

# DATA-LINC Provides Wireless Data Transfer Between FPSO Tower and Moving Platform

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## Background

Of the three kinds of permanent production systems— fixed platforms, semi submersible and FPSO (FPSOs are ships adapted for Floating, Production, Storage and Off-loading), Brazil has the largest producing FPSOs in the world capturing 75% of the oil reserves in its deep or ultra deep offshore waters. Crucial to the smooth operation necessary to tap these reserves is a communication system that ensures reliable data transfer, critical monitoring and control of the entire oil processing operation.

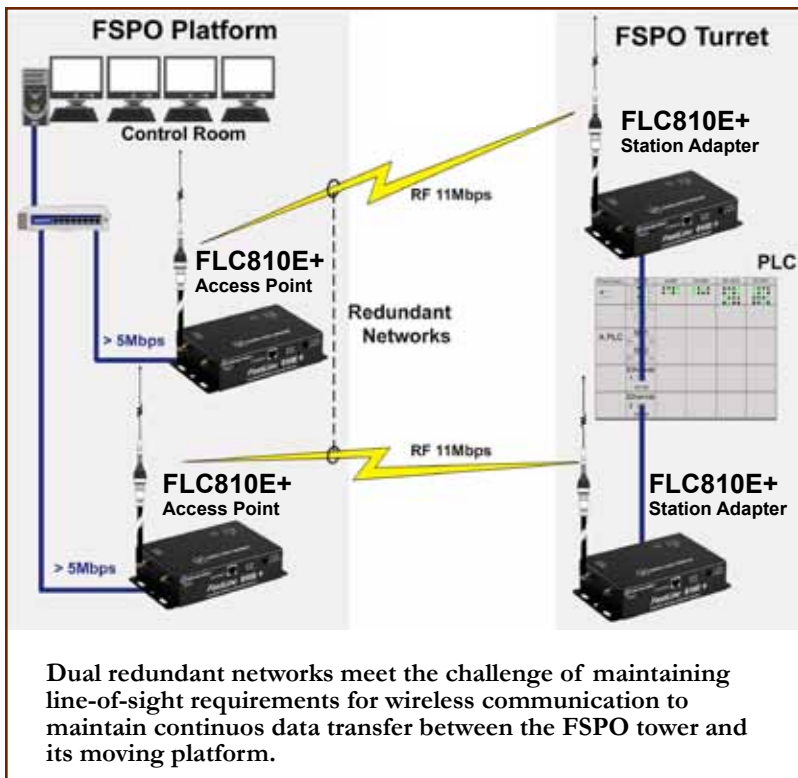
## The Challenge

The turret is anchored to the ocean floor by penetrating the FPSO ship's hull . The remaining ship platform area rotates around that tower as a result of marine currents and winds without disturbing operations in the tower, but the movement does interfere with line-of-sight, (LOS) a requirement for wireless communication. The challenge was to meet the platform control room's need for continuous communication to control the working equipment in the tower and the operations on the "P-37" moving platform.

## The Solution

DATA-LINC's Ethernet 802.11b FLC810E+ modems, the low-cost member of its FastLine Family\*, was selected for the data communication network. Their excellent performance in high-noise environments was key. To meet the line-of-sight requirement of wireless communication, a particular challenge with a moving platform, dual side-by-side redundant networks provided excellent performance and used call book addressing to eliminate interference that can occur when two or more wireless networks operate in close proximity.

The FLC modems performed up to the requirements and expectations, providing industrial grade data communication on the 1000 foot FPSO ship to facilitate the production of 180,000 barrels of oil per day, providing technicians with confidence in the integrity of uninterrupted critical data that ensured continuous, safe and efficient operation.



\* Two other DATA-LINC FastLine modems offer 54 Mbps data-transfer in the 900 MHz (FLC910E) and 2.4 GHz bands (FLC830E) using OFDM (Orthogonal Frequency-Division Multiplexing) to support SCADA and real-time video/surveillance on a single network with excellent resistance to multipath fading.