

## NOON MEETING FEB. 23, 1977

### BEN F. GILES—Biographical Sketch



Mr. Ben F. Giles has been employed by Geophysical Service, Inc. since 1948. He worked part-time while attending North Texas State University. Following graduation in 1949, he worked on seismic crews in Texas, Oklahoma, Arkansas, Louisiana, Nevada, and California, rising to the rank of Party Chief. In 1955, Mr. Giles returned to GSI headquarters in Dallas as coordinator of the company correspondence

training program in geophysics. From 1960 to 1963, he worked as Applications Geophysicist in GSI's digital program. In 1963, he was assigned as Area Geophysicist in the United States and Canada operations area. Currently, he is Chief Geophysicist for Western Hemisphere Operations of GSI. Mr. Giles is a member of the Dallas Geophysical Society and the Society of Exploration Geophysicists.

### GEOLOGIC INTERPRETATION OF 3-D SEISMIC DATA (Abstract)

by: M. R. Bone, B. F. Giles, E. R. Tegland

Recent developments in both marine and land data collection make possible 3-D reflection seismic work for use in detailing known prospects or for post-discovery field development. Techniques have been developed for both marine and land systems that make it both feasible and economical to collect dense data for use in 3-D migration and other 3-D related processes. Special software processes are utilized to gather the subsurface information into a uniform, dense, depth point grid prior to input on 3-D migration. Interpretation of the large volume of data is made easier utilizing some new display techniques. "Arbitrary" slices, including diagonal and horizontal, through the 3-D volume of data before and after 3-D migration show the effectiveness and flexibility of the 3-D system. Since the data are migrated 3-D, all line intersections time tie. Actual data examples illustrate the improvements in seismic imagery made possible with 3-D coverage.