



Instrument Landing Pages Challenges and Proposals

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Introduction – Task Force

**A GSICS task force was setup that proposed event logging in a harmonized way across agencies.
This solution could be included in the new OSCAR.**

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Takahashi, Masaya	Meteorological Satellite Center (MSC) Japan Meteorological Agency (JMA)	Japan
Dr. Lee, Byung-II	National Meteorological Satellite Center (KMA)	Korea
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Introduction

WMO-OSCAR

Steps towards harmonizing event logs

Proposed nomenclature for event logs

Harmonizing Satellite Pages within the Agency ---Challenges

Harmonizing Satellite Pages within the Agency --- Proposed

Solutions

Conclusions

The Observing Systems Capability Analysis and Review Tool (OSCAR) webpage of the World Meteorological Organisation (WMO) provides information on the meteorological satellite of the CGMS Satellite Operators and of the capabilities of the instruments operated onboard of these satellites

The aim is to use landing pages as a vehicle to open up calibration information available at the CGMS Satellite Operators websites to the database of satellite capabilities kept on the WMO-OSCAR web-portal

Current Oscar website

- <http://www.wmo-sat.info/oscar/spacecapabilities>

New version of Oscar under beta testing

- <http://www.wmo-sat.info/oscar-staging/spacecapabilities>

As a first step towards making calibration information available through the WMO-OSCAR web-portal, the members of the CGMS Task Team on Calibration Events Logging are asked to create and maintain stable landing pages (a single landing page per instrument per satellite) where information (or links to information) is displayed for four categories:

- *Instrument Specification* (documents on instruments baseline physical basis)
- *Instrument Events* (database or documents of calibration related events)
- *Instrument Monitoring* (database or documents following state of the instrument)
- *Data Outages* (database or documents with instrument outage dates)

Once the landing pages have been created, the Task Team members can send their addresses to the WMO-OSCAR representative, and request publication on the WMO-OSCAR web-portal.

Instrument specifications
already exist on OSCAR

NOMENCLATURE AND STANDARDS FOR INSTRUMENT EVENTS AT OSCAR

Term	Definition
<i>Calibration Event</i>	Refers to events affecting the radiometric and / or geometric calibration quality of the sensor.
<i>Mission Information</i>	Refers to general information on the platform and instruments operated in the mission that is relevant to all users of the satellite data. In addition it provides links to detailed information on both the platform and the instrument.
<i>Irregular Event</i>	Refers to events that do not occur systematically and that impact the radiometric or geometric quality of the observations due to instruments calibrations, manoeuvres, ground segment anomalies or miscellaneous. Such events can be either radiometric events (for instance ice decontamination) or geometric events (for instance platform manoeuvres).
<i>Processing Events</i>	Refers to events involving updates of the processing algorithms (either onboard or at the ground segment) or reprocessing (at the ground segment) events that affected the radiometric or geometric quality of the observations. Processing changes include software updates and reprocessing activities.
<i>Data Outages</i>	Refers to events that provide information on events that triggered the temporary or definitive end of the data collection. Reasons for missing data can be at Platform, Instrument and Processing level.

The Task Force Team drafted a list of events, related to the instrument calibration, that occur in the databases of the different Satellite Operators. The most frequently occurring events in the list served as baseline for proposing a common nomenclature. To limit the list in length, it is restricted to high-level standard event names only. The philosophy is that detailed, Satellite Operator and satellite instrument specific, information shall be provided in the event description.

Harmonizing landing Pages within the Agency – Challenges

- Agencies such as NOAA have a large array of satellite launched since the 1970's.
- Web-pages (Landing pages) maintained by departments are in varying formats (at times within the same department but still with differing formats).
- Many missions have ended, web-pages are barely maintained, difficult to request modification in format.

Challenge: Can NOAA-GDWG member request changes in format of the NOAA pages? Yes (but not all)

Harmonizing Satellite Pages within the Agency – Projected Solutions

- Evaluate the information already in OSCAR (identify required areas).
- Satellite information / Instrument information already on OSCAR – Static does not change.
- Start with a smaller manageable set of satellite/ instruments (for example, instruments funded for GSICS activities).
 - then work towards formatting information at WMO as well as at the agency level
 - One can then justify that GSICS objectives are being met by formatting activity.
- Integrate GPRC and ICVS content into the OSCAR system

NOAA Landing pages- Proposed Solution

Instrument Specifications (static information describing instrument characteristics)
Instrument specification present on the OSCAR

Can be imported in the new version of OSCAR

OSCAR Satellite Landing Page: <http://www.wmo-sat.info/oscar/satellites/view/334>

OSCAR Instrument Landing Page: <http://www.wmo-sat.info/oscar/instruments/view/61>

Calibration Events

Information on the most important geometric and radiometric calibration events

Oct 2015, NOAA provided the links to the NOAA Satellite landing pages

Total -38 satellites .

NOAA 1- NOAA-10 Event log landing Pages not available anymore

NOAA 11- NOAA-19 + SUMI NPP Landing Pages Available and provided

Data Outages (optional, can also be part of the calibration events database)

Instrument Monitoring (optional, for present missions this is done by some space agencies)

Integrated Calibration Validation System Long Term Monitoring:

<http://www.star.nesdis.noaa.gov/icvs/>

[GSICS Product Research Center \(GPRC\)](#)

GSICS Coordination Center maintains a repository of Spectral Response Functions. (see [here](#))



Conclusions

- **Progress**
 - GSICS has submitted a white paper to CGMS outlining a set of parameters, the nomenclature and the standards to be used for reporting on instrument calibration across space agencies.
 - The white paper proposes a simplified approach to complex event logs produced by instruments.
- **However challenges remain.**
 - Getting a large array of satellite websites onto same format is difficult, however it could be possible for a smaller set of satellites. Agencies need to allot resources to span satellites.
 - Existing pages such as those at the ICVS and GPRCs may directly fit into the monitoring.

THANK YOU