**GREMLINS**

Air Launched and Unmanned Recovery System

**Low-cost, attritable, and reusable UAS with a high operational tempo.**

Gremlins, developed with funding from the Defense Advanced Research Projects Agency (DARPA), integrates with most existing strike, reconnaissance, and cargo aircraft, as well as ground support equipment.

Its capability enables effective new concepts of operation and greater operational risk-taking across the spectrum of mission types. These range from intelligence, surveillance, and reconnaissance (ISR), mobile target attack, and limited suppression of enemy air defense (SEAD) and close air support (CAS) special operations missions up to complex SEAD/strike missions requiring volley quantities of air vehicles often operating in a coordinated fashion in access denied environments.

**DARPA Gremlins Timeline**

**Phases 1-2 (2016-2017):** Concept development and technology maturation

**Phase 3 (2018-2021):** Through a series of ground and flight tests, demonstrate the ability to launch multiple Gremlins and safely recover them onto a single C-130 aircraft at a rate of 4 Gremlins Air Vehicles (GAVs) in 30 minutes.

**Post-Phase 3 (2021-2023):** Conduct mission capability demonstrations of distributed airborne operations. This involves sensor and autonomy integration as well as a command-and-control system that enables a single operator to control multiple GAVs from launch through airborne recovery. Planning with USAF and other stakeholders is ongoing.

**X-61A Gremlin Air Vehicle**


**A new milestone in unmanned aviation**

In October 2021, the team achieved the successful airborne launch and airborne retrieval of an X-61A Gremlins Air Vehicle (GAV) at the Dugway Proving Ground in Utah.

The Gremlins Demonstration System flew three GAVs, previously flown in 2020, to conduct four individual flight sorties for a combined 6.7 hours of flight, including the 1.4-hour airborne recovery mission.

The team also demonstrated quick refurbishment of the X-61A in a short timeline—flight-ready in under 24 hours.
Airborne Recovery Technology:
A safe, repeatable approach that can be adapted to multiple types of air vehicles and recovery aircraft.

A Transitional System:
The Dynetics Gremlins system is an open-architecture design that fits within the existing logistical infrastructure of the U.S. Air Force with no peculiar or permanent modifications to existing support equipment.

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