

SAIC and ArcZeon International Unmanned Air Systems (UAS) Carrier

Peter Lobner, 1 May 2019

Small, unmanned air vehicles (UAV), now commonly called unmanned air systems (UAS), can carry advanced sensors and weapons, but generally have short range. In spite of their range limitations, UASs can provide valuable and cost-effective capabilities for military planners and war fighters. At a recent conference in Washington D.C., DARPA Deputy Director Steve Walker asked the following question: “With the ranges we are looking at in the Pacific Theater, how do we get our small UAS to the fight?” Actually, he already knew the answer.

In March 2016, DARPA awarded the first contracts in support of its Gremlins program, which DARPA describes as:

“Gremlins (program)..... seeks to develop innovative technologies and systems enabling aircraft to launch volleys of low-cost, reusable unmanned air systems (UASs) and safely and reliably retrieve them in mid-air. Such systems, or “gremlins,” would be deployed with a mixture of mission payloads capable of generating a variety of effects in a distributed and coordinated manner, providing U.S. forces with improved operational flexibility at a lower cost than is possible with conventional, monolithic platforms.”

While the primary launch / recovery vehicle for this phase of the Gremlins program is a C-130 Hercules turboprop transport aircraft, the UAS launch and recovery techniques developed by the Gremlins program may be adaptable to other types of air vehicles, such as airships. Read more on the DARPA Gremlins program at the following link:

<https://www.darpa.mil/program/gremlins>

SAIC and ArcZeon International, LLC proposed a UAS carrier airship for this type of mission. A concept drawing for such an airship is shown below. No contract was awarded for development of this airship concept.



Airship deploying UAS. Source: SAIC/ArcZeon