



European Union cooperation activities with Latin America on GNSS

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EU/Latin America cooperation on GNSS



- **Political support** for cooperation: EU-Latin America summit in Guadalajara/Mexico on 28 May 2004.
- Galileo info days in Mexico, Brazil, Argentina and Chile.
- Cooperation on Galileo:
 - Negotiations on going with Argentina.
 - Preliminary talks with Brazil, Mexico and Chile.



Cooperation opportunities for Latin America on Galileo



- **Opportunities** for entities addressing both infrastructure and downstream value-chain applications:
 - space Industries (space and ground segment),
 - non-space Industries (e.g. aircraft manufacturers, receivers, local elements, system integrators for applications),
 - **Service providers** (e.g. fleet management, assets tracking, ATC),
 - added-value service providers (e.g. maps, GIS, meteo data, traffic info, point of interest for LBS applications, software for applications),
 - Universities and research centres (e.g. timing, geodesy, study of ionosphere, processing algorithms)

- Main opportunity areas:
 - **To participate in the Galileo Programme: including participation in the GNSS Supervisory Authority.**
 - Galileo services and applications
 - Galileo User Segment
 - Galileo Multi constellation Regional System



Opportunities in the Galileo Research & Development Programme



- GJU is managing **€100 Mill** of the Galileo 6th Framework Programme with three calls
- **First Call:** launched in July 2003, 8 contracts running
- **Second Call :**
 - Area 1: User Segment
 - Area 1a: Applications development (e.g. aviation)
 - Area 1b: Projects for Technological development (e.g. receivers)
 - Area 2: Mission Consolidation, geodesy and time.
 - Area 3: Innovation and international cooperation
- **Third Call Opening:** mid December **2005**
(see www.galileoju.com)
- New research activities: Important budget for activities in the **7^h Framework Programme**
- Latin America entities may participate (more info www.cordis.lu)



Opportunities in the Galileo Concession



- *Opportunities with the current concession bidders in different areas, some examples:*
 - *Licensing and IPR for the Galileo market exploitation*
 - *Implementation of the Galileo Service provision end-to-end downstream chain (local actors, end-customer interface)*
 - *Service agreements for specific market sectors at local, national and regional levels*
 - *Optimisation and customisation of Galileo "Service Centres" and their interface with the Galileo Core System*
 - *Dedicated Galileo/EGNOS Market analysis focused on specific regional/national priorities involving the current and future investors and users*
 - *Setting-up group of interests for the different market sectors*
- *Note: It is up to interested industries in Latin America to contact the Concessionaire*



Galileo Information Centre for Latin America



Objectives:

- *Galileo Information Center will constitute a platform for **closer co-operation** between Europe and Latin America.*
- *Overall promotion of Galileo in the region through a structured training, communication and **awareness** programme.*
- *Maintain a market observatory of GNSS applications uptake*
- *Identify and facilitate cooperation opportunities in the industrial and R&D domains*



Galileo Information Centre for Latin America



Activities

The Galileo Information Centre is a platform of resources in network to carry out among others the following tasks:

- *Organize and participate in events (e.g. training courses, workshops, ..)*
- *Develop a web site and maintain the Info-Desk of the Centre.*
- *Disseminate a information related to the Galileo project development in the region (e.g. newsletter, press releases,...)*
- *Organize a Galileo prize.*



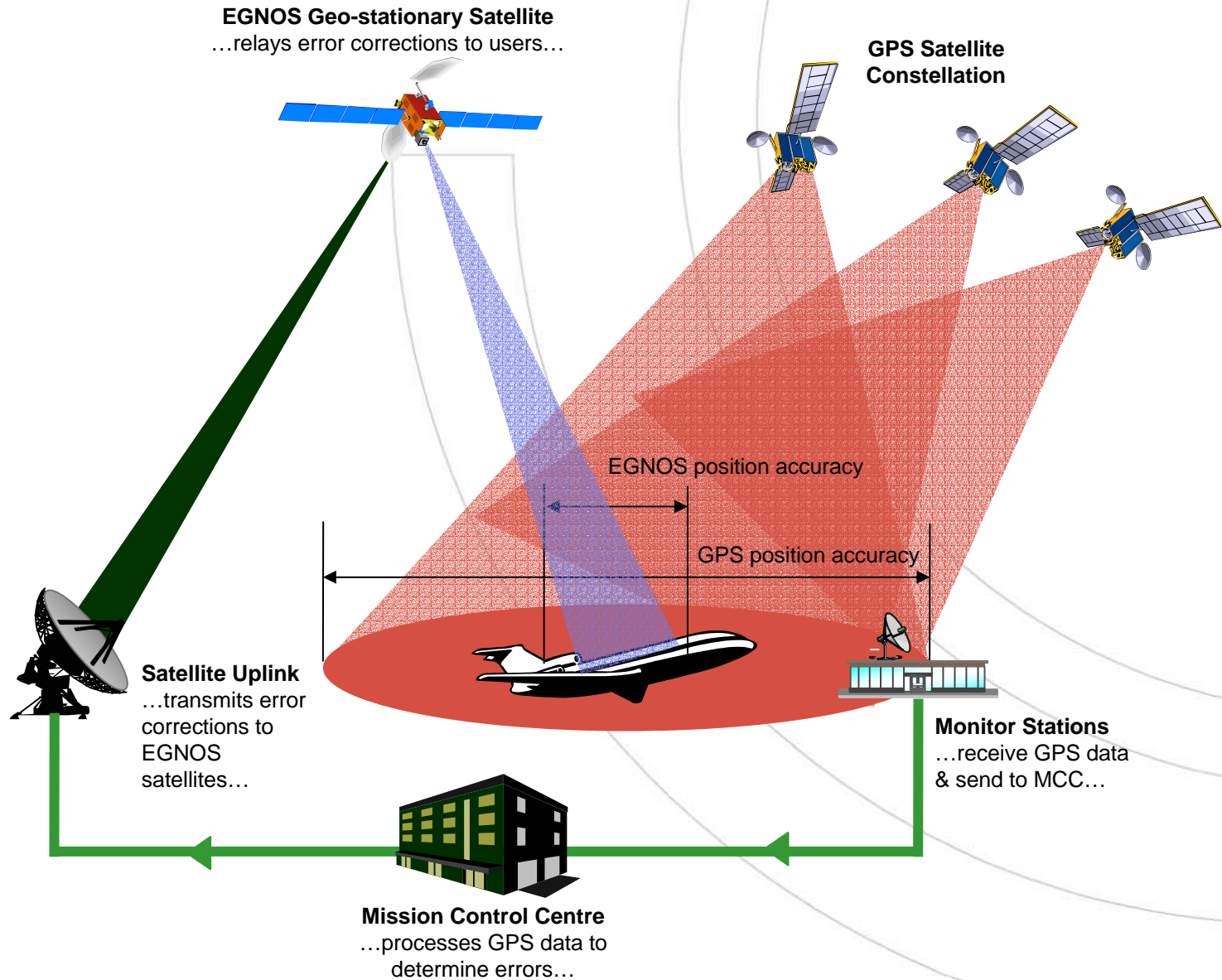
Galileo cooperation project for Latin America



- Activity 1. Support to the regional plan (aviation)
 - To customize the Multi-constellation Regional System (MRS) concept to Latin America
 - Support the civil aviation strategy on GNSS
 - Feasibility analysis of a real demonstration campaign
- Activity 2. Galileo **services and applications** development in Latin America
 - Demonstration of the Galileo benefits and added-values with respect to the current GNSS solution
 - Evolution from GPS towards GPS (EGNOS)/Galileo based applications
 - Development of Galileo service enablers in selected markets

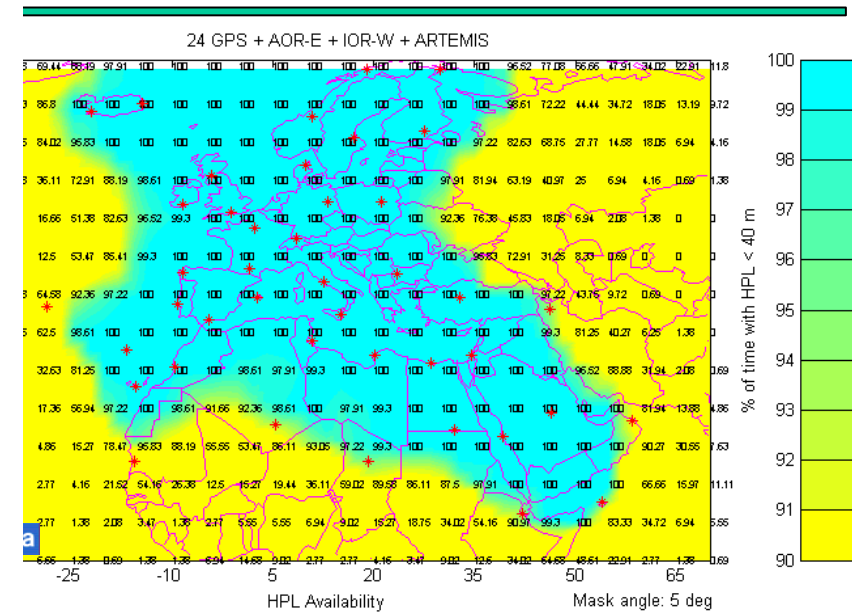
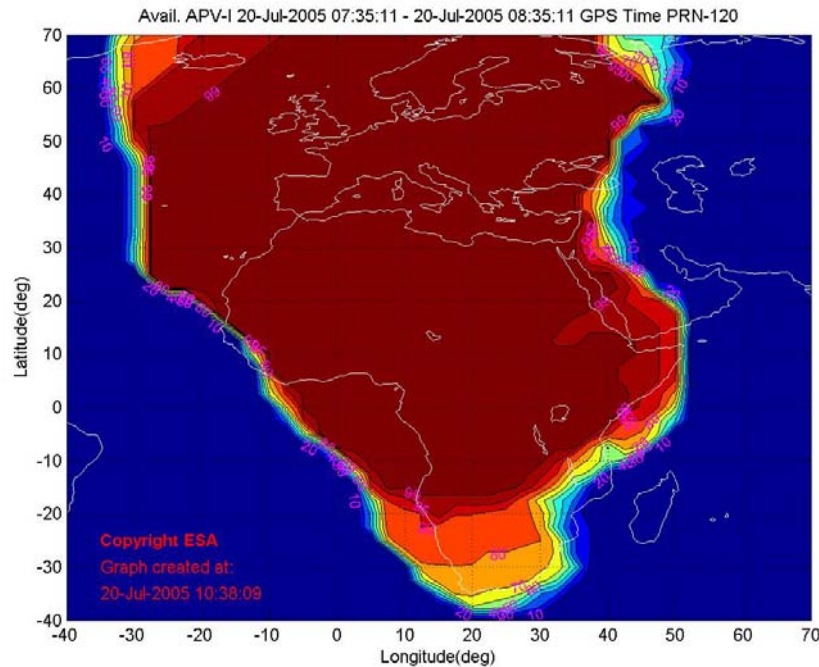


EGNOS offers improved GNSS performance in respect to GPS



APV HPL Availability

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Driven by Air Navigation Service Providers
(e.g. ASECNA, ATNS South Africa, ACAC,..)



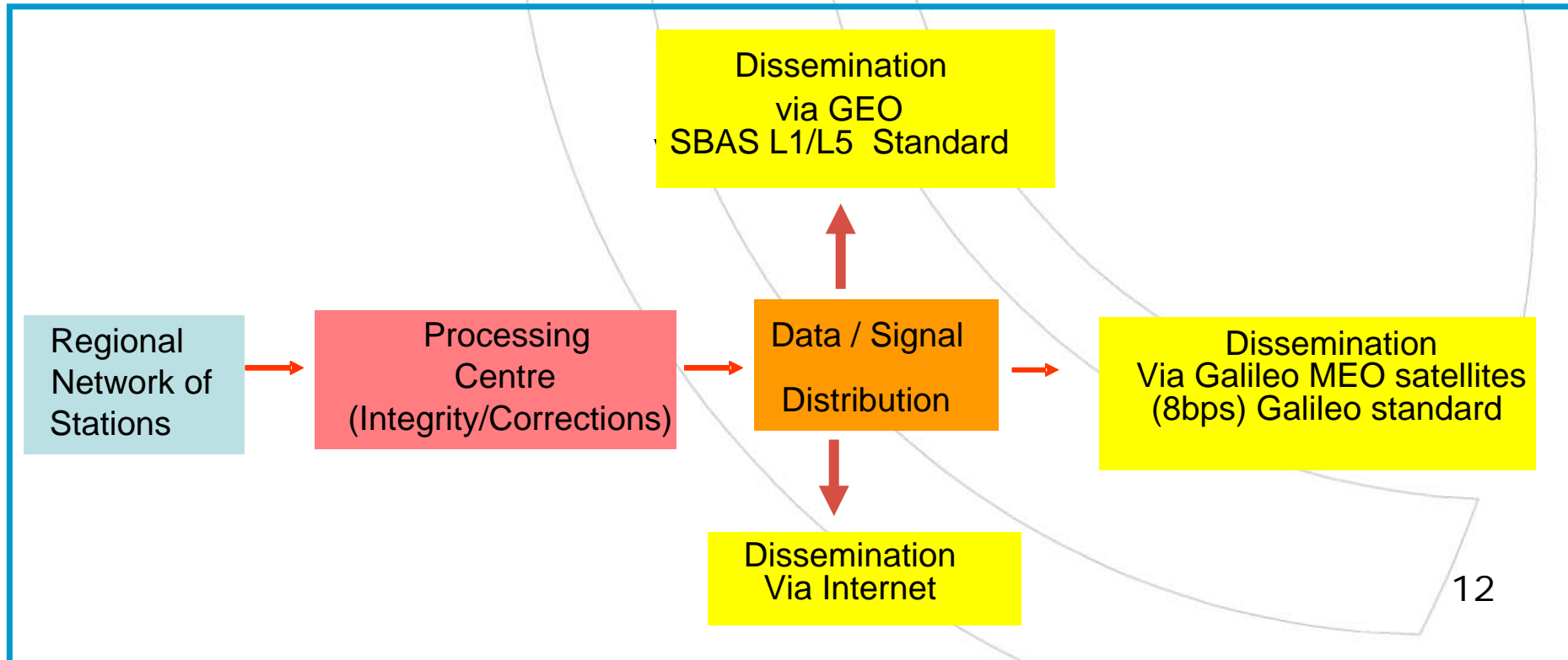
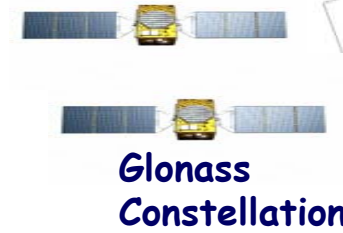
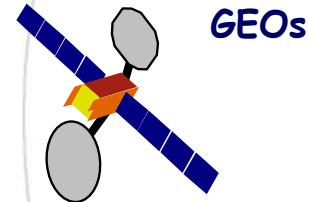
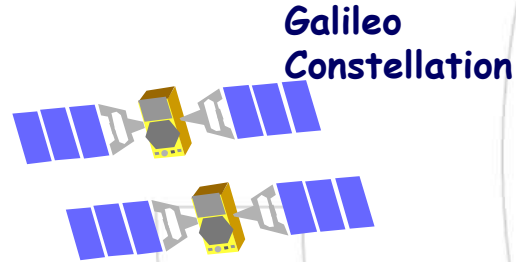
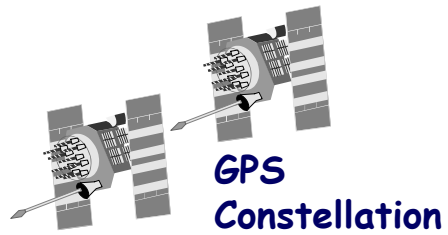
Galileo Regional Segments : Multi-constellation Regional System.



- Currently, GPS and Glonass don't provide embedded integrity service.**
- Galileo will provide Global integrity-> No strict technical reason for regional augmentation.**
- Multi-constellation Regional System (MRS) concept:**
 - Capability to provide regional augmentation to current/future GNSS constellations (Modernised GPS, Galileo and Glonass).**
 - Based on SBAS developments and includes Galileo dissemination capability.**
 - MRS concept could be applied to regions pursuing an independent system not an extension of EGNOS or WAAS. (e.g. Latina America, China, India,.....)**
- Concept under consolidation...**



Galileo Regional Segments : Multi constellation Regional System.





Further information.....



EC (European Commission)

http://europa.eu.int/comm/energy_transport/en/gal_en.html

ESA (European Space Agency)

www.esa.int/navigation

GJU (Galileo Joint Undertaking)

www.galileoju.com