

ENVIRONMENTAL/ ENGINEERING GEOLOGISTS

Environmental Geology and Cyclostratigraphy of the Pleistocene in the Northern Gulf of Mexico Region

by **Peter K. Trabant**

HGS Environmental/Engineering Committee Evening Meeting - January 12, 1994,
Social Period, 6:30 p.m., Program 7:00 - 8:00 p.m.
Houston Engineering and Scientific Society (HESS) Bldg.
3121 Buffalo Speedway

High-resolution seismic records from the northern Gulf of Mexico reveal the fine-scale details of the seismic stratigraphy at the shelf edge and within deep water depositional environments. The high frequency records, commonly used for offshore engineering studies, provide an excellent tool towards understanding

the detailed relationship between climate, sea level and the resulting seismic stratigraphy. Applications include: paleo-environmental studies, reservoir engineering, petroleum exploration and the assessment of sea floor engineering properties. Quality high-resolution seismic records permit the correlation

between small scale climatic changes and the 3-D configuration of sedimentary deposits, including systems tracts and short term events such as slumping and diapiric movements.

PETER K. TRABANT- Biographical Sketch

Dr. Trabant has been an independent consultant in marine geology and geophysics to the offshore petroleum industry for the past 19 years. He received his Ph.D. and M.S. degrees in geological oceanography from Texas A&M, and his B.S. in geology from the University of Miami. His work involves the interpretation of multi-sensor geophysical data for

the installation of offshore structures and pipelines, and the production of environmental and engineering reports for regulatory agencies. His clients include major and independent oil companies, engineering and geophysical service companies, while his activities have been worldwide. His secondary activities involve teaching and research on the

applications of seismic sequence stratigraphy to high resolution geophysical data in: petroleum exploration; reservoir studies; seafloor engineering; and paleoclimatology. He is the author of the textbook: Applied High Resolution Geophysical Methods: Offshore Geoengineering Hazards published by Prentice Hall.