

**Letters of Intent: EPR**  
**Target Date: February 15, 2003**

**Considering two geodesy proposals in the EPR area**

EPR colleagues:

Hildebrand, Chadwell and I (Speiss) are considering two geodesy proposals in the EPR area.

First would be a GPS/Acoustic proposal to follow up on what we have been learning (reported at fall AGU) that, in addition to the fact that in the recent past there has not been any spreading at the JdF Cleft axis, our site on the flank, 25 km from the ridge, is, over a two year period, moving more closely with the Pacific Plate than the JdF. In addition, we have improved the capability of the GPS/Acoustic measurement method. We thus feel it is time to make some similar measurements on the Cocos Plate. This would shed light on the physical characteristics of the plate on the EPR flank based on its response to the presumed intermittent strain release at the ridge crest, and the interaction between the Pacific and Cocos plates in the corner formed by the EPR and Clipperton, somewhat like the JdF/Blanco situation. This would probably be submitted as a regular MG&G proposal rather than RIDGE although the results would have relevance to any efforts to model the background of crustal deformation within which phenomena at the ridge crest take place.

The other proposal would be a second attempt at funding a local, quasi-continuous measurement geodetic system to document motion at the "bullseye". Our previous (unsuccessful) proposal was built around a new concept that would cope with the problem of topographic blocking of the near bottom acoustic paths that are required for direct path systems such as the USGS installation at the JdF Cleft site. We would propose that the pilot application site would be at the EPR bullseye since there would be substantial related environmental information available. Given the generality of the innovation involved we are not sure whether we will submit this to Oceanographic Instrumentation Development or to R2K. Any recommendations?