

NATO's New Helikites Could Revolutionise Unmanned Warfare

New Helikite airborne platforms have proven they can increase the operational coverage area of unmanned surface vehicles (USV's) by over ten times. With this last over-the-horizon communications hurdle overcome, USV's can now become highly effective, independent naval forces, able to patrol the oceans and protect shipping, with or without manned naval support ships in the area.

NATO REPMUS19 Unmanned Naval Exercise

During this September 2019 exercise Portugal, compact, all-weather Helikites flew constantly to high altitudes, whilst lifting MANET radios to allow streaming video and broadband comms 53Km out to sea. During the exercise, the USV's were able to be monitored and controlled in the ops room via the constant video stream. The USV's successfully intercepted a manned vessel simulating an attack on a US frigate. Helikites also provided real-time video feed from a Puma UAV down to Portuguese marines storming a beach and simulating an attack on an enemy building. The Helikites were able to accommodate various radios and antennas with no problems. Rapid changes of radio equipment and antennas were easily enabled. The Helikites constantly flew up to 450ft in winds from nil to 35 mph on the exposed 'Coast of Gales' at Troia, Portugal, with no problems. Far higher altitudes were possible but not required.

Future Significance

Worldwide, the deployment of all types of unmanned systems have been delayed for decades by a lack of reliable over-the-horizon radio relay. All other forms of airborne platform, such as UAV's, satellites, balloons or parafoil kites have failed to give the necessary communications capability because they were not persistent enough, were unreliable, or too expensive. In stark contrast, Helikites have proved themselves to be superb radio relay platforms, capable of autonomously flying themselves from land, ships, small boats and USV's in all weathers with ease.

Conflict areas such as the Arabian Gulf, Black Sea and South China Sea can now be controlled using unmanned maritime vessels operated via high altitude Helikites flying indefinitely for minimal cost. These unmanned vessels can be transported to the area by aircraft, enabling a powerful naval force to be deployed to a conflict zone within hours instead of the weeks it takes at present for manned ships to arrive.

There will be no risk to sailors from anti ship missiles because the constant video streaming from long ranges from the high altitude Helikites, allows the unmanned vessels to be piloted safely from secret shore bases. Unmanned vessels can operate on the surface, or underwater, for many weeks without re-fuelling. They are exceedingly hard to detect and uneconomical to destroy with expensive missiles or manned ships. This development immediately enables massive force multiplication for minimal cost. It may force significant changes in future naval hardware, manpower and tactics.

About Allsopp Helikites Limited

Allsopp Helikites Ltd is a designer and manufacturer of unique, lighter-than-air, miniature, all-weather aerostat systems. The company delivers a fully integrated service and has the largest range of aerostats in the world. Products include Helikite aerostats, training packages, tactical launch trailers, Helibases, Helikite winches, video surveillance cameras, aerial photographic equipment, radio-relay systems, balloon cut-down devices and helium.

Allsopp Helikites Ltd is a privately owned SME in England.

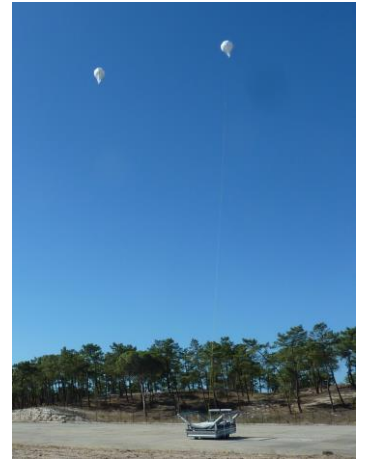
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Helikites flying at 450ft at REPMUS19



Helikite night launch at REPMUS19