

## DEPLOYMENT STORY

# LONG DURATION, WIDEBAND I/Q DATA RECORDING

How a renowned R&D company recorded I/Q data in the field without bulky lab equipment



**Domain:**  
Land



**Application:**  
RF recording & signal capture



**Customer:**  
R&D test lab

## **SITUATION:** FRUSTRATION AT STANDARD SOLUTIONS

A renowned R&D company was frustrated that most RF spectrum monitoring solutions for R&D teams were cumbersome, expensive, and complex.

The company's goal was to capture and record the electromagnetic environment in the field and then replay it in the lab. It needed equipment that did not cost a fortune, was portable, and easily deployable by a non-RF expert.

It required high-fidelity I/Q data recording in live signal environments, in-depth analysis, and playback—all in one convenient, transportable platform. And the solution needed to integrate with capable yet easy-to-use software.



## **SOLUTION:** LONG DURATION WIDEBAND I/Q RECORDING

Frustration with mainstream solutions led the R&D company to CRFS, which offered a new, innovative solution. The RFeye Sens Portable met all the requirements.

- Long duration, wideband I/Q data record and replay
- Internal 25.6 TB storage
- Up to 40 GHz and 100 MHz IBW
- Compatible with forensic analysis software: RFeye DeepView

The RFeye Sens Portable is so portable that it can even be carried as hand luggage on a plane. Moreover, the device can record 100MHz IBW for up to six hours straight onto the internal hard drive.

The R&D company found the lightweight I/Q recorder easy to operate, even though it was designed for high-fidelity RF recording and signal extraction.

Any team member could intuitively use the RFeye Sens Portable to record signals of interest in the field and then analyze the recordings with RFeye DeepView software, which is also simple to use despite its extraordinary capability. The R&D company took advantage of the Sens Portable's 40 GHz frequency range and was able to record any signal of interest for COMINT and ELINT purposes.



## RESULT: ALL OBJECTIVES SATISFIED

The R&D company had four critical objectives:

- To capture signals of interest in the field over extended periods in high fidelity and later analyze those signals in the lab.
- To test and analyze their own signals in the field—particularly important for the radar team.
- To use signal recordings as part of laboratory simulations to evaluate how their platforms operate without paying for expensive field operations.
- To recreate the field environment in the lab to test their systems.

After purchasing new equipment, the company successfully achieved all its objectives. It reduced development costs and sped up the development cycle.



Want to discuss I/Q data recording in-the-field or a test lab?

[Talk to us](#)



Deployment arranged by **Darren Nicholls**

## EQUIPMENT USED



### RFeye® Sens Portable

High-fidelity RF recorded (I/Q) for enhanced intelligence



### RFeye® DeepView

Forensic signal analysis with 100% probability of intercept software

**CRFS**

EXTRAORDINARY  
RF TECHNOLOGY

CRFS is an RF technology specialist for defense, national security agencies and systems integration partners. We provide advanced capabilities for real-time spectrum monitoring, situational awareness and electronic warfare support to help our customers understand and exploit the electromagnetic environment.



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