

Rocket Cargo: Airfreight but not as we know it

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The US Department of the Air Force (DAF) has revealed a new project where it will examine whether it can use rockets to transport cargo.

As part of its Vanguard research programme, the Air Force Research Laboratory (AFRL) will lead a science and technology effort to determine the viability and utility of using large commercial rockets for Department of Defense global logistics.

This includes the ability to land a rocket on a wide range of non-traditional materials and surfaces, including at remote sites.

In addition, AFRL scientists and engineers will research the ability to safely land a rocket near personnel and structures, engineer a rocket cargo bay and logistics for rapid loading and unloading, and air drop cargo from the rocket after re-entry in order to service locations where a rocket or aircraft cannot possibly land.

“The Air Force has provided rapid global mobility for decades and Rocket Cargo is a new way the department can explore complementary capabilities for the future,” said acting secretary of the Air Force John Roth.

AFRL is currently assessing emerging rocket capability across the commercial industry and its potential use for quickly transporting material across the globe.

“The Rocket Cargo Vanguard is a clear example of how the Space Force is developing innovative solutions as a service, in particular the ability to provide independent options in, from, and to space,” said chief of space operations general John Raymond.

“Once realised, Rocket Cargo will fundamentally alter the rapid logistics landscape, connecting materiel to joint warfighters in a fraction of the time it takes today. In the event of conflict or humanitarian crisis, the Space Force will be able to provide our national leadership with an independent option to achieve strategic objectives from space.”

DAF said that delivering cargo via rocket transportation is not a new concept but the high costs of launch have been prohibitive for a logistics-focused application, and the relatively small payload capability constrained the types of cargo that could be delivered, also limiting its suitability.

However, the development of commercial rocket operations, such as SpaceX, is changing the landscape.

“Today several commercial companies are quickly generating new opportunities by developing large rockets and reusable stages that safely land back on earth, expanding cargo capacity and dramatically reducing launch costs,” DAF added.