

# AFRL

## ROCKET CARGO FOR AGILE GLOBAL LOGISTICS

AIR FORCE VANGUARD PROGRAM

### What is it?

The Department of the Air Force is exploring rocket cargo transportation capability for DOD logistics. Based on advertised commercial capability and business objectives, the Air Force Research Laboratory is currently assessing emerging rocket capability across the commercial vendor base, and its potential use for quickly transporting DOD materiel to ports across the globe.

The AFRL Rocket Cargo program is solely focused on leveraging commercial rocket capabilities as a leased service. No funding will be invested in the development of commercial rockets.

AFRL is closely partnered with USTRANSCOM, Space Force Futures & Integration, Air Force Futures, formerly the Air Force Warfighting Integration Capability (AFWIC), and Space and Missile Systems Center (SMC) to assess the trade space of a potential Rocket Cargo capability for global logistics, to include improvements in delivery cost and speed compared to existing air cargo operations. If the AFRL Rocket Cargo Vanguard proves rocket-based transportation is viable, affordable, and advantageous for agile global DOD logistics, the Space and Missile Systems Center (SMC) will be responsible for transitioning the program from Vanguard to a program of record. The USSF and SMC have a successful history of partnering with industry to leverage innovative, emerging commercial technologies that also support National Security Space needs.

### How Does It Work?

AFRL expects to award several contracts to develop this capability. The major solicitations and contracts are expected to be awarded to companies that can provide launch services, and companies that can develop concepts to advance the rest of the logistics cycle (loadmaster load/unload capability, rapid launch clearance, schedulers, environment survivability). For launch services, AFRL hopes to award contracts to and partner with all viable commercial providers of this capability to encourage a broad future vendor base for the operational service.

### Why Is It Important?

The Rocket Cargo Vanguard will infuse AFRL S&T with commercial rocket development and test campaigns to enable up to 100 tons

of cargo to be delivered anywhere on the planet within tactical timelines. This Vanguard will demonstrate this speed through integrated demonstrations with the DOD logistics train, including responsive mission planning, rapid cargo logistics and ground launch operations, and coordination with commercial airspace.

The military utility of this new capability includes support to the United States Transportation Command (USTRANSCOM) resupply mission, with faster delivery and potentially at lower cost. Potential mission applications include Special Airlift to deliver equipment needed to quickly restore a loss of mission operations, and humanitarian aid and disaster relief payloads to stricken areas. According to USTRANSCOM, a rocket-based space transportation capability may complement its air, sea, and land logistics operations.

Logistics speed is at the heart of military supremacy. If a commercial company is in advanced development for a new capability to move materiel faster, then DOD needs to promptly engage and seek to be early adopters. That is the fundamental motivation for initiating the Rocket Cargo program.



*Rocket Cargo would enable rapid delivery of aircraft-size payloads for agile global logistics such as urgent humanitarian assistance and disaster response. (U.S. Air Force illustration/Randy Palmer)*

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