**CASE STUDY**

**Fuerza Aerea de Chile: Best Practices for Deploying an End-to-End Link 16 Capability**

The Chilean Air Force (Fuerza Aerea de Chile or FACH) is one of the world’s oldest independent military air arm in existence and has preceded its United States counterpart by nearly seventeen years. Out of the three Chilean Armed Forces, FACH has developed the closest, bilateral relationship with the US. Outfitted with 12,000+ personnel and over 100 aircraft, FACH is organized into three main commands – Combat, Personnel, and Logistics. Air assets are deployed among five air brigades with a total of five wings (alas) and twelve groups (Grupos de Aviacion) or squadrons. The main operational formation is the Air Brigade (Brigada Area) with the wing serving as an administrative unit generally concentrated at a single base wing (ala base).

**The Challenge**

With the number of Link 16-enabled platforms increasing steadily over the last few years, coalition partners like Chile have taken additional steps to ensure interoperability with the U.S. military. For over 60 years of close cooperation between the U.S. and Chile, the F-16 aircraft has been the centerpiece of the Air Force-to-Air Force relationship, representing a significant milestone furthering relations between the two countries. The F-16s provided FACH with the latest in multi-role fighters, strengthening the region’s air defense and strike capabilities.

As part of an ongoing modernization effort to replace ageing aircraft and expand their current fleet, 36 F-16s were acquired from the Royal Netherlands Air Force (RNLAF) in 2009. Viasat was specifically recommended by the RNLAF to work closely with the Logistics Command to provide an end-to-end Link 16 capability that supported FACH’s mission of controlling and exploiting the airspace (in both peacetime and wartime) from unidentified, illegal, or hostile threats.
The Solution

While FACH understood the basic concept of Link 16 (allows you to exchange tactical information/data over a line-of-sight network), the capability, along with all of the benefits it enabled in missions, remained largely unfamiliar to the Chilean Armed Forces.

The first step in Viasat’s “train-the-trainer” model was to expand FACH’s baseline knowledge through hands-on instruction, which fostered an environment for better adoption, engagement and a greater depth/breadth of Link 16 capabilities to share throughout their organization. This started with multiple educational sessions, focusing on FACH’s Concept of Operations (CONOPS) and highlevel requirements.

Once this was defined, a statement of work was developed:
- Train FACH personnel (pilots and maintainers)
- Install ground system and airborne terminals
- Provide comprehensive in-country support

And a program plan for implementation was outlined:
- Reliable technical solutions that met Chilean CONOPs requirements
- Roadmap for aircraft flying in the network at lowest possible risk/cost
- Lifecycle support and ease of expansion of Link 16 network in/around the country

While all of these elements contributed to the overall speed to deployment, training was the key driver for success. For over three months, Viasat staff provided hands-on instruction to FACH pilots and maintainers – at the corporate headquarters in Carlsbad, California as well as onsite training at their facility that included Link 16 operations, field level maintenance, and troubleshooting. And with the integration and installation support provided by Viasat, FACH significantly minimized platform downtime and cut down the deployment schedule by nearly a year. This approach led to the shortest path to operational capability with their pilots executing operational missions with Link 16 in less than a year of contract award and participating in their first coalition exercise (Blue Sky V).

Benefits

With support from Viasat, FACH has successfully deployed an end-to-end Link 16 capability that has resulted in:
- 360-degree situational awareness
- Real-time air-to-ground interoperability
- The ability to execute more successful, efficient missions

And with Viasat’s comprehensive training program, all of the mission benefits enabled by Link 16 can now be truly realized for countries like Chile. Now, our coalition partners can leverage the nearly worldwide presence of Link 16 to create an even more robust network and gain the real-time situational awareness that’s critical to mission success.

“...The strong collaborative spirit of Viasat’s Link 16 team contributed to the successful completion of a long-standing, capability gap within FACH. Their team demonstrated superior skills in CONOPs development, training, systems installation, and platform integration.”

—Leopoldo Porras Silva
GENERAL DE BRIGADA AÉREA (I)
Jefe de la División de Ingeniería y Apoyo Sistemas de Armas