

"100% availability and maximum requirement
by Safety, ATEX and ship approval."

THOMAS SCHILDKNECHT
CEO of Schildknecht AG





DATA TRANSMISSION IN CRUDE OIL PRODUCTION

DATAEAGLE on an oil drilling ship

Application

Sadrill Limited is a Norwegian company dealing with the oil production industry. Operated are: Jack-up drilling rigs, semi-submersibles and drilling vessels for sinking drillings for crude oil and natural gas. The 253 m long drilling ship West Navigator relies on a [DATAEAGLE radio link to the driller](#). The driller is the fully automatic machine unit, screwing the drilling rod weighing up to 750 tons together.

Challenges

The challenge consisted in establishing a highly reliable radio link for replacing the very susceptible cable connection to the driller. One-day failure causes up to 600,000.00 euro costs. Requirements to technical solutions on an oil drilling ship are safety, ATEX and ship approval.

Solution

On the ship, a wireless PROFIBUS and PROFIsafe radio link to the driller is built up. As radio technology, Bluetooth is applied since thanks to frequency hopping it enables extremely stable and robust communication. Due to the very sophisticated application, the [DATAEAGLE 3000](#) was installed in an explosion-protected housing.

Result

In a two-years test, DATAEAGLE has successfully asserted itself against all market players and so saves the operator downtimes and costs amounting to millions.



1. [DATAEAGLE](#) at the fixed side in the Ex-protective housing.



2. [DATAEAGLE](#) at the mobile side of the plant by which the drill pipe is installed.