
Look Who's Talking Careers

By 1Lt Richard Mitchell

STEM Careers in Polar Climate

Grades 7-12

Single Class

Career Area & Job Title:

Pilot, 109th Airlift Wing, New York Air National Guard (NYANG)

The Big Picture - What I do:

The primary mission of the wing is polar airlift and support for the National Science Foundation during Operation RAVEN DEW and Operation DEEP FREEZE. As a pilot I am responsible for mission execution and operation of the C-130 Hercules, which is used to move significant numbers of people and supplies around the world. My position on the crew requires extensive systems, flight characteristics and procedural knowledge to include normal and emergency operations. Each year I am in the Arctic and the Antarctic regions for two to three months total. Knowledge of the polar regions and the effects of weather, high altitude and cold conditions on the impact the aircraft and the crew is important. Every mission has its' own unique focus. With IcePod, we will be incorporating current research into our polar airlift missions to expand our capabilities.

What I Like Most About My Job:

I work with a team of highly motivated professionals. Regardless of the location the entire wing works together to overcome the daily challenges of support, logistics, maintenance and operations to accomplish the mission and safely fly the world's largest plane on skis.

The Most Unusual Part About My Job:

For me, the most unusual part is takeoffs in deep, open snow. To get a heavy C-130 to accelerate in these conditions requires extensive training and special procedures. Occasionally, rockets are attached to the aft of the airplane to provide extra thrust. Pilots have to rely on the entire crew to safely takeoff at very low airspeeds and accelerate only feet off the snow.

What Type of Schooling/Experience is Needed?

A pilot candidate must first graduate from a 4-year university. Basic math and physics are important elements in flying, so a degree in Math, Science, or Engineering is preferred, but not required. Once a candidate is selected, he or she will attend approximately two years of United States Air Force flight training. Operating a C-130 in extreme cold weather climates requires additional training and experience that can only be accomplished in Arctic and Antarctic regions. This means the new pilot will return to the NYANG for another six months to a year of training that is requisite to fly the LC-130.

Photo



1Lt Mitchell standing outside the crew entrance door of the LC130, after a brief fuel stop on his first trip to Kangerlussuaq, Greenland.

Education

- Bachelor and Master of Science in Aerospace Engineering
- Commercial Pilot License

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