

June 20, 2024

The Honorable Patty Murray  
Chair  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

The Honorable Susan Collins  
Vice Chair  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

The Honorable Tom Cole  
Chairman  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

The Honorable Rosa DeLauro  
Ranking Member  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Chair Murray, Vice Chair Collins, Chairman Cole, and Ranking Member DeLauro:

As you advance fiscal year (FY) 2025 appropriations, we urge you to fund procurement of two LC-130J airplanes in the Defense Appropriations bill. These airplanes are critically needed to safeguard U.S. access and operations in the Arctic and Antarctic where the U.S. has national security interests as well as world-leading scientific infrastructure.

Ceding our leadership at the poles threatens our future and will embolden our adversaries who are making major investments. Currently, only one type of airplane, the LC-130H, is able to provide transport and logistical services in the polar regions given its ability to take off and land on ice. This capability enables high priority science at the South Pole that has the potential to unlock fundamental understanding of the universe, undergirds field research that is studying polar change and resilience, and is used to transport people and materials in one of the most extreme environments on Earth.

The Arctic presents national security challenges as nations look to gain access and take advantage of newly available resources with Arctic change. The Antarctic is the next security frontier with U.S. leadership eroding as many nations establish new outposts and operations there. Polar change also threatens long term coastal resilience as glacier collapse could lead to catastrophic sea level rise. We must continue efforts to understand these climate interactions and protect against these threats.

Critical Polar defense and science activities are now threatened due to the aging LC-130H fleet and its declining reliability. The planes are desperately in need of recapitalization. At any given time up to 50 percent are out of service due to maintenance challenges and many parts are no longer manufactured given these planes have been in service for fifty years. The procurement of new LC-130J planes is necessary to rebuild our strategic dominance in the Antarctic and Arctic and our ability to operate in these regions. The new aircraft will also enable forefront science, such as the construction of top priority physics

facilities at the South Pole – Cosmic Microwave Background Stage 4 (CMB-S4) and Ice Cube Gen 2. These experiments, which have been ranked as key priorities to be built by both the high energy physics and astronomy communities, would unlock secrets of dark matter, dark energy, and the early universe. However, the lack of reliable access with modern aircraft have put these projects at risk. For example, the National Science Foundation recently announced an indefinite delay of CMB-S4 due to Antarctic infrastructure issues and uncertainty of site access without modern, reliable aircraft. If these aircraft are procured in the next fiscal year, planning for these world-leading experiments in the Antarctic can restart. These facilities harness hundreds of millions of dollars in international contributions that will be lost if we fail to secure the infrastructure necessary to construct them.

For these reasons, in FY 2025, we urge you to fund procurement of two LC-130J airplanes. US Northern Command (NORTHCOM) has noted the urgent need to replace the LC-130H with the newer J models to provide unique capabilities in the Polar Regions. Polar transport capabilities undergird our strategic presence, operational dominance, and forefront science at the Poles. We cannot wait to protect these assets and renew them for the future.

Sincerely,

American Astronomical Society  
American Geophysical Union (AGU)  
American Physical Society  
Arête Glacier Initiative  
Boston University Physics Department  
California Institute of Technology  
Case Western Reserve University College of Arts and Sciences  
Coalition for Academic Scientific Computation  
Drexel University  
Duke University  
Fermilab Users Executive Committee  
Harvard University  
IceCube Collaboration  
Mathematical Association of America  
Michigan State University  
New York University  
Penn State University  
Princeton University Physics Department  
Simpson Neutron Monitoring Network  
South Dakota School of Mines and Technology

The Radio Neutrino Observatory in Greenland

The University of Chicago

The University of Texas at Austin Department of Physics

Universities Research Association, Inc.

University of California System

University of Colorado Boulder

University of Illinois Urbana-Champaign

University of Maryland, College Park

University of Rochester

University of Virginia

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