The LG-2K RAIN (Revolutionary Airlift Innovation) glider is a technology demonstration system for a low-cost, expendable airdropped system designed to provide aerial delivery of supplies to distributed ground forces. These gliders could be released at altitudes up to 25,000 feet and carry as much as 1,800 pounds of cargo to U.S. Marine Corps units located up to 70 miles away. Released from a variety of military fixed-wing or rotary-wing aircraft such as the MV-22, CH-53, or KC-130, each LG-2K glider could provide an affordable, fast, all-weather resupply method with similar accuracy as precision-guided parafoil systems. A parachute deployed at low altitude could allow delivery of cargo into urban environments or through jungle canopies.

An amphibious ship’s Air Combat Element (ACE) could launch up to 50 gliders an hour because its host aircraft could carry multiple gliders simultaneously. The LG-2K could accurately deliver sea-based supplies to several groups of Marines located at widely separated points of need, without further burdening the units or telegraphing their location.

Standoff, precision aerial resupply could enable future operating concepts where military ground forces are unaffected by vulnerable lines of communication (LOCs). The glider’s long standoff range could improve carrier aircraft survivability from air defense systems and ship survivability from cruise missiles and other threats.

The LG-2K is being developed by Logistic Gliders Inc. under a contract from the Defense Advanced Research Projects Agency (DARPA).