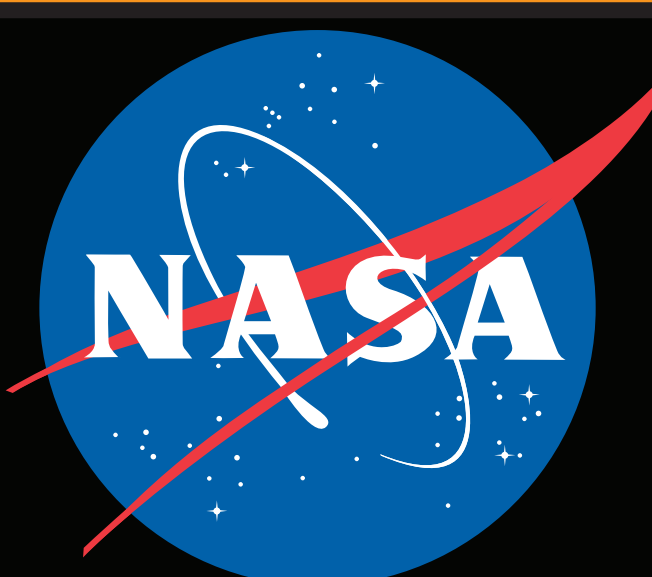


ILRS Website Update



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Abstract

The ILRS website, <http://ilrs.gsfc.nasa.gov>, is the central source of information for all aspects of the service. The website provides information on the organization and operation of the ILRS and descriptions of ILRS components, data, and products. Furthermore, the website provides an entry point to the archive of these data and products available through the data centers. Links are provided to extensive information on the ILRS network stations including performance assessments and data quality evaluations. Descriptions of supported satellite missions (current, future, and past) are provided to aid in station acquisition and data analysis. The website was recently redesigned. Content was reviewed during the update process, ensuring information is current and useful. This poster will provide specific examples of key sections, applications, and webpages.

Introduction

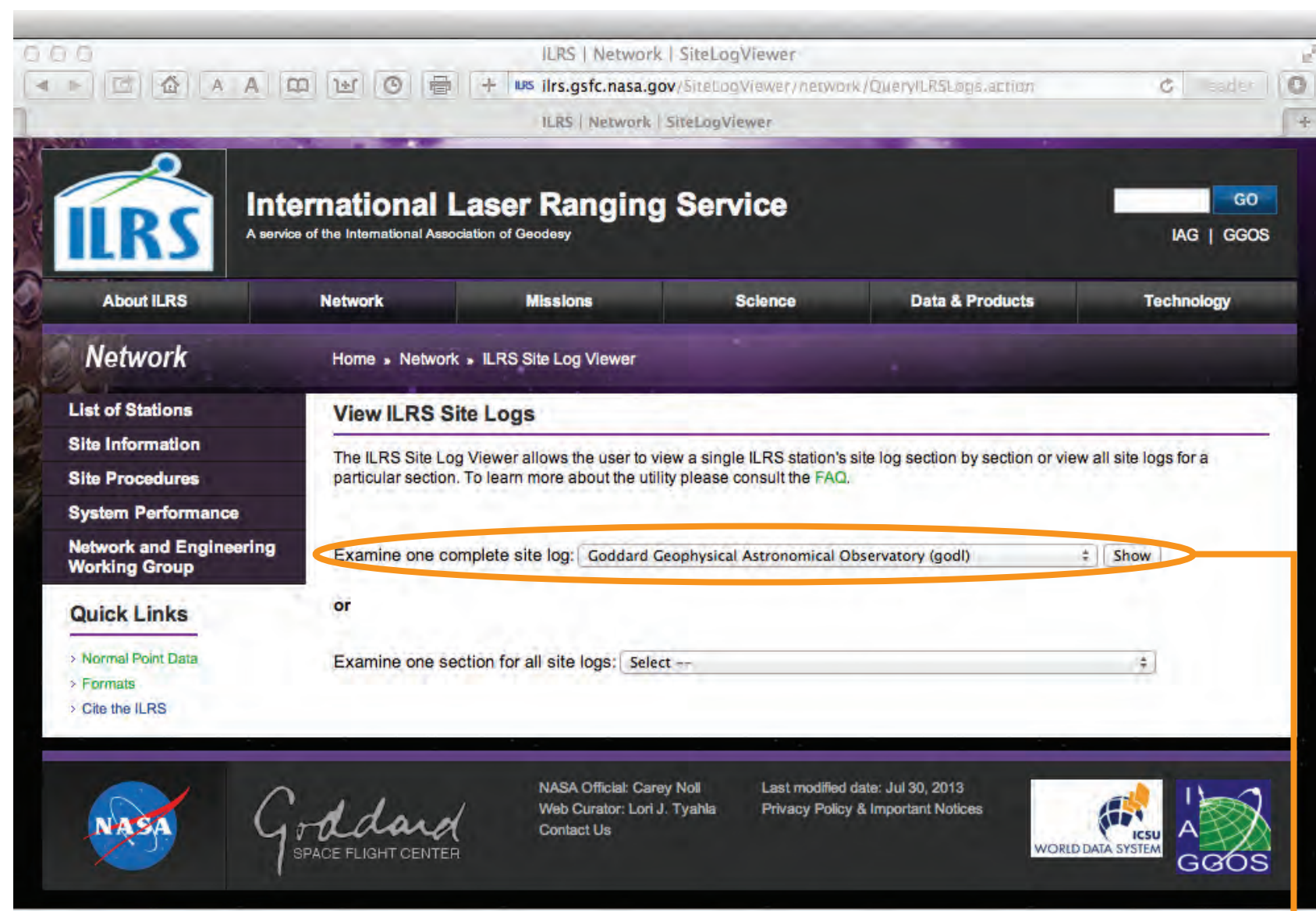
The redesigned ILRS website became operational in September 2012. This poster will review station and satellite performance information available through the website. The poster will also introduce the new SiteLogViewer application, used for browsing site log contents.

ILRS Site Log Viewer

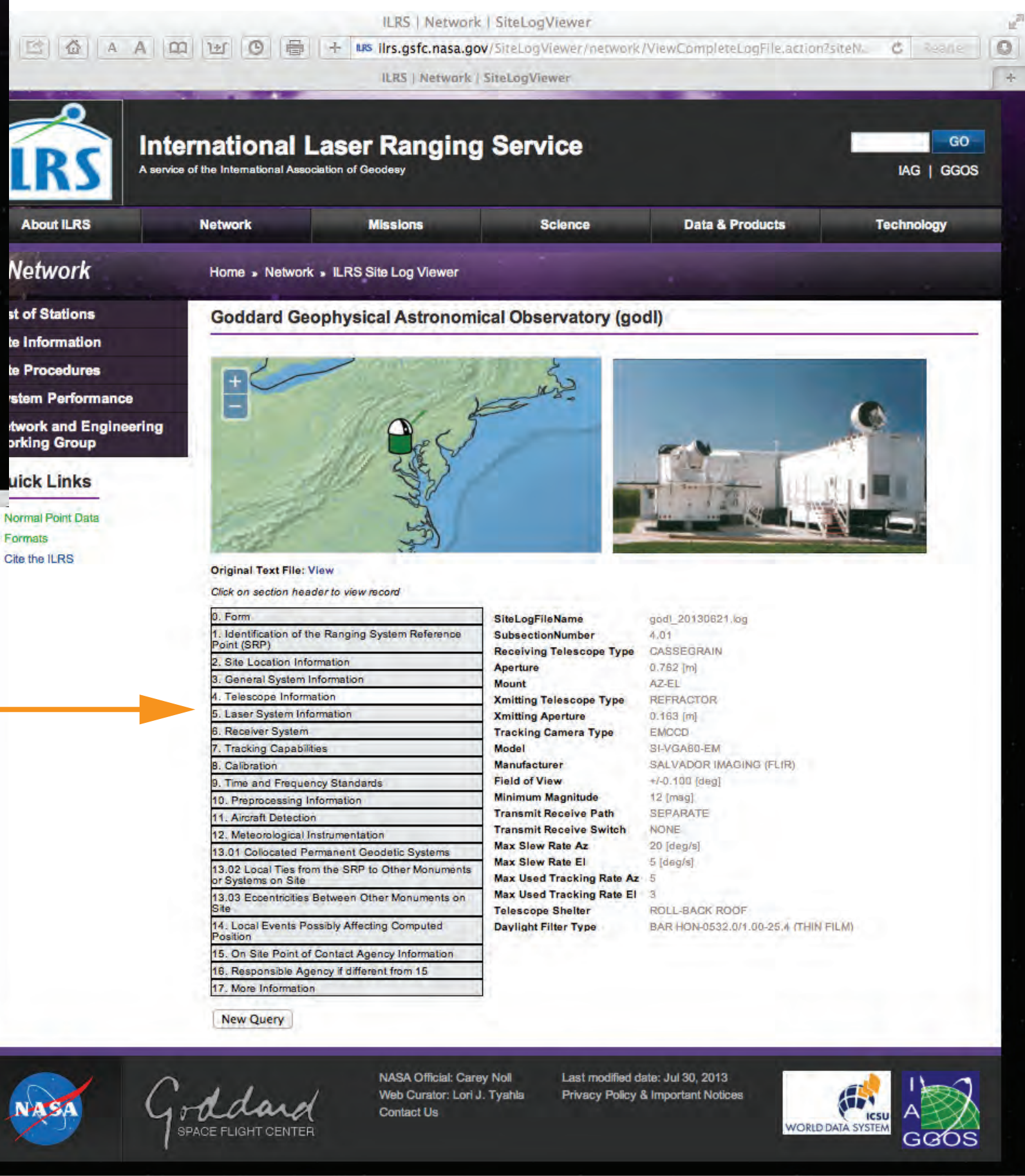
The ILRS Central Bureau has developed an application for the enhanced display and comparison of the contents of the ILRS site logs. Through the SiteLogViewer application, users can:

- display a complete site log, section by section
- display contents of one section for all site logs
- search the contents of one section of a site log for a specified parameter value

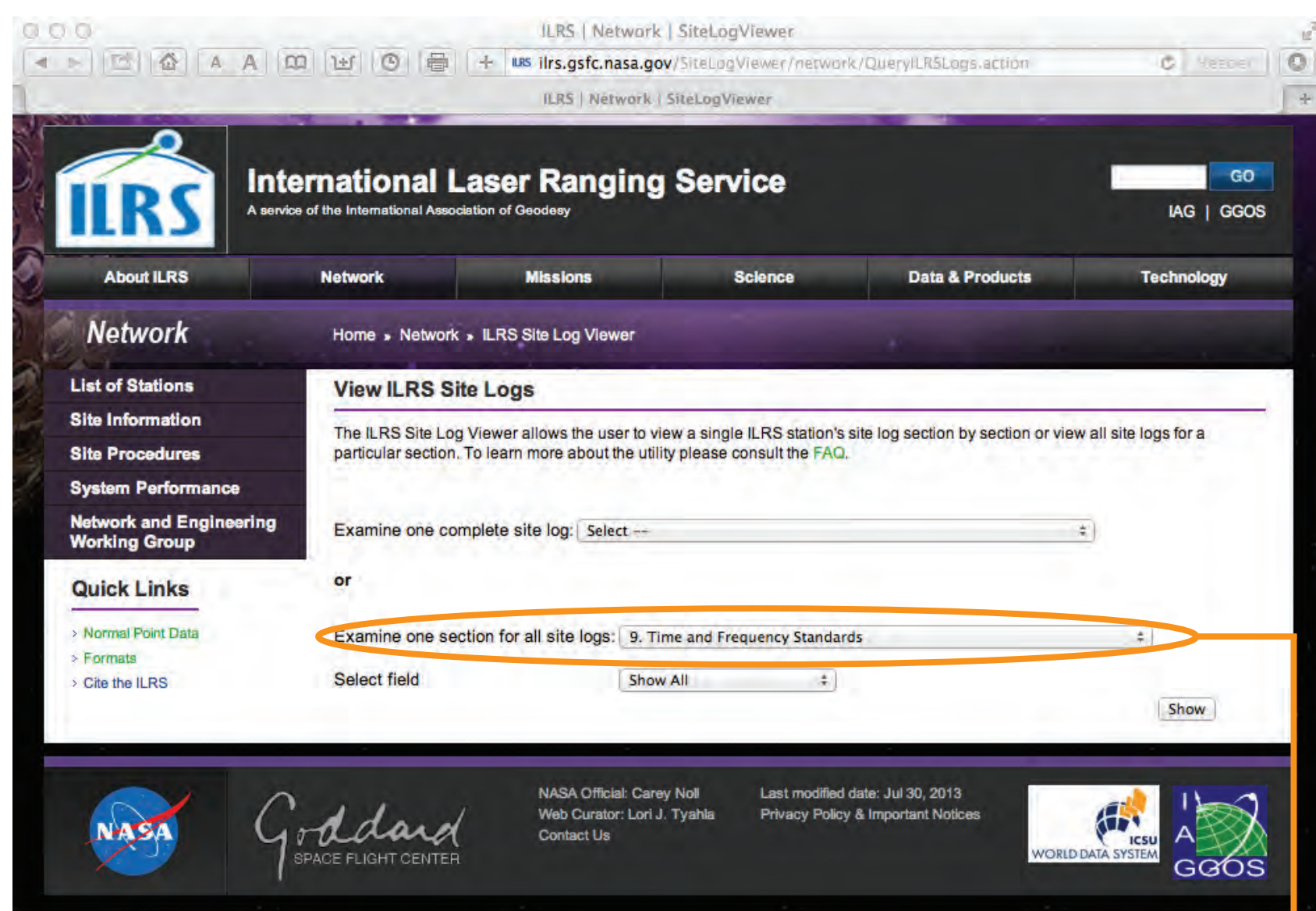
The SiteLogViewer application is accessible at: <http://ilrs.gsfc.nasa.gov/SiteLogViewer/>.



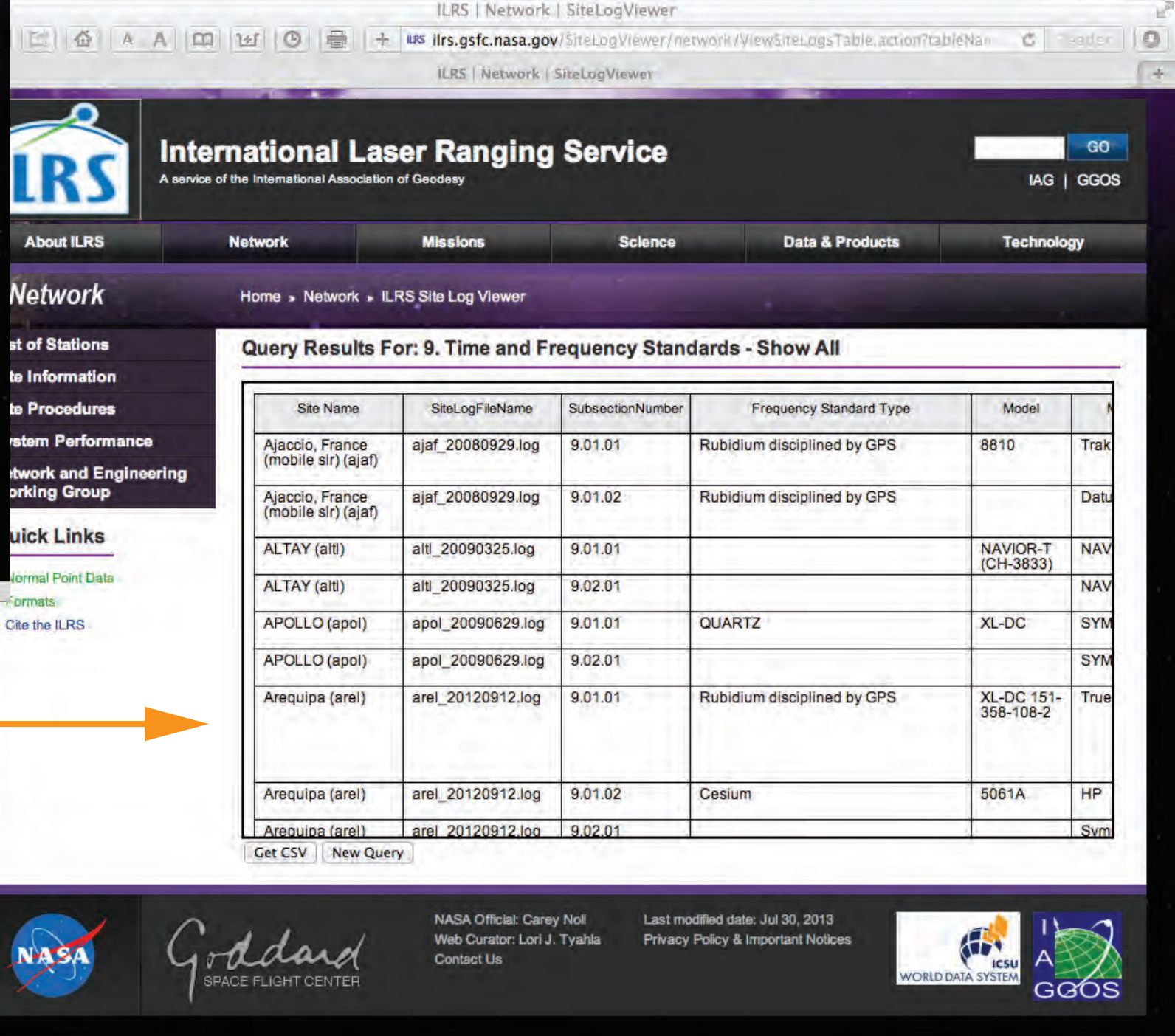
The initial page of the SiteLogViewer application displays the two selection options. Here the user opts to view the full site log for GODL (MOBLAS-7 at Greenbelt, MD).



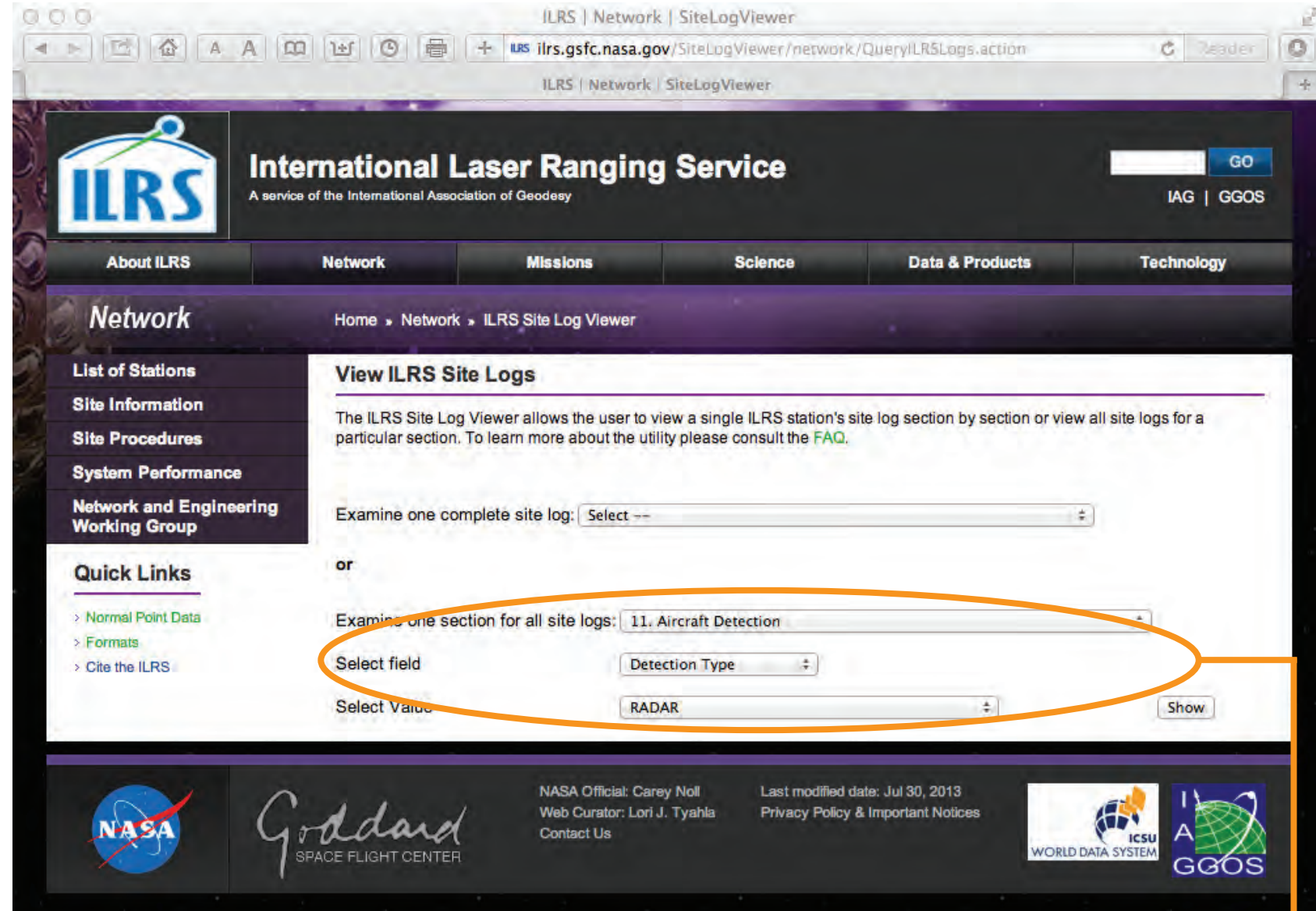
The resulting page shows the location of the selected site on a zoom-able map and a picture of the station. The bottom half of the page lists the sections of the site log on the left and the contents of that section on the right. The user can then select one of the sections to view the contents in a scrollable window. To view another site log or view a section of all logs, the user then presses the "New Query" button.



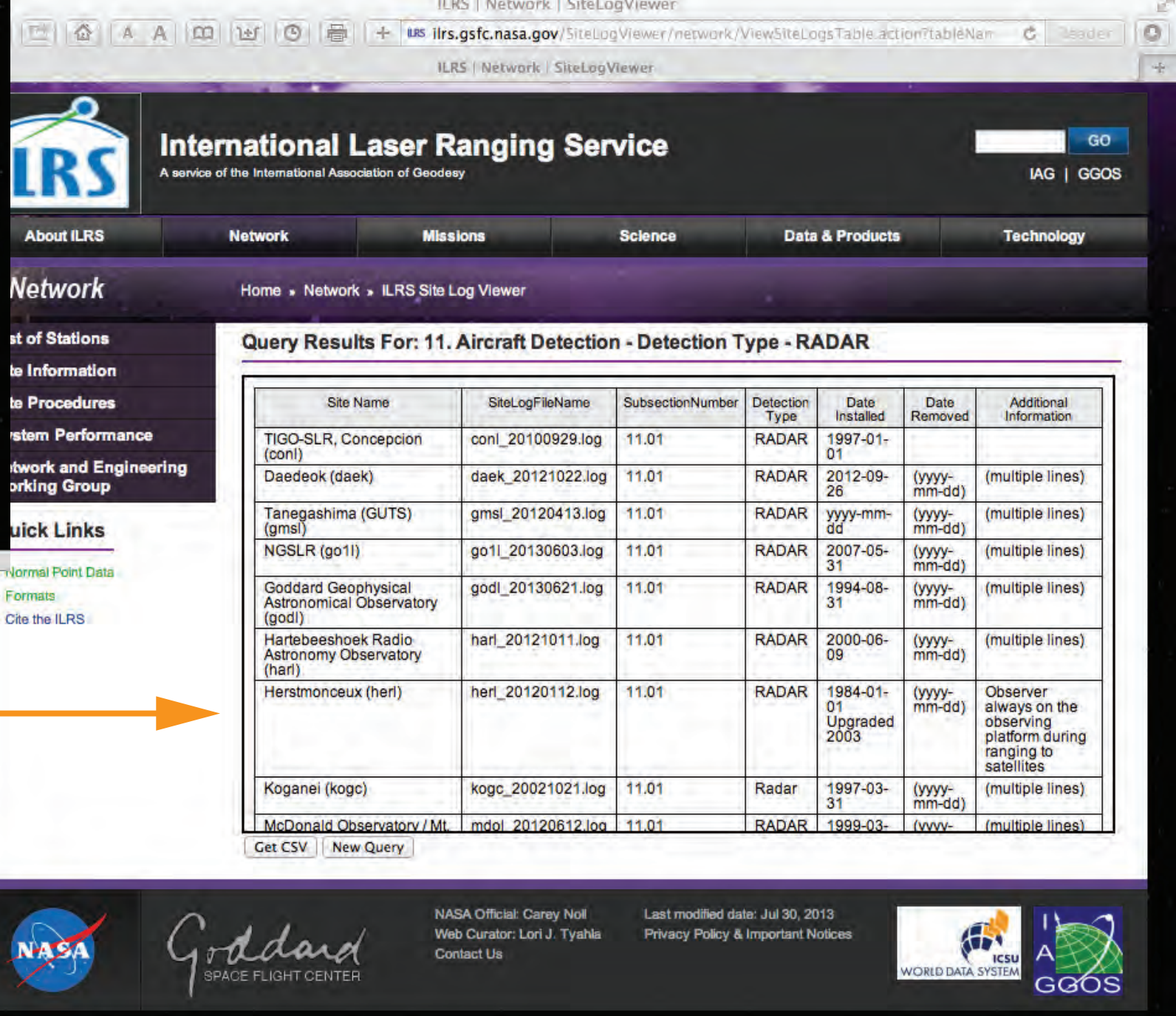
After returning to the SiteLogViewer application's main page, the user next selects to view a particular section ("Time and Frequency Standards") from all site logs.



The resulting page lists the "Time and Frequency Standards" section from all site logs in a scrollable display. The display scrolls vertically for all sites and horizontally for fields within the "Time and Frequency Standards" section of the site log.



Finally, the user returns to the main page of the SiteLogViewer application to view a particular entry for one section of the site logs. Here the user selects the "Aircraft Detection" section and lists the possible entries for the "Detection Type" field in that section. The user then picks "RADAR" to determine what sites in the network use radars for aircraft detection.



The query then results in a page that lists the fields within the "Aircraft Detection" section of the site log for only those sites specifying a radar as the method for aircraft detection. Pressing the "Get CSV" button will create a file of these results in comma-separated values format for use in other applications (e.g., Excel, etc.).

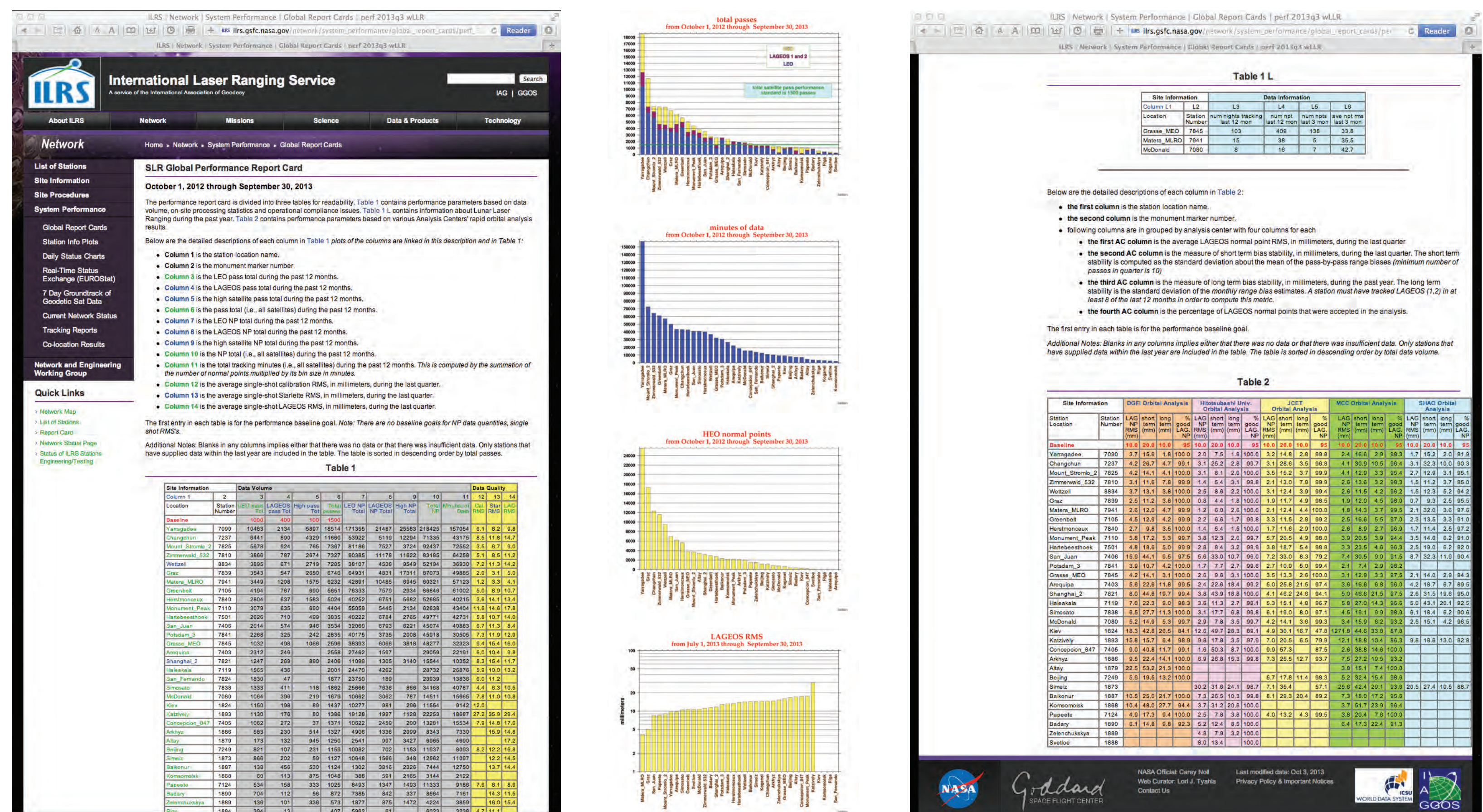
Future Developments

The next phase in the development of the SiteLogViewer will be to add site logs from the other services (i.e., IDS/DORIS, IGS/GNSS, and IVS/VLBI) to the application, allowing users to choose a technique and then browse full site logs and selected site log sections.

ILRS Station and Satellite Performance Charts

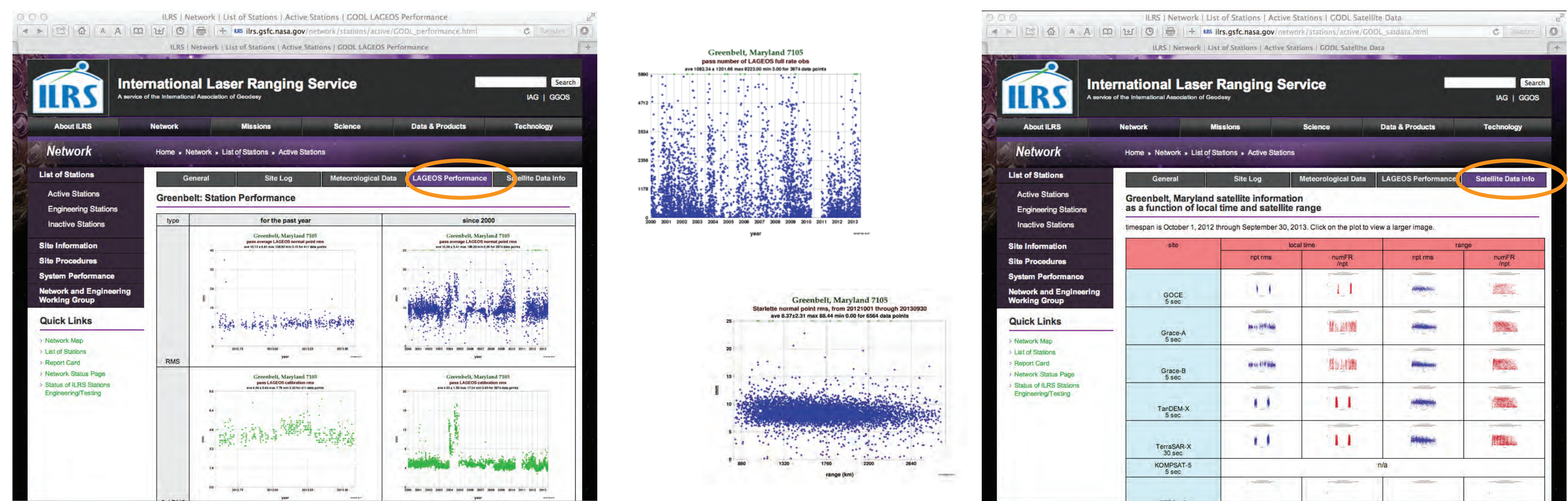
The ILRS website has reports that can be used to provide feedback to the missions and stations on the quality and quantity of laser ranging data.

The ILRS Central Bureau generates quarterly Performance Report Cards and posts them on the ILRS website (http://ilrs.gsfc.nasa.gov/network/system_performance/global_report_cards/index.html) to provide feedback to the stations when necessary. These reports tabulate the previous 12 months of data quality, quantity, and operational compliance by station. The reports evaluate data quantity, data quality, and operational compliance for each tracking station relative to ILRS minimum performance standards. The results include independent assessments of station performance from several of the ILRS analysis/associate analysis centers. The statistics are presented in two tables (one for artificial satellites and a second for lunar reflectors), listed by station and sorted by total passes in descending order. Plots of data volume (passes, normal points, minutes of data) and RMS (LAGEOS, Starlette, calibration) are created from this information and available on the report card website.

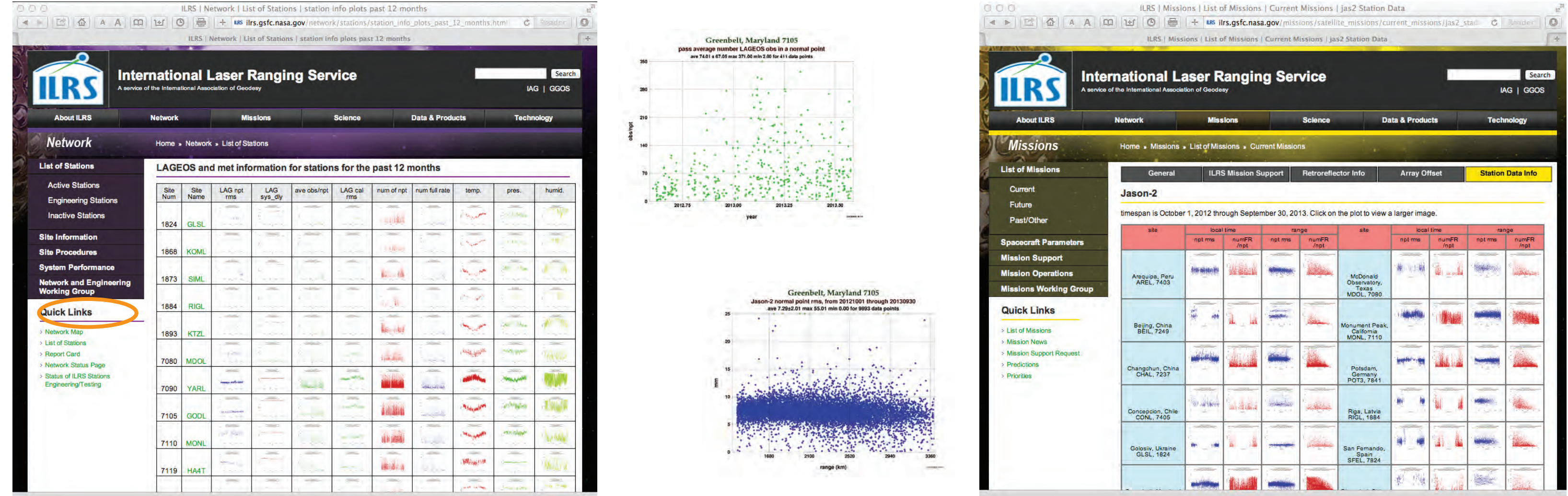


To further aid analysis by station operators and users, the ILRS Central Bureau generates data plots summarizing station performance and environmental parameters. These plots, created for each active station in the network, are accessible through the Stations section of the ILRS website (<http://ilrs.gsfc.nasa.gov/network/stations/>). After selecting a station, the user is presented with several tabs. The "LAGEOS Performance" tab will yield several plots created to summarize station performance on LAGEOS: RMS, calibration RMS, system delay, observations per normal point, and full-rate observations per pass. For each parameter, two plots are generated, one covering the last year and a second showing the information from 2000 to the present.

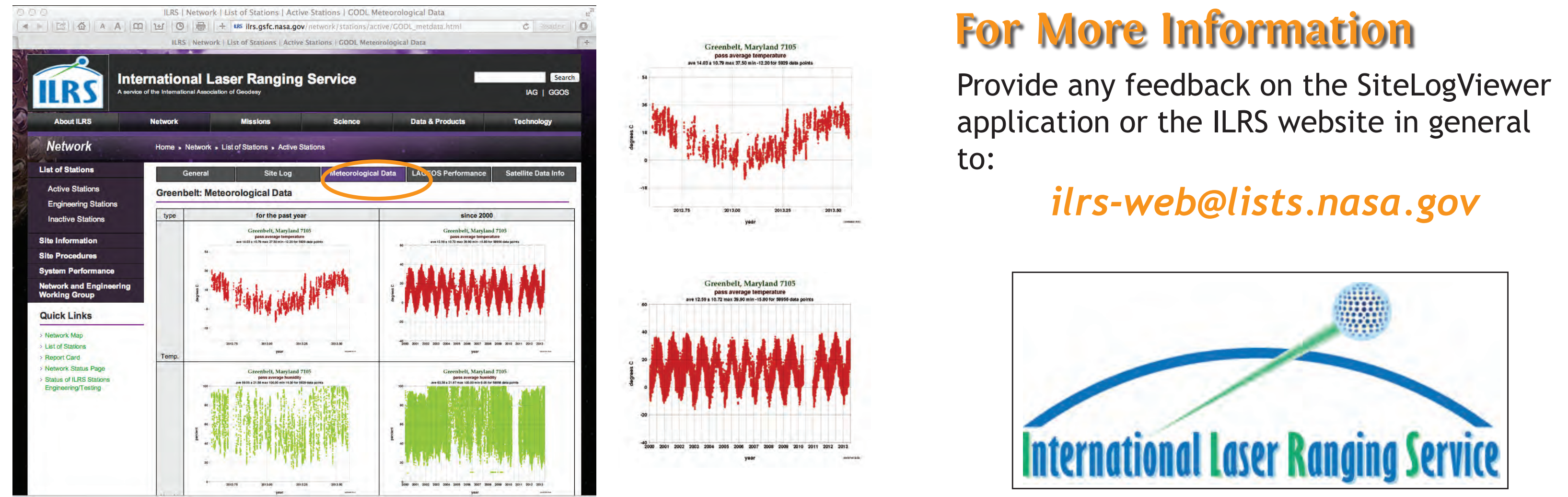
The "Satellite Data Info" tab shows a table of plots providing statistics on all currently tracked satellites as a function of time for the station; full-rate observations per normal point and normal point rms are also computed as a function of range and time.



These plots of satellite statistics are consolidated into two other sections of the ILRS website. LAGEOS performance and station meteorological data plots are listed for all stations under the System Performance section (http://ilrs.gsfc.nasa.gov/network/system_performance/station_LAGEOS_and_met_info.html). Furthermore, a matrix containing plots of all stations tracking the mission, station vs. mission, are accessible through the Satellite Missions section (http://ilrs.gsfc.nasa.gov/missions/satellite_missions/index.html).



The "Meteorological Data" tab within each station's section of the ILRS website presents plots of environmental parameters: temperature, humidity, and pressure; plots spanning the last year and since 2000 are also created for this category.



For More Information

Provide any feedback on the SiteLogViewer application or the ILRS website in general to:

ilrs-web@lists.nasa.gov

