

# 10GP Geomatics Committee

www.iogp.org/geomatics

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incl. Geodesy Guidance Notes

# **IOGP Geomatics Committee**

## To exchange knowledge and experience, and to promote good practice within Geomatics discipline

- Formed in 2005 by the absorption into IOGP of the European Petroleum Survey Group (EPSG)
- Comprises specialists from IOGP member companies working in the areas of surveying, geodesy, cartography and geo-spatial information/coordinate data management
- Aims to help members by: developing and disseminating good practice, providing a forum for exchanging experiences and knowledge, influencing regulators and standards organisations, maintaining international positioning exchange formats and a geodetic parameter database (EPSG), liaison with industry associations
- Oversees five Subcommittees: Geodesy, Geo-Information, Earth Observation, Surveying and Positioning and Geophysical Operations, and variable number of Task Forces dedicated to specific Geomatics Committee activities

# **Our Structure**

## **Geodesy Subcommittee**

- Supports the description of the definitions of coordinate reference systems to facilitate unambiguous identification of locations on, above and below the surface of the Earth
- In order to improve industry's surveying capability, develops and maintains specialist tools (EPSG Geodetic Parameter Dataset) and resources (Geodesy Guidance Notes)

#### **Geo-Information Subcommittee**

- Develops industry guidelines, good practices and specifications regarding the use of E&P information in support of business decision-making for exploration, new business, construction, field development and decommissioning
- Responsible for development, maintenance and enhancements of Seabed Survey Data Model (SSDM) and Land Survey Data Model (LSDM – soon to be published)

## Earth Observation Subcommittee

- Provides networking opportunity for remote sensing specialists in order to improve usage of satellite image technology in terms of mapping and monitoring
- Responsible for development and maintenance of guidelines in using the satellite image technology for emergency preparedness and response plans

# Surveying and Positioning Subcommittee

- Monitors the need for industry guidelines or standards for survey and positioning and recommends good industry practice to improve the quality, safety and efficiency of such operations
- Responsible for maintenance and enhancements of relevant Geomatics Committee documents, e.g. Guidelines for GNSS positioning in the oil & gas industry

# Geophysical Operations Subcommittee

- Monitors the need for industry guidelines or standards for geophysical positioning and site hazard surveys and recommends good industry practice to improve the quality, safety and efficiency of such operations
- Responsible for maintenance and enhancements of relevant Geomatics Committee documents, e.g. Geophysical position data exchange formats (P1/11, P2/11, P6/11) and Guidelines for the Conduct of Offshore Drilling Hazard Site Surveys

# Our Work

## **Geomatics Reports**

### Recently published

- OGP P1/11 (v1.1) Geophysical position data exchange format
- OGP P2/11 (v1.1) Positioning data exchange format
- Geodetic referencing in Iraq
- Conduct of offshore drilling hazard Site Surveys Technical Notes
- EPSG geodetic parameter registry developers guide

## Other Existing Example Reports

- 373-01 Geodetic awareness a brief overview of coordinates and their reference systems
- 373-03 Contract Area Definition a guide for exploration managers and lawyers
- 373-04 Use of the ITRF
- 373-05 Coordinate Reference System definition guide on terminology and best practice
- 373-13 Coordinate Transformation evaluation and use
- 373-21 Grid Convergence
- All Geomatics Reports are publicly available via IOGP Bookstore: <a href="www.iogp.org/bookstore">www.iogp.org/bookstore</a>

## GIGS: Geospatial Integrity of Geoscience Software

Revision in progress

- Provides geoscience software developers and users with recommended industry best practice to evaluate the capabilities of their software with respect to establishing and maintaining geospatial data integrity
- Developed in response to significant concern and user experiences of violations of geospatial integrity of data when using geoscience software, resulting in incorrect results, inconsistent understanding and misleading information for the user community

#### **EPSG:** Geodetic Parameter Dataset

Regularly updated

- Industry standard definitions of coordinate reference systems and coordinate transformations which may be global, regional, national or local in application
- Available online a graphic user interface or through a service interface (<a href="www.epsg-registry.org">www.epsg-registry.org</a>) with updates as needed (typically monthly). Content also published twice a year in MS Access and SQL files for MySQL, Oracle, PostgreSQL (<u>www.epsg.org</u>)

## SSDM: Seabed Survey Data Model

Version 2 just published

- Industry standard for delivering seabed survey data in geographic information system (GIS) format
- Model can be used as a deliverable standard between oil and gas companies and survey contractors, as well as a sound data model for managing seabed survey data at an enterprise level within oil and gas companies

# DHSS: Drilling Hazard Site Surveys

New Report just published

- Collection of two reports consisting of Guidelines and Technical Notes to support offshore drilling hazard site surveys
- The Guidelines addresses the conduct of geophysical and hydrographic drilling hazard Site Surveys of proposed offshore well locations and the use of exploration 3D seismic data to enhance, or to replace, acquisition of a Site Survey. The more recent Technical Notes provides more detailed guidance, supporting technical information and background theory on the various equipment, planning, acquisition, processing and interpretation techniques

### OGP P Formats

Available now in version 1.

- A series of guidelines and data exchange standards commonly known as OGP P Formats
- P1/11 Geophysical position data exchange format (accompanied by the User Guide), P2/11 Positioning data exchange format and P6/11 Seismic bin grid data exchange format (accompanied by Guidelines for the use of the OGP P6/11 bin grid GIS data model; P6/11 User Guide soon to be published)

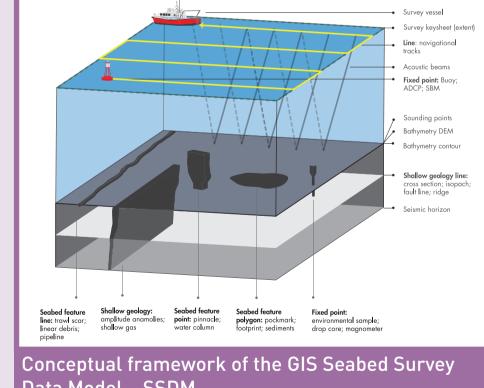
# Expected in 2016

- Vertical CRSs Geomatics Guidance Note
- OGP P1/11 (v.1.1) Geophysical position data exchange format -User Guide
- OGP P6/11 (v.1.1) Seismic bin grid data exchange format
- OGP P6/11 Seismic bin grid data exchange format User Guide

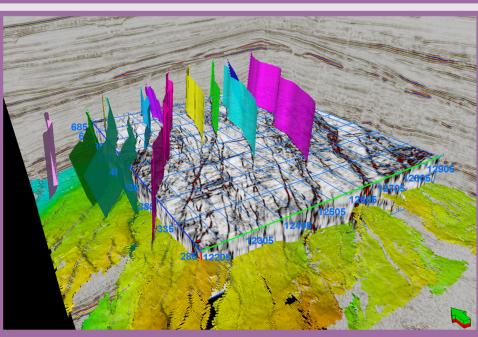




Example outputs from EPSG Geodetic Registry



Data Model – SSDM



6/11 format and GIS data model supports full an consistent definition of 3D seismic bin grid, and presentation within GIS applications