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GEONETCast

Delivering Environmental Data to Users Worldwide

Current Status and Upcoming Plans, 2009-10



GEONETCast

Delivering Environmental Data to Users Worldwide



GEONETCast Overview

- Worldwide information dissemination system by which satellite and *in situ* data, products and services are transmitted to users through a network of communications satellites;
- Receiving stations use low-cost, off the shelf technology;
- Information includes climate, weather, agriculture, air quality, disaster alerts, and more, in support of GEOSS Societal Benefit Areas.
- It's a free-standing system - no internet or other comms infrastructure is required.

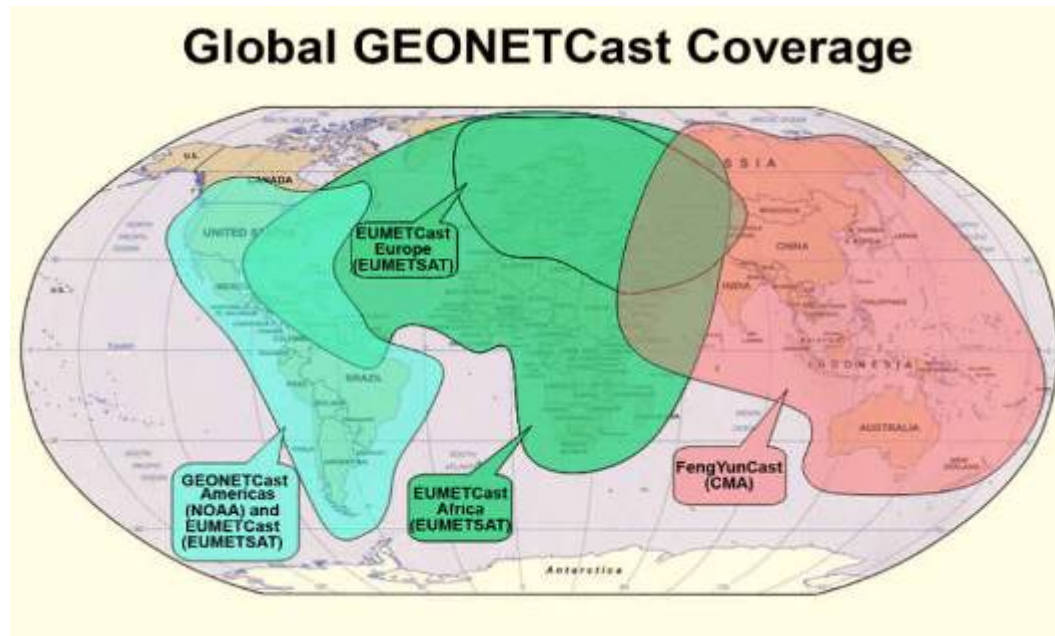


Delivering Environmental Data to Users Worldwide

GEONETCast Partners

GEONETCast is a system uniting regional data dissemination systems:

- **EUMETCast** (EUMETSAT): Europe, Africa, and parts of Americas
- **FengYunCast** (Chinese Meteorological Administration): Asia and parts of Pacific
- **GEONETCast Americas** (NOAA): North, Central and South America





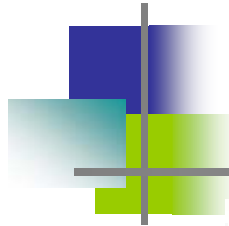
2009 Activities

- Network Centers (GNCs) Interoperability
- Increased and more diverse user base in Americas, Asia, Africa and Europe
 - Adding government, educational institutions, general public to user base
- GEO Tasks
- Training Channel
- Hazard and Alert Channel
- Product Navigator



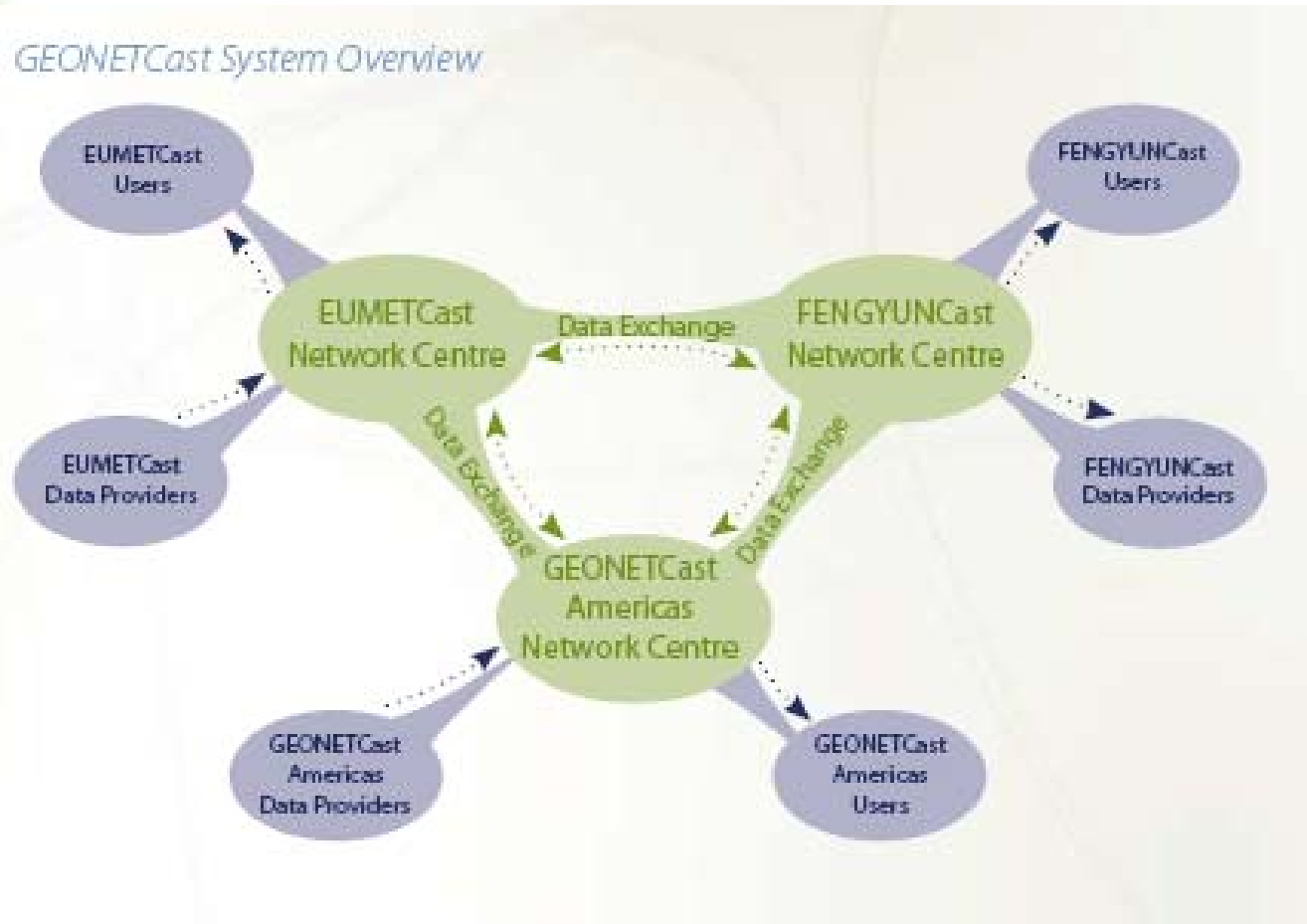
Interoperability

- Standardize technical interoperability mechanisms between EUMETCast, FengYunCast, GEONETCast Americas network centres;
- Initiate discussions with Russia covering integration of the MITRA system;
- Establish data exchange agreements between regional centers. CCD/MW2



GEONETCast Architecture

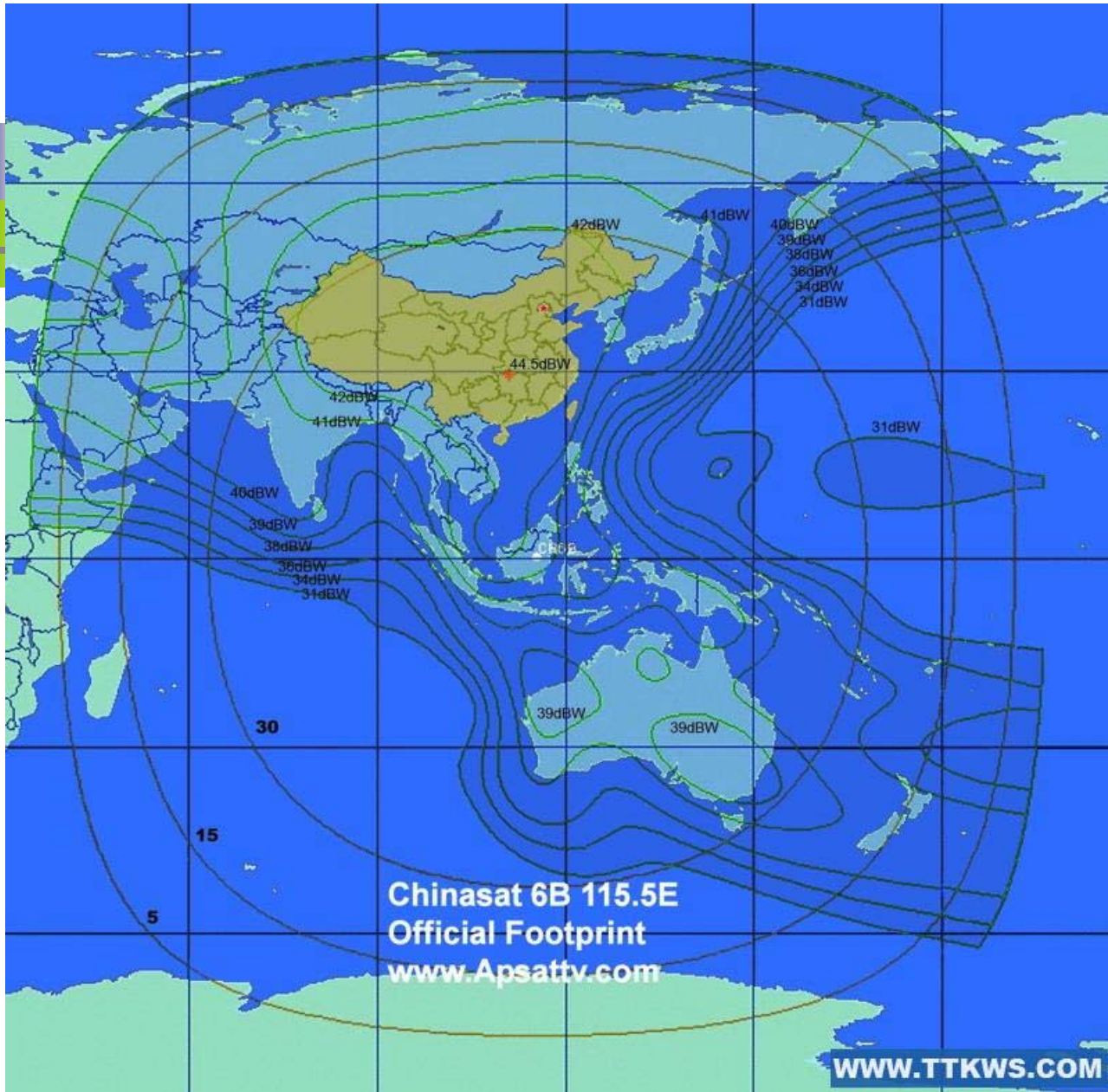
GEONETCast System Overview



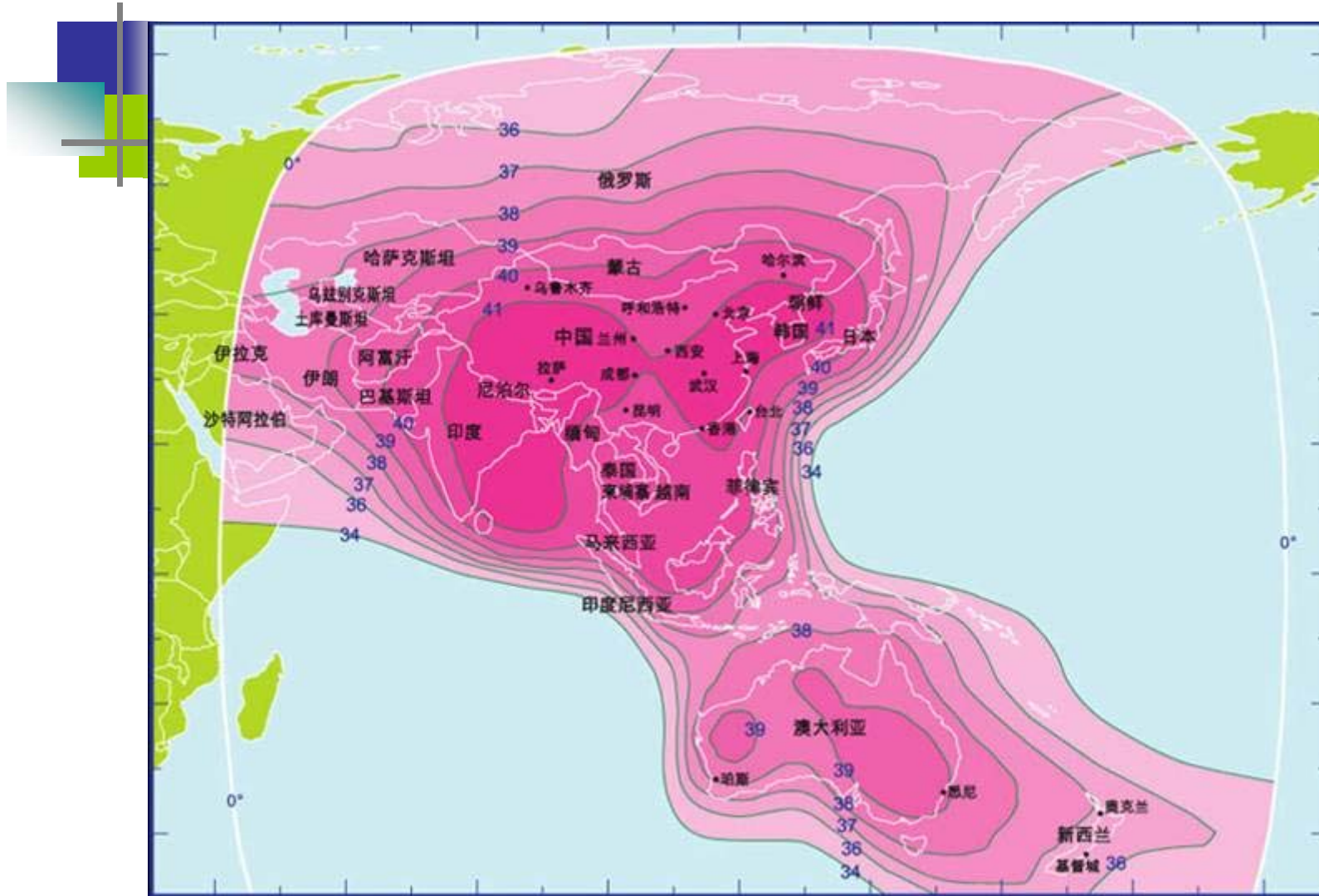


FENGYUNCast Upgrading

- From DVB-S to DVB-S2 to broadcast more data;
- New system plans to provide service in May 2010, while the present will operate to the end of 2010 in order to keep a smooth transition;
- New system will use Asiasat-4(122E) or Chinasat-6B(115.5E) as communication satellite, depending on the bidding results.
- C-band with similar footprint to present
- 206 to about 2500 user stations in the Asia/Pacific region.



Footprint of Chinasat-6B



Footprint of Asiasate-4



Global Outreach

- User Engagement
 - Each region working directly with its Users;
 - In Europe there are about 2300 EUMETCast stations deployed;
 - In Africa, there are about 160 EUMETCast stations deployed;
 - In the Asia/Pacific region, there are approx 206 FENGYUNCast stations;
 - In the Americas there are about 55 stations deployed.



User Engagement

- User base is growing, widening to include met users and other groups – e.g. education, government;
- Capacity Building (DevCoCast, ITC workshops) and user engagement (Requirements gathering in Central America) increasing potential user base;
- Outreach continues in previously-underserved regions: Africa, South/Central America, Asia.



GEO Tasks

- GEOSSE Dissemination and Distribution Networks;
- GEONETCast Training (user engagement and capacity building);
- Establishing regional capacity building networks;
- Building capacity for non-technical decision-makers in the use and impact of Earth observations.



Training Channel

- Satellite broadcast sub-channel devoted to education and training materials, increase capacity of users to utilize GNC products;
- Channel used to support specific training events;
- Concept for the delivery of training library material under development

STATUS: Training Channel is operational – GEO CBC and others can help develop user engagement.



Hazard Alert Channel

- Broadcast weather and environmental event alerts
- Alerts using Common Alerts Protocol (CAP) standards

STATUS: Initial product sets are available and on-line.



Product Navigator

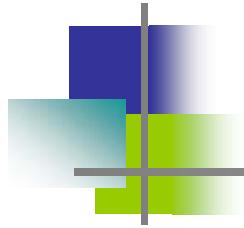
- File-based, fully-interactive and searchable guide to GEONETCast global data offerings.
- GEOS-Compliant, linkable to other data sets and projects
- Offerings organized by GEO Societal Benefit Areas, provider, region, etc.

STATUS: Available online and over GEONETCast satellite broadcast. EUMETSAT provides periodic content updates.



Look Ahead: 2010

- Increased Data Exchange
- Continue User Engagement in New Regions – Africa, Asia, Latin America
- Build Training Channel user base
- Increase applications of Alert Channel
- Increase Product Offering across SBAs



Open Issues

- None