



The WMO/CGMS
Virtual Laboratory (VLab)
for Education and Training in Satellite Meteorology



What is the VLab ?



The VLab is a worldwide collaborative network of training centres called « Centres of Excellence » (CoEs) and satellite operators

- Established in 2000 by WMO and the Coordination group for Meteorological Satellites (CGMS), to improve the utilisation of data and products from meteorological and environmental satellites.



VLMG-7 Meeting, Russian Federation, 2014



The VLab network



- Argentina (Buenos Aires and Cordoba)
- Australia (Melbourne)
- Barbados (Bridgetown)
- Brazil (Cachoeira Paulista)
- China (Beijing and Nanjing)
- Costa Rica (San Jose)
- Kenya (Nairobi)
- Morocco (Casablanca)
- Niger (Niamey)
- Oman (Muscat)
- Republic of South Korea (Jincheon)
- Russian Federation (Moscow and St. Petersburg)
- South Africa (Pretoria)



VLab links between CoEs and their supporting satellite operators



VLab objectives



- To achieve better exploitation of data from the Space Based global observing system for services that are increasingly reliant on satellite data;
- To globally share knowledge, experience, methods and tools related to satellite data, especially in support of WMO Members that have limited resources.



Training event in the CoE Republic of Korea



Key points of the VLab strategy 2015-2019



Provide support to education and training in the use of satellite data and technology among WMO Members by developing and delivering training around the various competency frameworks through:

- the delivery of Regional Focus Group (RFG) sessions;
- the creation and maintenance of a central library/repository for recorded RFG sessions and other online events;
- the organisation of Event Weeks on topics of particular interest (such as the new generation of satellites and the WMO priority areas);
- supporting online capability in classroom events;
- the assurance of high quality of training using state-of-the-art educational tools and methods;
- encouraging the increase of capabilities to translate training material.



Main Achievements 2014



Outline of Training Events organised in 2014

- 53 classroom events – 1000 participants
- 13 online events – 1300 participants
- 41 RFG sessions – 100 participants
- 6 WMO official languages plus Portuguese
- Participants from all WMO RA



**Countries Reached by VLab
Training 2014**



Want to learn more about the vlab?



VLab central website - <http://vlab.wmo.int>

If you would like to be included in the VLab Mailing List to receive communications, please do contact the VLab Technical Support Officer at luveeck@googlemail.com

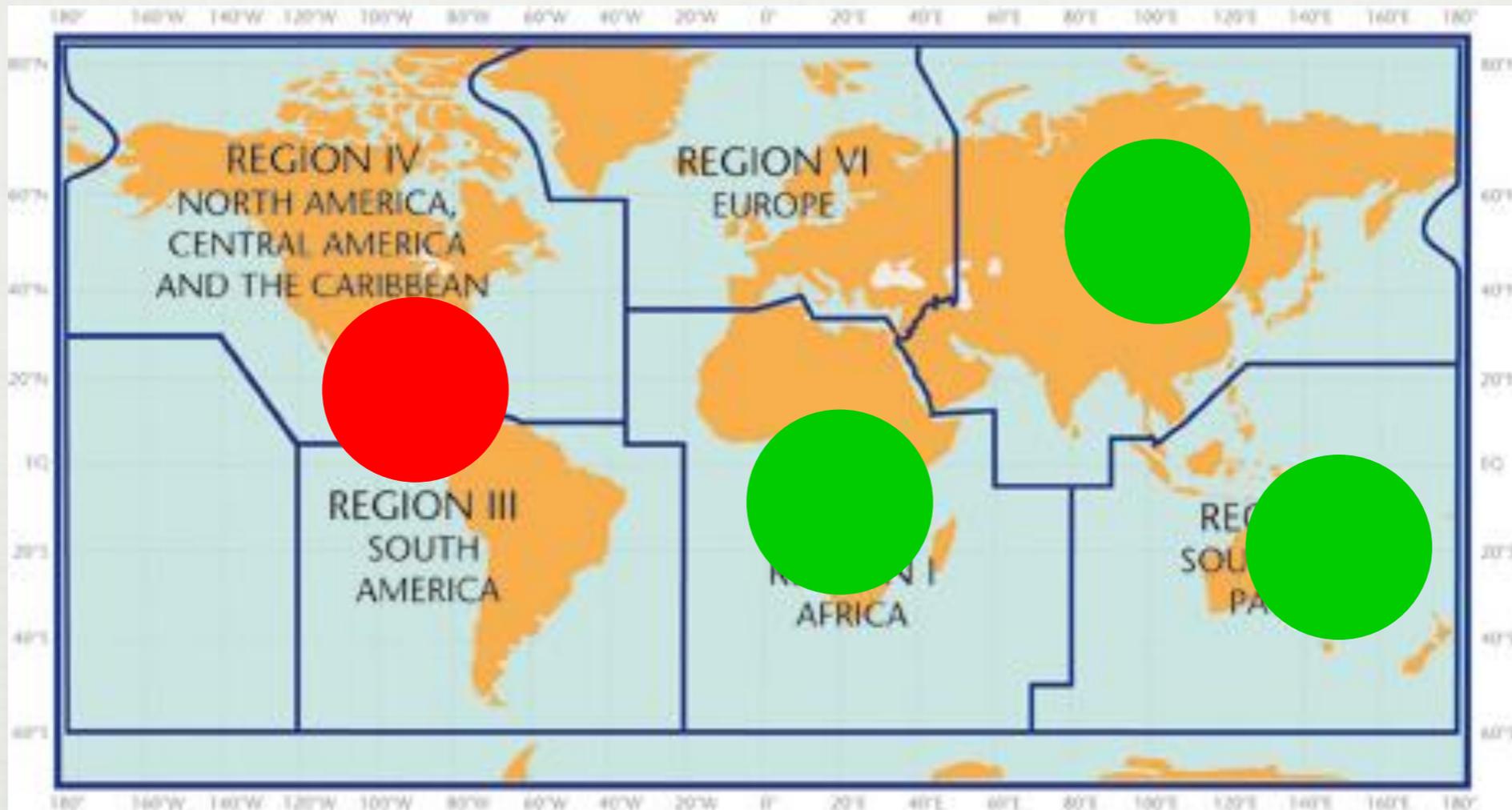


WMO-CGMS VIRTUAL LABORATORY
FOR EDUCATION AND TRAINING IN
SATELLITE METEOROLOGY



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Satellite Data Requirements for RA III and RA IV



Strategy towards
Integrated data dissemination systems (IGDDS)
Rolling review of requirements (WIGOS, WIS)

Task Team – Satellite Data Requirements 2009-2011

WMO Request for Nominations to **SDR** Coordination Group

Recommended Terms of Reference



World Meteorological Organization
Organisation météorologique mondiale
Secrétariat
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Weather • Climate • Water
Temps • Climat • Eau

Nov 2012

Our ref.: OBS/SAT/SDR GENEVA, 2 November 2012
Annexes: 4 (available in English only)
Subject: Regional Satellite Data Requirements in WMO RA III and RA IV successfully established
Action required: Nominations for Regional Coordination Group on Satellite Data Requirements by **30 November 2012**

Dear Sir/Madam,

Defining an initial set of agreed Region-specific user requirements for satellite data and products, in support of all WMO application areas, has been the objective of the Task Team on Satellite Data Requirements for South and Central America and the Caribbean islands established in 2009. The Team consisted of nine representatives of Members and Territories in the Region, joined by the National Oceanic and Atmospheric Administration (NOAA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) and WMO.

I am pleased to inform you that the Team successfully completed its work and that the set of requirements thus established is given in Annex I and, together with final documentation, at <http://satellite.cptec.inpe.br/geonetcast/es/datareq.html>. This success has only been possible through the active participation by all Team members (cf. Annex II), and through the generous support that the Team received from NOAA and the National Institute for Space Research, Brazil (INPE), in particular.

WORLD METEOROLOGICAL ORGANIZATION

OBS/SAT/SDR, ANNEX IV

RECOMMENDED TERMS OF REFERENCE FOR THE REGIONAL COORDINATION GROUP ON SATELLITE DATA REQUIREMENTS

1. The Group consists of a representative number of members from the satellite data user community in the Region, joined, as associate members, by satellite data providers and WMO. The Group is chaired by one or two representatives from key satellite data user organizations of the Region.
2. The Group maintains an updated list of satellite data and products available to the Region through existing dissemination services. Data and products shall be classified by categories of variables and derived products.
3. The Groups regularly reviews sources of regional needs and undertakes, as needed, further information gathering, such as surveys, to ensure that views of WMO Members in the Region are adequately represented.
4. The Group analyzes the requirements for each relevant category of product, and identifies which requirements are not adequately met by existing services. The unmet requirements are prioritized, taking into account:
 - a. The applications supported and their impact;
 - b. The number and representativeness of the users;
 - c. The status of the required data or products;
 - d. The quality and suitability of the required data or products.
5. In summary the Group formulates recommendations pertaining to:
 - a. Existing satellite data/products (with detailed references) to be included in existing distribution services, or moving a product from one service to another, or assigning lower priority to an existing product (or removing it if obsolete);
 - b. Amendments of existing products or development of new products;
 - c. Evolution (upgrade, or consolidating) of data dissemination means, or other (e.g. training, tools, user equipment);
 - d. Short-term action to implement these recommendations.
6. The Group maintains a dialogue with satellite data providers of relevance to the Region, and other partners as needed, to ensure that its recommendations are implemented.
7. The Group uses the WMO Procedure for Documenting Regional Requirements for Satellite Data Access and Exchange for guidance (see http://www.wmo.int/pages/prog/sat/documents/SAT-GEN_CBS-15-ProcedureRegionalDataAccessReq.pdf).
8. The Group meets in person at least every two years, and, to ensure continuity, works through collaborative tools during the intersessional period.

Regional Coordination Mechanisms

- Regional Coordination Group on Satellite Data Requirements (RA-III and RA-IV)
- Currently, membership in the Group includes representatives from seven Members (Argentina, Brazil, Canada, Chile, Colombia, Venezuela, Trinidad and Tobago) and three satellite data providers (NOAA, EUMETSAT, INPE).
- Work through teleconferences and side meetings at conferences
- Expectation of larger participation – new call for nominations from WMO.
- Regional requirements Data Dissemination improve effectiveness of the Coordination Group.

Mission and Vision

Regional Requirements for Satellite Data Access and Exchange

- Establish and maintain user needs for satellite data, products and associated training
- Involve satellite providers to ensure an effective user-provider dialogue and follow-up action
- Guide implementation activities for a broad range of users in RA IV and RA III
- Find user-friendly and affordable cost-sharing arrangements for data distribution

Mission and Vision

Regional Requirements for Satellite Data Access and Exchange

- Provides a channel of communication between user and data providers
- Assist in utilizing receiving / processing equipment and software tools
- Identify requirements for additional data to be disseminated
- Make data available at very low cost, real time, improve utilization and training

Mission and Vision

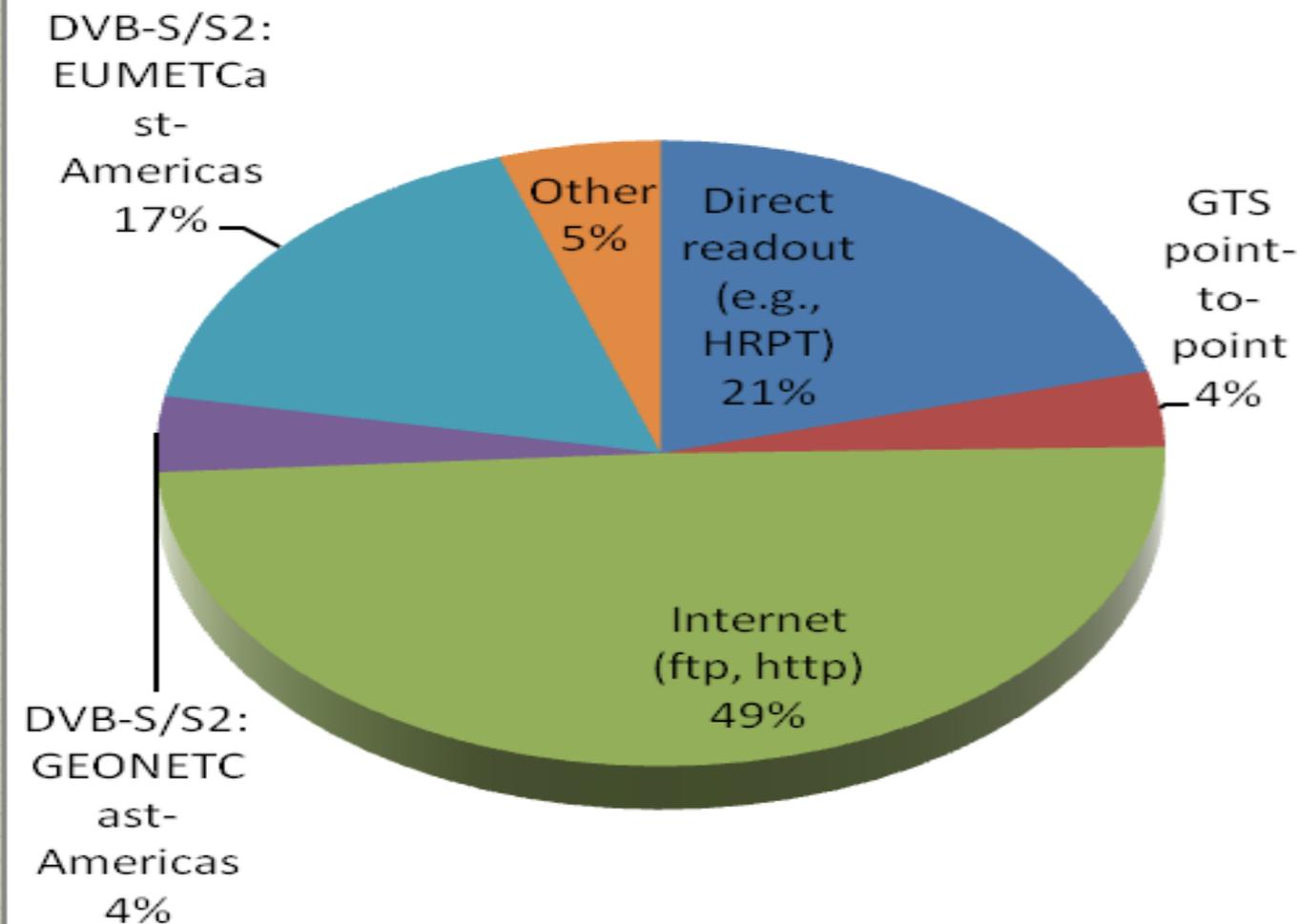
Regional Requirements for Satellite Data Access and Exchange

- Support standardization of Direct Readout services
- Provides the opportunity to have your products disseminated across the region.
- Provides opportunity to RA-III and IV members participate in the monthly discussions and other activities.
- Promote integrated dissemination services

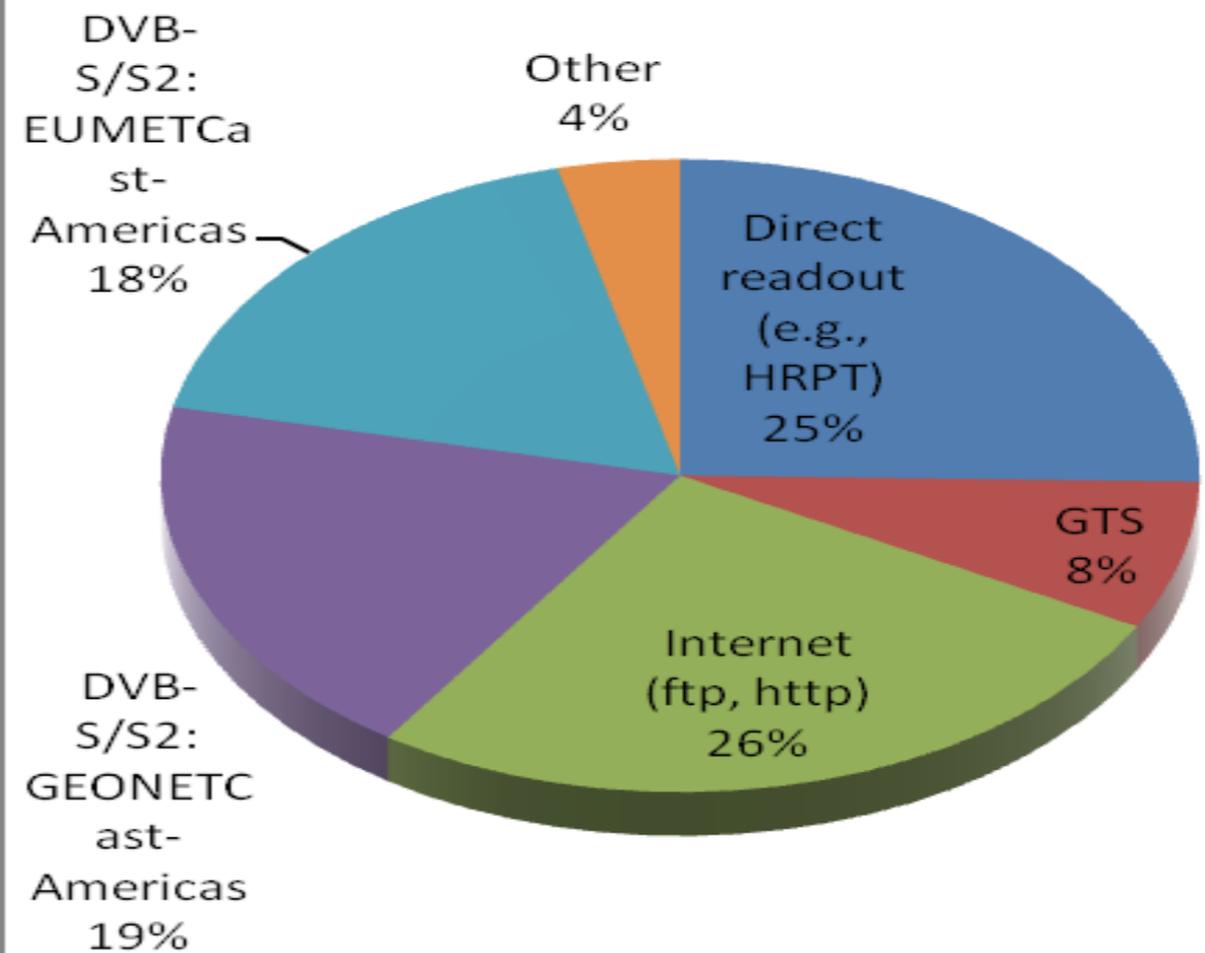
SDR Coordination Group Achievements

SATELLITE DATA REQUIREMENTS FOR RA III AND RA IV **SURVEY REPORT (2014)**

Q6A - How do you currently receive and access satellite data?

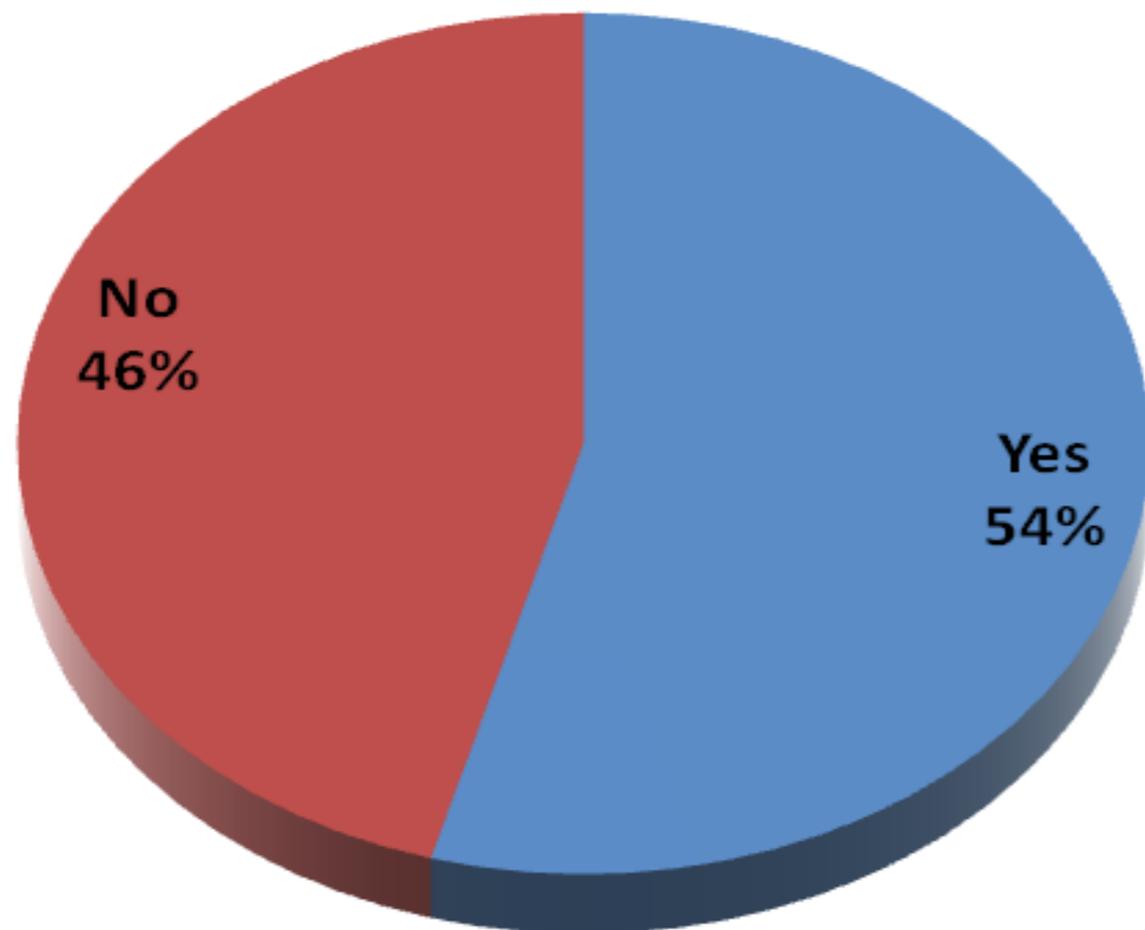


Q6B - How would you like to receive satellite data in the future?



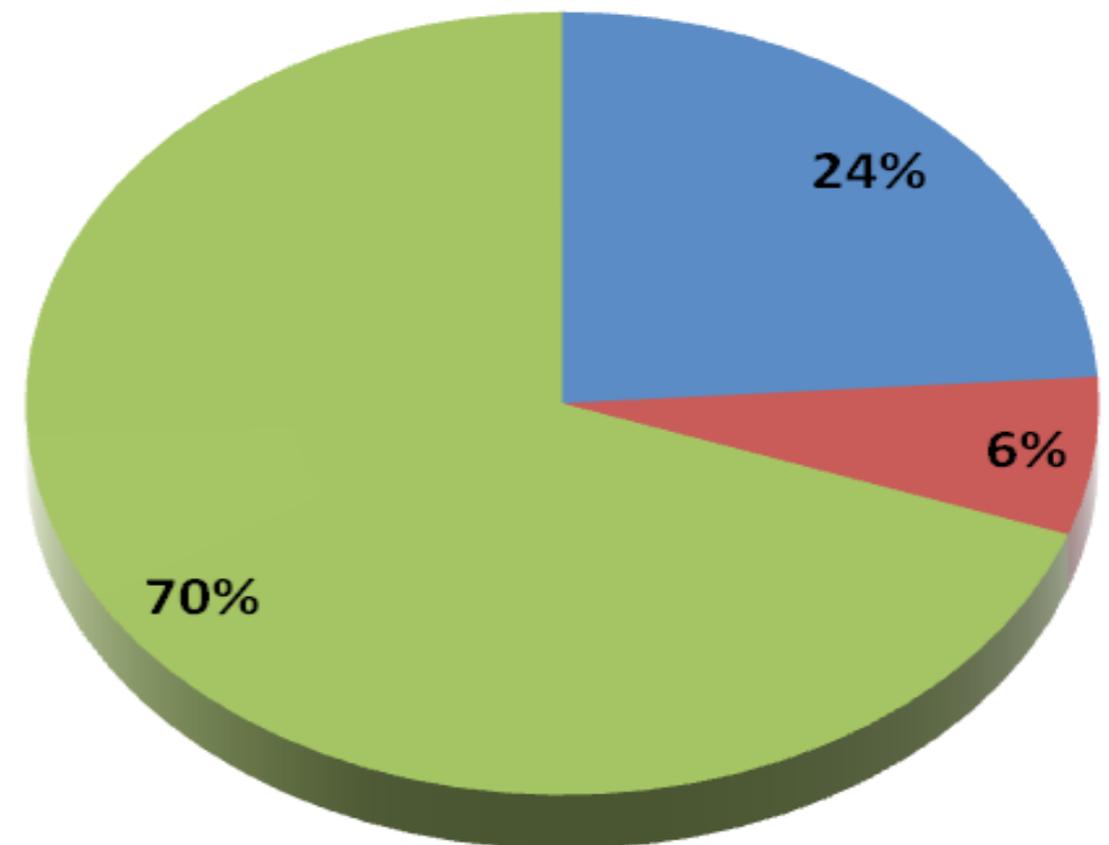
SURVEY REPORT 2014

Q7 - Do you intend to buy direct readout stations for the next satellite generation?



Q5 - Data timeliness: are you mostly using

- Near-real time data (timeliness 0-48 hours)
- Historical data
- Both are equally important to me



SDR Coordination Group Achievements

- Conducted 12 Teleconferences
- Defined the Terms of Reference
- Proposed optimized South America schedule for GOES 13
- Generated a GEO-LEO image mosaic to complement the new GOES schedule in southern South America
- Provided updates on GOES-R to users
- Plan activities for SDR and solve operational satellite and product issues

Coordination Group on Satellite Data Requirements for RA III and IV:

Meeting: 27-28 April 2015 at NOAA 2015 Satellite Conference

The WMO Coordination Group on Satellite Data Requirements for RA III and IV has been recognized at the 16th sessions of Regional Associations III and IV held in 2014 and 2013, respectively, as a standing regional mechanism to document user requirements for satellite data access and exchange, and to foster the dialogue between users and satellite operators. This is critical to improve the utilization of satellite data for weather, climate, water and related environmental services.

Outcome from 27-28 April meeting of the Coordination Group on Satellite Data Requirements for RA III and IV

Thank You