

GGOS Bureau for Standards and Conventions

Report to the Plenary Meeting of ISO TC211

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Content:

- Mission and structure of the International Association for Geodesy (IAG)
- The Global Geodetic Observing System (GGOS)
- The GGOS Bureau for Standards and Conventions (BSC) and its Tasks
- Relation of GGOS BSC to ISO/TC211 and to GEOSS

International Association of Geodesy (IAG)

- The IAG is a constituent Association of the International Union of Geodesy & Geophysics (IUGG)
- The Mission of the IAG is the advancement of geodesy
- The IAG implements its mission
 - by furthering geodetic theory through research and teaching,
 - by collecting, analyzing, modelling and interpreting observational data,
 - by stimulating technical development, and
 - by providing a consistent representation of the figure, rotation and gravity field of the Earth and planets and their temporal variations.

Structure of the IAG

Commissions

1 Reference Frames

2 Gravity Field

3 Geodynamics

4 Applications

Inter-Commission Committee on Theory

Services

Geometry

IERS

IDS

IGS

ILRS

IVS

Gravimetry

IGFS

BGI

ICET

ICGEM

IGeS

Combining

BIPM

IDEMS

IAS

PSMSL

IBS

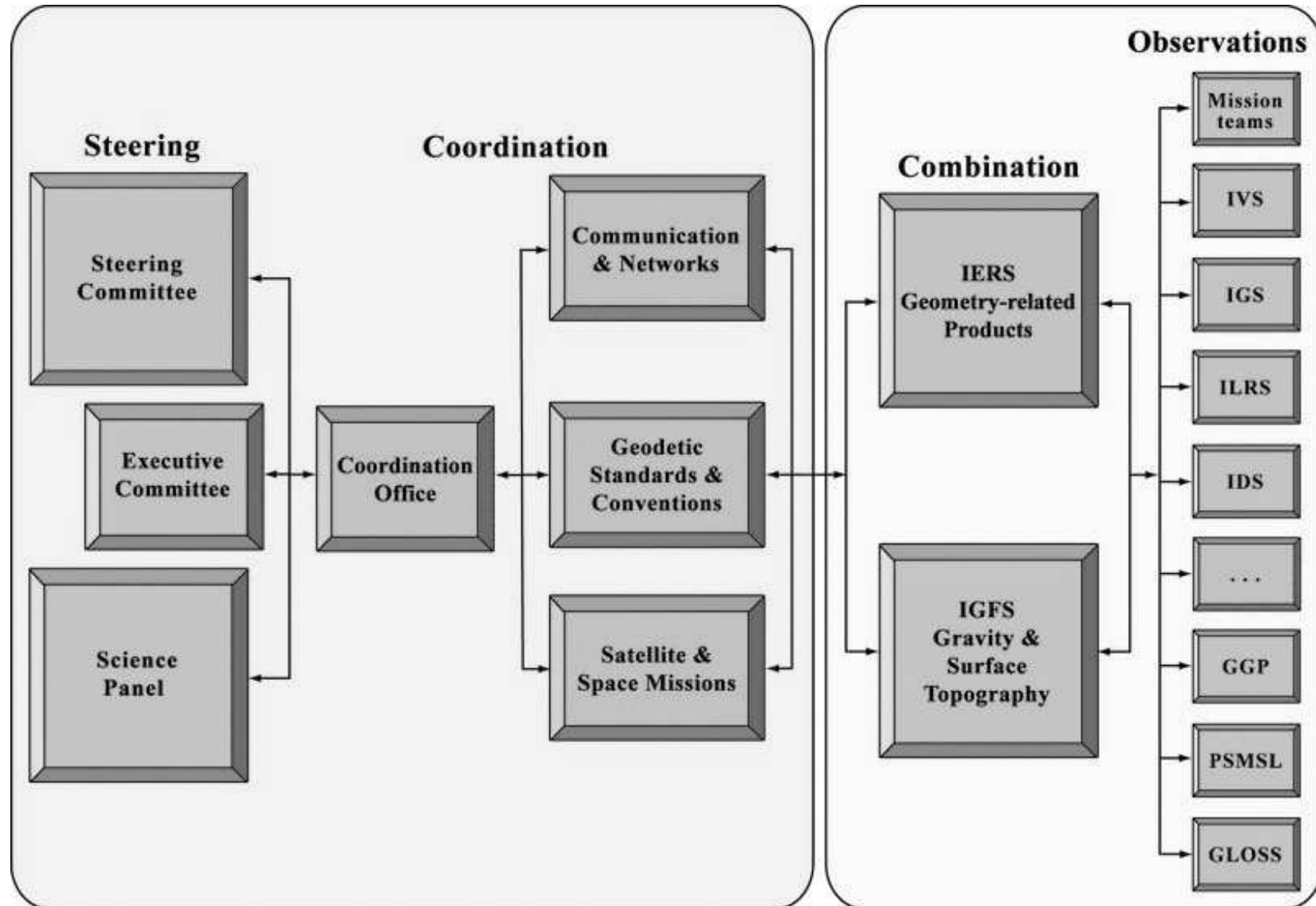
Global Geodetic Observing System (GGOS)

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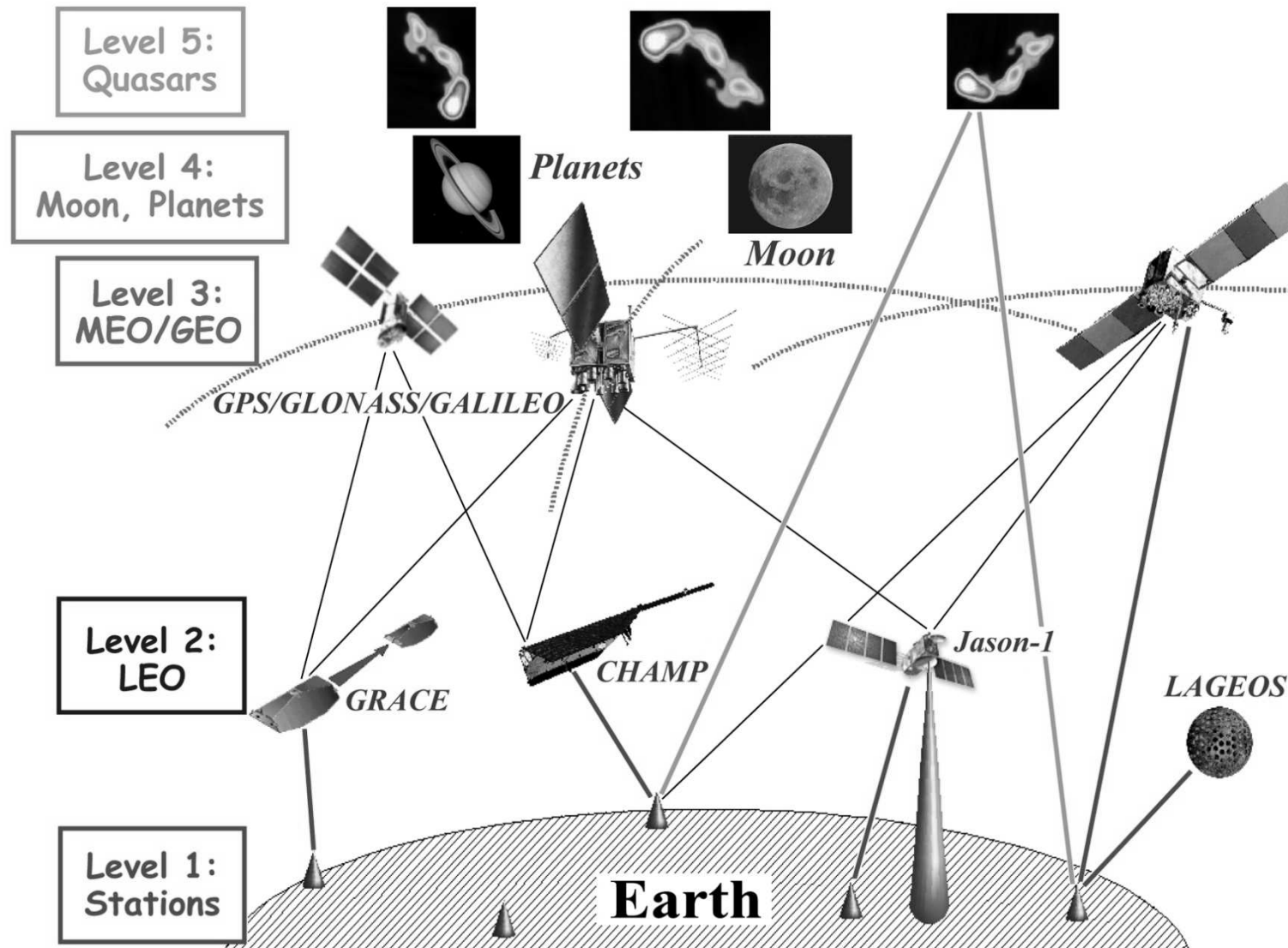
The definition of the GGOS according to the IAG Bylaws:

- a) The GGOS is IAG's observing system to monitor the geodetic and geodynamic properties of the Earth as a system.
- b) GGOS works with other IAG components to provide unique, mutually consistent, and easily accessible geodetic products (including the geometric reference frames and the gravity field) and the relevant geodetic constants for science and society.
- c) GGOS operates on its own Terms of Reference, defined by the GGOS Steering Committee and approved by the IAG Executive Committee.
- d) The GGOS Chair is appointed by the IAG Executive Committee.

Global Geodetic Observing System (GGOS): The Organization



GGOS: An Observing System of Layered Infrastructure



Standards and Conventions

- Main products of GGOS are highly precise and long term stable reference frames in position and height.
- Frames at a accuracy level of 1mm are required to describe and investigate variations in the System Earth caused by Global Change.
- Consistent and consistently used standards and conventions are indispensable to reach this goal.

GGOS Bureau for Standards and Conventions (BSC)

- The Bureau for Standards and Conventions is a component of the GGOS structure. It has the task
 - to keep track of the strict observance of adopted geodetic standards, standardized units, fundamental physical constants, resolutions and conventions in the generation of the products issued by the IAG Services,
 - to review, examine and evaluate all standards, constants, resolutions and conventions adopted by IAG,
 - to identify gaps, inconsistencies and deficiencies in standards and conventions and to initiate steps to close them,
 - to propagate geodetic standards and conventions to the wider scientific community and promote their use.

GGOS Bureau for Standards and Conventions (BSC)

- The BSC works closely together with the IAG Services and with international bodies engaged in the adoption of standards, resolutions and conventions.
- The BSC maintains contacts to ISO/TC211:
 - IAG has representation in ISO/TC211 (currently Johannes Ihde, Hermann Drewes)
 - Mike Craymer – IAG appointed chair of the Control Body of the International Registry of Geodetic Codes and Parameters – is a corresponding member of the BSC.

GGOS and GEOSS

- GGOS is one of the global observing systems of the Global Earth Observing System of Systems (GEOSS) of the Group on Earth Observations (GEO).
- The BSC shall assure interoperability of GGOS with GEOSS.
- Interoperability, as understood by the BSC, concerns the data file content and not the data exchange formats.
- The BSC shall provide the appropriate information to convert products from other observing systems – e.g. Global Ocean Observing System (GOOS), Global Climate Observing System (GCOS) – to those consistent with GGOS standards and conventions.