

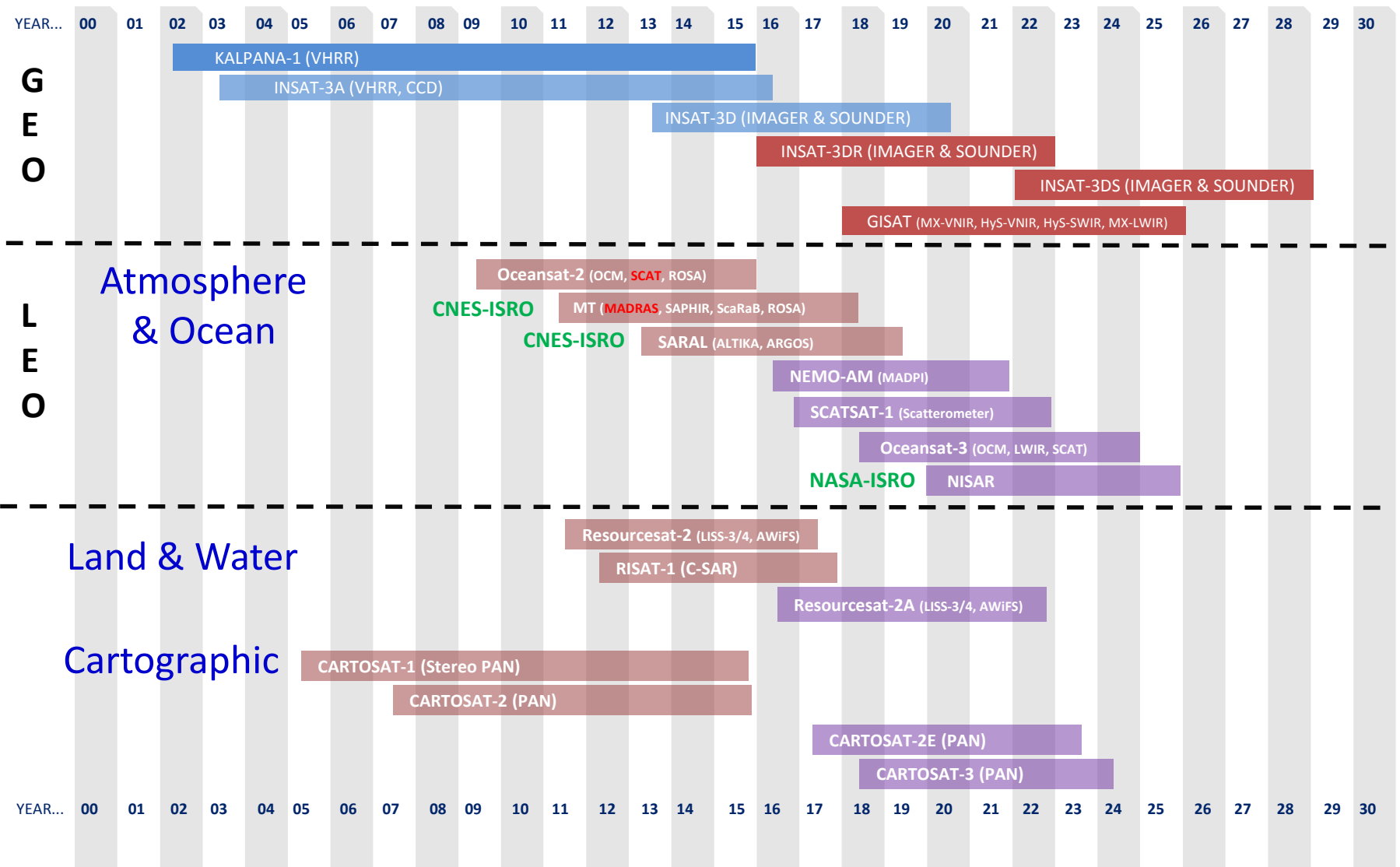
Report from ISRO

Annual Meeting of GRWG/GDWG, Madison, WI, USA

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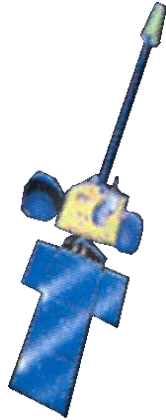
ISRO Current satellites for Earth Observations



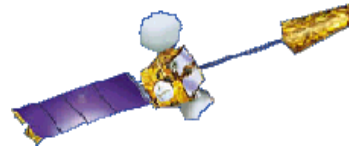
Indian Meteorological Geostationary Satellites



INSAT-1D
VHRR
1990



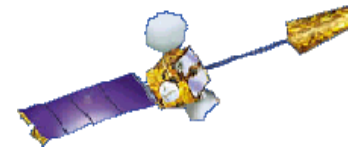
INSAT-2A/2B
VHRR
1992/93



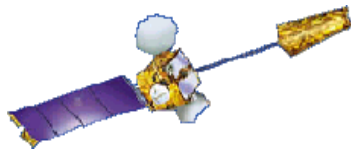
INSAT-2E
VHRR, CCD
1999



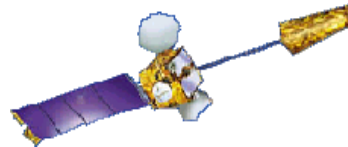
KALPANA-1
VHRR
2002



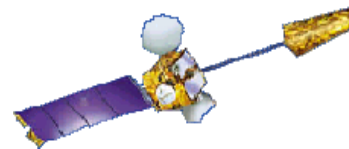
INSAT-3A
VHRR, CCD
2003



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 is developed and a link is created on MOSDAC website – Demo version for INSAT-3D is operational
 - web page address: [http://as.mosdac.gov.in:8086/GSICS ISRO](http://as.mosdac.gov.in:8086/GSICS_ISRO)

- Main contribution to GRWG actions
 - Intercalibration procedure established for INSAT-3D Imager and Sounder – Demo phase is operational on MOSDAC.
 - INSAT-3DR intercalibration procedure is in progress
 - Is separate GCC review of ATBD and GSICS products from INSAT-3DR/Kalpana/INSAT-3A needed?
 - Intercalibration using AIRS is in progress.
 - Can intercalibration products using AIRS become part of GSICS? If yes, then what is the mechanism for that?
 - An attempt has been made to intercalibrate INSAT-3D visible channel using ray tracing and DCC method using MODIS data.
 - MODIS data for this exercise is needed. NOAA/NASA help is required in getting this data set.

ISRO GSICS website

http://as.mosdac.gov.in:8086/GSICS_ISRO

as.mosdac.gov.in:8086/GSICS_ISRO/



Meteorological and Oceanographic Satellite Data Archival Center
Space Applications Centre, ISRO



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

- Data is manually ordered/downloaded daily from Eumetsat data center. There are sporadic data outage when data is ordered manually.
- A mechanism is yet to be developed for getting MODIS data for visible channel calibration.
- What mechanism should be followed if new version of INSAT-3D/INSAT-3DR is generated?
- Establishment of thredds server for putting INSAT-3D GSICS products.

Summary of ISRO GSICS Products

- GSICS recommended procedure adopted for INSAT-3D Imager/Sounder product.
- Presently only IR channels made operational in as demo products.
- Visible channel inter-calibration is being attempted.
- Same procedure will be adopted for INSAT-3DR/Kalpana/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 is now available in public domain.

Thanks