

# NEWS RELEASE FOR IMMEDIATE RELEASE

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On Friday 19th October 2007, a small, three cubic metre, Low Visibility Skyhook Helikite, lifted an ITT Spearnet Radio to 200ft above Allsopp Helikites flight-testing grounds. Each Spearnet radio acts as a relay to every other radio, to automatically create a mobile, ad-hoc, internet-protocol network.

Skyhook Helikites are a new type of all-weather, high-altitude, tethered aircraft. Helikites are novel because they are the only aerostats in the World that are pushed up by both helium and by wind. This means that very compact Helikites are highly weather-survivable. Helikite systems provide an inexpensive, all-weather and permanent aerial platform. Everything needed to lift the Spearnet radio to 1,500ft for many weeks only weighs 15Kg and can easily be fitted into a small rucksack. This includes the Skyhook Helikite, helium cylinder, flying-line and reel.

With the 300 Milliwatt SpearNet radio at 200ft, good line of sight reception was reached out to six miles between hills. This was an area about 100x greater than the radio would perform alone.

These radio waves can carry a lot of information including real-time video. However the high band width, high frequency radio waves required for this cannot bend around terrain. So without a high altitude relay they are normally restricted in range to less than 0.6 miles.

With a Skyhook Helikite a single soldier can create a large, reliable and widespread network in a couple of minutes, from one position. Compare this to the present method, of using hundreds of soldiers to fight and capture every hill in the district for radio-relay purposes and then providing hundreds more soldiers to constantly defend them from attack.

This test was carried out with the Helikite flying at only 200ft which is the legal altitude limit. However, there was enough spare lift to have flown the 700g radio to 1,500ft if allowed. This correlates with previous unconnected radio-relay tests in the USA using similar Helikites flown to 1,500ft that sent packet video data 61 miles in flat terrain and provided excellent coverage in hilly areas.

Therefore this is a significant event, because for the first time there is a very easy and practical way to spread the full power of the internet over the full surface of the land or sea without the need for expensive infrastructure.

This makes possible the deployment unmanned ground vehicles and unmanned sensors anywhere in significant numbers, and permanently controlled from any position in the world via the internet. Other ad-hoc hand-held radios are also highly suitable such as Raytheon's Microlight® or Cobham's Eagle® Radio.

It's not just for the military. New civilian orientated MANET radios lifted on small Skyhook Helikites allow anyone to create their own instant, long-range, internet protocol radio network. Useful for civilian users such as fire-fighters, coastguards, police, loggers, mineral surveyors, mountain rescue etc.



## About Allsopp Helikites Limited

Allsopp Helikites Ltd is a designer and manufacturer of advanced lighter-than-air, miniature, all-weather aerostat systems. The company delivers a full range of products including Helikite aerostats, Helibases, Helikite winches, flying line, video surveillance cameras, aerial photographic equipment, radio-relay systems, Jungle Marker Helikites, balloon cut-down devices, helium, and aerostat trailers. Allsopp Helikites Ltd is a privately owned SME operating from its aerostat test flying base in Damerham, Hampshire, England.

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