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Prepared by EUMETSAT
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INSTRUMENT CHARACTERISATION OF CURRENT AND FUTURE LEO AND GEO SATELLITES

In response to CGMS action 36.13

The CGMS request (Action 36.13) for information on satellite instrument characterisation has also been identified by the Global Space-Based Inter-Calibration System (GSICS) as a requirement for the inter-calibration of these instruments.

GSICS have now compiled a set of links to descriptions and Spectral Response Functions of operational GEO and LEO imagers and sounders. These are published on the GSICS Coordination Center website, hosted by NOAA: www.star.nesdis.noaa.gov/smcd/spb/calibration/icvs/GSICS/InstrSpec.php. This page will be expanded to include further instruments as GSICS develops operational products for them.

GSICS have also identified a need for a full history of operating changes that affect the performance and calibration of each instrument. While much of this information is currently available in different locations, a common portal, ideally in a common format, would facilitate the processing and interpretation of the inter-calibration results. Such a resource would be greatly beneficial to GSICS researchers, users and the community as a whole.

It is therefore recommended that such a database is established by GSICS and made publically available. It should include the date and time of each operating changes that affect the performance and calibration of each instrument, together with a short summary of the change. Ideally a quantitative assessment of the severity of the impact on the instrument's calibration should also be given, together with a hyperlink to a full description of change. Missing data and other anomalies that are evident from the metadata need not included in these databases.

Recommendation proposed: All CGMS Members to provide documentation on changes that may affect the calibration of their imaging and sounding instruments in polar and geostationary orbit. This should include both the currently operational as well as all previous instruments. It is sufficient to make available links to web pages listing such changes.

Instrument characterisation of current and future LEO and GEO satellites

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