

# Helikite Airborne Communications Platform (HACS)

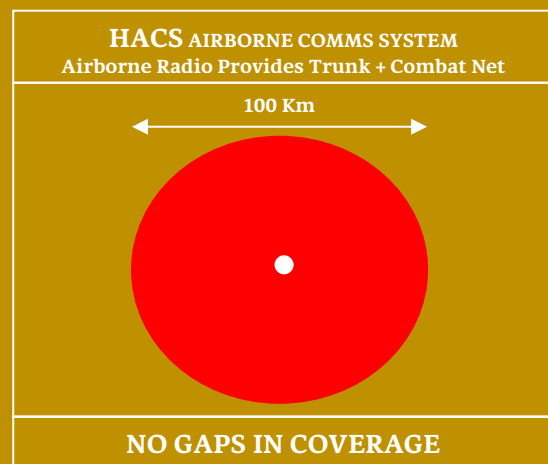
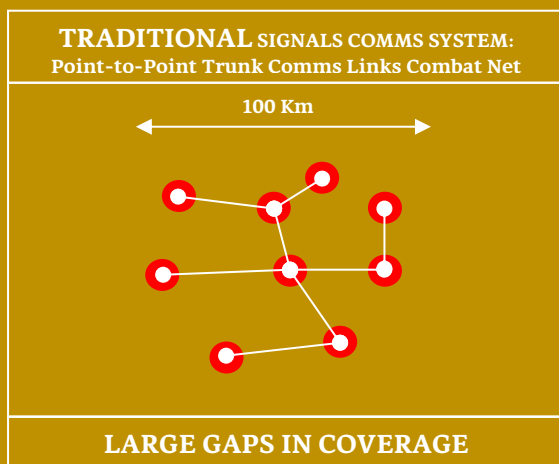
“Signals Regiment on a Trailer”



HACS Helikite lifting high data rate IP MANET radio.

## High Altitude Network Radios = Long Range Comms

- One man plus HACS provides 7,800 SqKm radio coverage. More than a 300 man signals regiment.
- HACS provides both combat net *and* long-range trunk comms in a single unit.
- HACS lifts network radios up to 1000ft within 15 minutes in all weathers. Air-mobile worldwide.
- Long operational range means that HACS is *far more survivable* than traditional masts and trucks.



HACS provides broadband digital comms over the *entire* battlespace - not just part of it.

## **BENEFITS**

### **PROVIDES DIRECT LINK FROM HQ TO INDIVIDUAL SOLDIER**

No need for comms data to be routed via vulnerable, unreliable, point-to-point, trunk network. Staff officers can communicate directly and instantly with every soldier on the battlefield. Gun-site video feeds, bodycams, etc – all sent directly to ops room in HD video. Reducing the number of 'hops' within a MANET network greatly increases range, data rate and comms reliability.

### **ENABLES UNMANNED SYSTEMS OPERATIONS**

Digital MANET radios lifted on HACS allow excellent video communications to unmanned vehicles and sensors within the comms area provided by the high altitude platform. Constant HD streaming video. Positioning data, etc.

### **REDUCES CASUALTIES**

HACS removes hundreds of personnel from highly vulnerable positions on the battlefield. Traditional trunk networks require troops to stay near multiple 18m masts that are emitting radio waves that constantly signal their exact position to the enemy. HACS Helikites fly automatically and can be left to look after themselves far back from the front line whilst still giving excellent comms to the forward troops. Being inexpensive and rapidly replaced, HACS is unviable for the enemy to attempt to attack.

### **NATO HELIKITES COMBAT PROVEN WORLDWIDE. MORE SURVIVABLE THAN TRADITIONAL TRUNK MAST NETWORK**

Traditional mast-based trunk networks, have to be positioned on a limited number of exposed, obvious, and highly vulnerable hilltop positions. In contrast, HACS can be positioned anywhere within minutes. This makes HACS far easier to protect and frees the commander to optimally deploy his forces and if required instantly move them far and at high speed without losing comms.

### **ENABLES MOTORISED DIVISIONS AND SPECIAL FORCES TO PUSH FURTHER FORWARD INTO ENEMY TERRITORY**

High altitude HACS comms extends many miles into enemy territory, providing excellent comms to operations beyond the range of traditional trunk networks. HACS is more agile and higher data rate than satcom. HACS enables faster offensives.

### **FORCE MULTIPLICATION**

HACS eliminates the need for hundreds of signals troops to erect masts throughout the battlefield, thus freeing them for other critical operations. The commander immediately has available huge numbers of extra troops, trucks and weapons.

### **COST REDUCTION**

Eliminates the need to purchase, store, transport, and service numerous radio masts, radio trunk systems, heavy trucks and service personnel. No extra troops are needed to feed, house and protect the signals personnel when on operations.

### **ENABLES EXPEDITIONARY WARFARE**

Traditional trunk comms systems are very difficult to transport and deploy to distant lands. HACS has minimal footprint and can be deployed anywhere within a very short time by air, land, or sea.

## **STANDARD FEATURES:**

### **ALL-WEATHER, RAPID HELIKITE INFLATION, LAUNCH AND FLIGHT CAPABILITY FROM ANY SITUATION.**

Unique all-weather Helikite aerostat design. Wind that pushes normal aerostats down, actually pushes Helikite upwards with highly stable flight. In no wind the helium provides plenty of lift. Unique shape-changing Helikite support trailer. Allows safe and rapid inflation, launch, flight and retrieve within a few minutes in all weathers, day or night. Designed specifically for Airborne Communications Ltd for rapid mobile deployment of Helikites up to 45m<sup>3</sup> in size, or 75m<sup>3</sup> when lengthened. Trailer can be used on or off-road and also placed directly onto boats or ships, to provide long-range maritime communications from moving vessels. Allows the Helikite to be towed behind the trailer while the Helikite is in full flight. Fits in standard civilian or military transport aircraft.

### **PAYLOADS:**

4G or 5G Base Stations, Tactical Network Radios, Broadcast Video Radio-Relay, Long-Wire Antenna, ELINT, etc.

### **LARGE HELIUM TRANSPORT CAPABILITY**

Helium is not always available near the point of use. This trailer can safely transport and store up to 13 x BOC 'L' sized helium cylinders (or similar) each holding 9m<sup>3</sup> (315 cubic ft) of helium over rough terrain. This is a total of 117m<sup>3</sup> (4095cubic ft). Enough to fill and fly a 18m<sup>3</sup> Helikite constantly for 12 months, or a 34m<sup>3</sup> Helikite for 6 months.

### **CUSTOM DESIGNED AND MADE FOR HELIKITE OPERATIONS**

High ground clearance, immensely strong chassis. Fits in 20ft shipping container. Can be instantly towed directly from shipping container both on and off-road, anywhere in the world. Air-transportable for military or humanitarian operations.

## **SPECIFICATIONS:**

**CONSTRUCTION:** Galvanised Steel Twin Axle Braked Trailer. NATO Tow Hitch

**SIZE:** Length: 14ft or over depending upon options. Width: 6ft Height: 5ft.

**WEIGHT:** Unladen Weight: 800Kg or over depending upon options. Gross Weight: 2,600 Kg or over depending upon options.

**HELIUM CAPACITY:** 10 x 9m<sup>3</sup> BOC Steel 'L' sized, 5ft6in long, 84Kg, helium cylinders or similar

**ALTITUDE:** Airborne Platform Payload to 1,000ft: 5Kg or over depending upon options.

**DEPLOYMENT SPEED:** 20 minutes. **WINCH:** 12V Electric Helikite Winch. Auto Brake. Speed = 60ft per minute

## **ALLSOPP HELIKITES LTD**

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