

Americas Petroleum Survey Group (APSG)
Minutes - Third Meeting
November 10, 1998
@ Western Geophysical, Houston, TX

Mike Chamberlin formally opened the meeting and introduced first-time guests. Jim Cain then welcomed the APSG to Western Geophysical. Following welcome and introductions, the minutes were circulated and reviewed. These were accepted as printed. Agenda for current meeting was discussed and accepted as prepared, except for the following agreed changes:

Barry Barrs requested modification of 14:30 item from "Approval of Articles of Association" to "Review of Articles of Association".

Modify "Election of Chairman" to read "Chair, Vice-Chair and Secretary"

Internal Business:

Articles of Association: Barry Barrs of Exxon presented draft Articles of Association based upon Finders Group model. Lawyers continue to recommend that membership be on an individual basis and not on "company" basis. Primary issues were liability and possible charges of membership discrimination. Documents as presented differed from prior version primarily by addition of code of ethics (Article 3)

It was recommended to go as a loose unincorporated Association rather than nonprofit at this time. The group to investigate Non-Profit status further at a later date after organization is functional. If we don't collect dues, we should not need to file a tax return.

"Initial Membership" needs to be defined. Who should be initial members? What process should be followed by others interested in membership? So far attendance has been constant at 25-30. If organization grows too much, hosting scenario will need to be changed, but group didn't think this would become an issue.

Do we want to strike Secretary position with hosting company responsible for recording and distributing the minutes of each meeting? Roger Lott stated that EPSG just has one designated individual per company. As meetings rotate, the host brings in a volunteer attendee to take notes and provide minutes. Roger suggested that we clarify the role of secretary? Take minutes. Perform other duties? Mike Chamberlin requested that we defer further discussion on this into the other business

Chair to be elected for 2 years, starting in June 1999. Volunteers are solicited. Mike announced he will not run for next term.

It was agreed that all of the above items would be clarified prior to adjournment this afternoon.

Roger Lott also suggested that the APSG should clarify how APSG expenses would be handled. All meeting expenses provided for by hosting company? This seemed a bit heavy to Roger to be heavy for what the APSG expects to accomplish.

Presentation by Jim Naismith, DWS International, on GPS/GLONASS.

Jim Naismith of DWS International, Corpus Christi, Texas gave a presentation on GPS/GLONASS. The GLONASS Russian satellites are in 3 orb planes @ 120' Orbits 25440km inclined @ 64.8 degrees with period of 11 hrs 15 min 44 seconds. Ground control and tracking is in former USSR. System is more accurate in Russia. The Javad receivers have 40 parallel channels (can be either 40 L1 or 20 L1 and 20 L2) and use choke ring antennas. Cost is about \$25-27K per receiver (with L2 capability) plus about \$6K for choke ring antenna.

The GLONASS coordinate system is defined by PZ90, with transformation to WGS84 of Rz-0.4 sec and DY - 2.5 meters (generated by Mizra of MIT). Mizra's transformations can be obtained from the NUT website at <http://www.fega.atc.11.mit.edu/PZ90WGS84/PZ90-WGS84.html> (see also Jim Slater's paper from last ION meeting).

Jim Naismith stated that GLONASS quality is comparable to GPS with S/A turned off. GLONASS satellite lifetime is not good -- but better recently to +4 years. GLONASS is expected to survive since it is cost-effective. There are 6 more satellites awaiting launch. Estimate that launches will replace satellites lost to attrition. Last launch was in 1996.

Slides are to be contributed to minutes. For more information on technology or pricing, check <http://www.javad.com/>.

EPSG Status report

- **General EPSG information:**

Roger Lott commented that EPSG members are companies and all member companies are Operators based in Europe. The EPSG extends a welcome to the APSG chairman or designee attendee - but such designee must be employee of an operator. Roger pointed out that significant variances will continue between the EPSG and the APSG, primarily because of different membership focus and rules.

Recent Norsk-Hydro presentation to EPSG (October 16, 1998) presented a conclusion that 3-D seismic data cannot be used as a substitute for shallow hazards survey data.

Common Data Access (CDA) in Europe for everyone's seismic data was discussed at length. This is legislated in Norway -- you must put your data there. In Norway, the state owns the data, only interpretations are proprietary and can be withheld. CDA is a very sensitive issue. There are numerous varieties of P I format, etc and there are real problems in data handling. Derek Salvage asked about "level of acceptance" by major operators. Roger advised that there is great variation in. Some are "gung ho" and others are "very reticent".

U.K. Department of Trade and Industry (DTI) has working group on definition of licenses offshore U.K., which Roger Lott chairs. Recommendations have been discussed at UKOAA and EPSG meetings. DTI recommends strengthening wording of leasing specifications as they relate to coordinate definition. The coordinate systems used have been and remain ambiguous. Differences in datum transformations can lead to 1500m discrepancies far to west of UK). Compromise with so much ED50 data in North Sea is for licenses East of 6degrees West to remain on ED50 but with authoritative historical ED50-WGS84 to be defined. West of 6 degrees West, the recommendation is ETRF89 license determination. Expect publica-

tion soon, with recommendations probably to be accepted early in 1999. Irish government will probably accept DTI recommendations "as is" if/when DTI accepts geodetic license determination guidelines.

Datum considerations from Jean-Patrick Girbig presented by Roger. There have been some misunderstandings as to what JPG was trying to get across. Petroconsultants knows datums must accompany data to make it meaningful. Wants us to lobby people who supply data to Petroconsultants - those data providers are the ones who are causing the problem.

Apparently they get a lot of data with datum undefined and have been asked to "make up the datum", which they are understandably reticent to do.

Jon Stigant of Chevron and Derek Salvage of Exxon advised that the biggest problems are (1) Education and (2) Policy and attention of management. Focusing on better coordinate definition seems to be hard to sell. Their main approach has been to focus on education, with some progress. John Adams advised that perhaps 80% of Petroconsultants data have no datum.

- **EPSG Geodetic Working Group update:**

EPSG database has been updated with another dataset due soon. The main change is in improved reporting, particularly allowing area searches. Without such reports, the earlier versions were confusing to use manually, as one had to follow the code number sequence through a difficult routing from table to table. Attendees were asked how many used the database, and it was evident that not many used it regularly, although most had visited at one time or another.

John Adams advised that a friendlier front end is needed to make the database usable by APSG. Roger Lott and Jim Cain of EPSG working group who were present agreed that this was badly needed.

Bill Quinlivan said he would like to see all transformations entered into the database, but to "flag" the recommended or official ones (or "red flag" those not recommended for further use).

Information on South American Datums is somewhat lacking in EPSG database. Materials are solicited and can be forwarded to epsg@petroconsultants. Issues of willingness of operations to release data were discussed. Some companies consider having their own good knowledge of local geodesy as "competitive advantage" whereas others agree that consistent usage across the community is much more cost effective for all.

LUNCH (Amy's Barbecue hosted by Western Geophysical)

Education and Training:

Brian Schostak reported from the Education Committee. The group planned to send out Texaco's example of a training manual, but this never got out of committee.

On a related issue, the EPSG Working Group has agreed to generate a guidance note on "Introduction to Geodesy" in self-defense, as the Working Group is often inundated with questions of very basic nature. The new EPSG Guidance Note 8 will be intended primarily as a pointer to good geodetic information. No one on the working group has interest or time to write a "geodetic textbook" for the layman. Several existing sources were pointed out as potentially good sources: University of Texas "Geographer's Craft", NIMA's updated "Geodesy for the Layman", US NOAA's Geodetic Glossary, Trimble's GPS tutorial, etc. It was suggested that some "Quick hits" advise visitors why this is important to them, then point to more detailed references. Brian pointed out that this is particularly important for less-sophisticated users.

Barry pointed out that the NOAA "Geodetic Glossary" NOAA is not in digital form, but permission to publish on Internet might be obtainable. Roger Lott advised that he had used it as a source for a dictionary that was written for SEGDEF. Only a few of the definitions were usable as they existed in the Geodetic Glossary. Roger will circulate SEGDEF dictionary to Mike Chamberlin.

Roger Lott pointed out some issues with terminology - datum shift really means changing data. Datums don't move! We need a thesaurus of "incorrectly used terms" in the guidance note.

Brian Schostak to renew the training workgroup.

FINDER update:

John Adams of Conoco reported on FINDER update. Conoco, Mobil and Vastar all agreed that better handling of location data is needed. John Adams pointed out that his only involvement is with FINDER, which is only one product in the GeoQuest suite.

Schlumberger Geodesy:

Norm Berls of Geoframe has advocated more rigorous handling of cartography for some time. Norm has developed his geodesy course (at Schlumberger) and is working on training materials that are about 1/2 done. Should be released soon within Schlumberger. Norm is also involved with requirements for geodesy and mapping within Schlumberger - ALL of Schlumberger (mainly GeoQuest, Anadrill, etc., less so w.r.t. Geco).

Bill Quinlavin is official GeoQuest interface for APSG and is a member to provide crosspollination between GeoQuest and the user community.

Feedback is needed on projects to address spatial data handling in GeoQuest products. John Adams will try to get clarification.

John also asked about incorporating CAD data something defined in an X-Y coordinate system. Derek advised some success going the other way - continued AutoCAD projects to use real world coordinates. Norm: By show of hands, about 1/2 of the attendees are concerned by this problem.

Roger Lott: There is an ongoing effort to upgrade SEG-Y Coordsys definition, which is known to be inadequate. New version will include vigorous definition of coordsys. So acq will have to store this data and workstation needs to handle it correct.

John Adams asked if UKOAA P 1/90 associate the coordinate system at the trace data? Would make dataset immune to header loss. Roger advised that this was not being considered. Too much redundant data. SEG-Y issues are to be completely flexible.

Software Testing:

Patrick Wheeler-Holohan advised that it should be in the best interest of most application software companies to have a standardized test (or standard of what is needed. For example, Blue Marble is not responsive to specific "offshore market" problems discovered by Patrick, Derek and others. Patrick is compiling a catalog on Software Testing. Like to get an inventory of the software we use and what are their capabilities for next time. Testing is probably too big a project to take for the group. (See attached document from PWH). Patrick agreed that he would provide an interview questionnaire. All to reply with product info. Software (b) capability (c) experience. Catalog to be sent back to everyone prior to next meeting.

In a related matter, Bill Quinlavin presented a short presentation on Application Guidelines for Spatial Data. Copies of this presentation are provided with these minutes.

G.I.S. at H.C.C.

Ken Russell gave a presentation on the GIS program at the Houston Community College. He identified GIS as an appropriate topic for a 2-year program. HCC is looking for you to hire out students. "We train the actual people operating your computers". Ken finds the general level of understanding in the public to be "zilch". The program has people from 18-50 years old, from high school to M.S. level education and generally none of them have ever heard of GIS.

They have great computer-use rooms. Ken can also offer facilities for future meetings. Adding GIS database class & ArcInfo class in the spring of 1999 as "special topic". The program has two permanent instructors and occasional "guest" instructors. Course schedule is available upon request.

"Surveys for Seismic" Specifications:

Stewart Evans of Western Geophysical mentioned that many/most clients don't have a clear set of seismic survey GPS specifications. Specs are generally pretty good for surveys, but often nothing for GPS.

Kevin Crozier, newly of Mobil, volunteered to bring a set of draft for performing the surveys (GPS specifically, but "survey for seismic" in general). These are to be provided to Mike for distribution to the group.

Patrick pointed out that once a set of specifications is given, those specs must be followed. If poorly written or designed, such specifications can cause unnecessary survey problems.

Derek Salvage explained that requests for bid must be aimed at contractors with minimal survey expertise and noted that this sometimes leads to "less than optimum" surveys. Alternatively, you will have lots of "exceptions". Jon Stigant of Chevron agreed that these two levels existed.

John Adams suggested that the SEG may be better qualified to address specs for seismic than the APSG. Roger Lott proposed the idea that perhaps this group could advance the effort under the umbrella of SEG. Jim Cain pointed out that the recent issue of Hydrographic Surveying has a couple of relevant articles on this subject.

BREAK

OTHER BUSINESS

Articles of Association

(continuation of discussion from morning - see page I of minutes)

It was agreed that "Founding Members" would be comprised of the combined "Prior Attendees" list and those attending today's meeting (APSG3).

It was agreed to strike the section on Social Activities (Section 3 of Article 2), and remove reference to "Monthly" in the following section. Meetings to be held "at least once per year"..

Membership category. It was proposed to remove Article 4 section 1. This was approved and subsequent numbering in Article 4 modified accordingly. Likewise the employment type restrictions were removed from "Associate Membership" requirements. It was pointed out that Associate Members would have no voting rights.

Resignation and application agreed to be through Membership Committee.

Discussion on secretary: Group voted yes on Secretary, with suggestion that the Secretary be responsible for minutes. No need to spell out details.

There was significant discussion on why we needed to stipulate that the vice chair must succeed the chair. Some rewording was introduced here, but basic tenet left that Vice Chair would succeed the Chair [after formal elections] unless Chair is reelected.

Misc. wordsmithing. Barry's and Jim's copies collectively reflect the charges. Some sentiment that the articles should be adopted with minimal charges and modified as needed. Barry Barrs will republish the Articles and provide to members for voting at May 1999 meeting. We will expect to vote on these amended articles at the next meeting.

ProTem Vice Chair will be Dean Mikklesen of GeoQuest and ProTem Secretary will be Patrick Wheeler Holohan until actual elections are held in May 1999.

Miscellaneous, ProTem officers and Committees

Roger Lott suggested that someone needs to review the APSG web posting to be sure that it is consistent with what we agreed.

Membership Committee: Barry Barrs and Cassandra Sutherland agreed to serve.

Education Committee: Brian Schostak will remain as Chair. Jon Stigant from Chevron replacing Derek Salvage

Nominating Committee: Jim Cain and Rod Harwood

Next meeting Jon Stigant of Chevron conditionally agreed to host next meeting, in May 1999 - tentatively May 25th at Chevron.

Note other important dates: OTC 1st week of May 1999 and EAGE 1st week in June

APSG 3 - November 10, 1998

Agenda

9:00	Opening	
	Introduction	M. Chamberlin
	Welcome	J. Cain
	Distribution of Minutes APSG2	M. Chamberlin
	Acceptance of Minutes	All
	Acceptance of Agenda	All
9:15	Internal Business	
	Articles of Association	B. Barrs
	Minutes	M. Chamberlin
	New Members	All
	Election of Chairman	All
10:00	GPS/GLONASS Presentation	
10:45	Break	
J. Naismith		
11:00	EPSG	
	Summary of Fall Meeting	R. Lott
	Update on Geodesy WG	R. Lott
	New Info - S. A.	All
	Database Use - Poll	All
12:00	Lunch	
13:00	Updates on Activities	
	Education	P. Brennan?
	Finder	J. Adams
	Schlumberger Geodesy	N. Berls
	Software Testing	P. Wheeler-H.
	Software Checklist	W. Quinlivan
	Petroleum Law - Geodesy	M. Chamberlin
	GIS at HCC	K. Russell
	New Guy at Mobil	K. Crozier
14:15	Break	
14:30	Other Business	
	Approval of Articles of Ass.	All
	Action Items	All
	Next Meeting	All

15:30

Adjourn