

BLACKSTAR

TOP SECRET



FACT OR FICTION?

Is this the real Aurora?

The 6 March issue of *Aviation Week & Space Technology* devoted its front cover and several pages to coverage of what it called Blackstar, though what at first appeared to be another 'AvWeek' exposure of a newly uncovered Black World aircraft programme was actually a series of three articles about a two-stage to orbit space plane that may have existed, may have entered service, and may have been retired. Hard evidence was notable by its almost complete absence!

The aircraft combination described by *Aviation Week* was said to be capable of conducting overflights of hostile territory without warning, without the predictability of an orbiting satellite, able to react to tasking quickly, and able to search for hidden nuclear weapons caches or preparations for military operations, and able to do so at altitudes where they would be invulnerable to enemy air defences.

Even more astonishingly, there were suggestions that though the SR-3/XOV Blackstar project represented a giant technological leap forward, the technology involved was based on tried and trusted existing concepts, namely the XB-70 Valkyrie bomber and the X-20

Dyna Soar (space plane) project, for which the XB-70 was once seen as a potential launch vehicle. There was even the suggestion that the new SR-3 might be based partly on XB-70 components, or on the unfinished third prototype.

Author William B. Scott candidly admitted that 'iron-clad confirmation' that met 'AW&ST standards' was 'elusive', before outlining the provisional history of the programme and the technical features of the aircraft. There was little new in the report, which re-visited aircraft designs that have been referred to by names like Aurora, Brilliant Buzzard, BTSTO and SR-75, and most of the eyewitness reports were unattributed, unsubstantiated, and dated back to the 1990s.

Black Programme sceptics concluded that the article did no more than suggest that a secret aircraft (that may never have existed at all) might have been retired at some indeterminate point in the recent past. Many Black Programme enthusiasts, by contrast, greeted the AW&ST articles with uncritical excitement, not questioning the yawning gaps and inconsistencies presented.

In the first part of a survey of Black World activity, *Aircraft Illustrated* presents both sides of the argument, and leaves you, the reader, to make up your own mind. **JOHN LAKE**

THE CASE FOR BLACKSTAR

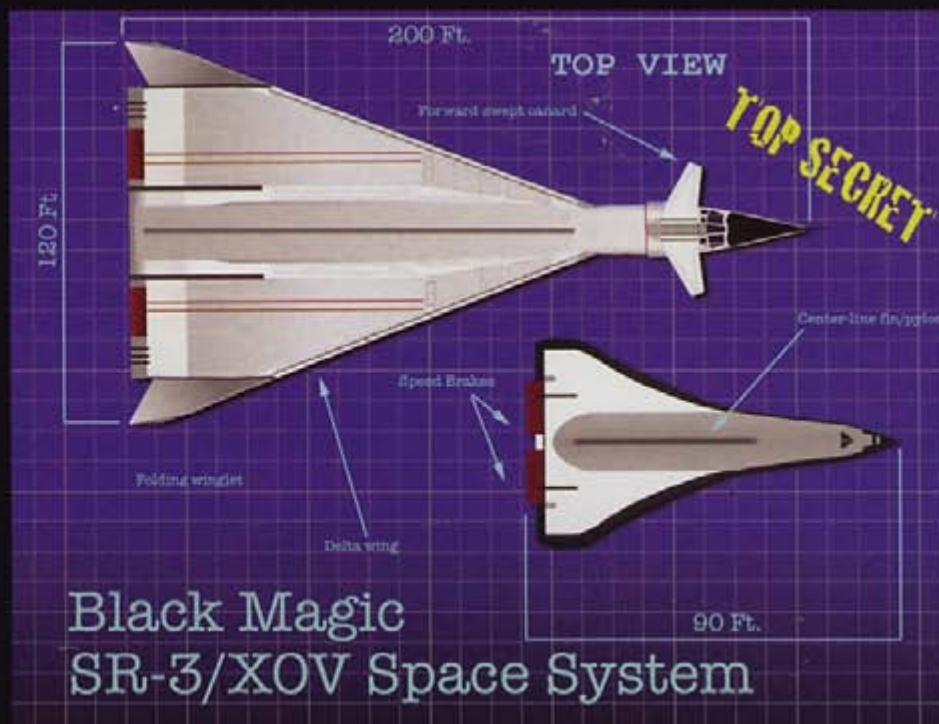
words: **Steve Douglass**

Finally! There it was, revealed in the 6 March issue of *Aviation Week & Space Technology* for the entire world to marvel at — one of the US intelligence community's most closely-guarded secrets, the existence of a covert intelligence-gathering system consisting of a high-speed mother ship and baby space plane.

In three articles entitled 'Space plane shelved?', 'Speedy damaged?' and 'Echoes of Valhalla', *Aviation Week's* William B. Scott laid bare the secrets surrounding the development and operation of two remarkable achievements in aviation and space technology, that until now were only officially known by a small group of industry and intelligence agency insiders and kept hidden from even the highest-ranking members of the US Congress.

Known to some as the SR-3 or Blackstar (mothership) and the XOY (Speedy), this two-ship system consists of a large supersonic aircraft (possibly based on the XB-70 Valkyrie prototype of the 1960s) and a mini-space plane that may or may not be a manned aircraft.

Developed in total secrecy by Lockheed and Boeing during the late 1980s and early 1990s, the system filled a desperate need for a quick way to launch small payloads into space, and possibly kinetic energy weapons 'rods from the gods' and mini-reconnaissance satellites capable of sucking up radio communications or photo recon. Although this system was never named 'Aurora', these craft may indeed have been the source of sonic booms, sightings and rumours surrounding a replacement system for the SR-71 after its (premature, many thought) retirement.



1960s-era XB-70 supersonic bomber prototype carries the mini-space plane underneath its belly. The carrier aircraft then lifts the space plane up to an altitude in excess of 100,000ft (and at speeds of more than Mach 3) and launches it into a low earth orbit in which it can race across a target country (either for gathering intelligence or dropping a weapon into outer space where it can launch mini-recon satellites) and then glide down to land at a remote and secure landing strip.

REACTIONS TO BLACKSTAR

Just minutes after the article was posted on

the report as being flawed and only based on rumour and hearsay, more conjecture than fact-based. Others saw it as just the logical answers to the source behind a series of perplexing sightings (both eye and ear-witness reports of strange aircraft), unexplained government black-budget line item requests and what many consider the logical follow-ons to retired reconnaissance platforms such as the SR-71.

Negative comments centred mostly on the belief that it would be almost impossible to develop such a complicated, expensive and sophisticated system

BLACKSTAR ANCESTORS?

Right: An artist's impression of the USAF's X-20 DYNA-SOAR space plane design from the 1960s. Although cancelled in favour of NASA's manned space-flight programme, data obtained during the project led directly to the invention of the Space Shuttle and quite possibly a secret space plane flown during the 1990s known as the XOV or Speedy. NASA

Below right: One of the original XB-70 Valkyrie prototypes that — if reports are to be believed — may have served as the template for the Blackstar, which carries the XOV up into the upper atmosphere for launch. NASA

project was specifically structured to isolate it from the military (promoting 'plausible deniability') with it being overseen by private sector contractors, much like how the United Space Alliance now manages huge parts of NASA's manned space flight programme.

Some of those sceptical of the report did come with bona fide space and aviation journalism credentials, such as MSNBC space analyst James Oberg, who wrote: 'Aviation Week's report did not make clear exactly why such a program might be shelved — and after reading the report, aerospace experts questioned a number of claims made for the Blackstar concept. Speaking on condition of anonymity, sources told MSNBC.com that they believed the concept was unworkable, based on principles of rocket design. One source said the mothership would be flying much too slow and too low for a space plane to reach orbital speed after release. When the Defense Advanced Research Projects Agency sought proposals for an unmanned RASCAL satellite launcher five years ago, the specifications called for the carrier aircraft to go much higher, and the submitted designs still needed two stages to reach orbital speed.'

Another space pundit, Jeffrey F. Bell, was not nearly as kind as Oberg. He called the report a 'false messiah' and a long-standing fantasy in the space community. Bell wrote: 'AvWeek has a long history of 'revealing' secret programs that turned out to be either government disinformation, corporate disinformation, or just plain fantasy.

'In the 1980s and 1990s AvWeek ran lurid pictures of hypersonic 'Aurora' vehicles (my favorite was the one that cruised upside down and was covered with dozens of launching ports for H-bombs). Only last year, AvWeek published a totally credulous article about spaceships powered by 'zero-point energy' which quoted only quack promoters and ignored real physicists.'

But Bell doesn't care to cite instances when an 'AvWeek' disclosure turned out to be right on the money, such as being the first to report on the (also highly classified at the time) stealth fighter project Have Blue which led to the development of the F-117A, Northrop's Tacit Blue programme, or Boeing's Bird of Prey advanced stealth proof-of-concept vehicle.

Bell's report goes on to cite what he sees as other errors in the story, such as: 'The alleged function of Blackstar and sightings



SECRETIVE SOURCE

'When sightings of a Valkyrie aircraft began to surface, I started my own search for evidence that the cancelled XB-70 might have been resurrected or used as the basis of a modern counterpart. In the course of my research I came across a local man who said he had been a trainee jet mechanic stationed at the old Amarillo AFB.

'This man (who never told me his name) claimed to have seen what he thought was an active USAF B-70 bomber landing at the base one night in the spring of 1968.

'The next morning, on the pretext of retrieving some tools, he claimed that he and a buddy talked their way past a clueless guard, entering the former B-47 hangar where the aircraft had been hidden. He remembered that the aircraft was wearing USAF (and not NASA) markings and that it was painted light grey, not white like the XB-70 prototypes.

'Though they were discovered and challenged by an officer, the pair were given a tour of the airplane, including a trip to the cockpit, before being ordered to sign a form promising not to disclose what they saw.

'The officer said that the aircraft had diverted after the crew received a spurious fire warning. Later that night, under the cover of darkness, the aircraft took off with a chest-rumbling roar that caused residents to call the police and ask what the racket was.

'The mechanic seemed to be an 'Honest Joe', though I doubted his story, at the time. But as more and more sighting reports began to surface I began to think again.

'However, since then I have been unable to confirm the report, despite searching the archives at the *Amarillo Globe News* for any stories about noise complaints from the base. I found nothing.' so



An XB-70 Valkyrie (together with an X-15) outside a hangar at NASA's Dryden facility in 1968. Did an observer see an 'in-service' B-70 in a hangar at Amarillo AFB in that same year? Read the description of the sighting and see what you think! NASA



One of the rare published photos that is believed to show what's become known as the C-5C Galaxy, one of two modified C-5s used to ferry secret aircraft from secret base to secret base. In this photo that first appeared in the in-house Lockheed publication *Horizons*, the first F-117 prototype is being loaded for transport to Groom Lake to begin flight tests. Notice how part of the C-5C's interior ceiling has been partially removed to accommodate tall containers. Insiders report that the XOV was flown back to its launching and recovery bases after each mission inside these transports that also don't officially exist. via Steve Douglass

EXCLUSIVE SIGHTING

Sightings of the SR-3 tailed off in 1997, perhaps indicating that the programme had been terminated or shelved for technical reasons. Sightings of the space plane continued, however, and some hardcore Black World aficionados believe that the space plane (now modified to take off from the ground under its own power) is still in operational service and has not yet been withdrawn. Recent reported sightings include one in 2000 by an unnamed FedEx pilot whose regular night-time route took him 60 or so miles north of Area 51. The pilot, who could see the Groom Lake Strip very clearly, watched as an unidentified aircraft with a very bright anti-collision light took off at high speed, climbed through his altitude and just kept going up and up as if into orbit. When he asked ATC controllers what the craft might have been, they supposedly replied 'Probably just one of the spooky flyers flying out of the base that doesn't exist.'

The latest sighting of what might have been the space plane was made by Steve Douglass on 23 July 2005, over Amarillo. Although unable to document the sighting (on film or video), Steve did post the details on several message boards where it was generally dismissed and derided by what he called 'self-appointed internet know-it-alls.' Undeterred, Steve took the sighting (witnessed by his friend Mike Dunlap) as confirmation that some type of space plane or follow-on system exists.

'I had an interesting sighting of a fast-mover tonight over Amarillo that caught a friend and I quite by surprise. Shortly after 10pm (as we were coming home from a movie), I spotted a bright, yellowish light in the south-western sky moving at high speed directly towards us.

'I first thought it was the International Space Station, which I have seen on many passes over the city, but as it neared the bright light suddenly switched off and was replaced by a bright red blinking anti-collision strobe. As it flew directly overhead we could see three red lights (including the flashing one) arranged in a triangle shape with the flashing beacon on the south facing (right) side of the craft.

'It was moving very fast (much faster than a passing airliner that we could also see) and also appeared to be gaining in altitude. Our 'guesstimation' was that it was climbing up well over 100,000ft but with nothing but black sky to see it against (like high clouds) it's just a guess compared with other commercial aircraft flying in the area. No sonic booms or jet engine noise was heard. We watched as it disappeared in the north-east in less than five minutes (speeding across the entire sky) faster than anything else in the air at the time.

'Although it seemed to move as fast as satellites and the ISS across the sky, I don't think it was either because of the strobes and lights. Both my friend and I came to the conclusion that it was climbing to altitude and, from the direction it had come, it might have come from one of the test ranges in New Mexico.' *nsd*

orbiter's primary military advantage would be surprise overflight. There would be no forewarning of its presence, prior to the first orbit, allowing ground targets to be imaged before they could be hidden.

[Russian] missile-warning satellites would pick up the IR plume from the second stage, and since it would not be at a known space launch site they would interpret it as a covert nuclear missile launch.' However, this fails to take into account the technical breakthroughs that dramatically lower IR signatures, including the successful masking hot exhaust plumes employed by the USAF on modern ICBMs.

Well also mistakenly seems to think the XOV's advanced imaging suite (that apparently features one metre aperture adaptive optics with an integral sodium-ion-sensing laser) would be detected as some sort

Intercept) lasers have been used on earth sensing satellites and stealth aircraft for decades, and they haven't triggered a war yet.

WHY NOW?

Many have asked, if the SR-3 and XOV truly exist, why have so many insiders suddenly come forward, ready now to talk about this still highly classified programme?

The history of black 'Special Access' programmes is piecemeal. Although we now know some of the stories behind several remarkable military aviation technological breakthroughs (such as the discovery of the formula for radar-invisible stealth technology made by Lockheed's Skunk Works), much of the history is still classified and under the threat of being lost forever.

It has been revealed the Have Blue stealth prototypes (considered at the time too

(now under a paved taxi-way) at Area 51. Those close to the space plane project fear the same fate is slated for the SR-3 (XB-70-type mothership), possibly now kept in flyable storage inside the large hangar at Groom Lake.

It is thought that the space plane (now modified to take off from the ground under its own power) is still in operational service and is not yet threatened with final disposition. This author (and a witness) had a recent sighting of what may have well been this space plane just last summer, detailed alongside.

WAS THIS AURORA?

Then there's the question as to whether the mothership and XOV represent the true source of the so-called 'Aurora' sightings and speculation.

Although the dual sightings/dual skyquakes and F-15 pilot witness reports (cited in the 'AvWeek' article) swing the needle heavily in favour of the mothership/space plane combination (accounting for the majority of reported sonic booms and sightings), it is becoming increasingly clear that at least one other classified high-speed aircraft does indeed exist. But if, as the 'AvWeek' item states, the SR-3 has been shelved, and as recent sightings by this author indicate that a new and improved XOV can now reach orbit under its own power, why have the sightings (and sonic booms) continued of a high-speed SR-71-sized craft?

Only recently was this report posted on *Aviation Week's* Aerospace Daily web site: 'Military personnel stationed at Yokota AB, Japan, have spotted what may be highly classified 'black' aircraft that could be flying spy missions over North Korea. Two or three of the unknown aircraft appeared at Yokota periodically over the last year, flying night missions for two-three weeks at a time, then departing. USAF C-5 Galaxy transports may have accompanied the 'black' aircraft. The latter were kept in special hangars, appearing only during night hours, and were described as 'very fast.' The unknown aircraft were smaller and more sleek than now-retired SR-71 Blackbirds, one observer said.'

The last sighting of the SR-3 mothership seems to have occurred in the late 1990s, hinting that the aircraft was retired to make way for a more advanced replacement system. Having served its important gap-filler mission requirements, providing vital intelligence when the US looked as if it was losing its grip on near



SIGHTINGS TIMELINE

Sightings of unidentified large and/or high-speed aircraft in the same broad category as the SR-3 and/or XOY date back to 1989, though none of these sightings have been supported by independent verification or photographic evidence.

■ These began in 1989 when oil drilling engineer and long-time member of the Royal Observer Corps, Chris Gibson, claimed to have seen an unidentified 'triangular'-shaped aircraft flying in formation with several F-111s behind a KC-135 refuelling tanker over the North Sea. Gibson made a sketch of the unidentified aircraft and sent it to aviation author Bill Sweetman, who wrote about the sighting in *Jane's Defence Weekly*.

■ Soon after this North Sea sighting, there were descriptions of unusual activity near RAF Machrihanish, stating that civilian air traffic controllers had tracked very high-speed blips on their radar scopes and with reports of great thunderous rolling booms echoing across the Mull of Kintyre.

■ In September 1990, there were five separate sightings of a large light-coloured delta-winged aircraft flying near Edwards AFB, CA, though these would not be reported until August 1992. The aircraft was allegedly seen flying near Mojave on 13 September, 19 September and 3 October, with the second occasion providing the first report of the mysterious aircraft's unusual 'low-pitched rumble' engine noise.

■ In December 1990, Bill Scott wrote an article in *Aviation Week* about so-called 'black' aircraft developed by the US government during the 1980s. Scott speculated about a hypersonic bomber capable of carrying multiple nuclear warheads in vertical ejection racks.

■ The big Delta was seen again in April 1991, flying north of Edwards AFB at an estimated altitude of 5,000-10,000ft. An observer said it was large — dwarfing the F-16 chasing it — and was light coloured, possibly white.

■ June 1991 saw Scott writing about a supposedly top secret stealthy reconnaissance aircraft called the 'TR-3 Manta', which he claimed had been deployed to Alaska, Panama, the UK and Okinawa, and which had supposedly 'supported F-117A operations in the Persian Gulf War.'

■ Meanwhile, beginning in 1990 and lasting through 1991 and 1992, these visual sightings were backed up by a series of reports of sonic booms rocking cities in Southern California, usually in the early hours of the morning and almost always on a Tuesday or Thursday night. It was as though a secret aircraft was making a high-speed run across the high desert to its secret base in Nevada before the sun came up. Dr Jim Mori of the California Institute of Technology fed the hysteria when he reported his findings. He said: 'The booms came in twos, indicating a pair of aircraft on slightly different flight paths. The frequency and shape of each sonic wave differed from the Space Shuttle and indicated that a high-flying aircraft was flying at hypersonic speeds greater than Mach 3 and above 100,000ft.' At the time, the only SR-71s still flying were leased by NASA and were not airborne on the nights concerned.

■ It is not certain whether any of these booms were recorded on 5 April and 22 April 1992, when military radio monitoring hobbyists intercepted the transmissions of what may have been a secret high-altitude aircraft on approach to Edwards AFB. The unknown aircraft, callsign 'Gas Pipe', sounded as though it was re-entering the atmosphere and following a similar flightpath to that used by the Space Shuttle on re-entry.

■ Soon after this, sightings of distinctive 'doughnuts on a rope' contrails began. Though many pilots believed that these were a relatively common meteorologically-influenced phenomenon, others maintained that they represented the signature of a high-speed aircraft with a pulse detonation 'pulsar' engine. These sightings began in California in early 1992, subsequent sightings being made over Colorado and then Texas.

■ By August 1992, Scott was writing about a new black aircraft that carried a space plane on its back, which it launched at Mach 6-8 at high altitude, describing the mothership as 'XB-70-like' later the same month when recording the sighting of an unusual aircraft flying over Atlanta, GA, on 10 May by one Glenn Emery, now a writer working for the Cable News Network. Because its size was unknown, its altitude was difficult to judge, but was estimated to be 10,000-15,000ft. The vehicle was clearly higher and faster than the airline traffic descending for landing at Hartsfield Atlanta International Airport.

■ At the same time, Scott reported the anonymous sighting of another unidentified black aircraft onto a USAF C-5 Galaxy at Lockheed's Burbank, CA, 'Skunk Works' facility on the night of 6 January, bound for Boeing Field, Seattle, WA.

■ Another sighting of an 'XB-70-like' aircraft was made on 12 July 1992 near a Lockheed-operated radar cross-section (RCS) test range in the Mojave Desert.

This aircraft turned its landing lights on while at fairly high altitude, then descended quickly, following an S-pattern flight track before making a final turn at about 200ft above a road. A motorist who had watched its descent reported that ambient noise masked any sounds from the aircraft.

■ In August 1992, a United Airlines Boeing 747 almost collided with a wedge-shaped object flying near Edwards AFB. The mysterious craft did not appear on radar controllers' scopes, and was described as looking like the front end of an SR-71. The FAA investigated but concluded that the existence of the craft could not be verified.

■ In 1994, a British Airways jet recorded an Airmisss with a high-speed aircraft (similar to that described above). Described as being a wedge-shaped object by the co-pilot, the object passed directly in front of the commercial aircraft. The CAA investigated but was unable to identify the craft involved.

■ Also in 1994, there were sensationalist reports of a possible crash-landing by a mystery aircraft at Boscombe Down, when radio monitors intercepted and misinterpreted communications after a deployed towed radar decoy was jettisoned on approach. Witnesses claimed to have seen a tarpaulin-covered aircraft sitting on one of the runways.

■ Just weeks later, Steve Douglass monitored communications involved in the recovery of a crashed aircraft in New Mexico. On 18 October 1994 at 15:34hrs, he recorded a C-130 operating from Kirtland AFB (callsign Shadow 81) as it placed an HF phone patch to Edwards AFB (callsign Sport Control). The C-130 reported that: 'We have the crash debris on board and are en route to Edwards. Request parking instructions and security to meet them when they land. Cargo is CLOSE WATCH.' Kirtland and the Pentagon maintained that they had no knowledge of any incident, but *Aviation Week's* Bill Scott found out through 'reliable Pentagon insiders' that a 'High Altitude Research Aircraft' had crashed on or around Wednesday 19 October 1994 south of Kirtland AFB near Vaughn, NM, a 10

Above left: This shot, taken by a German observer of 'Area 51', purports to show a secret research aircraft on the ramp in front of the Groom Lake base's Hangar 18 (the largest building on the airfield). The aircraft is the white object that can be seen just to the left of the hangar. The photographer said that, when observed through a powerful telescope, it resembled the XB-70 Valkyrie. Andreas von Rättyl

Above: A 400mm telephoto shot of a 'pulsar' or 'doughnuts on a rope' contrail, which was beginning to be torn apart by high-altitude winds. When the photos of this contrail were originally published, the photographer received a call from a propulsion engineer who was working for General Dynamics on a pulse-detonation-wave engine design. He asked the photographer to describe the sound and the frequency of the pulses while he tried to duplicate the sound on a synthesised musical keyboard. The engineer played pulsed chords over the phone, striking lower and lower frequencies, until Douglass recognised one that sounded like the 'ripping' sound he had heard. 'Goddamit! They've done it!', the engineer said, knowing someone else had perfected the very theoretical engine design on which he was working. Steve Douglass