



## **Minutes of the Fifth Meeting of The Americas Petroleum Survey Group ( APSG ) November 3<sup>rd</sup>, 1999**

**Convened at Exxon Building, 800 Bell Street, Houston, Texas.**

The fifth meeting of the APSG commenced with a welcome to the Bell Street offices of Exxon by Mr. Barry Barrs. Mr. Barrs gave a briefing to those present on the emergency egress procedures. The meeting was officially opened by the Chair, Mr. Barry Barrs. The proposed agenda was discussed and accepted. A complete list of attendees and the accepted agenda are hereby entered into the record :

### **List of Attendees**

Aldrich, Craig	Marathon
Barnes, Michael	Racal Survey
Barrs, Barry	Exxon
Beattie, Hugh	Exploration Geodesy, Inc.
Berls, Norm	Geoquest
Boorman, P.	Canadian Oxy
Buhler Jr., George	BP Amoco
Cain, Jim	Western Geophysical, Baker Hughes
Carter, Bruce	BP Amoco
Couch, Chris	Omni Energy
Crozier, Kevin	Mobil
Evans, Stewart	Western Geophysical
Harwood, Rod	Phillips Petroleum
Longaker, Hank	Trimble Navigation
Lopez, Chuck	BP Amoco
Lott, Roger	BP Amoco
Maultsby, Tony	Conoco, Inc.
Mikkelsen, Dean	Geoquest
Naismith, Jim	Javad
Russell, Ken	Houston Community College
Salvage, Derek	Exxon
Shipp, Shorty	Trimble Navigation
Stigant, Jon	Consultant
Summerfield, Phil	Mobil Technology Company

The minutes of APSG4 were circulated by Mr. Barry Barrs. The minutes were proposed for acceptance by Mr. Jim Cain and seconded by Mr. Kevin Crozier.

# APSG5 - November 3<sup>rd</sup>, 1999

## Agenda

Continental Breakfast		8:15
<b><u>Opening</u></b>		9:00
Introduction & Welcome	Barry Barrs	
Review of Minutes APSG	Bruce Carter	
Acceptance of Minutes	All	
Acceptance of Agenda	All	
<b><u>GPS Frequency Issues</u></b>		9:15
Status of GPS Spectrum Issues	Ann Ciganer (Trimble)	
Pseudolite Strategy		
<b><u>Break</u></b>		10:00
<b><u>GPS Frequency Issues</u></b>		10:30
APSG - GPS Frequency Allocation Letter	Barry Barrs	
<b><u>Internal Business</u></b>		10:45
New Members	Barry Barrs	
FIG 2002 Sponsorship	Bruce Carter	
APSG & Other Professional Societies	Michael Barnes	
APSG Web Site	Michael Barnes	
<b><u>Lunch</u></b>		11:30
<b><u>EPSG Update</u></b>		12:30
Oct. 22, Meeting Highlights	Roger Lott	
EPSG Database Model Changes	Roger Lott	
<b><u>Committee Updates</u></b>		13:15
Education	Jon Stigant et al.	
Membership	Barry Barrs	
Nomination	Barry Barrs	
<b><u>Break</u></b>		14:15
<b><u>Other Business</u></b>		14:45
1024 Rollover & Y2K Update	Jim Cain	
Solar Max	Derek Salvage	
Ellipsoid as Vertical Datum	Phil Summerfield	
Action Items	All	
Next Meeting	All	
<b><u>Adjourn</u></b>		16:00

At 0910 Ann Ciganer ( Trimble Navigation and a member of the US GPS Industry Council ) presented an update of GPS frequency issues. A complete copy of Ms. Ciganer's presentation is attached to these minutes. The International Telecommunications Union ( ITU ) is responsible for making international radio frequency allocations. The main driving forces behind the allocations are now geopolitics and economics and not technology. The GNSS spectrum is coming under increasing pressure from the telecommunications industry, which is continuously looking for additional frequency allocations. Ms. Ciganer described Agenda Item 1.9 for the forthcoming ITU World Radiocommunications Conference 2000 ( WRC-2000 ) which includes :

- No change ( NOC ) in frequency allocations, and
- Remove GNSS from future WRC debates ( Suppression of Resolution 220 ).

This presentation highlighted the need for education of the member states. Ms. Ciganer suggested that lobbying from the Petroleum industry would be beneficial and stressed that the safety aspect of navigation should be one of our paramount concerns. Ms. Ciganer's presentation finished at 0945 and a question and answer period was held until 1000.

One action item from the APSG4 meeting was the drafting of a letter from the APSG to all member states of the ITU. A letter was drafted by Mr. Barry Barrs with input from Ms. Ann Ciganer. Draft letters were handed out to all attendees.

Mr. Barry Barrs asked the floor to recognize Mr. Michael Barnes ( APSG vice chair ), Dr. Phil Summerfield ( APSG secretary ) and Mr. Roger Lott ( representing the EPSG ).

At 1000 the meeting broke for 25 minutes for refreshments and informal discussions.

The meeting resumed with a discussion of the draft ITU letter led by Mr. Barry Barrs. There was a brief discussion on who should issue the ITU letter, APSG or APSG/EPSG. The best approach was thought to be two separate but consistent letters which would serve to increase the impact of the Petroleum industry. It was suggested that the letter be sent to the Telecommunication ministers of the ITU member states as well as being CC'ed to the national oil companies, as well as to an appropriate level within our own oil companies. It was also suggested that the letter, which currently relies heavily on the abbreviation GNSS, should include the abbreviation GPS.

At 1050 the floor was opened for all members and guests to introduce themselves and provide a brief update of their activities since the last meeting.

At 1105 Mr. Barry Barrs recognized three new members:

- Mr. Chris Couch ( Omni Energy )
- Mr. Chuck Lopez ( BP Amoco )
- Dr. Martin Rayson ( Quest ) – absent.

Mr. Bruce Carter discussed possible affiliations and sponsorships at 1110. Bruce presented a brief description of the FIG and the different levels of memberships. Bruce also suggested an affiliation with the ACSM who have indicated that the APSG could become a member organization.

At 1115 Mr. Michael Barnes provided an update on other professional activities. Michael discussed possible associations that the APSG may pursue with other professional societies, including the SEG and OTC. The Hydrographic Society has managed to arrange a stand at the OTC by chairing a session. Mr. Barry Barrs provided a brief summary of the APSG and its articles of association and stressed that the members of the APSG represent themselves ( or individuals ) and not oil companies.

Mr. Jon Stigant brought to the meeting's attention that the SEG runs continuing education courses both at the annual SEG meeting and at other locations. Jon did not have the corresponding information for the OTC available. The SEG education courses do not cover geodetics and cartography. Is this an opportunity that the APSG wants to explore?

Michael also covered the topics of website and E-mail. A domain name ( .ORG ) should be established and maintained for two years for the sum of US\$175.00 and provide a direct link to a APSG home web site. The overall consensus was that the current website hosted by Petroconsultants was looking 'tired' with old technological content. Mr. Kevin Crozier and Mr. Jim Naismith proposed and seconded a motion that a domain name and home web site be established. The chair reiterated that the current articles of association do not allow collection of any funds or dues which would normally be used to pay for the domain name and home web site.

At approximately 1150 the group recessed for a lunch catered in the Exxon Building cafeteria.

The meeting resumed at 1230 with an update on EPSG activities by Mr. Roger Lott. Roger detailed the changes in the EPSG database model to v4.4 which should hopefully be released within 30 days and will essentially be a data update. The main driver behind this update is the refinement of the relationships between different data types so that the model(s) can be better incorporated into computer software. Roger also reviewed the last EPSG meeting

The Education Committee was again represented by Mr. Jon Stigant. Jon focused on a company's upper management who make fiscal decisions but are unaware of geodetic issues including the important area of mismanagement of spatial data. Jon provided several examples of such problems. The general consensus of the attendees was that Jon's comments were completely valid. However several questions arose which remained unanswered, including how are these issues addressed, by whom ( APSG or individuals ) and in what medium? An education committee was formed consisting of Mr. Jon Stigant ( Chair ), Mr. Hugh Beattie, Mr. Ken Russell and Mr. Jim Naismith.

Mr. Barry Barrs discussed the APSG membership at 1405. A membership form was distributed and unanimously accepted by the attendees, through a motion proposed by Mr. Michael Barnes and seconded by Mr. Derek Salvage. A membership committee was formed of Mr. Michael Barnes and Mr. Rod Harwood. Barry also handed out a list of all APSG members ( active and in-active ) and asked that any changes be forwarded to Michael.

The meeting broke for refreshments and informal discussion at 1415 and reconvened at 1435 with a digital group photograph, followed by other business.

Mr. Norm Berls discussed the difficulties that are often associated with obtaining reliable and accurate transformation parameters. Moreover there is often an over-riding business driver which dictates that data must be transformed from one datum to another even if the transformation parameters are incomplete or missing. A heated debate followed including that statement that performing a datum transformation with ellipsoid information only and no transformation parameters should be considered malpractice.

Mr. Jim Cain presented the experiences of Western Geophysical over the GPS week ( 1024 ) rollover and the company's preparations for Y2K.

At 1525 Mr. Derek Salvage presented his recent experiences with the solar maximum and sunspot scintillations and their affect on land and marine seismic surveys as well as dynamic positioning operations. Derek presented sunspot histories which closely followed the predicted trends. Derek also presented the results of two commercially available dual frequency RTCM dGPS positioning systems from West Africa. The analysis of these data indicated that the dual frequency observations do mitigate but not completely eliminate the influence of sun spot activity on dGPS positioning systems. One conclusion drawn by Derek was that the navigators and QCs present on today's seismic crews are losing their analytical abilities.

The date of the next APSG meeting was set to be Wednesday 3<sup>rd</sup> May, 2000 to coincide with OTC and the theme will be spatial data management.

At 1610 the action items that were decided during this meeting were summarized as :

- The Chair ( Mr. Barry Barrs ) will made final modifications to the GPS Frequency Allocation letter and the APSG membership form.
- The Vice-Chair ( Mr. Michael Barnes ) will follow up with the membership activities.
- The Secretary ( Dr. Phil Summerfield ) will follow up with committee nominations.
- Mr. Jon Stigant will follow up with the education committee.
- Mr. Dean Mikkelsen will act as the webmaster.
- Mr. Jim Cain will investigate domain names and the setting-up of a website.

A vote of thanks was given for Exxon's hospitality.

The Chair closed the fifth session of the Americas Petroleum Survey Group at 1615.