

DATA AT DEPTH: HOW RAF P-8 POSEIDON SECURES THE MARITIME DOMAIN



Huw Davies explains how modern data management powers RAF P-8 Poseidon maritime operations to safeguard the seas.

In today's defense environment, maritime security demands precision, speed, and intelligence. At RAF Lossiemouth, the P-8 Poseidon fleet delivers all three by combining advanced surveillance capabilities with powerful data management solutions. By transforming complex sensor data into actionable insights, these aircraft enable continuous protection of international waters and vital undersea assets—day and night. With an intelligent data infrastructure built on NetApp, the RAF has strengthened collaboration, streamlined compliance, and boosted overall mission performance.



Reduces time for data analysis from days to just hours.



Enables real-time intelligence sharing across teams.



Protects sensitive data across the data pipeline.

Project overview: RAF Lossiemouth

Tackling the maritime reconnaissance challenge

RAF Lossiemouth is home to the Boeing P-8 Poseidon maritime patrol fleet. These aircraft are always on duty, day and night, protecting international waters and vital undersea infrastructure. They're also equipped with advanced sensors, so every mission creates a large volume of tactical data that needs to be carefully managed and processed with speed and reliability.

But the needs of defense go far beyond simply storage of information. Teams rely on smooth information management, smart tagging for deeper analysis, robust cyberprotection, and immediate, secure access from different locations and security levels.

A true partnership

Delivering on the RAF's requirements meant a hands-on partnership. NetApp worked closely with military experts to turn priorities like speed, reliability, and scalability into real-world results. What used to take days now takes just hours, and securely sharing intelligence across teams has become the norm. This shift has strengthened collaboration, streamlined compliance, and boosted mission performance.

By bringing together new and legacy systems, by improving access, and by reinforcing cyber resilience, RAF Lossiemouth has set a new standard for defense data management. Their success sends a clear message: With the right support, secure and reliable information handling is entirely possible today.

Data infrastructure behind the mission

A secure, flexible foundation

The heart of RAF Lossiemouth's data management is NetApp® StorageGRID® technology, a flexible object-based storage solution that's ready for public, private, and hybrid cloud environments. With extensive automation and compatibility with established APIs, StorageGRID fits right into existing defense workflows and processes.

For the RAF, StorageGRID means capturing, storing, and managing the flight data from a wide range of sensors during and after each mission. And it's all brought together in a single, secure place, accessible for quick analysis or longer-term review.



Seamless intelligent data infrastructure

A connected network links aircraft, remote airfields, and central command centers. This ensures that analysts receive the right information precisely when they need it, and it's supported by defense-grade standards.

Some of the core benefits include:

- **Automated data intake.** The Poseidon's mission data is made available almost in real time, greatly accelerating vital intelligence analysis at the back end.
- **Smart tagging and search.** Information is organized, so users spend less time hunting for data and more time making decisions.
- **Secure data movement.** Strong encryption and strict access controls keep sensitive information protected every step of the way.
- **Scalable storage.** Storage can grow with the organization's needs, so missions of any size are supported without delay.

Closer integration with networks like the Air Content Hosting and Access Network enable teams to easily and securely share and analyze intelligence, keeping everyone—from ground crews to leadership—informed and ready.

Benefits for defense

Faster, more informed decisions

Defense organizations can enhance secure collaboration and make faster decisions that are based on evaluation of situation pictures. With RAF Lossiemouth's transformation, tasks that once took days now take only hours. Teams receive the intelligence that they need to respond quickly and confidently. When Poseidon patrols detect a threat, data flows securely and instantly, enabling swift coordination across RAF teams and command structures.

Security at every level

NetApp builds in multiple layers of security, from robust authentication to sophisticated digital encryption. Role-based permissions confirm that data is accessible only to those people who require it. Information is shielded in storage and during transit by strong NetApp encryption. Systems are under constant surveillance, enabling swift action in response to any suspicious activity. Around-the-clock monitoring diligently identifies any anomalies, and the entire system complies with stringent defense standards, instilling users with unwavering confidence in the security measures that are employed.

Staying compliant

Defense missions have to comply with a range of regulations and best practices. With accessible reporting tools that match legal and operational standards, NetApp solutions make it easier for organizations to be prepared for and to pass audits.

Trusted governance

Each NetApp system is rigorously tested and is regularly audited. Each system features Zero Trust architecture, continuous monitoring, and robust audit trails.

Getting more from every resource

Automatic processes for classifying and for managing data help teams stay organized and keep the most important information front and center. These smart automation and management tools also mean that storage and operational costs are easier to control, even as demands grow. Defense leaders can see, in real time, exactly how all resources are being used, making it simple to allocate support where it's needed most. For analysts, advanced tools for searching and organizing data mean more time spent on critical work and less time lost to routine searches.

Data as a strategic weapon

RAF Lossiemouth's success is just the beginning. Across Europe, defense organizations—whether operating independently or in a coalition—face expanding data volumes, stricter security demands, and the need for rapid, informed responses. NetApp empowers nations to define their own requirements while enabling seamless collaboration for shared missions.

Our close partnership with the RAF has demonstrated that aligning cutting-edge technology with mission-critical needs leads to transformative outcomes. This collaboration wasn't just about deploying infrastructure, it was about building trust, understanding operational realities, and delivering solutions that empower teams both in the field and at command centers.

The Poseidon fleet's achievements exemplify what's possible when innovation meets purpose. As threats evolve and missions grow more complex, NetApp remains committed to supporting defense teams with agile, secure, and intelligent data infrastructure, ready for whatever comes next.

ABOUT HUW DAVIES



Since transitioning from the Royal Air Force, Huw Davies has built a distinguished career in telecoms and IT, spanning engineering, project delivery, and strategic account management. At NetApp, Huw plays a pivotal role within the U.K. Public Sector team,

focusing on defense organizations. His mission is twofold: to help existing defense customers continue to derive maximum value from their data infrastructure, and to support new customers in aligning with the evolving demands of the U.K. Strategic Defence Review. By combining deep operational insight with a consultative approach, Huw helps defense teams unlock the full potential of their data, driving resilience, agility, and mission success.

Ready to elevate your mission?

If your defense teams are looking to unlock the full potential of your data—making it secure, accessible, and actionable—let's start a conversation. Whether you're modernizing operations, enhancing collaboration, or preparing for tomorrow's threats, NetApp is ready to help you build the intelligent data infrastructure that your mission demands.



Learn more

Contact us today to explore how we can support your goals with proven, defense-grade, secure solutions that deliver clarity, resilience, and a strategic edge.

[Contact a NetApp defense specialist](#)



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About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. www.netapp.com

