



MILITARY

DATAPATH | Case Study

RAMSTEIN AIR BASE TELEPORT: PIONEERING NET-CENTRIC OPERATIONS

U.S. Air Force Europe Enables a Seamless Broadband Network That Joins the Front Lines with Distant Command and Intelligence Centers

From high-altitude reconnaissance and ground support to space-based communications and global disaster relief, the U.S. Air Force (USAF) stands at the forefront of war-fighting, peacekeeping and humanitarian aid initiatives around the globe. During combat operations in Iraq and Afghanistan from June 2002 to June 2003, the airmen of the USAF Europe's (USAFE) 435th Communications Squadron at Ramstein Air Base in Germany served as "virtual wingmen" to warfighters based in Europe, Southwest Asia and the Middle East. The unit provided satellite communications support to nearly 300,000 airmen and enabled commanders in the United States and Europe to coordinate nearly 18,000 combat sorties.

Net-Centric Operations Require Increased Bandwidth

The military transformation to network-centric operations has led to advances in military information technology such as widespread use of broadband communications and lighter, more mobile hardware. U.S. military commanders view network-centric operations as an important strategic advantage for U.S. forces responding to full-scale conflicts and non-conventional terrorist threats.

At a Glance:

Ramstein Air Base Teleport

Challenge:

USAFE needed to make rapid and significant improvements in bandwidth scalability to support global operations.

Solution:

Deploy a DataPath ET 7000 Fixed™ network to link military X band networks to commercial Ku and C band networks.

Impact:

Since 2001, the DataPath solution has ensured scalability and increased capabilities while providing near-constant connectivity between remote combat forces and decision makers in the United States.

Reliable, Secure Satellite Communications

The move to network-centric warfare posed a challenge for USAFE. Its legacy satellite earth terminal infrastructure could not provide sufficient scalability to support the requirements of today's bandwidth-intensive applications. As a result, USAFE and the United States Transportation Command designed the Ramstein Air Base Telecommunications Port to meet new network centric requirements rapidly.

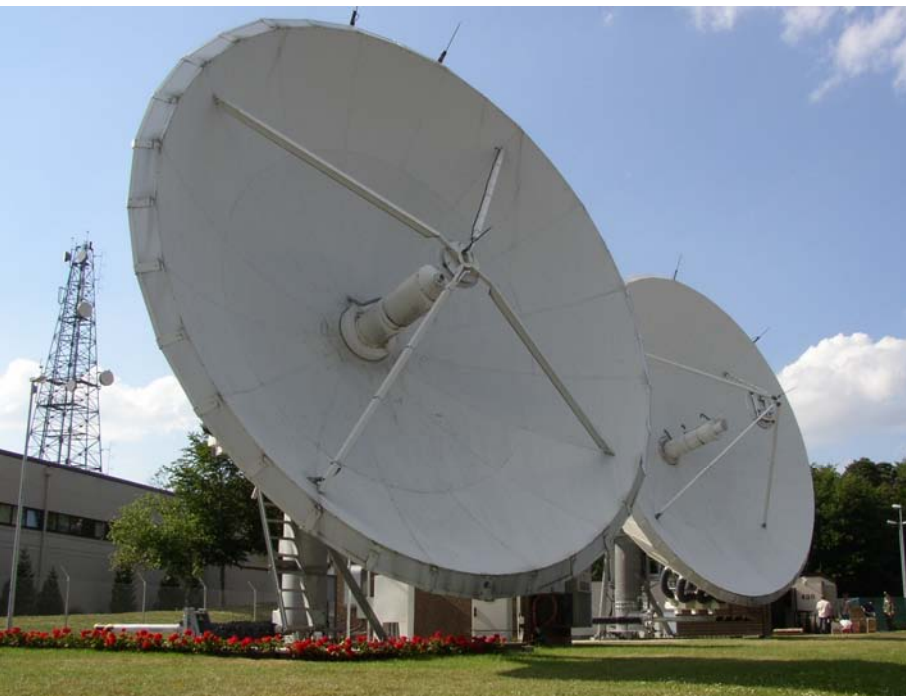
The Ramstein Teleport is a communications gateway connecting military and commercial satellite networks with a terrestrial fiber optic and wireless infrastructure. The integrated network supplements the bandwidth provided by the military X band network to provide enhanced communications capabilities without requiring additional military satellite inventory. DataPath, known for its ability to quickly deploy specialized satellite and wireless communication networks, earth terminals and network solutions, supplied an earth-station solution based on commercial off-the-shelf technology to link the military X band system to existing commercial Ku and C band networks.

"With the large number of commercial satellites already in orbit, it made sense for USAFE to leverage the readily available secure communications provided by the private sector," said SMSgt. Kyle Hawthorne, USAFE's satellite communications systems manager. "By incorporating commercial satellites into USAFE's comprehensive communications network, we empower warfighters to communicate over traditional military X band or utilize commercial Ku or C bands."

Empowering Communications Flexibility on the Front Line

The Ramstein Teleport is the centerpiece of a greater Department of Defense (DoD) Teleport System operated by the Defense Information Systems Agency. The system provides deployed forces anywhere in the world with multi-band and multimedia connectivity to online Service Delivery Nodes and legacy command control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) systems. Ultimately, the system will link multiple SATCOM systems and deployed tactical networks, creating a seamless user interface into the Defense Information Systems Network and legacy C4ISR systems.

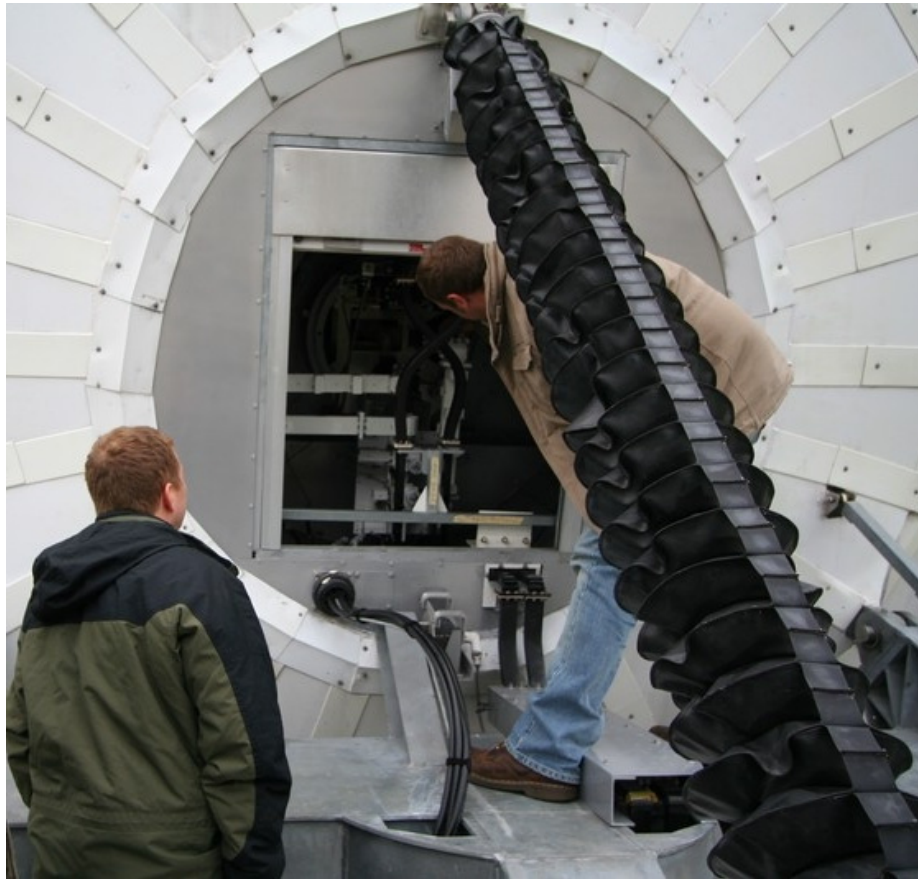
The Ramstein Teleport provides a lifeline between remote frontline combat forces and decision-makers in the United States, making 24/7 operational functionality critical. DataPath satellite communications specialists work as part of the USAFE team to help ensure that everyday operations run smoothly.



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During Operation Iraqi Freedom, the system was put to the test when a key military satellite unexpectedly went out of service. To prevent loss of connectivity to the deployed warfighters, the DataPath/USAFE team quickly switched over from Ku to C band via a commercial satellite, an option not available with the military X band system.

“The Ramstein Air Base Teleport allows warfighters to communicate on both commercial and military satellite bands, ensuring near constant connectivity,” said SMSgt. Hawthorne. “The teleport empowers the rapid dissemination of critical battlefield intelligence on one end of the network and provides warfighters with rapid, actionable analysis on the other – enhancing command and control capabilities theater-wide.”



DataPath's teleport staff has proven they can maintain availability and support complex teleport operations.

Mission Impact: Reliable Ongoing Communications Availability

Mission success means achieving operational objectives and preserving the safety of the warfighters involved. For the Ramstein Teleport team, the secure communications network and full support they provide plays a daily role in accomplishing this goal, delivering reliable communications availability since the project's inception in 2001.

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- *SMSgt. Kyle Hawthorne*

USAFE's satellite communications

The Future: Greater Capacity, Greater Flexibility

“Looking to the future, we are focused on expanding our connectivity capabilities,” said SMSgt. Hawthorne. “To provide warfighters with more communications capacity we are implementing extremely high frequency (EHF) and ultra high frequency capabilities at the teleport and are researching possibilities to develop new Ka and advanced EHF capabilities. These advancements will empower us to provide even greater capacity and more flexible coverage to aid warfighters than ever before.”

About DataPath

DataPath is a global leader in creating satellite-based network solutions that solve our customers' toughest communications challenges. We specialize in enabling complex, high-bandwidth communications networks that are critical to the operations of military, civilian government and commercial organizations. Even in the most urgent time frames and extreme conditions, we establish and maintain communications anywhere and deliver total network control through our communications solutions, MaxView® network management software and comprehensive services. SWE-DISH Satellite Systems AB, a Stockholm-based, global leader in the design and manufacture of mobile satellite communications systems, is a wholly owned subsidiary. DataPath is headquartered in Duluth, Ga., U.S.A. and operates via more than two dozen offices and distributor locations around the world. For more information, visit www.datapath.com.

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