

# Battle space: UK efforts to secure its celestial flank

[Content preview – Subscribe to **Jane's Defence Weekly** for full article]

**With many of the vital civil and military systems becoming ever more reliant on satellite technology, the UK is reorganising and reinvesting in the space domain. Gareth Jennings explores the UK's renewed focus on space as it attempts to safeguard its terrestrial interests**

It is telling that the UK's Chief of the Air Staff (CAS), Air Chief Marshal Sir Stephen Hillier, chose the centenary year of the Royal Air Force (RAF) to restate the service's commitment to the space domain in line with a new Defence Space Strategy set to be released by the government.

Speaking at the inaugural Ministry of Defence (MoD)-sponsored Air Power Association Defence Space 2018 conference last May, ACM Hillier acknowledged that, while the RAF has been engaged in space for many years, it now stands on the cusp of taking centre stage in the domain as the government recognises the UK military's increasing reliance on space systems and technology.



*An artist's impression of one of the latest four Skynet 5 satellites, which were launched between 2007 and 2012. First launched in the late 1960s, the Skynet constellation provides the UK with a secure military communications network. (Airbus)*

“I know some people are asking whether, during the next 100 years, the Royal Air Force will become the Royal Air and Space Force,” ACM Hillier said, adding, “In my view we’re already there in fact, albeit not in name; we’ve actually been in space for more than half of our existence, from the Thor intermediate-range ballistic missiles and the start of the ballistic missile early warning at RAF Fylingdales in the late 1950s and early 1960s.” However, he continued, “It is entirely fair to say that, whilst the RAF has been doing space for a long time, it has not been one of our highest-profile activities. That view is not only changing, it has changed.”

This renewed drive into space is being spurred by the ever-increasing reliance on the domain in all aspects of life for modern societies: a situation that is becoming ever truer for military as well as civilian life.

In terms of the military space-based assets are used for navigation, intelligence, targeting, communications, and global positioning among other roles. “We know that it is through the advantages conferred by space capabilities that air power itself has become the extremely precise and efficient instrument to which we have all become accustomed in recent years,” ACM Hillier noted.

Although this expansion presence in space has undoubtedly enhanced the UK’s combat capabilities, it has also made the country more vulnerable as its adversaries recognise this dependence and actively seek ways to counter it. This is a very real vulnerability that has been recognised at the highest levels of the UK military leadership, with ACM Hillier noting that, while space affords tremendous benefits, “we also know that for too long we have regarded those benefits as being a free good: something we can exploit at will, with no real risk”. However, he warned, “Just like in the air environment, our potential adversaries have recognised our asymmetric advantages in space – and our complete dependency on space for every aspect of our working and personal lives. That dependency creates vulnerabilities, and we are at acute risk from those who might now seek to deny, degrade, and disrupt our capabilities.”

Moreover, he said, “Space has always been an operational domain – indeed the recent US National Defense Strategy describes space as a warfighting domain – but now we’re going to have to work increasingly hard to secure and assure the space capabilities on which we are utterly reliant. We therefore need to be more resilient, efficient, and innovative if we are to safeguard our operations, consolidate our advantages, and minimise the effects of aggressive actions.”

Having identified the UK’s potential vulnerabilities regarding its continued free access to and exploitation of space, ACM Hillier explained that the UK defence establishment needs to recognise the threat and organise itself against it. “I’m confident that UK defence has got through this particular starting gate,” he said, adding, “The next thing is to ensure we are properly organised to deal with the challenge.”

For this to happen, the CAS explained, a whole-government approach will be needed, but in the specific context of defence the leadership role has been formally entrusted to the RAF. In May 2018 the government announced ahead of the Air Power Association Defence Space conference that the RAF's Air Command had taken on responsibility for command and control (C2) of all UK military space operations. The announcement by Defence Secretary Gavin Williamson was a timely recognition of the UK military's increasing reliance on space systems and technology, as well as the need to boost the country's presence and expertise in the domain. "We must make sure we are primed and ready to deter and counter the intensifying threats to our everyday life that are emerging in space," Williamson said at the time, adding, "It is essential we protect our interests and assets from potential adversaries who seek to cause major disruption and do us harm."

Ever since the Strategic Defence and Security Review (SDSR) in 2015 space has been increasingly at the forefront of the UK's defence thinking and funding. "Satellites and space-based services provide communications, imagery, precision targeting, and friendly force tracking for the [UK] armed forces. As the reliance on satellites continues to grow, any disruption could lead to severe consequences, whether by natural or man-made hazards or intentional threats from hostile states," ACM Hillier said in his comments to the Defence Space 2018 conference.

[Continued in full version...]

(842 of 2901 words)

For the full version and more content:

### Jane's Defence Industry and Markets Intelligence Centre

*This analysis is taken from [Jane's Defence Industry & Markets Intelligence Centre](#), which provides world-leading analysis of commercial, industrial and technological defence developments, budget and programme forecasts, and insight into new and emerging defence markets around the world.*

*Jane's defence industry and markets news and analysis is also available within **Jane's Defence Weekly**. To learn more and to subscribe to **Jane's Defence Weekly** online, offline or print visit <http://magazines.ihs.com/>*

For advertising solutions visit [Jane's Advertising](#)