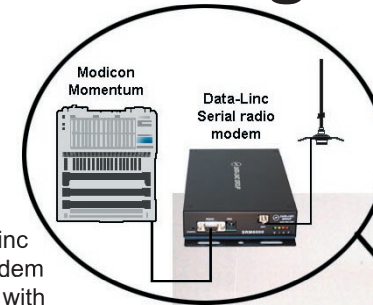


Off-shore oil platform communication using Data-Linc wireless serial modems interfaced with Modicon PLCs

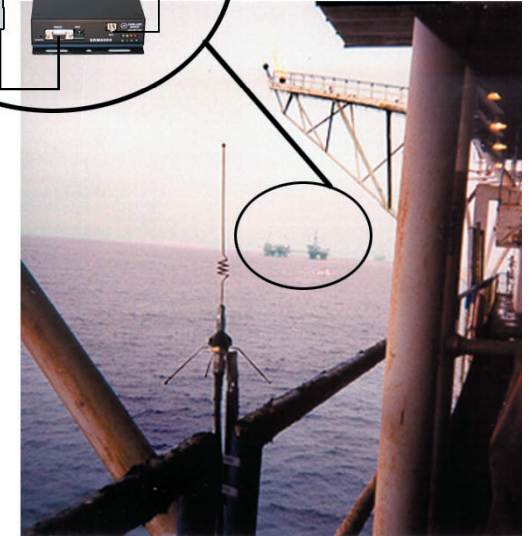
Two competing oil companies wanted to share an oil pipeline between their two offshore platforms. Because the shared pipe traversed the ocean floor six hundred feet below the surface, it was crucial to monitor this pipe and its contents very closely. They would need to comply with regulations and establish reliable, real-time data monitoring to establish and ensure pipe integrity thus minimizing any risk of a crude oil leak becoming an oil spill. Although the companies each monitored their own ends of the pipe, if they were to transfer crude oil via a shared pipe, they needed a viable way to not only monitor the data and its compliance to the set criteria but also to communicate that data to the other.

Graybar Automation supplied the client with a pair of serial radios. They proposed connecting the Remote modem to a Modicon Momentum on the competitor's platform with its I/O wired to the instrumentation on the end of that pipe. The competitor's remote platform could then communicate via Modbus and one of Data-Linc's serial radio modems. The Master radio modem would be installed on Graybar's client's platform and would communicate over Modbus to a Modicon PLC with its I/O also wired to instrumentation on its end of the pipe. The Remote radio connected to the Momentum could transfer data to the Master PLC which would compare the remote data to its local data. If a discrepancy should occur—disparity in the two sets of data that did not fall within the given tolerance—an alarm would sound to notify the operations crew.

Within a day, the system was up, operational and communicating flawlessly over the two-mile distance with only omni directional antennas. The oil companies were very happy with the application solution. Since the installation, the modems have “never missed a beat” despite frequently heavy fog and even military helicopter aircraft between the two platforms.



Remote Data-Linc serial radio modem communication with Modicon Momentum PLC on platform 2 miles from HMI Master Control using only omni directional antennas



**2 miles
line-of-site**

Master Data-Linc serial radio modem with Modicon 584 Programmable Controller and PC HMI interface

