



AAC
CLYDE
SPACE

AAC Clyde Space 3U CubeSat
featuring Oxford Space Systems'
deployable Yagi antenna



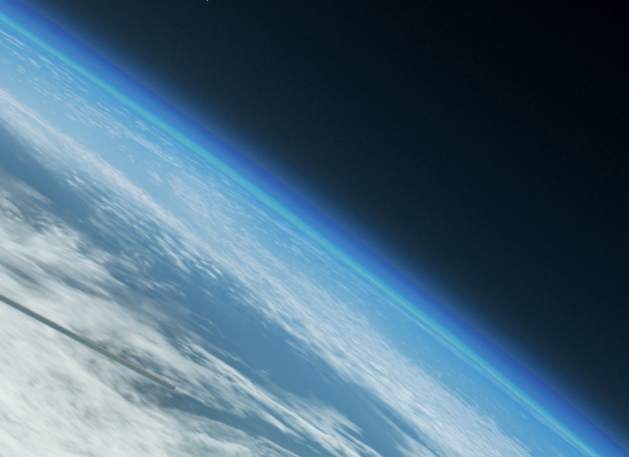
SPACE IS AWESOME

It's an exciting time in the industry, with fast innovation cycles and a rapidly expanding range of space applications. As a result we're seeing an unprecedented number of companies eager to tap into this lucrative space-based data-driven market.

Our experience in volume manufacture of space systems, coupled with our proven ability to deliver quality innovation applying the latest technologies, has resulted in a range of highly capable, flight proven spacecraft that are able to support this increasing range of new and challenging space applications.

This year alone at AAC Clyde Space, we have won game-changing mission contracts and deployed multiple innovative satellites. We are extremely proud of our 100% mission success rate, fast positioning our company as a market leader, setting the performance benchmark for small satellite mission and service provision globally.

—CEO, Luis Gomes



MISSIONS BUILT AROUND YOU

We offer a wide range of commercially focused satellite solutions and services available as a comprehensive package, empowering customers to both customise and streamline their mission and services.

Space-as-a-Service provides our customers with everything from spacecraft design to satellite operations and data delivery.

More than a service

As your single trusted point of contact and drawing on decades of award winning on-orbit heritage, we will take care of the space part, allowing you to concentrate on delivering your business for your customers.

Every aspect of your mission is carefully analysed, from the technical aspects, to schedule and cost, fully utilising our world leading partnerships and supply chain.

When combined with our high-volume production capability, novel launch and operation services, and market leading regulatory management, we offer our partners unrivaled access to space.

**MISSION ANALYSIS
& DESIGN**



PAYLOADS



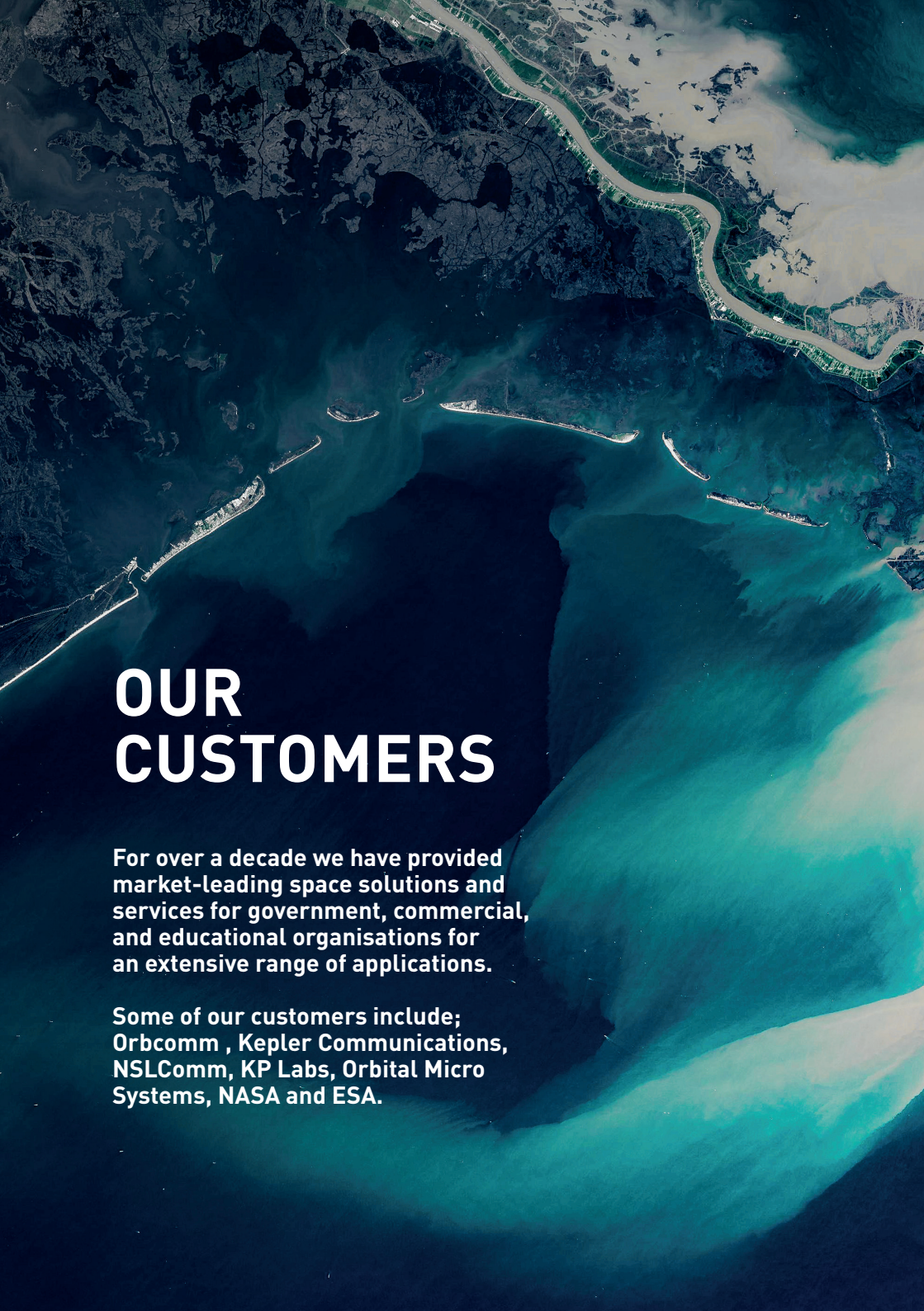
PRODUCTION



**LAUNCH
SERVICE**



**OPERATIONS &
DATA DELIVERY**

An aerial photograph of a coastal region, likely in the Netherlands, showing a large body of water with several islands and a winding river. The water is a deep teal color, and the land is a mix of dark green and brown. The sky is a pale, hazy blue.

OUR CUSTOMERS

For over a decade we have provided market-leading space solutions and services for government, commercial, and educational organisations for an extensive range of applications.

Some of our customers include; Orbcomm , Kepler Communications, NSLComm, KP Labs, Orbital Micro Systems, NASA and ESA.





IOT

“AAC Clyde Space provided a full end-to-end mission service package for our mission, from mission design, satellite manufacture and test to operations and data supply. Our collaboration has proven to be the perfect blend of New Space solution providers and innovative payload deployers, and we look forward to a long and productive partnership with AAC Clyde Space.”

—**Raz Itzhaki Tamir,**
CEO of NSLComm



EARTH OBSERVATION

“We have developed a strong relationship with AAC Clyde Space through the FireSat programme, a wildfire detection satellite for Southern Africa which will detect bushfires from space. The programme is a cross-border collaboration project which focuses on building resilient infrastructure through the delivery of reliable fire information, fostering innovation to support economic development and human well-being. The demonstrator CubeSat, ZaCube-2, launched in 2018 and was CPUT’s second mission. AAC Clyde Space’s flight proven solutions and heritage lends assurance to the continued success of the FireSat programme.”

—**Robert van Zyl**,
Cape Peninsula University of Technology



SCIENCE

“When Orbital Micro Systems began the search for a long-term bus and Integration partner ACC Clyde Space quickly became an obvious partner for us. Their ability to deliver on a short turn around schedule was critical to our success in the launch of the IOD-1 GEMS mission.

OMS is over-the-moon with the performance of the IOD-1 GEMS platform. They have delivered on all points: power, operational readiness, command and control, and data delivery. We look forward to our future with ACC Clyde Space as we move into the commercialization phase of our relationship.

—**William Hosack**

CEO

Orbital Micro Systems, Inc.



TECHNOLOGY DEMONSTRATION

“We are delighted to partner with AAC Clyde Space to demonstrate our advanced hyperspectral imager and novel on-board processor. There are a wide range of applications that will benefit from our Intuition-1 mission including agriculture, mineral mapping and urban planning. Our innovative technology will be integrated by AAC Clyde Space into the latest generation 6U satellite platform and launched by the company, for a mission set to pioneer the first satellite with processing capability to segment hyperspectral images in orbit.”

—**Grzegorz Łada,**
Intuition-1 Project Manager,
KP Labs



Eutelsat Communications ELO Project

Connecting users even in the most remote locations, leading international satellite operator Eutelsat Communications is responsible for a global fleet of satellites and ground-based infrastructure, enabling clients across Data, Government, Fixed and Mobile Broadband markets to communicate effectively to their customers.

With the IoT (Internet of Things) market on an upward trajectory across sectors such as agriculture, logistics and oil and gas, millions of smart devices will need to be interconnected from areas unserved by terrestrial infrastructure. Low Earth Orbit (LEO) is particularly well-suited to this narrowband connectivity, processing signals can be emitted by connected devices without increasing the cost or energy consumption.

Eutelsat plans to construct their own LEO satellite constellation named ELO (Eutelsat LEO for Objects), this offering global IoT coverage. This initial phase is a series of four satellites, two built and launched by AAC Clyde Space, and the other two built from Loft Orbital. If this new initiative proves

successful, this would potentially lead to a constellation of 25 satellites operational by 2022. French IoT company Sigfox, which has a terrestrial narrowband service in 65 countries, is already lined up to use capacity on the ELO constellation.

AAC Clyde Space are manufacturing and launching two 6U CubeSats, ELO 3 and ELO 4, which will host the first propulsion systems onboard AAC Clyde Space satellites. The IoT (Internet of Things) payload, developed in-house is built around a sophisticated Software Defined Radio which hosts the IoT signal processing algorithms provided by Eutelsat. The satellites are expected to be launched by 2021 and will enter commercial service shortly after.

Delivering Enhanced AIS Data to Orbcomm

Under an exclusive license agreement announced in April 2019, AAC Clyde Space will deliver low-latency Automatic Identification System (AIS) data gathered by their next-generation CubeSats to ORBCOMM (Nasdaq: ORBC), a leading global provider of Industrial Internet of Things (IIoT) solutions.

ORBCOMM processes over 30 million AIS messages from more than 200,000 vessels per day for government and commercial customers, which include cargo companies along with search and rescue, environmental monitoring and maritime security agencies.

AAC Clyde Space will manufacture and operate two CubeSats that are expected to launch beginning in 2020, each equipped with three dedicated AIS receivers. The AIS CubeSats feature a highly versatile Software Defined Radio-based receiver to maximize AIS detections of all message types.

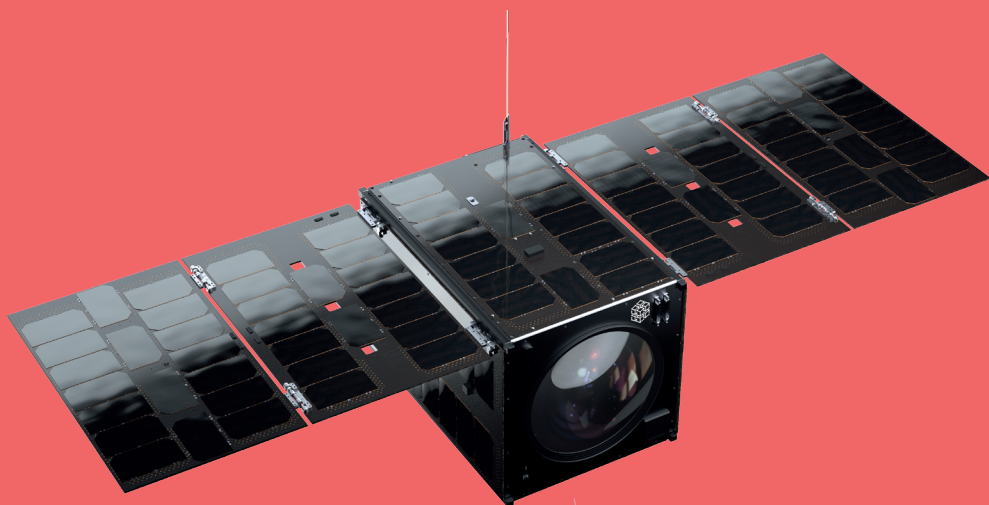
This contract leverages a new model in which AAC Clyde Space owns and operates the

CubeSats to deliver AIS data exclusively to ORBCOMM and its customers. ORBCOMM's customers will benefit from more comprehensive global coverage as well as enhanced performance and vessel detection rates over the long term.

With demand for better identification systems and increasing maritime traffic, the satellite market has seen an increase in the need for space-based AIS solutions. The maturity and efficiency of the CubeSat technology proved to be the perfect blend for ORBCOMM's requirements. AAC Clyde Space's strategic service model is geared towards making access to space data easier and more cost-effective for existing and future customers.

EPIC SPACECRAFT

Defining the latest in nanosatellite technology, our EPIC CubeSat platform range features cutting-edge performance, whilst building on our unrivaled heritage and quality.

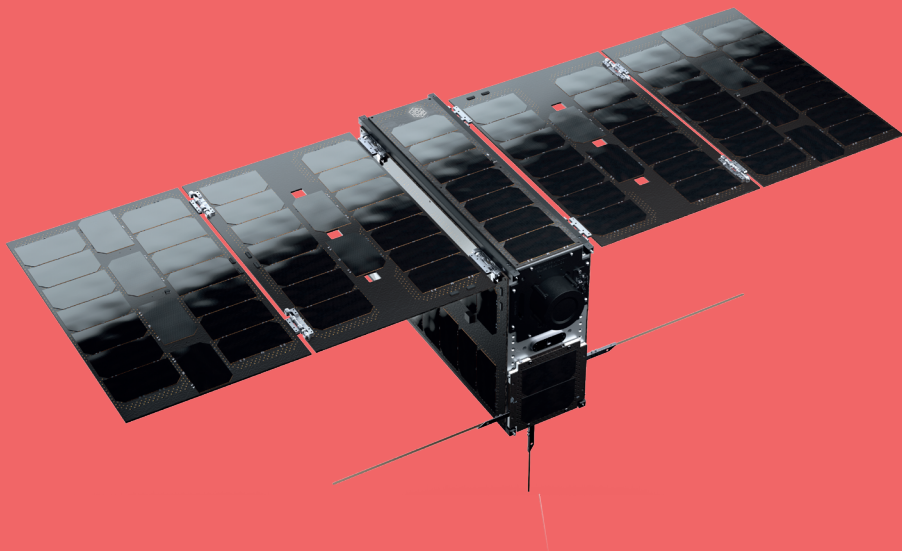


EPIC 12U

The EPIC 12U and EPIC 12U PLUS platforms are our most capable spacecraft able to accommodate larger payloads with more demanding needs for power. Those are also available in 16U form factor for even larger payloads.

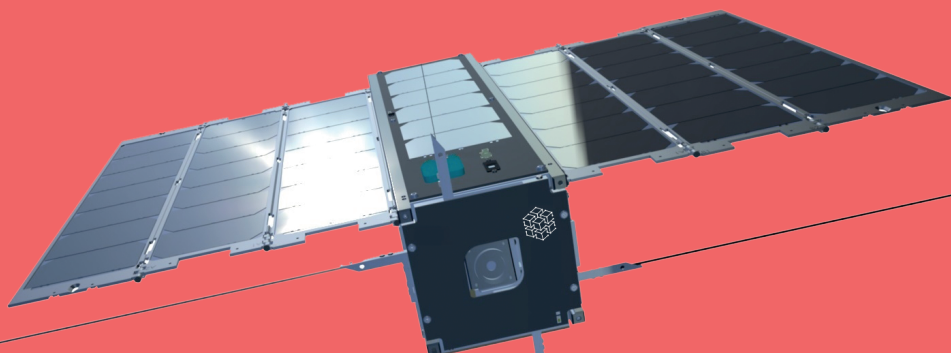
EPIC 6U

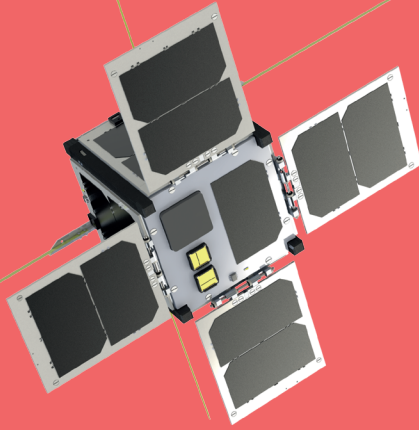
Our flight proven EPIC 6U and EPIC 6U PLUS platforms provide exceptional power generation and payload capacity.



EPIC 3U

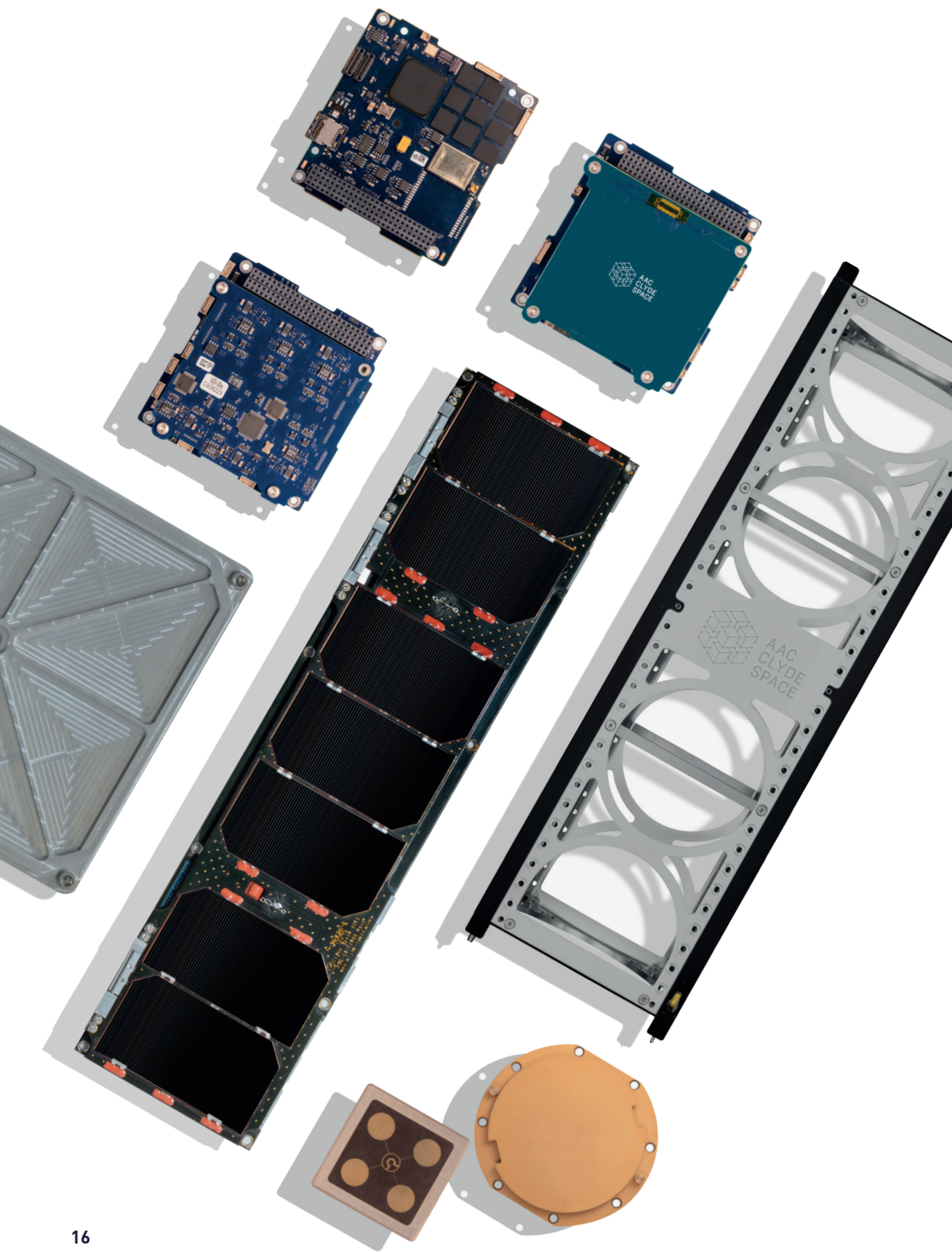
The most popular CubeSat form factor in history, the EPIC 3U and EPIC 3U PLUS provide capacity for miniaturised IoT and EO payloads.





EPIC 1U

The original CubeSat form factor proves that big applications come in small packages. The EPIC 1U and EPIC 1U PLUS are perfect for tech demo and capacity building.



SATELLITE BITS

Command & Data Handling



Reliability and high performance are key design elements of our data handling system, which include features such as, Error Detection and Correction (EDAC), and Non-Volatile & Flash Memory. Designed to support price-sensitive commercial missions that require reliable, qualified solutions.

Battery

Lithium cells with high energy densities and robust protection architecture. Whether you are interested in power to mass ratio, volumetric efficiency or mission lifetime. They have been delivering maximum payload capacity for more than a decade, flying on a variety of launch vehicles including ISS deployment.

Electronic Power Systems

The cornerstone of any mission, with hundreds of systems delivered and no on-orbit failures reported you will struggle to find a more reliable option. Whether you need direct energy transfer or maximum power point tracking, full redundancy or graceful degradation you can count on our high quality solutions.

Solar Arrays

Our plug-and-play solar array solutions integrate easily with our platform range; from body mounted to triple deployed solar panels, we utilise the latest manufacturing techniques to deliver highly reliable, low-mass, power generation solutions.

Communications

Software-defined radios with highly adaptable communication solutions that have a 100% success rate on orbit. We offer systems ranging from VHF to X-band, Ku-Band and Ka-Band. Combined with our platform range, they enable performance without compromise.

Structures

Extensively tested and qualified to all major launch vehicle standards, our flight proven best-in-class range of structures are designed with a high level of modularity, supporting even the most bespoke payload configuration.

ABOUT AAC CLYDE SPACE

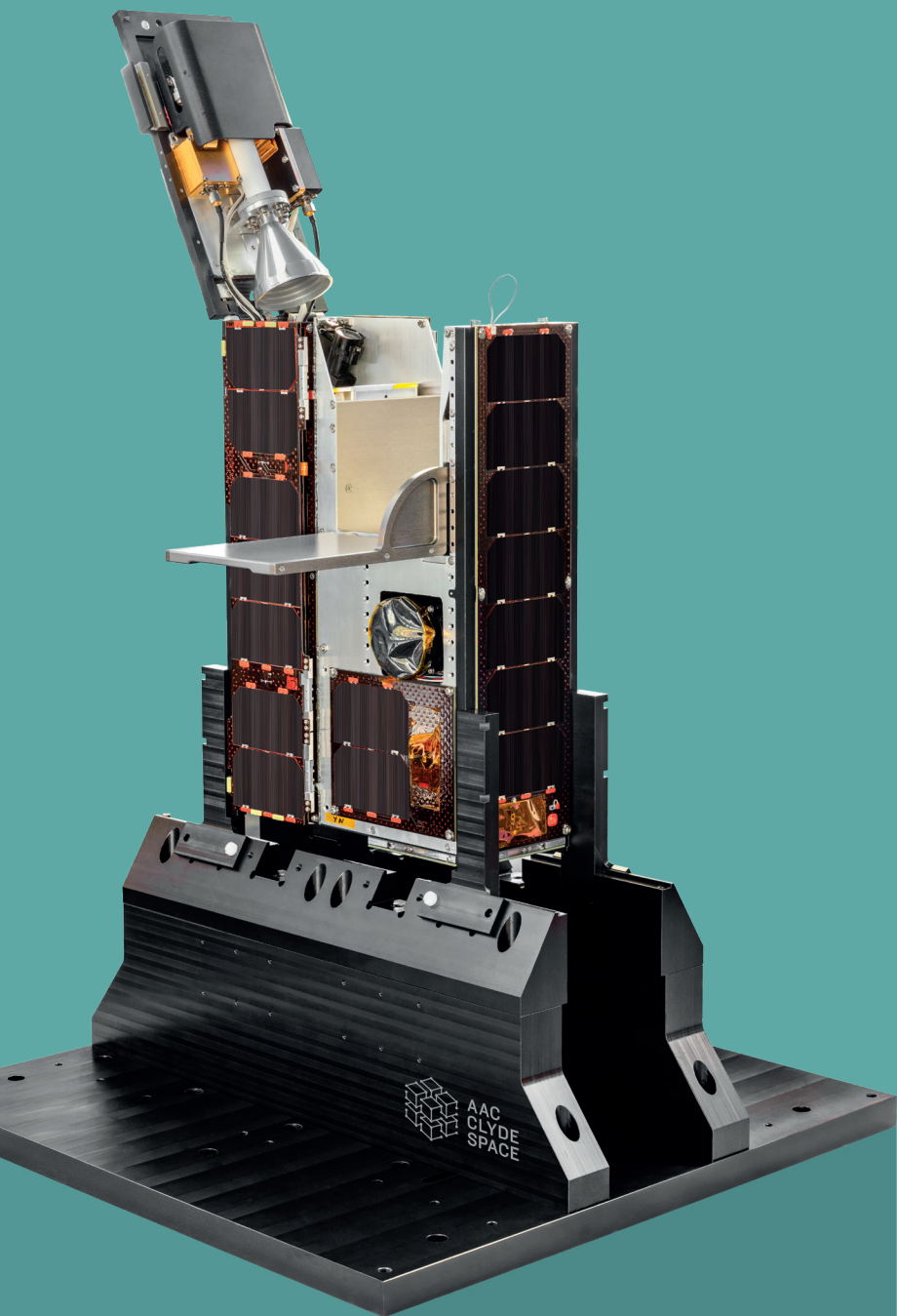
At AAC Clyde Space we specialise in providing advanced small spacecraft, mission services, and subsystems. We are the market-leader in small satellite solutions and services for government, commercial, and educational organisations.

Our awesome team offer specialist expertise and experience in delivering a wide range of commercially focused satellite solutions, including Space-as-a-Service; a comprehensive end-to-end mission service where we take care of everything from design to data delivery, enabling our customers to concentrate on their core business.

Our range of subsystem and spacecraft products have an impressive on-orbit heritage, unmatched in our market by some margin. Quality and innovation are the foundations of our company and, having proven our approach to building the small satellites since 2005, we have established ourselves firmly as the market leading provider of small satellite technology and services.

AAC Clyde Space is the trading brand formed of ÅAC Microtec and its subsidiary Clyde Space. The company has its main operations in Sweden, the United Kingdom and the USA, with partner networks in Japan and South Korea.





An aerial, high-angle night photograph of a city. The city lights are visible, and a bright, horizontal light streak, possibly a comet or a satellite trail, cuts across the middle of the frame. The image is tilted slightly to the right.

#SPACEISAWESOME
WWW.AAC-CLYDE.SPACE