

Slow gulf rifting, at least in the south, began as early as about 12-14 Ma. Oceanic crust was first exposed there by about 9-10 Ma. Pacific-North American relative motion was distributed between faults in the gulf and faults on the Pacific side of Baja California until about 4-5 Ma. This rifting history is consistent with the history of changes in volcanic chemistry along the gulf side of Baja. Initial rifting in the southern gulf was diffuse, involving many small, independently active crustal blocks. Present-day faulting, onshore in northern Baja, in the northern and central gulf, and onshore in Jalisco and Colima, also involves many small, independently active fault blocks and slices that are similar to those occurring onshore in southern Alta California.

NESS, GORDON E., Oregon State University, Corvallis, OR, FRANCISCO SUAREZ V., CICESE, Baja California Norte, Mexico, and GUSTAVO CALDERON R., Direccion General de Oceanografia/IOM, Colima, Mexico

Geophysical Structures and Late Neogene History of Gulf and Peninsular Province of the Californias

Researchers from the Continental Margins Study Group at Oregon State University, the Direccion General de Oceanografia, and CICESE have completed a 10-year reconnaissance-scale geophysical survey of the Pacific Exclusive Economic Zone of Mexico. Six cruises, aboard research vessels of the Armada de Mexico, have been completed, and approximately 50,000 nmi of survey track lines have been run. From these data and from other published sources, we have compiled a series of onshore-offshore maps of the region extending 1,500 nmi from Point Conception in southern Alta California to Lazaro Cardenas in Michoacan. These maps include: *Physiography*, with 200-m contours of bathymetry and topography; *Free-Air Gravity Anomalies*, with 10-mgal contours of both onshore and offshore gravity; *Marine Magnetic Anomalies and Oceanic Crustal Isochrons*, with 50-nT contours over continental crust and 1-m.y. isochrons over oceanic crust; *Seismo-Tectonics*, with 1963-1982 WWSSN seismicity superimposed on interpreted onshore-offshore faults.