15. T. J. WINTERMUTE: Gulf Coast rule of thumb economics

FRIDAY AFTERNOON, OCTOBER 15

16. W. R. PAINE: Petrology and sedimentation of Hackberry sequence of southwest Louisiana
17. G. C. GLASER, A. C. JURASIN: Paleoecology, stratigraphy, production—getting it all together in offshore Louisiana
18. W. F. TANNER: Theoretical approach to history of southern United States
19. H. W. KIATTA: Lower Miocene stratigraphy and petroleum potential, offshore Galveston and Jefferson Counties, Texas
20. L. A. HERRMANN: Lower Cretaceous Sligo Reef trends in central Louisiana
21. N. A. SCHUSTER, J. D. BADON, E. R. ROBBINS: Application of ISF/Sonic combination tool to Gulf Coast formations
22. P. D. WINCHESTER: Geology of Freeport Rocks, offshore Texas

SEPM (GCS) TECHNICAL SESSIONS

THURSDAY MORNING, OCTOBER 14

1. E. C. CAMACHO: Preliminary scanning electron microscope observations on *Orbitolina* from the Lower Cretaceous Glen Rose Formation, Texas
2. R. K. OLSSON: Logarithmic spire in planktonic Foraminiferida; its use in taxonomy, evolution, and paleoecology

THURSDAY AFTERNOON, OCTOBER 14

3. W. H. AKERS: Biostratigraphy of some Neogene formations, northern Florida and Atlantic coastal plain
4. J. L. LAMB: Planktonic foraminiferal biostratigraphy and paleomagnetics of late Pliocene and early Pleistocene strata at Le Castella, Italy
5. C. W. POAG: Reevaluation of Gulf Coast Pliocene-Pleistocene boundary
6. W. A. VAN DEN BOLD: Ostracoda of coastal group of formations of Jamaica
7. W. P. LEUTZE: Stratigraphy of *Cibicides carstensi* Zone, Miocene of Louisiana
8. O. L. BANDY: Origin and development of *Turborotalia pachyderma* (Ehrenberg)

FRIDAY MORNING, OCTOBER 15 (DOUBLE SESSION)

SEDIMENTATION-MINERALOGY

1. R. KARPOVICH: Surface features of quartz sand grains from northeast coast, Gulf of Mexico
2. G. M. GRIFFIN, S. G. WHITNEY: Turbidity generation and distribution in Tampa Bay monitored with towable optical transmissometer
3. A. BOUMA, F. B. CHMELIK, R. REZAK: East Bay, Mississippi River delta
4. L. L. MANKA, R. STEINMETZ: Sediments and depositional history of southeast lobe of Colorado River delta, Texas
5. R. W. MAXWELL, JR.: Origin and chronology of Alabama River terraces

BIOSTRATIGRAPHY-PALEOECOLOGY

1. J. D. COOPER: Maestrichtian (Upper Cretaceous) biostratigraphy, Maverick County, Texas, and northern Coahuila, Mexico
2. D. K. DAVIES, F. G. ETHRIDGE: Claiborne Group of central Texas: record of Middle Eocene marine and coastal plain deposition
3. R. J. STANTON, I. EVANS: Environmental controls of benthic macrofaunal patterns in Gulf of Mexico adjacent to Mississippi delta
4. W. R. PAMPE: New Pleistocene marine fossil locality in Chambers County, Texas
5. M. E. GLOWACZ, J. C. HORNE: Early Miocene depositional environments interpreted from exposures in Cane River diversion channel, Louisiana
6. L. A. SMITH: Contribution of JOIDES to our geologic knowledge of Gulf of Mexico

FRIDAY AFTERNOON, OCTOBER 15

7. A. F. RANDAZZO: Petrography of selected Tertiary limestone type sections in Florida
8. E. A. SHINN, R. N. GINSBURG: Diagenetic aspects of submarine cementation in Bermuda "boiler" reefs
9. F. W. STAPOR, JR.: Origin of Cabo Rojo beach-ridge plain, Veracruz, Mexico
10. W. F. TANNER, F. W. STAPOR, JR.: Tabasco beach-ridge plain: an eroding coast

ABSTRACTS

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BIOSTRATIGRAPHY OF SOME NEOGENE FORMATIONS, NORTHERN FLORIDA AND ATLANTIC COASTAL PLAIN

In recent years worldwide studies by numerous specialists on planktonic Foraminiferida and calcareous nannoplankton have been extended into the type European sections. It is now possible to establish zonations and correlations that appear to be synchronous over long distances, validating, for the first time, the use of European stratigraphic terminology in areas remote from the type localities. The recognition of planktonic microfossils for these purposes is a milestone in Tertiary biostratigraphy, particularly for those who have long found the Lyellian percentage method inadequate as a precise means of determining the age of a Cenozoic formation. The identification of these fossils in the subject areas is also a "break-through," because of the significance of many of the sites as type-localities for mollusks, and because of the question of the exact position of these formations in the geologic time scale.

Planktonic Foraminiferida and the calcareous nannofossil genera, *Discoaster, Catinaster,* and *Sphenolithus* are identified from the subject areas, and the species indicate stratigraphic relations that are at variance with ages traditionally ascribed to some of the formations of northwestern Florida, the Yorktown and Waccamaw localities on the coastal plains of the eastern United States, the Moín Formation of Costa Rica, and the Encanto and Agueguexquite Formations of Mexico. Comparative ranges of these ubiquitous microfossils pose a Burdigalian age for the Chipola Formation, a late Langhian age for the Encanto and Yellow River Formations, a Tortonian to Messinian age for the Red Bay Formation, and an early to middle Pliocene age, at some localities, for the Jackson Bluff, Yorktown, and Agueguexquite Formations. From several sites, material assigned to the Waccamaw Formation is correlated with the Moín Formation for which an early Pleistocene age is indicated.

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