



# TUGGING AT SLE

THE MIGHTY BEAUFIGHTER REFUSED TO RETIRE FROM THE RAF AFTER THE

**Right**  
Beaufighter TT.10 SR912  
towing a target while with  
Kai Tak Station Flight,  
Hong Kong, circa 1952.  
The sleeve is only slightly  
deployed for the purposes  
of the photo; normally  
it would be a long, long  
way behind! PETER GREEN  
COLLECTION

**B**attle-hardened torpedo-bomber, strike weapon of awesome capability and pioneer night fighter it may have been, but with the advent of peace there seemed little future for the Bristol Beaufighter. That slim fuselage was not capable of taking more advanced airborne interception gear, and the remoteness of the gunner-turned-radar operator back in the fuselage did not help. With its side-by-side crew, the de Havilland Mosquito was the night fighter of choice for the immediate post-war period.

For torpedo or rocket attacks another Bristol type, the Brigand, was gearing up for service, but it proved to be disappointing and, besides, the days of torpedo-bombers were coming to an end.

Victory in Japan Day was celebrated on August 15, 1945 and the following month – on the 21st – production test pilot Ronnie Ellison took TFX SR919 into the air from the Bristol-administered shadow factory at Oldmixon, near Weston-super-Mare, Somerset. This was the 5,564th and last of the powerful twins to be built in Britain.

Ellison had been at the helm of the first Oldmixon machine, Mk.IF X7540, on February 20, 1941 and he made sure he took the honours for the 1,000th (Mk.VI JL762), 2,000th and 3,000th examples. In

all, he carried out the maiden flights of more than 1,800 of the 3,336 that originated from the Weston factory.

When the atomic bombs shattered Japanese willpower, there were just six frontline Beaufighter TFX units left; two each in India (22 and 217 Squadrons) and the UK (254 and 287), one in Burma (27), and another (252) in Greece. The last of these disbanded in December 1946.

The lack of fuselage capacity also worked against the 'Beau' as a potential crew trainer. Like many other warhorses, some were headed for re-work and export, but most were destined for scrap.

## NEW LIFE, NEW WARS

But there was still life in the revered twin, thanks to its robust characteristics. The 1,770hp (1,320kW) 14-cylinder, two-row Bristol Hercules Mk.XVII radials powering the Mk.Xs were very reliable, plenty were held in reserve and there were huge stocks of consumables. Later versions of the Hercules were fitted to the Handley Page Hastings, Vickers Valetta, Varsity and Viking, so there was a large pool of personnel used to working on them.

In the Far East, the Beaufighter had the edge over its more nimble rival, the Mosquito. The latter's bonded plywood structure suffered in extremes of temperature and humidity, while the all-metal Bristol type could shrug off such privations. It was in this same theatre that conflicts that could benefit from the Beaufighter's attributes were developing.

In Burma, 27 Squadron at Mingaladon was still needed to flex its muscles. Despite the surrender, getting the word through to out-of-touch Japanese troops meant that, occasionally, 'contact' was required and a ➔



# EVES

WAR. **KEN ELLIS** EXAMINES ITS SECOND CAREER, WHICH LASTED UNTIL 1960





**Above**  
The prototype TT.10, NT913, at Filton in 1948. Note the winch in the upright position and the wire guards around the tail surfaces. BRISTOL AEROPLANE COMPANY

**Above right**  
Weary-looking TT.10 RD809 of 34 Squadron, based at Horsham St Faith, taxiing at an airshow circa 1950. PETER GREEN COLLECTION

**Below**  
The last British-built Beaufighter, TFX SR919 at Oldmixon, August 1945. BRISTOL AEROPLANE COMPANY

burst from the guns of a TFX often helped to quell resistance. The unit also dropped more than 250,000 leaflets explaining that World War Two had ended.

Having endured the Japanese, on Java the Indonesian nationalist Sukarno seized his moment to declare independence from the previous occupying power, the Netherlands. Militarily, the area was a British responsibility – UK forces were busy rounding up Japanese soldiers and, most importantly, extracting prisoners of war.

Although hoping to avoid a confrontation, one occupying force looks much like another and, from October 1945, British personnel were fired upon by Sukarno supporters. The UK was unwillingly immersed in what would become the bitter struggle for Indonesian autonomy.

Among other assets, 27 Squadron's Beaufighters were detached to Kemajoran on Java, arriving in November 1945. They went straight into action and, in the space of three months, undertook 300-plus 'ops'.

Many of these sorties were a matter of merely showing up to disperse hostile forces, or to drop leaflets. When close support was required, the Beaus provided accurate firepower. Returning to Mingaladon in January

1946, 27 Squadron disbanded the following month.

### HEAVY STRIKE

In Malaya, insurrection was fermenting throughout the vast jungle peninsula behind Singapore, spreading up to the Thailand/Burma border. By early 1948,

dissidents had become better armed and more organised.

Following a slaughter of plantation owners and staff in Perak, a state of emergency was declared on June 17, 1948. With typical British understatement, what was to become an 18-year conflict was nonchalantly referred to as 'The

BEAUFIGHTER TT.10 UNITS	
Squadrons:	5 & 17 Chivenor, 20 Valley, 34 & 695 Horsham St Faith, 167 Abingdon, then Benson
Armament Practice Camps:	26 Nicosia, Cyprus; 27 Butterworth, Malaya
Civilian Anti-Aircraft Co-operation Units:	1 Hornchurch; 2 Little Snoring, then Langham; 3 Exeter; 4 Llandow; 5 Llanbedr
Communications/Target Towing Squadron:	Luqa and then Ta Qali, Malta Far East Transport Wing; Changi, Singapore
Operational Conversion Units:	226 Molesworth then Bentwaters and Driffield; 229 Leuchars, Scotland, then Chivenor, Devon
Station Flights:	Changi, Seletar and Tengah, all Singapore; Kai Tak, Hong Kong
Target Towing Flight/Section/Unit:	Nicosia, Cyprus; Shallufa, Egypt
Trials units:	Aeroplane & Armament Experimental Establishment, Boscombe Down; Handling Squadron, Manby; Royal Aircraft Establishment, Farnborough





Emergency' and in RAF-speak as Operation Firedog.

During 1948, the RAF stopped using Roman numerals for its aircraft designations. Arabic numbers were adopted, so the Beaufighter TFX became the TF.10. The nearest heavy strike unit in the Far East Air Force was 84 Squadron at Seletar, Singapore. Previously a Mosquito FB.6 operator, it re-equipped in November 1946 with Beaufighter TF.10s. A detachment was sent to Kuala Lumpur – known as 'KL' – in July 1948.

Across the Indian Ocean at Negombo in Ceylon, 45 Squadron traded its Mosquito FB.6s for TF.10s in December 1948. It was also put on standby and had a detachment of Beaus in place at KL a month after 84 and the entire unit settled there in May 1949.

Between these two, an average of eight Beaufighters were on call to hit what were called Communist Terrorist (CT) bases, supply lines or bands of insurgents. Until the arrival of the

The first assault was on August 12, 1949, on a camp near the Thai border, where a large concentration of CTs had been found – 30 were believed to have been killed in the initial salvos. Five days later came the biggest strike yet, with Beaufighters supplemented by Spitfires.

In October, 84 Squadron departed to Habbaniya in Iraq, where it started converting to Brigands. Also coming to grips with the troublesome Brigand was 45 Squadron, which re-located to Tengah, Singapore, in December 1949. The unit did not forsake Beaus totally, though, until early the following year.

Beaufighters of 45 were brought in for an attack on a settlement in Johore – the Malay state neighbouring Singapore – on February 7, 1950. This sortie was very likely the last time a Beau was used in anger.

## BIG GUN

The Weapons Department of the Royal Aircraft Establishment (RAE)



hard-hitting Bristols, Supermarine Spitfire FR.18s equipped with underwing rocket-projectiles (RPs) were the first responders.

So 45 and 84's Beaufighters came into their own. Robert Jackson summed up the twin's advantages in his masterful *The Malayan Emergency and Indonesian Confrontation* (Pen & Sword 2008): "With its powerful armament of four 20mm cannons, six 0.303 machine-guns, eight RPs or two 250 or 500lb bombs, each Beaufighter was the offensive equivalent of two Spitfires."

at Farnborough, Hampshire, operated TF.10 RD388 into the early 1950s. Ironing out problems on the 30mm ADEN cannon for the Hawker Hunter and Supermarine Swift was a high priority, and two of the weapons were installed in RD388's forward fuselage gun bay in place of the usual quartet of 20mm cannon.

On May 5, 1954 Flt Lt Mitchell and civilian observer W Ainley took RD388 to the Aberporth gunnery ranges off the Welsh coast. While firing several bursts at a float target, the Beaufighter bucked around

violently. On return to RAE, the undersides of RD388 were pockmarked with damage from expended shell links.

The gun bay was urgently re-thought, so the links were not ejected into the slipstream but collected within the fuselage. Distinctive bulges – known as 'Sabinas' after a well-endowed glamour model and actress of the time – were fitted to Hunters to cure this element of the jet fighter's ADEN ailments.

Testing in the modified RD388 continued, including firing in tight manoeuvres and steep dives. These inflicted terrible strains on the airframe and the Beaufighter was declared overstressed by the end of 1955 and was grounded. Gloster Meteor F.8 WK660 took over the trials.

The ADEN was a derivative of the German Mauser 213. The name was derived from a combination of the Royal Armament Research and Development Establishment at Fort Halstead, Kent, where the cannon was created, and Enfield in Middlesex, where it was manufactured. ADEN 30mm guns were eventually fitted to British jets through to the Harrier and Jaguar.

## THREE PROPELLERS

With its days of shooting at targets over, the Beaufighter turned to a task that would keep it employed for 12 years. Its good turn of speed – 303mph at 1,500ft (487km/h at 457m) – and typical range of 1,470 miles (2,365km) offered considerable endurance. All this combined to make the Beau well suited for target-towing.

All three services had an insatiable need for gunnery practice. While the fuselage had its restrictions in terms of radar, it could accommodate a winch for pulling gunnery sleeves with ease. The airframe could take plenty of knocks and was simple to repair.

In 1945, Mk.Is V8319 and X7574 were involved in towing trials at the A&AEE, Boscombe Down. It was May 1948 before NT913, the true prototype, was converted at Filton, Bristol, and given the designation TT.10. An initial 35 were transformed at Oldmixon up to 1950. Demand was such that the total number of TT.10s created came to just shy of 60.

All TT.10s were originally built at Oldmixon as TFXs. Other than the prototype, the majority came from the RDxxx serial batch plus seven from the final production run, SR911 to '914, SR916, SR917 and SR919. ➔

**Left**  
TT.10 RD850 served with 229 OCU at Chivenor before moving to Nicosia, Shallufa and finally Malta, retiring in late 1958. KEC

**Below left**  
Based at Llanbedr, Wales, TT.10 SR914 of 5 Civilian Anti-Aircraft Co-operation Unit, at low level in early 1950. PETER GREEN COLLECTION



**Above**  
Last of the line: TT.10 RD761 of Seletar Station Flight, May 1960. PETE WEST

**Right**  
A colour study from 1959 showing TT.10 RD809 at Benson. PETER GREEN COLLECTION

**Below right**  
Former Portuguese Beaufighter TF.10 RD253 on display at the RAF Museum Hendon. KEY COLLECTION



Just one machine, RD708, had seen service prior to conversion; all the others were taken from store or straight from the factory.

A windlass was placed within the rear fuselage, and a cable attached to a target sleeve (or drogue) was trailed out via a lug below the tail. Under the bubble canopy in the rear fuselage, the second crew member handled the winding in/out of the cable.

The winch was powered by an airstream-driven four-bladed propeller on a fixed arm, which extended from the starboard mid-fuselage. When not in use, this propeller was rotated through 90°, to create the minimum amount of drag. Guards and wires protected the tail surfaces and tailwheel from the tow wire.

In the early 1950s, RAE TF.10 SR915 was tested with a ML Aviation Type G self-contained winch mounted on the centre section torpedo shackles. This device was not adopted for the Beaufighter, but the pod found favour with Hawker Tempest TT.5s, Mosquito TT.35s and Fleet Air Arm (FAA) Fairey Firefly TT.4s, among other platforms.

### LINE OF FIRE

Hard-working TT.10s served extensively in the UK, the Mediterranean (with the FAA and RAF), and the Middle and Far East. Five squadrons flew the yellow and black striped tugs along with many ancillary units (see the panel).

The final RAF squadron to fly the Beaufighter was 167,

blaze engulfed it. He and the winch operator were rescued by boat. The final loss was

more typical of accidents incurred by tugs. On charge with Seletar Station Flight, RD811 was towing off the Singapore coast, near Changi, for the gunners of the destroyer HMS *Cavalier*, on November 13, 1958 (retired in 1972, *Cavalier* is today preserved at the Historic Dockyard Chatham in Kent).



which re-formed at Abingdon, Oxfordshire, on February 1, 1953 from 3 Ferry Unit, moving in April to nearby Benson. The outfit existed to fly various types long distances to new 'clients' and with TT.10s in use in all points east to Hong Kong and Singapore, a 'Beau' or two was on strength to keep pilots current.

An unofficial motto adopted by RAF target facilities units is, 'We aim to please – you aim *too*, please!' With the drogue nearly three-quarters of a mile behind the Beaufighter tug, losses through being shot at were rare. But they did happen.

Based at Hornchurch, Essex, 1 Civilian Anti-Aircraft Co-operation Unit specialised in providing the Royal Navy with gunnery exercises. On June 26, 1952 TT.10 RD855 was off the north Kent coast at Sheerness when the port wing erupted in flames; it had been hit by several anti-aircraft gun shells. The pilot ditched RD855 as the

At 4,000ft one of the Hercules radials failed and the pilot headed for home. Two miles out from base, RD811 was sighted at about 700ft with its undercarriage down. It abruptly turned to starboard, rolled on to its back and dived vertically into the sea. The pilot was killed, but miraculously the winch operator survived.

### FINALE

Seletar was the venue for the Beaufighter's denouement, carried out by the Station Flight's TT.10 RD761. Built at Oldmixon in 1945 as a TFX, it was typical of the tugs. It never served at the 'sharp end' and was stored. After conversion in late 1948, it went off to operate in turn with 17 Squadron at Chivenor in Devon, 5 Squadron at Llandow, Wales, and 226 Operational Conversion Unit, also at Chivenor. It was ferried to



# "An unofficial motto adopted by RAF target facilities units is 'We aim to please - you aim too, please!'"

the Far East in 1955 to join the Seletar Station Flight.

On May 12, 1960 flying RD761 Fg Off H Marshall piloted the RAF's commemorative last sortie. Official photos of this last flight are dated May 16 and this is often quoted in sources, but this was the release date of the prints, not of the event!

Eight days later, RD761 and fellow RD809 were struck off charge. They were stripped of spares and their forlorn carcasses left on the scrap dump. Another TT.10, RD781, had met a similar fate the previous February.

## MUSEUM RETROSPECTIVE

As the last TT.10s decayed at Seletar in 1960, plans for what became the RAF Museum were in their earliest days. It looked like the Beaufighter had slipped the 'shopping list'.

The substantial remains of TT.10 RD867 were languishing on the dump at Ta Qali, Malta; it had been retired in December 1958. The forward fuselage, centre section, engines and undercarriage of former 29 Squadron Mk.II X7688 was a familiar sight at Halton, Buckinghamshire. It was used to test run Hercules radials by students of 1 School of Technical Training. This machine had been struck off charge in June 1943, becoming instructional airframe 3858M.

These two were snapped up by the nascent museum: the Malta Beau in 1964, the Halton engine rig in 1970. Both required much work... could a better example be found?

Australia, Canada, New Zealand, South Africa and the USAAF had operated Beaufighters during the war. All but the Australians dropped the type from their inventories soon after 1945. The RAAF retired its last example, a locally built Mk.21, in December 1957.

Four former RAAF Beaufighters survive intact, three in Australia, one in the USA and The Fighter Collection's Mk.XI under restoration at Duxford, Cambridgeshire.

As well as RAF combat operations after 1945, two other countries flew Beaus in action. The Dominican Republic took delivery of ten TF.10s in 1948 and the following year they were used to quell an insurrection, but they were out of service by the 1950s.

Israel managed to acquire four TF.10s clandestinely and they were engaged in the War of Independence during October 1948. The hulk of one of these is preserved at Hazerim, Israel.

The first export customer for Beaufighters was Turkey, taking stocks from RAF Middle East units in 1944 and 24 reconditioned TFXs in 1946. All are thought to have been withdrawn by 1950.

Portugal received 17 TF.10s during 1945 and 1946 for its naval air arm. The last flight by a Portuguese Beaufighter was performed by airframe BF17 in 1949 when, bizarrely, the twins were replaced by Curtiss SB2C Helldivers of much the same vintage. (See February 2018 *FlyPast* for the full story of Portuguese Beaus).

Two of the TF.10s were transferred to the Lisbon Technical Institute, to act as instructional airframes in 1950. Ten years later, BF13 (the former RD253) was gifted to the RAF Museum.

The other airframe, BF10 (RD220), soldiered on at Lisbon until 1983 when it was exchanged with the South African Air Force Museum's Spitfire IX ML255. This Beau was sold to what is now the National Museum of Flight Scotland at East Fortune, arriving from South Africa in December 2000.

The Portuguese gift to the RAF Museum, BF13, was in far better state than the hulk of RD867 salvaged in Malta. Engines and other parts of RD867 were used in the restoration of BF13, which was displayed at Hendon from March 15, 1971, once again wearing the serial RD253.

In 1969, the engineless RD867 was despatched to the National Museum of Aviation at Rockcliffe, Ontario, Canada. It had been exchanged for Bristol Bolingbroke IVT 10001, which had arrived in Britain in April 1966.

With its wartime service, the former Halton test rig was a very tempting museum piece, but wisely, it was disposed of in December 1987. It was acquired by a Bedfordshire-based restorer as the basis of a return-to-flight project using sections from former RAAF examples. This venture was exported to Australia in 2012 and it continues to make progress in New South Wales. ●

**Below**  
*Beaufighter RD761 during its farewell flight around Singapore landmarks, May 12, 1960. Note the winch propeller is in the stowed position.*  
RAF CHANGI VIA KEC

