

The International GNSS Service (IGS): Status and Strategy

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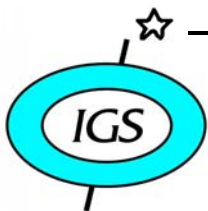
IGS Workshop 2010

- This workshop touches on (almost) the full spectrum of IGS activities
- Important: rapid consolidation and schedule for follow-up of the documented “Recommendations and Conclusions” (Thursday pm session)
- Thanks to Local Organising Committee, chair M. King
- Thanks to Scientific Organising Committee, chair R. King



36th IGS Governing Board Meeting

- Took place on Sunday 27 June 2010
- Brief close-out meeting around lunch break on Friday 2 July
- Some issues discussed:
 - Board and strategic issues (upcoming elections; Associate membership process; strategic issues, Implementation Plan 2010; GGOS; update of Terms of Reference and Charters)
 - ITRF 2008
 - RTCM and RINEX
 - Work of the Infrastructure Committee
 - RT PP
 - Status of WG/PP and updates of charters



Roles of the Governing Board

- The principal roles of the Governing Board (GB) are to set policy and to exercise broad oversight of all IGS functions and components. In developing the strategy to achieve the IGS goals in this plan, the Board places emphasis on:
 - Balancing GB meetings between strategic directions and technical issues
 - Improving mechanisms for taking technical and administrative actions
 - Continuing policy of transparency and openness of GB discussions and decisions
 - Ensuring diversity of the GB with respect to geographical distribution and expertise (hydrology, meteorology, climate change, economics, public policy, legal, etc.)



IGS Governing Board

- <http://igs.org/organization/govboard.html>
- New member 2010: James Park (Korea)
- IGS Executive Committee 2010: Dow, Neilan, Rizos, Blewitt, Hugentobler



Working Groups, Pilot Projects, Committee

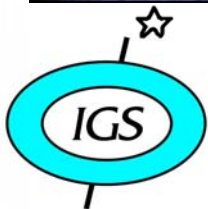
- Antenna Working Group
- Bias and Calibration Working Group
- Clock Products Working Group
- Data Centre Working Group
- GNSS Working Group
- Ionosphere Working Group
- Low Earth Orbiters (LEO) Working Group
- Troposphere Working Group
- Real-Time Working Group and Pilot Project
- Reference Frame Working Group
- Tide Gauge Benchmark Monitoring Pilot Project
- Infrastructure Committee





IGS Strategies

- Deliver world-standard quality GNSS data and products to all users globally with leading-edge expertise and resources.
- Develop, integrate, and participate with new and changing GNSS systems, and understand user needs to continuously improve the IGS to provide value to a broad range of users.
- Continuously improve the effectiveness of the IGS governance and management to support growth of the service.



<http://igs.org/overview/pubs.html>

IGS Workshop
Newcastle (UK), 28 June to 2 July 2010

IGS Mission Statement

- *The International GNSS Service provides the highest-quality GNSS data and products in support of the terrestrial reference frame, Earth observations and research, positioning, navigation and timing and other applications that benefit the scientific community and society*



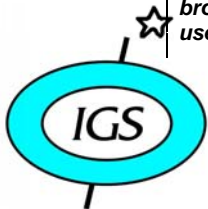
IGS goals 2008-2012

- Serve as the premier source of the highest-quality GNSS related standards (conventions), data and products, openly available to all user communities.
- Attract leading-edge expertise to pursue challenging, innovative projects in a collegial, collaborative and creative culture.
- Incorporate and integrate new systems, technologies, applications and changing user needs into IGS products and services.
- Facilitate the integration of IGS into the Global Geodetic Observing System (GGOS) and other more broadly based Earth observing and global navigation systems and services.
- Maintain an international federation with committed contributions from its members, and with effective leadership, management and governance.
- Promote the value and benefits of IGS to society, the broader scientific community, and in particular to policy makers and funding entities.



The IGS Strategic Plan: Implementation Plan for 2010

Strategies	Goals	Actions required
1. Deliver world-standard quality GNSS data and products to all users globally with leading-edge expertise and resources.	1.1 Serve as the premier source of the highest-quality GNSS related standards (conventions), data and products, openly available to all user communities.	<ul style="list-style-type: none"> • CB to provide templates for reporting, so that all IGS entities can prepare timely and standardised reports for GB meetings and annual reports [CB, all elements] • Set and implement targets for the second IGS Reprocessing activity [ACC, ACs, GB] • Plan and start implementation of next generation combination software (ACC, ACs, GB) • Base IGS products on updated reference frame IGS08 (close to ITRF2008) and antenna models igs08.atx (ACC, ACs, GB) • Define process for provision of annual inputs and other support (Directing Board meetings) to IERS [EC, RF WG, ACC, ACs] • Consolidate the structure and activities of the IGS Real Time Pilot Project, define targets for 2010 (RT-PP) [RT WG, GB] • Participate in RTCM standardisation activities, coordinating relevant IGS inputs and reporting back to GB [CB, IC] • Set and implement 2010 targets for the Infrastructure Committee [IC, GB] • Define and implement a process for obtaining and reporting on user feedback [CB, GB] • Investigate possible new products and pilot projects in response to user needs [GB, WG Chairs; WS sessions] • 2010 Workshop, 28 June – 2 July, Newcastle (Local and Scientific Committees; draft program; topics for and preparation of position papers; lessons from previous WS) [GB, CB, ACC, WG Chairs]
	1.2 Attract leading-edge expertise to pursue challenging, innovative projects in a collegial, collaborative and creative culture.	<ul style="list-style-type: none"> • Pursue and engage new players, in different geographic, scientific, and application areas by including them in meetings and workshops, and through focused presentations [GB, CB] • Develop on website a portfolio of examples of innovative new products and services based on IGS, similar to http://gps.gov or http://www.unavco.org/research_science/science-apps/science-apps.html [CB] • Appoint 'Ambassadors for IGS' within universities and research institutions (including UNAVCO) [GB] • Identify government or academic organizations that can play a greater role in IGS, e.g. as analysis centers for new products [CB, GB]
2. Develop, integrate, and participate with new and changing GNSS systems and understand user needs to continuously improve IGS services and to provide value to a broad range of users.	2.1 Incorporate and integrate new systems, technologies, applications and changing user needs into IGS products and services.	<ul style="list-style-type: none"> • Status of GNSS developments and implications for IGS network, receivers, products & services ... "white paper" or PPR presentation to be updated on an annual basis [GNSS WG] • Maintain register of IGS stations and develop annual metrics for number, geographic distribution, type of receiver, etc, and liaise with GGOS Bureau for Networks and Communications [IC, CB] • Continue to publicise outcomes of RT-PP [GB, CB, RT WG] • Actively encourage expansion of GLONASS tracking network and analysis [IC, ACs, ACC] • Plan for expansion of IGS network to track new signals and perform analyses, including GPS L2C & L5, GIOVE, QZSS, etc. [CB, IC] • Specifically, plan for IGS involvement in Asia-Oceania Multi-GNSS and Galileo IOV Demonstration Campaigns [IC, ACs, CB, GB] • Use 2010 Workshop, 28 June – 2 July, Newcastle (UK), to facilitate launch of new initiatives [GB, all elements]



Status of IGS and Strategy

- IGS continues its long history of successful, leading-edge projects and products – supported by long- and medium-term strategic planning
- The IGS provides *the* reference for *all* GNSS applications to a large user community
- Further improvement and extension of products
 - larger networks
 - implementation of new user needs
 - real-time, reprocessing, multi-GNSS
- Challenges by emerging new GNSS systems, new signals, better clocks
 - handling of inter-frequency and inter-system biases, antenna patterns
 - long homogeneous time series
 - active participation in International Committee on GNSS (ICG)
- Further improvement of reference frame as contribution to GGOS
 - leading role in making available the metrological basis for monitoring of changes in the System Earth



Welcome

- A warm welcome to all: have a productive Workshop and an enjoyable week in Newcastle!

