Report from ISRO

Annual Meeting of GRWG/GDWG, JAXA, Japan

29-Feb to 5-Mar, 2016

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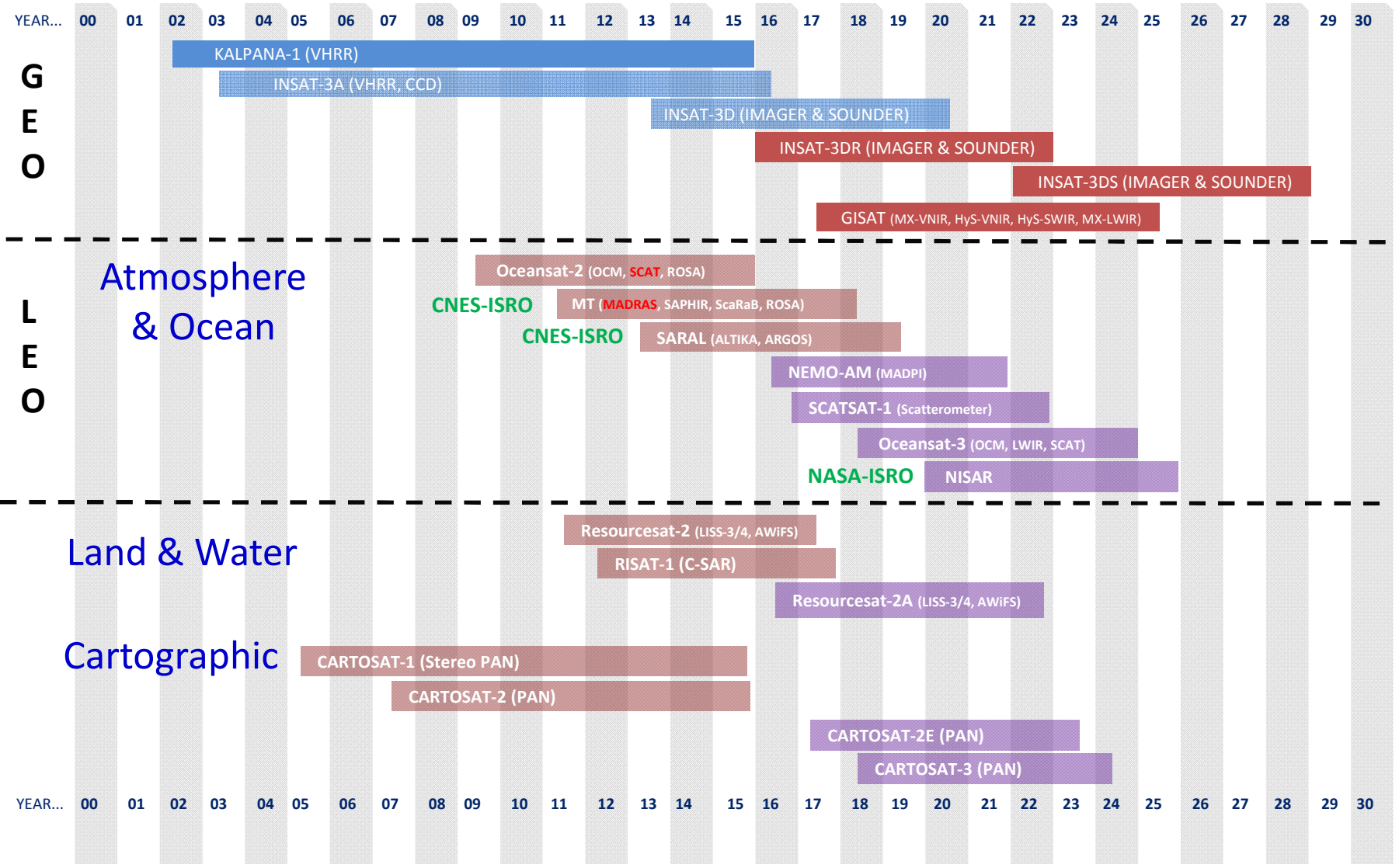
Space Applications Centre (ISRO)

India

ISRO Current satellites for Earth Observations



Indian Meteorological Geostationary Satellites

INSAT-1D
VHRR

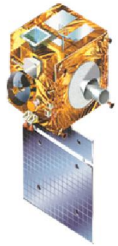
1990

INSAT-2A/2B
VHRR

1992/93

INSAT-2E
VHRR, CCD

1999



KALPANA-1
VHRR

2002

INSAT-3A
VHRR, CCD

2003

INSAT-3D
Imager/ Sounder

2013

INSAT-3DR
Imager/ Sounder

2016

GISAT
MX-LWIR/MX-VNIR/
Hys-VNIR/Hys-SWIR

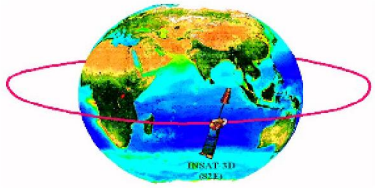
2017

- Main contribution to GDWG actions
  - GSICS Website development (web page address will be provided by the weekend for evaluation)
- Main contribution to GRWG actions
  - Intercalibration procedure established for INSAT-3D Imager and Sounder (NRTC and RAC)
  - ATBD and Product reviewed by GPAT and modifications made based on the comments received.
  - Diurnal variation in intercalibration using AIRS and IASI data.
  - Preliminary work for uncertainty analysis

ISRO GSICS website development

Global Space-based Inter-Calibration System (GSICS)

GSICS is an international collaborative effort initiated in 2005 by World Meteorological Organization (WMO) and the Coordination Group for Meteorological Satellites (CGMS). The objective of GSICS is to provide calibration corrections needed for accurately integrating data from multiple observing systems and ensuring consistent observations for climate monitoring weather forecasting, and environmental applications. ISRO as a member organization of GSICS is carrying out the inter-calibration activity for Indian meteorological satellites in order to provide the calibration correction coefficients to the international users.



GSICS Product Summary

Monitored satellite/instrument	Reference satellite/instrument	Status	GSICS Product	Documentation
INSAT-3D/Imager	Metop-A/IASI	Demo	Near real-time correction Re-Analysis correction Bias monitoring	ATBD README Publications
INSAT-3D/Sounder	Metop-A/IASI	Demo	Near real-time correction Re-Analysis correction Bias monitoring	ATBD README Publications
Kalpana-1/VHRR	Metop-A/IASI	Under development	-	ATBD README Publications
INSAT-3A/VHRR	Metop-A/IASI	Under development	-	ATBD README Publications

Issues

- Issues with the naming convention CCCC code (presently using DEMS for IMD New Delhi, need to generate new code for ISRO, Ahmedabad)

  W_IN-ISRO-Ahmedabad,SATCAL+NRTC+GEOLEOIR,INSAT3D+IMAGER-MetopA+IASI_C_DEMS_20141002000000_demo_01.nc

- IASI L1C Data through Eumetcast (BUFR format) – large data gaps leading to insufficient matchup points for NRTC products.
- NOAA-CLASS (native format)
- Following discussions at GRWG/GDWG meeting in Delhi an arrangement was made with EUMETSAT for IASI-L1C data over INSAT region through THREDDS server (NetCDF format). This too had data coverage as well as latency issues.
- Finally, established a new procedure to manually order/download daily data from Eumetsat data center. BUFR input format has been changed to NetCDF format.

Status of the Actions

[GDWG_2015.4a1] ISRO to provide GPRC web pages to GDWG co-chairs for review by 2015-04-30

This week during WG meeting we will provide the web-page address

[GDWG_2015.4a3] ISRO to support GCC to provide a satellites constellation image for the GCC website via email

My colleague working on it…

[GDWG_2015.4l1] IMD and ISRO to nominate a representative that is part of the calibration events task team (CGMS-42: WGII/3 Action 42.02) by 2015-04-30

TBD

In addition, it would also be great if ISRO could nominate someone for ISRO GDWG member(s) - at present no one is nominated from ISRO.

For time being you can nominate Dr Nitant Dube (nitant@sac.isro.gov.in)

Summary of ISRO GSICS Products

- GSICS recommended procedure adopted for INSAT-3D Imager/Sounder product.
- Presently only IR channels attempted
- Same procedure will be adopted for Kalpana and INSAT-3A.
- Switching from EUMETCAST data reception to Standing order through Eumetsat GSICS THREDDS server and finally to manually online data ordering/downloading.
- Web page address will be soon provided for review by GCC.

Thanks