

IN THE SKY

UNMATCHED BY ANY OTHER NATIONAL PROGRAM, **USAP** ENJOYS UNPARALLELED ACCESS TO AND WITHIN ANTARCTICA BECAUSE OF ITS AIRCRAFT CAPABILITIES.



LC-130s

Joint Task Force-Support Forces Antarctica (JTF-SFA) is the longest-running joint task force in the nation, providing operational control to these one-of-a-kind ski-equipped aircraft.

- There are only **10** LC-130s in the world, and all are owned by the U.S. Air Force (New York Air National Guard 109th Airlift Wing).
- These aircraft support science and national interests across both poles.
- LC-130s are equipped with retractable skis that allow landing on snow and ice as well as on conventional runways.
- The aircraft are flown by the 109th Airlift Wing by a workforce of more than **220** operators, maintainers and technicians.
- They carry up to **42,000** lbs. of cargo or **92** passengers and can land virtually anywhere on the continent with advanced planning.



Photo Credit: Maj. Shay Price

C-17 GLOBEMASTER

JTF-SFA also coordinates heavy airlift using the military's largest cargo airframe.

- USAP support operates out of Joint Base Lewis-McChord in Washington state (62nd Airlift Wing).
- C-17s can carry more than **100,000** lbs. of cargo virtually anywhere in the world or up to **125** personnel.
- Annually, they move more than **2.5** million lbs. of supplies onto the continent to keep USAP operational.
- These large aircraft provide vital air-drop capabilities and are the only U.S. aircraft capable of a mid-winter evacuation.



Photo Credit: Mike Lucibella

AIRPORTS

USAP annually builds and operates **two** fully operational airports with **three** permanent runways, plus up to **12** temporary landing sites.

- Williams Field is a sea-ice skiway first commissioned in the late 1950s.
- Phoenix Airfield is a wheeled runway built in 2017, replacing the older Pegasus Airfield.
- Both airfields are rebuilt each year because the buildings, fuel lines and other support equipment cannot be left in place over winter.
- Maintenance of the airports takes **17,000** hours of labor each year.
- The Federal Aviation Administration certifies the runways are ready for use at the start of each season.
- Removing wildlife from the runway is part of pre-flight checks.



Photo Credit: Mike Lucibella



AIR TRAFFIC CONTROL AND WEATHER FORECASTING

USAP provides air traffic control and weather forecasting for millions of miles of airspace.

- Air traffic control, called “Mac Center”, is operated jointly by the Naval Information Warfare Center and the JTF-SFA.
- USAP controls **1.6** million square miles of airspace during the summer, with flight-following capabilities covering **4** million square miles.
- Mac Center manages nearly **2,500** take-off and landing events for fixed-wing aircraft, plus another **11,000** events for helicopter operations each year.
- Weather forecasting for flight operations is done jointly between an on-station presence at McMurdo Station and a “Remote Operating Facility” in South Carolina, enabling around-the-clock flight operations.
- Air operations during the summer require nearly **9,000** air, ground and maritime forecasts augmented by **5,000** synoptic, aviation and weather observations.
- USAP processes over **50,000** observations annually, captured from all **three** USAP stations, over **40** automated weather stations, and all field camps and ships.

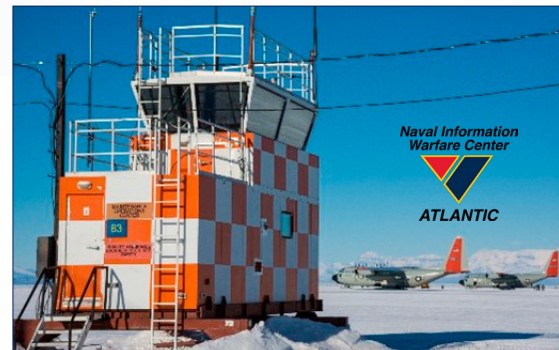


Photo Credit: Mike Lucibella



Photo Credit: Bryan Minnear

FIXED/ROTARY-WING AIRCRAFT

USAP science teams access near-field camps using Baslers, Twin Otters and helicopters.

- USAP has **three** helicopters: **one** medium Bell 212 and **two** light Airbus A-350B3s, each capable of landings at altitudes up to **12,500** ft. above sea level.
- The DC-3T (BT-67) “Basler” medium lift aircraft provides transport of **20** passengers or **5,000** lbs. cargo.
- The USAP de Havilland DHC-6 “Twin Otter” provides access to deep field science camps, delivering scientists to hard-to-reach areas of scientific interest.
- The Twin Otter is also the mid-winter South Pole medevac transport, capable of operating in temperatures below **-50°C**.
- Both the Basler and the Twin Otter deploy to Antarctica through North, Central and South America via an **eight-day** transit across **three** continents.



Photo Credit: Danny Hampton



Photo Credit: Elaine Hood

