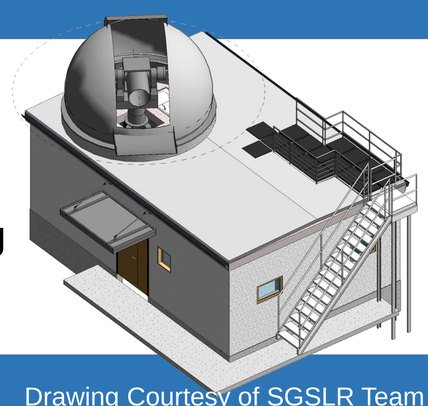


Monument Peak, CA (USA) | MOBLAS-4
The second-best performing NASA station since 2003, producing 12.7% of NASA data. Benefits from good weather, able to track nearly 75% of the time.

Tahiti (French Polynesia) | MOBLAS-8
Continually challenged by poor weather conditions. It will be the last NASA station to receive the Event Timer upgrade, with expected arrival in October 2018.

Yarragadee (Australia) | MOBLAS-5
Operated 24 hours per day, 7 days per week in ideal weather conditions. By far the best performing NASA station, producing 49.9% of NASA data since 2003.

The **Space Geodesy Satellite Laser Ranging (SGSLR)** system completed its Critical Design Review in September, 2018. The first three deployments (early 2020s) are planned for Greenbelt and McDonald, allowing ties with current systems, plus a new site in Ny-Ålesund.



Drawing Courtesy of SGSLR Team

The new McDonald system will allow the closure of both MLRS and MOBLAS-4. Meanwhile, the **Space Geodesy Network Operations Center (SGNOC)** will be developed to host the functions of the current NASA Operations Center while providing new functionality.