

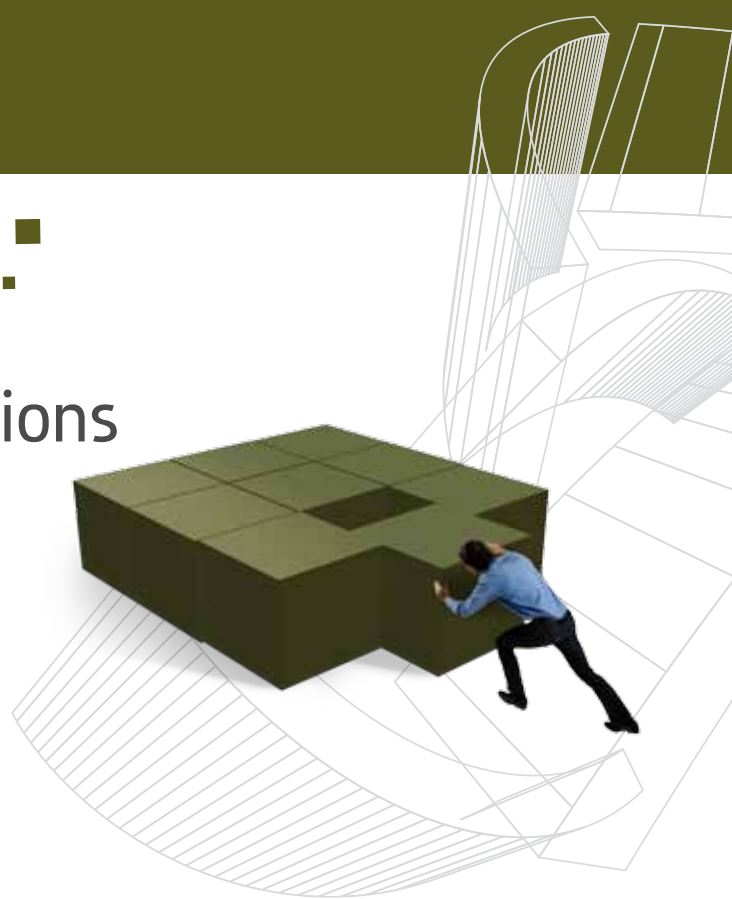


# System Integration of Spectrum Surveillance and Monitoring Applications



LS OBSERVER

Custom Monitoring Systems



# System Integration for Specific Monitoring Needs

We do not 'only' deliver monitoring stations – our experts **integrate** them into your existing monitoring system, into the LS OBSERVER system and on whatever platform you need – on **vehicles, naval units, aircraft and UAVs**.

Our experts have extensive experience in integrating all surveillance monitoring and direction finding stations, which enables us to build completely customised solutions for client specific requests for a wide range of applications. If you need your monitoring devices and control centre on a vehicle: whatever the size and make of the vehicle, from a compact car, van truck, soft or hard skinned, we deliver the monitoring solution that suits you best.

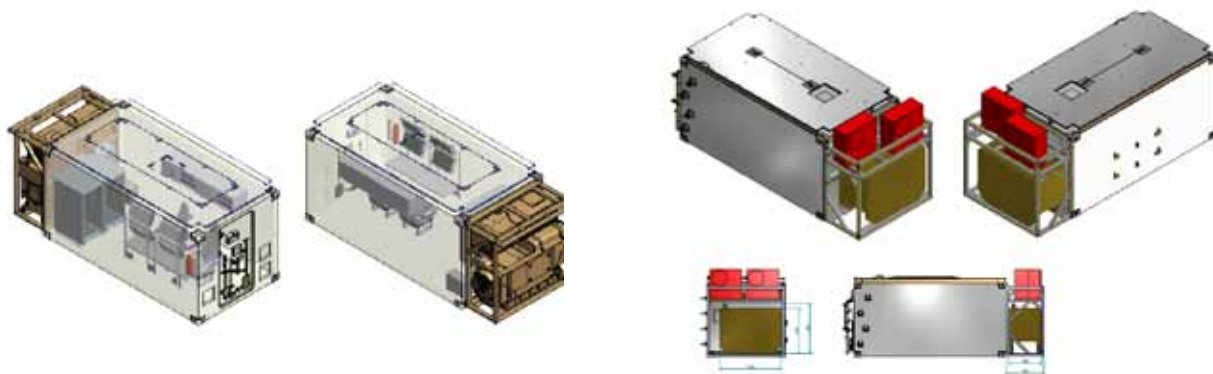
Depending on the customer's requirements our solutions include our LS OBSERVER technology, 3rd party products and also new product developments.

Our turnkey solutions cover the complete system integration project from consulting, system design, development, through to production, testing, delivery, training, and finally maintenance and support.

The success of each individual monitoring system integration project is based on our dedicated and experienced team of experts in monitoring and radio technology, IT, programming, testing, technical drawing operational military experience and project management.

## Monitoring System Integration for

- EW Operations Commander
- Electronic Support / Surveillance
- Spectrum Availability, Frequency Channel Occupancy
- Electronic Protection
- Maritime security / coast guards
- Border control
- Critical sites / area protection
- VIP / corporate protection



A family of 5 different types of Remote Monitoring Units (RMU) is available with LS OBSERVER de

### LS OBSERVER PMU Portable Monitoring Unit

Ideal for handheld, portable and mobile applications; for ad-hoc measurements.



### LS OBSERVER FMU Fixed Monitoring Unit

Ideal for continuous measurement of the operational electromagnetic environment. It provides large area and frequency coverage and geo-location (TDOA) capability.



### LS OBSERVER MMU Mobile Monitoring Unit

Integration of LS OBSERVER offers a 'Rapid Reaction' capability including off-road terrain positioning of sensor





Depending on your needs - for flexible use and a wide range of applications



**LS OBSERVER TMU**  
**Transportable**  
**Monitoring Unit**

Ideal for temporary mobile and fixed measurements, battery powered.



**Airborne Measurement Service**  
**Using Remotely Piloted Aircraft (RPA)**

RF & antenna pattern measurement, site inspection and very mobile monitoring.



Service offered by **Colibrex**  
 Member of the LS telecom Group

# System Integration of Custom Monitoring Solutions

## Supported Technologies

- RF Measurement Capabilities
  - Monitoring
    - Classical
    - Sensor-based
    - Modern Technology
  - Geolocation
    - Direction Finding/AoA
    - PDoA
    - TDoA
    - Hybrid
    - Directive Antennas on rotor
    - MultiChannel Antennas
  - Signal Analysis
    - Signal Classification
    - Signal Recognition
    - Signal Decoding
  - Live Measurement
- Wireless Connectivity (Communication Link)
  - WiMax
  - Satellite
  - Mobile (UTMS, LTE)
  - WiFi
- Wired Connectivity (Communication Link)
  - Ethernet
  - Fiber-optic
- Power Supply Sources
  - AC Line
  - Batteries
  - Generators
- Usage
  - Manned or Unmanned
  - Local or Remote Control
  - Offline Automated Recorded Measurement
  - Online Live Measurement