

Strategic Plan and Future Directions of IGS

John M. Dow
ESA/ESOC, Darmstadt
Chair, IGS GB

Contents

- Development of the IGS Strategic Plan
- IGS mission statement
- Long-term goals and objectives
- Strategies and actions
- Where are we?
- Outlook

Development of the IGS Strategic Plan 2002-2007

- Strategic Planning Committee set up at 14th GB Meeting, June 2000: Reigber, Beutler, Manning, Neilan, Ray, Serafin, Moore, Bazoian (Facilitator), Beck, Melbourne, Mueller
- Met in Frankfurt, 12-13 September 2000; report summarising recommendations, November 2000
- GB retreat in Napa Valley, 12-13 December 2000
- Drafts discussed at GB meetings April, September 2001
- Approved by GB in December 2001

IGS Mission Statement

The International GPS Service is committed to providing the highest quality data and products as the standard for global navigation satellite systems (GNSS) in support of Earth science research, multi-disciplinary applications, and education.

These activities aim to advance scientific understanding of the Earth system components and their interactions, as well as to facilitate other applications benefiting society

Long-Term Goals and Objectives (1)

- Provide the highest quality, reliable GNSS data and products, openly and readily available to all user communities
- Promote universal acceptance of IGS products and conventions as the world standard
- Continuously innovate by attracting leading-edge expertise and pursuing challenging projects and ideas

Long-Term Goals and Objectives (2)

- Seek and implement new growth opportunities while responding to changing user needs
- Sustain and nurture the IGS culture of collegiality, openness, inclusiveness and cooperation
- Maintain a voluntary organisation with effective leadership, governance and management

Three Key Strategies and Actions (1)

- Ensure delivery of “world standard” GPS (and other GNSS) products, providing the standards and specifications globally
 - Accurate, robust products; open data policy; incorporate new technologies
 - Outreach; user needs; partnership; expand participation
 - New, innovative projects

Three Key Strategies and Actions (2)

- Expand the IGS by pursuing new opportunities for growth
 - LEO satellite mission support (standards, formats; IGS LEO POD products; impact of LEO's on IGS products)
 - Real-time and near-real-time applications (standards/formats for RT operations; liaisons with regional RT networks; broadcast IGS products for RT users)
 - New developments in GNSS: Galileo, GPS IIR-M, IIF, III

Three Key Strategies and Actions (3)

- Continuously improve the effectiveness of the IGS organisation
 - Seek renewed commitment and new alliances
- Review and re-structure as necessary
 - Legal international entity
 - Update Central Bureau organisation
- Ensure appropriate levels of resources
- Governing Board representation

Tasks of Central Bureau

- Day-to-day coordination and management of the service, reporting to the GB
- Maintain IGS information system
- Network coordination, standards
- Support to Working Groups, GB, meetings, workshops
- Publications, promotion

Where are we? (1)

- Central Bureau
 - Excellent support from NASA/JPL for a decade
 - New tasks need additional resources
- Analysis Centres and AC Coordination
 - All but one of the original AC's still there, some new ones too
 - Load becomes heavier with time, fortunately continuous increases in efficiency
 - Tradition of AC Coordination continuing
- Global Data Centres
 - CDDIS, SIO, IGN: one or two additional global centres would be useful
- Timing Products WG
 - Developing timescales (rapid, final) more stable than GPS – new fundamental product

Where are we? (2)

- GNSS WG, IGLOS, Galileo
 - Integration of GLONASS, should be followed by integration of Galileo test satellites & prototype receivers (GSTB V2)
 - Important contribution already of IGS to Galileo development (GSTB V1)
- LEO WG
 - Pilot campaigns (CHAMP, Jason-1,...)
 - LEO contribution to products – handling very large systems (parameters, measurements)
- Real Time WG
 - RT data streams are flowing
 - Products, improving on ultras, integrity checks

Where are we? (3)

- Reference Frame WG
 - Providing essential inputs to IERS
- IGS global network
 - Aim is highest standards of stability in monumentation, data quality, long term continuity, with short latency
 - New standards document, procedures to be implemented
 - Realism: evolution, not revolution
- IGS Governance: Terms of Reference
- IGS as IAG Service
 - Integrated Global Geodetic Observing System IGGOS
 - IERS combination project
 - Relations with ILRS, IVS, IDS, IERS

Outlook

- Good progress is being made in implementing the Strategic Plan 2002-2007 – but by next year we shall need an update 2006-2011
- Very wide use of IGS products and standards: more outreach needed, better understanding of user needs
- Galileo will be a prime (and critical) driver for IGS
- IGS is thriving and looking forward to the next decade