ÅAC Microtec confirms successful launch of SeaHawk-1, ground-breaking ocean health monitoring CubeSat

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Small satellite experts at AAC Clyde and its partners have redefined the art of the possible with the launch of their latest cutting-edge CubeSat, SeaHawk-1. Clyde Space, part of the AAC Clyde, designed and built SeaHawk-1 the first of two satellites to be delivered for the SeaHawk demonstration mission. SeaHawk-1 was successfully launched yesterday on the SpaceX Falcon 9 launch vehicle from the Vandenberg Spaceport in California yesterday on SSO-A SmallSat Express. AAC Clyde has since made contact with SeaHawk-1 from their Glasgow based ground station, all spacecraft systems performing as planned.

AAC Clyde delivered SeaHawk-1, an advanced '3U CubeSat', to the University of North Carolina Wilmington (UNCW) last September. SeaHawk-2 is planned to be delivered second half of 2019. The two identical SeaHawk spacecraft carry a multispectral imager to perform Ocean Colour monitoring and are part of The Sustained Ocean Colour Observation from Nanosatellites (SOCON) project. The aim of the project is to observe the changing biology of the ocean surface and these first two spacecraft are a precursor to a possible constellation of SeaHawk satellites in low earth orbit which would provide continuous measurement of ocean colour data.

The SOCON project is a collaboration between the University of North Carolina Wilmington, Cloudland Instruments, AAC Clyde, and NASA's Goddard Space Flight Centre and is funded by a grant from the Gordon and Betty Moore Foundation.

The mission will perform ocean colour observation in using a miniaturised advanced imaging sensor called 'HawkEye'. The data gathered by SeaHawk will enable greater understanding of the marine food chain, oceanic climate, fisheries and pollution phenomena. This information will be vital to our ability to monitor and support the health and the and sustainability of our oceans; a critical part of the Earth's ecosystem; and.

SeaHawk is a follow-on mission from the highly successful SeaWiFS (Sea-Viewing Wide field-of-View Sensor) mission. SeaWiFS was launched in 1997. 20 years on, SeaHawk is able to replicate the performance of the SeaWiFS mission except it is approximately 100 times smaller, lighter and cheaper. A successful operation of the SeaHawk CubeSat will show that you can deliver performance that improves upon traditional spacecraft at a fraction of the cost, size and development time.

- *SeaHawk is a groundbreaking small satellite that perfectly demonstrates that CubeSats are now able to deliver exceptional mission performance for space applications. In this case we are proving that essential Earth science can be achieved on a much smaller and lower cost spacecraft. This has been achieved through the use of cutting-edge technologies that just weren't available a few years ago. The ability to deploy missions of this type on a satellite that you can hold in your hand will enable a multitude more applications and also constellations of spacecraft to provide the essential data we need to monitor and protect our planet,* says Craig Clark, Founder and Chief Strategy Officer.

- *We are thrilled to have SeaHawk-1 on orbit,* says UNCW Professor John Morrison, SeaHawk's co-project manager and lead principal investigator. *Our collaboration with AAC Clyde has been integral to the success of the program. SeaHawk-1 is the culmination of decades of innovation and over four years of hard work and dedication by an incredible team of researchers and developers. This satellite developed by AAC Clyde and its imaging sensor are the latest in cutting-edge technology and the data collected will open the door to countless opportunities for scientific advancement. Capturing daily, high-resolution observations of ocean color changes, and making them publicly available at no cost, will allow scientists across the globe to address critical environmental issues.*

SeaHawk will generate an immense amount of data, approximately 6-7 Gb per day, to be downloaded through a 50 Mbps X-Band link. The data will be integrated into NASA's SeaWiFS Data Analysis System (SeaDAS) and will be distributed worldwide by the NASA Ocean Biology Distributed Active Archive Center at Goddard Space Flight Center.

The developments by AAC Clyde in spacecraft technology and volume production are making the prospect of missions requiring constellations of small satellites and CubeSats a reality, supporting an increasing range of new and technically challenging space applications.

FOR MORE INFORMATION:
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ABOUT ÅAC MICROTEC
ÅAC Microtec, and its subsidiary Clyde Space, offer a full turnkey mission service from design to on-orbit operations including reliable platforms in the range of 1 to 50 Kg; customizable to suit our customers' requirements. Their end-to-end service package enables our customers to reach their mission goals with a single, trusted point of contact. In addition, they supply a full range of subsystems for cube satellites and small satellites. The company has offices in Sweden, the UK and USA.

ÅAC Microtec's shares are traded on Nasdaq First North Stockholm. G&W Fondkommission, telephone +46 8 503 000 50, is the Certified Adviser.

About CubeSats
CubeSats are fully functional satellites. CubeSat have standard dimensions are measured in standard "Units" or "U's" with a 1U CubeSat being 100mm x 100mm x 110mm and about 1.1kg, a 3U CubeSat being 100mm x 100mm x 330mm and about 4kg, and so on. CubeSats typically piggy-back on other launches. The range of applications of CubeSats is increasing rapidly as the technology and capabilities of these tiny spacecraft continue to improve.

Links
SSO-A SmallSat Express: (http://spaceflight.com/sso-a)
For more information on about SeaWIFS please visit: https://oceancolor.gsfc.nasa.gov/data/seawifs/