Introduction
The Space Geodesy Facility website (http://sgf.rgo.ac.uk) has been redesigned, reorganised and rewritten. It contains information for the general public about the day to day activities of the SGF and also describes the importance of the work of the SGF in terms of contributing to the definition of a stable geodetic reference frame and supporting scientific satellite missions.

The website shares technical information on many operational aspects of the SGF’s work for the interest of other SLR stations. It also has pages that display data collected at the station and results from local analysis.

SGF Website
To navigate the new SGF website the side panel contains headings for different areas. The Home page introduces the site and the News page contains reports on the latest developments at the SGF. The tab titled What does the SGF do? opens to reveal further pages on specific areas of works, such as satellite laser ranging and absolute gravimetry.

The Supporting Satellite Science tab opens to reveal sections on the different satellites supported by SLR at the SGF. The Analysis tab contains sections on the analysis of data from the on-site techniques that is undertaken at the SGF.

The Operations tab contains information pages on various aspects of the SGF operation, some of which are only of interest to observers at the SGF. The System Specifications tab contains technical information on all aspects of the SGF, including details of the specific instrumentation in use.

The Daily Quality Checks tab contains local analysis of data, such as laser analysis, GNSS data and CPF orbit prediction quality checks. A list of SGF publications and presentations is available from the SGF Presentaitona and Publications tab.
Normal Point Orbit Residuals
The SGF is an ILRS Analysis Centre and every day it produces a 7-day solution from the most recent LAGEOS and Etalon data. An output from this analysis are the range residuals of every normal point relative to the final orbits.

In an effort to provide greater feedback to ILRS stations these residuals are plotted each day and made available on the SGF website. They can be used as a diagnostic of range measurement quality on a single normal point basis. Particularly valuable in this context are times when more than one station is ranging simultaneously to a given satellite. The 7-day orbits are smoothed averages and so do not adjust for the pass by pass differences caused by small changes in atmospheric drag, solar pressure and geopotential. This results in individual pass laser observations appearing as slopes on the plots.

The plots are interactive and the website user can zoom in and out and select areas of the plot. It is also possible to choose which stations are plotted.