

# Giant unmanned airships to patrol Afghanistan

The U.S. army is to deploy a huge hybrid airship as large as a football pitch to watch over battlefields in Afghanistan. Capable of carrying very heavy loads, it can stay in the air for up to three weeks at a time

## LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)

**Skin:** Blend of Vectran, Kevlar and Mylar, capable of withstanding small arms fire

Rear propulsor duct

Forward propulsor ducts

Bowthruster

Payload module

Mixture of 60% helium and 40% air makes LEMV less vulnerable to enemy fire than hydrogen-filled Zeppelins of WWI

Fuel/Freight module

Radar, full-motion video, and communications-intelligence payloads

### SPECIFICATIONS

<b>Endurance</b>	21 days
<b>Service ceiling</b>	6,000m
<b>Payload</b>	Over 1,000kg
<b>Range</b>	Around 3,000km
<b>Top speed</b>	150km/h
<b>Power</b>	16 kilowatts
<b>Cost</b>	\$95 million

## HYBRID AIR VEHICLE: LEMV gains lift from 3 different sources



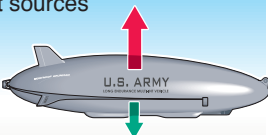
### 1 Aerodynamic lift

Generated by body hull shape



### 2 Vectored thrust

From 4 diesel engines, mainly for take off and landing



### 3 Aerostatic lift

Generated by helium contained within craft

**With potential lifting capacity of up to 200 tonnes and ability to land anywhere, including on water, LEMV has advantage over conventional transport aircraft**



**C-5 Galaxy:** U.S. military's largest transport, can shift up to 120 tonnes of cargo