

ADAM Operational in the Gulf of Mexico

Shell's new water current data acquisition and display system is now operational in the Gulf of Mexico. The ADCP Data Acquisition Manager (ADAM), designed and built by Fugro GEOS, allows users to have real-time access over the Internet to data from Shell's RDI ADCPs (acoustic Doppler current profilers) deployed in the Gulf and, eventually, anywhere in the world.

Shell has a large number of platform-based ADCP systems in the Gulf of Mexico but, until now, integration and storage of collected data was a manual process. ADAM automates this process and centralizes the ADCP data into an SQL database. In addition, ADAM provides an interactive web-based user interface that allows users within the Shell intranet to easily access summary and detailed representations of the data. ADAM enables Shell oceanographers to monitor the quality of the data they are providing to their drillers and design engineers and improve the support they provide during strong current events, such as the passage of eddies. The ability to playback data in profile and time series displays also allows the oceanographers to explore the data and visualize how the currents are changing with time. ADAM can also send alerts by e-mail advising of interruption of data transmission, extreme current events or other conditions.

The three components of the ADAM system are the database, the data loader, and the web-based interface that allows the data to be viewed and the system managed online. Data in the native RDI broadband format are sent to the ADAM Server via the Shell network. The ADAM Data Loader monitors the server on a scheduled basis. When new data files are received, the data loader parses them for validity, then inserts them into the ADAM Database. The web-based interface gives users different levels of access to the database allowing them to carry out tasks that range from search and retrieval of ADCP data to, with sufficient permission, administration of the entire system.

A second phase of development is in the pipeline to further improve and enhance ADAM's functionality and database structure. In addition, ADAM will be expanded globally to include all of Shell's ADCPs.

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