

1980 Pecora Symposium

AW. Pecora Symp. (1980)
IC 2-204 *file*
(Lauer, Bailey + Metz
also have copies)

MEMO FROM: A. R. Barringer
MEMO TO: Bryan Bailey
CC: Members of the technical program committee,
Ben Giles
DATE: Feb. 26, 1979
SUBJECT: Minutes taken at the 1980 Pecora Conference
Technical Program Committee meeting on
February 12, 1979, 3:30 p.m. EROS Data Center
and 7 p.m. Ramada Inn, Sioux Falls, South
Dakota.

Members of committee and USGS-EDC staff present:

NAME	ORGANIZATION	TELEPHONE
Gary Mete	EDC	605/594-6511
Leo J. Miller	Texasgulf	303/279-0900
James V. Taranic	NASA	202/755-3752
Bryan Bailey	EDC	605/594-6511
Fred Henderson III	GEOSAT	415/981-6265
Wes Rice	Conoco	405/762-3456 X1327
Tony Barringer	Barringer Research	303/232-8811
Don Lauer	EDC	605/594-6511
Al Watkins	EDC	605/594-6511
David L. Yowell	SEG	918/743-1365

Discussions with USGS

There was some discussion on the idea of holding a tutorial or course before the symposium. A further suggestion was for the course to be held before the meeting and a tutorial to be included as part of the symposium.

Al Watkins said USGS were committed to helping and anxious to see a quality meeting. He said there was a technical communications group at EDC who will be running the projectors.

BARRINGER RESEARCH

BARRINGER RESEARCH INC.
330 - BLDG. 4, 1536 COLE BLVD.
GOLDEN, COLORADO 80401

There were discussions on spot slides between papers to be shown at SEG and AAPG meetings. If the SEG and AAPG could show these slides announcing the symposium, it could be very good publicity.

SEG (David Yowell) would like a list of interested groups around the world. Fred Henderson volunteered to provide this list. Sponsors were discussed--prime sponsor is of course SEG. We discussed the semantics of naming the sponsors such as Cooperating Societies, Co-sponsors etc. Cooperating Societies found favor. It was recommended that we invite NASA as another cooperating society and possibly AIME. American Mining Congress was thought to be the wrong type of group.

EVENING SESSION

Dates and Call for Papers

David Yowell suggested April 27, 1980 as being one of the few dates that did not compete with other significant society meetings and it was also an available date at the Ramada Inn. This date is not available at the Convention Center. It was agreed to accept this date tentatively subject to further checks by David.

The call for papers should be sent out to selected universities and companies for their notice boards. We could not afford a very broad general mailing, but our mailing should be to places where we would get good exposure. It was suggested that we send out a call for papers initially and then at a later date send out individual invitations to special speakers when we have had the chance to review the papers submitted.

Publication

There was some discussion on a special issue of a Geophysics (the SEG Journal) to publish those papers that authors submitted. Generally it was thought that this idea would not be considered acceptable by the SEG, and it was suggested that we merely encourage authors to

publish. Everybody was in agreement with the publication of extended abstracts, and David noted that the extended abstracts that SEG required are 500 words long plus an optional two illustrations. Such illustrations could be specified as 8 1/2 x 11 and drafted in black and white. Half tones are unacceptable as they are too expensive to publish. We have to get proper drafting and avoid the terrible diagrams that some people are liable to send in unless forewarned.

Program Format

There was considerable discussion on the format for the meeting. We announced (Barringer, Bailey) our intention to send out a draft of our proposed outline of the symposium together with some general notes on suggested subject matter for papers. This would be circulated around members of the committee for their additions, deletions and comments. Leo Miller made some suggestions for subjects such as geological systems mapped as (a) black shale basins and carbonate shelf environments; (b) crustal features from airborne magnetics and regional gravity supplemented by Landsat. He also suggested a subject heading calling for papers on ore discoveries attributable or relating to Landsat interpretation. Wes Rice suggested that we put down as a subject papers that confirmed Landsat anomalies and provided ground truth; also suggested were papers on image enhancement. We had some discussion on image enhancement, and it was generally agreed that we should include this as one of our subject headings for the conference.

We discussed the possibility of an evening session devoted to policy matters, commercial satellites, etc., and we also discussed speakers for banquets, etc. David Yowell strongly recommended that we leave out politicians as speakers.

After a lengthy discussion, it was suggested that we have technical sessions on Monday, Tuesday and Wednesday, and reserve Thursday morning for a panel-type discussion on policies, commercial satellites, etc. Thursday afternoon would be official tours, and Friday would be for unofficial visits to the EDC. It was suggested that Monday evening should be reserved for a cocktail party, and we

might even have the French remote sensing (and SPOT satellite) film shown at that cocktail party. Tuesday luncheon could provide an opportunity for a guest speaker, and Ted Stevens of Alaska was suggested by Leo Miller as a good speaker. Tuesday evening could be used for a wine and cheese poster session, and the Wednesday luncheon would be used for the awards session along with a good speaker. There was fairly strong opposition to an evening banquet with a guest speaker as being generally unwanted.

Exhibits

We discussed exhibits at some length, and it was suggested that one person should be designated at EDC to work closely with the SEG. Suggestions were made that we should try and mold the exhibitors into a certain format so that we would get good quality exhibits that are relevant to the meeting. This concept was opposed by David Yowell who pointed out that exhibitors could not be turned away legally and that there would be a tremendous amount of work if we wanted to liaise with every exhibitor regarding his exhibit. There are also many space problems connected with the exhibits, and it was finally suggested that a great deal of the responsibility for the exhibits would be placed in the hands of the SEG who are highly qualified to do this work and were prepared to handle it.

I made the point that I would much sooner leave the arrangements on the exhibits to the SEG who would coordinate with the EDC. This would free myself and the committee from any major responsibilities in this area and allow us to concentrate on the program.

PAPERS AND FIRST ANNOUNCEMENT

There were discussions on the submissions of papers, and it was pointed out by the USGS that for the Pecora III many of the papers submitted were "pigeon holed" for lengthy periods due to the absence on business travel of the key organizers. I suggested that in our case the papers should be submitted through Bryan Bailey at EDC, since

I am also on the move a great deal and a similar situation could arise. Bryan would then take responsibility for circulating the papers through the various reviewing groups that we appoint within the committee.

With regard to the call for papers, it was suggested that this would be the first thing that went out along with a preliminary announcement that would not, however, constitute the official first announcement. This call for papers would carry a fair amount of detail on the character of the meeting and list of the type of papers that we were looking for at the meeting.

David Yowell suggested that the official first announcement should go out in November, and this would carry full details on housing and all the organizational arrangements. In other words, the first announcement would not be made until we were well organized for the meeting, knew what types of papers we were getting, and could provide fairly detailed information.

Finally, it was noted that Bryan Bailey would be coordinating with EDC on the tours and arrangements for the tours.

MEMBERS OF THE TECHNICAL PROGRAM COMMITTEE WHO HAVE AGREED TO SERVE

Ron Cormick	Conoco	405/762-3456 X4786
Leo Miller	Texasgulf	303/279-0900
John Gabelman	Utah International	415/981-1515
Bob Regan	Phoenix Corporation	703/790-1450
Floyd Sabins	Chevron	213/691-2241
Jeff Friedberg	Aero Service	713/784-5800
Fred Henderson III	Geosat Committee	415/981-6265
Gordon Swann	USGS	602/774-5261
Jim Taranic	NASA/HQ	202/755-2320
Alex Goetz	NASA/JPL	213/354-3254
George V. Keller	Colorado School of Mines	303/279-0300
Ron Lyon	Stanford University	415/497-2300
David Yowell	Society of Exploration Geo- physicists	918/743-1365
Al Watkins	EDC	605/594-6511

We will be inviting Ron Marrs of the University of Wyoming as a possible additional member representing academia since he has been highly recommended with regard to the help he has been giving to the oil and gas test site subcommittee of Geosat.

The meeting adjourned at 11 p.m.

FROM: A. R. Barringer
MEMO TO: Bryan Bailey
CC: All technical program committee members, John Northwood, Ben F. Giles
DATE: Feb. 26, 1979
SUBJECT: Further notes on Pecora symposium format

Further to my memo of Dec. 12 and our discussions at the technical program committee meeting of Feb. 12, the following are some additional notes for review by the technical program committee members.

1. It is proposed that we divide symposium into a series of technique sessions covering both mineral and hydrocarbon exploration applications. The major overlap that occurs in the use of remote sensing techniques applied to both minerals and hydrocarbons makes it undesirable to divide the sessions into separate oil and mining groups.

2. Technique sessions will include the following:

Imaging systems applied to exploration problems

- A. Applications, interpretation and techniques involving solar spectrum imagery in the UV, visible and near infra-red. Such techniques to include line scanners, diode arrays, and conventional photography.
- B. As above but substituting thermal infra-red imagery acquired by line scanners and arrays.
- C. Passive microwave imaging systems.
- D. Applications, interpretation and techniques using S.L.A.R. radar imagery.

Non-imaging systems applied to exploration problems

A. Satellite systems

- 1. Optical systems including laser fluorosensors, correlation spectrometers, non-imaging UV, visible and infra-red radiometers.
- 2. Non-imaging passive or active microwave systems.
- 3. Satellite magnetometer systems.

B. Airborne remote sensing systems, including state of the art geophysical systems such as active and passive electromagnetic systems, far-field radio frequency systems, new concepts in airborne remote sensing measurements including advanced magnetic gradiometers, airborne gravity gradiometers, etc.

Image enhancement and digital processing applied to exploration
Papers discussing types of image enhancement giving specific examples of advantages relating to exploration problems.

Integration of remote sensing systems with each other and with other classes of data.

A. Satellite imagery systems integrated with airborne geophysical data.

B. Integration of satellite and airborne systems with ground surface and subsurface techniques (geological, geophysical and geochemical).

C. Case histories on the successful integration of remote sensing systems into exploration programs leading to discoveries.

General Comments

The emphasis of the symposium will be on techniques specifically applied to exploration problems: where methods are described in some detail they have to be related to exploration problems in terms of how they represent an advance that has special benefits for exploration (e.g. image enhancement methods that provide better definition of fracture systems; ratioing or statistical techniques that enhance lithological conditions relating to mineralization, etc.). Non-imaging satellite systems may well receive low priority unless it can be demonstrated that the lack of imaging will be compensated for by some advantages that are definitely of value in exploration.

Airborne systems to be considered include state of the art low altitude inductive electromagnetic systems and radio wave systems,

since these provide a class of data that cannot be acquired from satellites and yet are well suited for merging and integration with satellite imagery. As such they greatly enhance the value of satellite data and therefore merit inclusion providing that they are presented in context with the overall theme of the symposium.

Any new advances such as multi-component airborne magnetic gradiometers that could provide new kinds of magnetic information (e.g. precision mapping of basement topography) are well worth including, again due to their complementary nature to satellite imagery. Also presentations on any other new airborne geophysical concepts such as gravity gradiometers would be most welcome if they exist.

Image enhancement may not draw many papers, but illustrations of the advantages of using enhanced imagery for exploration would be valuable. New and improved computer enhancement techniques that show still further advantages would also be welcome.

A key part of the meeting will be sessions on techniques for integrating data and how they apply meaningfully to exploration problems. Any papers which give examples of hydrocarbon or mineral successes relating to the combination of Landsat with known ground geological, geophysical or geochemical information would be particularly welcome.

Any further suggestions either written or oral from the technical program committee members regarding the Pecora symposium format will be considered at the next committee meeting. The date for this meeting will be set after a survey of the board members.