



KLAXON



Newsletter of the International Research Group Orford Ness

This month marks our first press release, in collaboration with the National Trust. The trip to the United States undertaken by Steve Clifton and yours truly was one of the most amazing adventures I've ever experienced. The extraordinary details of the technology we discovered were fascinating, and the way we tried to prepare and eventually succeeded, supported by IRGON members back in the UK and some blind luck, is only hinted at in the articles. The level of publicity generated by these articles is a huge surprise, and we shall do our best to respond to the interest this will create.

Olaf Kirchner, Chairman

Visitors Day on Orford Ness

On Saturday, 12th September 2026, IRGON hosted the first visitors' day on Orford Ness. The idea was to bring together some of the people forming the "wider IRGON family", many of whom have provided support and information in the past. We were originally intending to visit the COBRA MIST site, but this ambition fell through, and we fell back on our Plan B, which was to tour the AWRE area and also the Bomb Ballistics Building, the Black Beacon and the "R" system remains. Our visitors enjoyed the visit, although we noted a few points to improve for our next effort, some time in 2027!



One of our two boatloads of visitors, anticipating an interesting day. © Charles Toop

MHAS Open Day 2026



Our gazebo set up in front of the control tower at Martlesham Heath. © IRGON

The following day, IRGON set up the gazebo at Martlesham Heath Aviation Society's Open Day. This marks the third consecutive presence of IRGON at this event.



Blue Danube “mishap” over Orfordness

By IRGON staff reporter

Background

The nuclear weapon flying trials in the early 1950s at Orfordness Research Station were collaborative work between the Atomic Weapon Research Establishment (AWRE) and the Royal Aircraft Establishment (RAE). The trials included the weapons development programme, rehearsal and proving trials, and telemetry of test weapons. A report details an incident involving a Shorts Sperrin (VX 161) aircraft in May 1955 in which a 10,000lb store did not fall. The bombing trial was taking place over the Orfordness Range, and the bomb in question was a Blue Danube. This was a serious incident – if this had happened on an operational mission the consequences can only be imagined....

The Sperrin VX 161 was an experimental medium range jet bomber, a fall-back or back-up should the V-bombers (Valiant, Victor and Vulcan) take longer in development before becoming operational. The plane was designed with a weapons bay that was large enough to transport a 10,000lb (4,500 kg) bomb load.

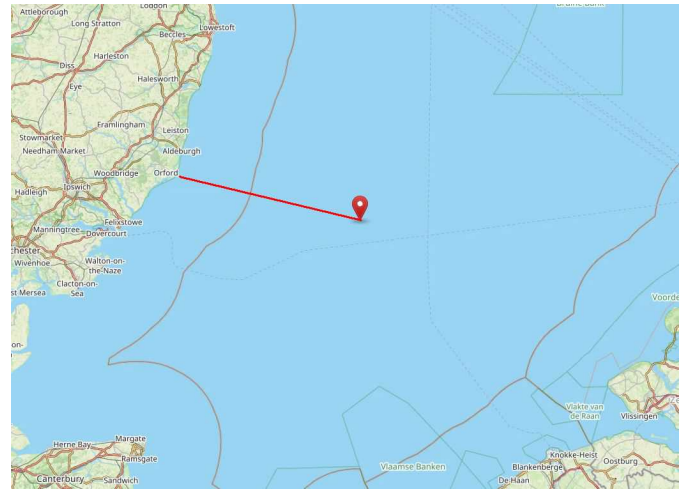


Short Sperrin VX161

Correspondence on the incident refers to the ‘F5’ trial, which suggests an advanced stage trial of a complete system, rather than drop tests on models or component parts.

The Incident

The Sperrin was en route to the Orfordness bombing range at 30,000ft when, at the required point, the pilot pressed the switch to open the bomb doors and release the bomb. At the time, this would have been a regular procedure as the Sperrin



The bomb was been dropped well into the North Sea, around 31 nm east of Orford Ness

had made some 30 drops as part of the flying trials for Blue Danube. The abstracts from the very comprehensive enquiry report indicate that the bomb doors opened, but no bomb was released. By now, the Sperrin was getting near to the limit of the bombing range, so the bomb doors were closed. The crew were confused and had no way of knowing what had happened, so checked with the Range Safety Officer via radar control – was it a “hang-up”? (that is, no bomb had dropped). The ground staff confirmed that no bomb had fallen. The plane turned out to sea, and with this manoeuvre the crew heard a thud and a noticeable bang as the store fell into the bomb bay! The plane continued out to sea, as it now needed to drop its bomb. Descending from 30,000ft to 15,000ft and avoiding the shipping lanes, the pilot once again pressed the switch to open the bomb doors, and this time the store was successfully released, splashing into the sea at 5158N 0222E (31 nautical miles east of Orfordness). The plane flew back to RAF Farnborough where the crew gave statements and technical checks were carried out on the plane.

The Problem

The enquiry found that the cause of the trouble was with the release slip, which was a prototype version design based on the Vickers No.3 bomb slip but modified by the RAE following a Valiant premature release incident in 1952. Further consideration was given to the sequence of events, recognising the potential dangers of hang-ups on operational missions. The conclusion was the delayed drop was due to the failure of the hook release mechanism in the slip to operate correctly.

The Blue Danube "Mishap" continued

The bomb slip seemed oversensitive to friction and small variations in the size of components.

The Solutions

The Armament Department was assigned to make a speedy redesign, but given the importance and urgency of the trials, it was recommended that the use of the existing bomb slip was permitted, with the crew to manoeuvre the plane if a hang-up occurred! Equally important for the crew, it was recommended that the aircraft was fitted with a device to inform them whether the bomb has or has not fallen.

The Sperrin incident was one of its last trial flights as the V-bombers were now operational and starting trials over Orford Ness. What was not mentioned in the report was whether the Blue Danube out in the North Sea was recovered! There are more details on Cold War Bomb Ballistics trials on Orford Ness on the IRGON website section *Orford Ness Bombing Range*.

The Mystery Japanese Manufacturer Plate

In April, IRGON came across an A5 envelope in the National Trust Orford Ness archives, containing this metal manufacturer's plate.



With the help of blogger "Wurger" of ww2aircraft.net and other online resources, we finally arrived at the translation below.

Manufacturer	Nakajima Aircraft Co., Ltd.
Aircraft used	96 Type Land Attack Aircraft
Fuselage number	Nakajima N.º [blank]
Part number	Motion 19688 [port]
Empty weight	13.100 kg
Capacity	300 L
Test pressure	0.1 kg/cm²
Inspection mark	[Sakura symbol = IJAAF] [中 = centre] [unknown symbol]
Inspection date year month day	Shōwa 1-12-17 = 17 th December 1942
Manufacturer serial number	Nakajima N.º 3176

This points to the plate having been originally attached to the fuel tank of a Mitsubishi G3M Type 96 "Rikko" (short for Rikujō Kōgeki-ki = land-based attack aircraft), nicknamed "Nell" by the Allies. The type entered service in 1936, corresponding to Imperial Year 2596 and hence "Type 96". Nakajima built this particular aircraft under license as the G3M3 Model 23, featuring more powerful Kinsei-51 engines and increased fuel capacity for longer range.



Mitsubishi G3M Model 22 (nearest) and Model 21 aircraft

The "Nell" was used by the Japanese Army Air Force and its Navy counterpart during most of World War II. On 10th December 1941, "Nells" sank the Royal Navy ships HMS Prince of Wales and HMS Repulse, the first battleships sunk solely by aerial attack, initiating war between Japan and the United Kingdom.

The Mitsubishi G3M "Nell" and its successor, the Mitsubishi G4M "Betty", were designed for speed and very long range as required in the Pacific war. This was achieved by minimising weight, thus neither cockpits, engines nor fuel tanks were protected by armour plate.



Mitsubishi G3M of the Genzan Kokutai, Imperial Japanese Navy

This made the aircraft liable to damage by even small arms fire from the ground and catastrophically vulnerable to attack by fighter aircraft, earning them the nickname of “flying lighter”.

It is known that a number of Allied and Axis airframes were set up for “Lethality and Vulnerability” trials against Axis and Allied guns on Orford Ness. Given its operational history, it is very likely that fuel tank parts of a Mitsubishi G3M, or perhaps even an entire airframe, were used in these trials, with the name plate retained as a souvenir of these tests.

We know that a Bristol Blenheim Mk. I and a Mk. IV, the front fuselage of a Short Stirling, a Republic P-47 Razorback and an Airspeed Horsa glider were used in these L&V trials. There are rumours of German aircraft including a Messerschmitt 262 and a Japanese Mitsubishi Zero fighter being similarly treated, but this is the first evidence of a “Nell” bomber tested on Orford Ness.

IRGON Research Trip on R-System Over-the-Horizon Radar published in Daily Express and on BBC Website

In 2025, IRGON members undertook a research trip to the United States to meet the designer of the late-1950s R-System over-the-horizon radar, and to explore remnants of these huge instruments in Maryland and New Mexico. In collaboration with the National Trust, the exciting discoveries made on this trip were recently published in the Daily Express:

<https://www.express.co.uk/news/uk/2249630/national-trust-orford-ness-concrete-circle-mystery-solved>

and on the BBC News website:

<https://www.bbc.com/news/articles/cmkg7p10p56vo>



Want to know more or join us? – If you have an interest in military history, if you have a personal or family connection to the work carried out on Orford Ness or access to information that may help us further document this history, you will find our contact details on www.IRGON.org.

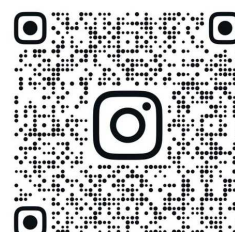
Thank you!

Website – Our updated website now has new articles, visit us to find the most up-to-date information and discoveries made by IRGON.



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