

Introduction of OGP S&P and APSG Objectives and Resources



Jack Verouden



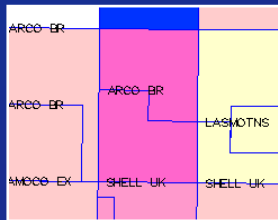
Jack Verouden (Shell), Chairman OGP S&P Committee
Michael Barnes (Cain & Barnes LP), Vice Chairman APSG

Content

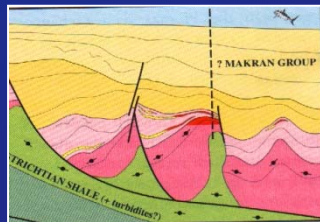
- Introduction of Session
- OGP S&P Objectives and Resources
- APSG Objectives and Resources

Spatial Data Management

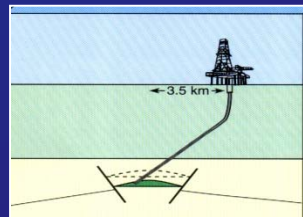
80% of all E&P data has a spatial component



Explore



Appraise



Develop



Produce



Decommission

Spatial Data Management Session

- 14:30 Introduction of OGP S&P and the APSG: Objectives and Resources
J. Verouden (Shell) & M. Barnes (Cain & Barnes)*
- 14:55 Geodesy and Cartography in E&P: A Caution to Skilled Professionals
J. Cain (Cain and Barnes) & M. Barnes (Cain and Barnes)*
- 15:20 Concession and Lease Boundary Delineation
R. Lott (Geodetic Working Group Chair) & L. Romeijn jr. (Zeus Imaging)*
- 15:45 Geodetic Integrity in Seismic Acquisition and Processing
M. Redford (Petro-Canada), J. Conner (EnSoCo) & D. Salvage (ExxonMobil)*
- 16:10 Break
- 16:30 Understanding Borehole Surveying: Directional Drilling Survey Accuracies
A. Jamieson (Tech21) & M. Michell (Devon Energy)*
- 16:55 The new EPSG Geodetic Parameter Registry
R. Nicolai (Shell) & G. Simensen (StatoilHydro)*
- 17:20 Data Quality Monitoring: Improving Geodetic Integrity of E&P Data
R.J. Wylde (ExxonMobil) & P. Lesslar (Shell)
- 17:45 Truth or Consequences: Commercial Impact of Geospatial Data Management
J.P.S. Stigant (Devon Energy), M. Jensen (retired Shell) & R. bin Ahmad (Petronas)*

Spatial Data Management Session

Specialist Knowledge from 11 Companies covering 540 years of E&P experience



CAIN & BARNES, L.P.
The Geomatics Expert Group

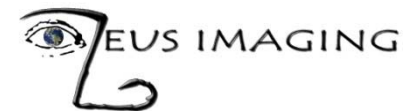


ExxonMobil



StatoilHydro

T21
TECH



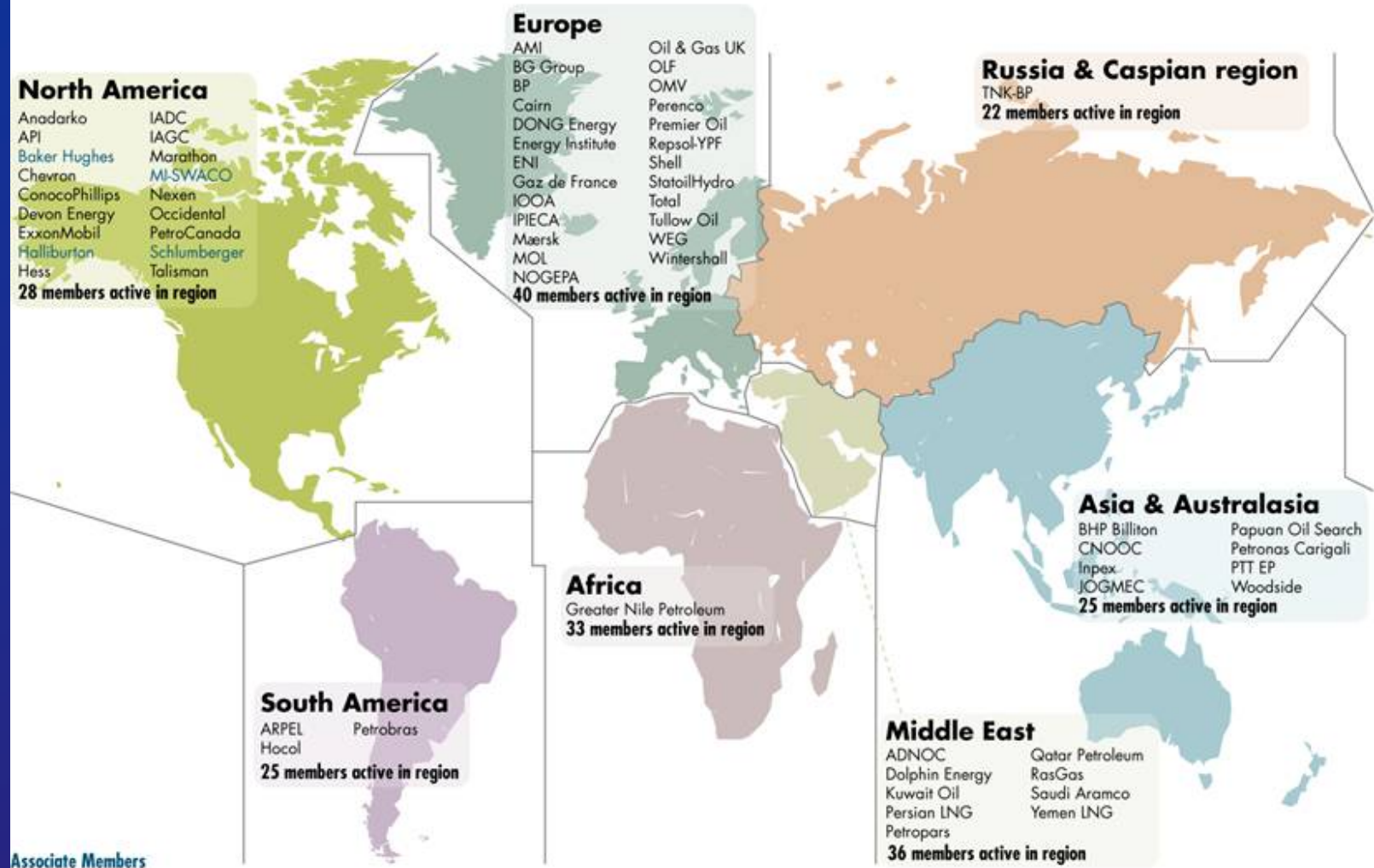
OGP Organisation

International Association of Oil and Gas Producers (OGP)

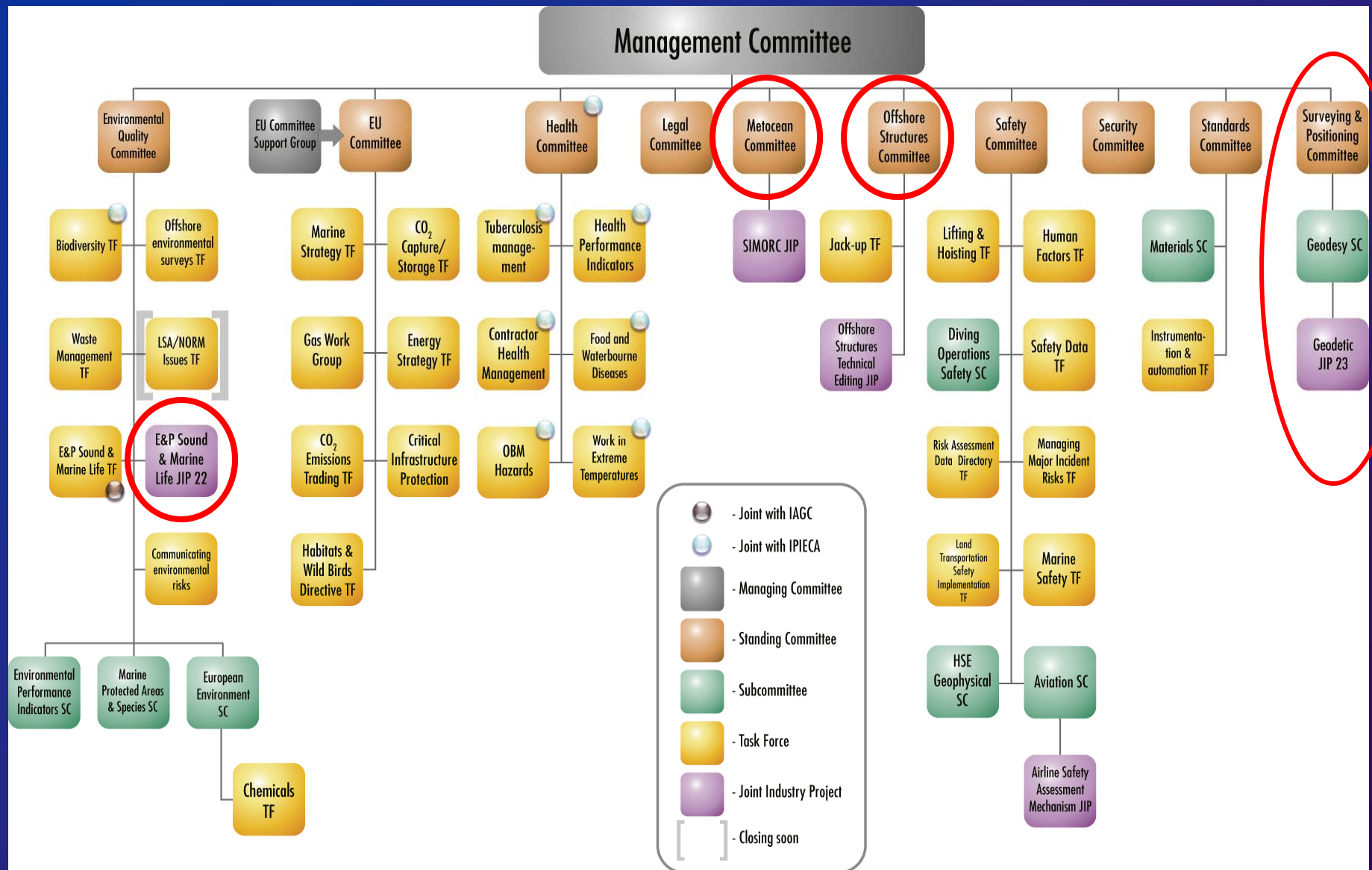
- Formed in 1974;
- Members produce...
 - half worlds oil;
 - one third of its gas;
- Global organisation.

OGP Membership

Base region of Members



OGP Structure



OGP Surveying & Positioning Committee

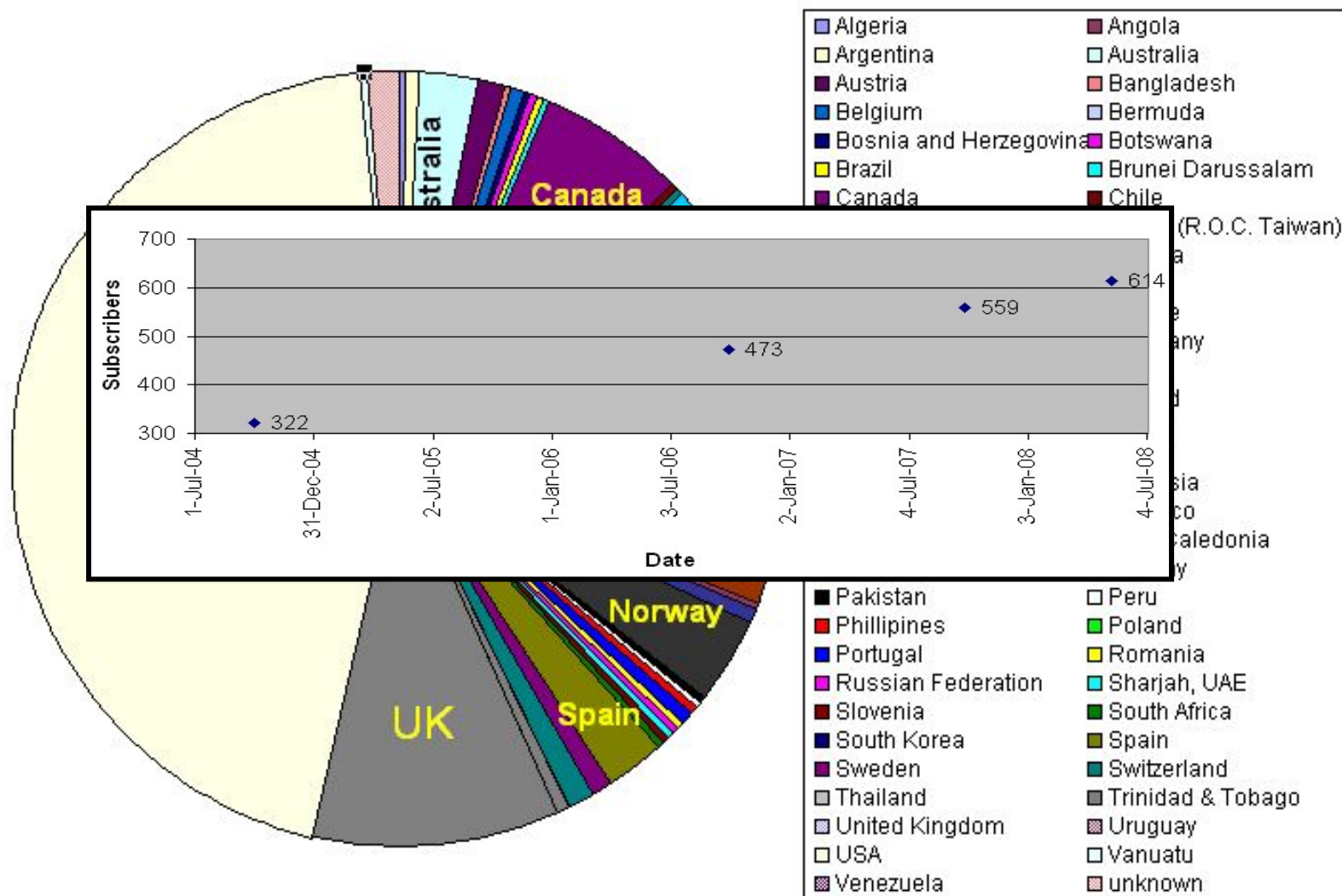
- EPSG founded in 1986;
- 2005 OGP S&P;
- Objectives:
 - to develop and disseminate best practice;
 - to provide a forum for the exchange of experiences and knowledge;
 - to influence Regulators and Standards organisations;
 - to liaise with industry associations;
 - to be the voice of Surveying and Positioning in the Oil and Gas industry.

OGP S&P “Silverware”

- EPSG Geodetic Parameter Dataset
the de-facto standard in the Oil and Gas industry and beyond for geodetic parameters worldwide;
- Guidance Notes (10) published on OGP website;
- Owner of UKOOA Positioning Standards (5). Published on OGP website;
- Active Survey and Positioning Committee;
- Active Geodetic Working Group.

OGP S&P EPSG Geodetic Parameter Dataset

Subscribers by Country of Residence



OGP S&P Guidance Notes

Number	Title
1	Geodetic awareness guidance note
2	Use of Bin Grids and Coordinate Reference Systems in Workstations
3	Contract Area Definition
4	Use of the International Terrestrial Reference Frame (I.T.R.F.) as Reference Geodetic System for Surveying and Real-time Positioning
5	Coordinate Reference System Definition
7	<ul style="list-style-type: none">• Part 1: Use of the EPSG Geodetic Parameter Dataset . This document includes annexes covering Data Naming Conventions and Rules for Deprecation and previously issued as Guidance Notes 9 and 12 (both of which have now been recalled) as well as some information previously included within the EPSG dataset README file.• Part 2: Coordinate Conversions and Transformations including Formulas
10	Geodetic Transformations Offshore Norway
13	Advisory Note on Datum Transformation Evaluation and Use
14	Coordinates Reference Systems in Reserves Unitisation Agreements
16	Quality Control of Proposed Well Co-ordinates

OGP S&P UKOOA Positioning Standards

Number	Title
P1/90	Data Exchange Format - Post Plot
P2/94	Data Exchange Format - Raw Marine Positioning Data
P5/94	Data Exchange Format - Pipeline Position Data
P6/98	Data Exchange Format - 3D Seismic Binning Grids (revised in 2000)
P7/2000	Data Exchange Format for Well Deviation Data
P-EPSC	EPSC Coordinate Reference System Description in UKOOA P Formats

Number	Title
1065	Guidance notes on the use of co-ordinate systems in data management on the UKCS
OPS13A	Conduct of mobile drilling rig site surveys, volume 1, issue 1.2
OPS13B	Conduct of mobile drilling rig site surveys, volume 2, issue 1
OPS13C	Conduct of mobile drilling rig site investigations in deep water, Version 1
DGPS	UKOOA guideline: The use of <u>dGPS</u> in Offshore Surveying - September 1994

OGP Active Surveying and Positioning Committee

- Completion of web enabled Geodetic Register JIP;
- Start up of JIP for Geospatial Integrity of Geoscience Software verification (GIGS);
- Partner with Society of Exploration Geophysics (SEG) to include positioning data into SEG D Rev 3;
- Review and revise as appropriate the ex-UKOOA Positioning Formats;
- Upgrade UKOOA Well site survey guidelines.

OGP Active Geodetic Working Group

- Publish and maintains EPSG database;
- Included as reference data in:
 - UKOOA
 - SEG
 - GEOTIFF
 - IRIS21
 - PPDM
 - POSC
- Web-based delivery and MS Access.

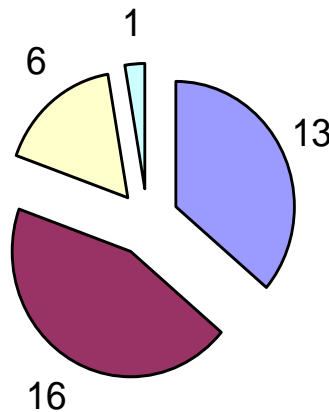
APSG Organisation

- Americas Petroleum Survey Group;
- Formed 10 November 1998;
- Unincorporated association of individuals.

The purposes of the APSG are to promote survey technology relative to the worldwide petroleum industry and to disseminate information to APSG members in respect of worldwide petroleum geodesy, surveying, cartography, and spatial data management.

APSG Membership

APSG membership by BUSINESS



■ E&P companies ■ Service companies ■ Consultants ■ Academia

On average 80-90 people, mainly from US and Canada, attend the APSG meetings

APSG Objectives

- The development of standards and guidelines for surveying and cartography;
- The exchange and management of spatially related data;
- Liaison...
 - with national and international authorities;
 - with the OGP Surveying & Positioning;
 - in respect of navigation systems used for surveying and geodesy;
- Promotion of geodesy, surveying, cartography, and spatial data management;
- Promote public understanding of worldwide petroleum geodesy, surveying, cartography, and spatial data management.

APSG Long Term Strategic Plan

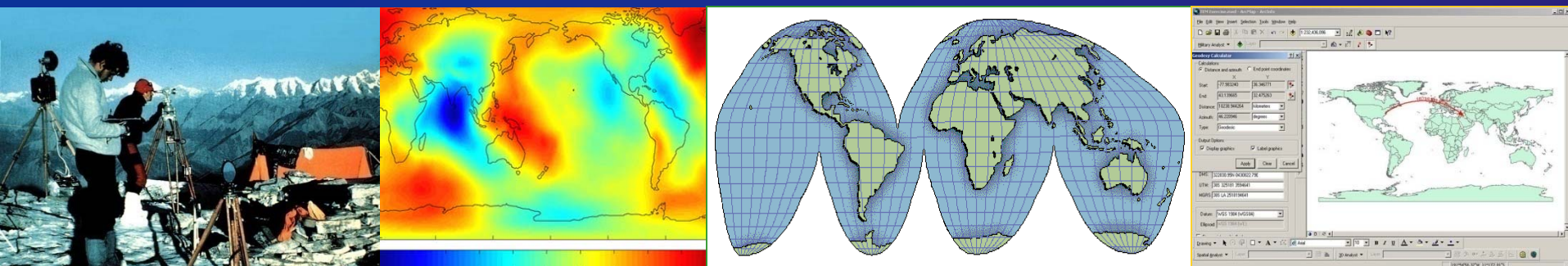
- Membership growth and sustainability;
- Geographic expansion to Latin America;
- Closer liaison with other professional groups such as Canada CAP Geomatics Committee;
- Expansion of the success ESRI PUG model of providing subject matter experts to industry based meetings, e.g. pipeline engineering, drilling, risk evaluation;
- Outreach to geosciences education organizations.

APSG Industry Outreach Activities

- Oceanology International, Oct 2002 (50 audience)
- ESRI PUG, Feb 2004 (115 audience)
- Oklahoma University Colloquium, November 2004 (100 audience)
- ION, Jan 2005 (40 audience)
- IHS Users Group and Symposium, Jan 2005 (85 audience)
- ESRI PUG, Mar 2005 (100 audience)
- GIS in the Rockies, Sep 2005 (45 audience)
- SPE Wellbore Positioning Technical Section, Nov 2005 (100 audience)
- SEG Special Technical Session, Nov 2005 (125 audience)
- ESRI PUG, Mar 2006 (110 audience)
- ESRI PUG, Feb 2007 (120 audience)
- SPE Applied Technology Workshop on Multi-discipline Well Positioning, Oct 2006 (100 audience)
- HGS and GSH Geoscience Education Day, Sep 2007, (108 audience)
- ESRI PUG, Feb 2008 (140 audience)

References

- <http://www.ogp.org.uk/>
- <http://www.epsg.org/>
- <http://apsg.home.texas.net/terraser.com>



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Presentation Transition in Progress

SPATIAL DATA MANAGEMENT SESSION

Specialist Knowledge from 11 Companies covering 540 years of E&P experience



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ExxonMobil



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