1. Dominantly marine sedimentary Paleozoic rocks that at present are known to range in age from late Cambrian or early Ordovician to Silurian.
2. Volcanic rocks which underlie sedimentary rocks considered to be of early Paleozoic age.
3. Crystalline rocks that are chiefly granitic and metamorphic. These rocks are possibly in part pre-Cambrian and in part Paleozoic in age.

In the Coastal Plain of Alabama, the buried pre-Mesozoic rocks are classified as:
1. Paleozoic sedimentary rocks that range in age from Cambrian and Ordovician to Pennsylvanian.
2. Metamorphic rocks that are possibly pre-Cambrian in age.

The volcanic rocks that underlie the early Paleozoic sedimentary rocks in Florida and Georgia have not been discovered in Alabama.

Most of the wells in the pre-Mesozoic rocks have been drilled within the past decade, and in Florida and southern Georgia the discovery of volcanic and crystalline rocks and Paleozoic strata is a comparatively recent addition to geologic knowledge. One map shows the location of the wells penetrating the pre-Mesozoic rocks and the types of rocks penetrated. Based on the study of cores and cuttings in connection with the geographic distribution of the wells, a diverse lithologic pattern is being revealed in the pre-Mesozoic rocks of the subsurface in the southeastern Coastal Plain. By means of contours drawn at 1,000-foot intervals on top of the pre-Mesozoic rocks, a second map shows the present configuration of the surface of these rocks. Two structural profiles drawn through series of wells in Georgia and Florida show an interpretation of the present structure of the pre-Mesozoic rocks and the relation of the overlying Mesozoic and Cenozoic deposits to the pre-Mesozoic surface.

18. "Geophysical Case History of Mississippi Salt-Dome Basin," L. L. Nettleton, Gravity Meter Exploration Company, Houston, Texas.

In recent years, the Society of Exploration Geophysicists has published case histories of many individual oil field structures. Of broader interest is the exploration history of a geological unit as a whole rather than its individual structures. The Mississippi salt basin, with its comparatively short period of intense geophysical activity, using modern methods, is an outstanding example of successful application of modern geophysical techniques to a large but limited geologic province.

This paper reviews the history of the geophysical operations in the south Mississippi salt basin, including the nature of the exploration carried out by different companies and their results in terms of later findings by the drill. This paper would not have been possible without the cooperation of the various companies who have contributed the information assembled and grateful appreciation of their help is acknowledged.

19. "Applied Radar in Gulf of Mexico," Orville E. Haley, McCollum Exploration Company.

20. "Offshore Geophysical Operations," a recent kodachrome sound picture furnished by the California Company.

21. "The Part Helicopters are Playing in Geophysical Exploration," E. E. Gustafson, Bell Aircraft Supply Corporation.

Eighteen months of research and development have conclusively proven that helicopters are playing an important part in gravity and seismic operations in remote areas, such as southern Louisiana marshlands, jungles, and mountainous areas where transportation is a difficult problem. Airborne gravity and seismic operations are successfully being carried on with resulting increased production and lowered costs. Discussions on techniques used in gravity and seismic airborne operations, plus a film showing actual field operations as well as flight performance, load-carrying abilities, landing areas, weather restrictions, and maintenance requirements for mobile operations and the possible uses of the helicopter in the oil industry, will be discussed in detail.

22. "Oceanographic and Meteorological Aspects of Geophysical Prospecting," Alfred H. Glenn, Alfred H. Glenn and Associates, New Orleans, Louisiana, and Charles C. Bates, consultant to A. H. Glenn and Associates, and oceanographer, U. S. Navy Hydrographic Office, Washington, D. C.

Oceanography and meteorology, the latest earth sciences used on a consultant basis by the petroleum industry, are first reviewed in general terms and then from the point of view of the petroleum geophysicist. Actual and potential applications of these sciences are shown to exist in the planning and operational phases of exploration geophysics. The sources of oceanographic and meteorological information are discussed with respect to these applications.