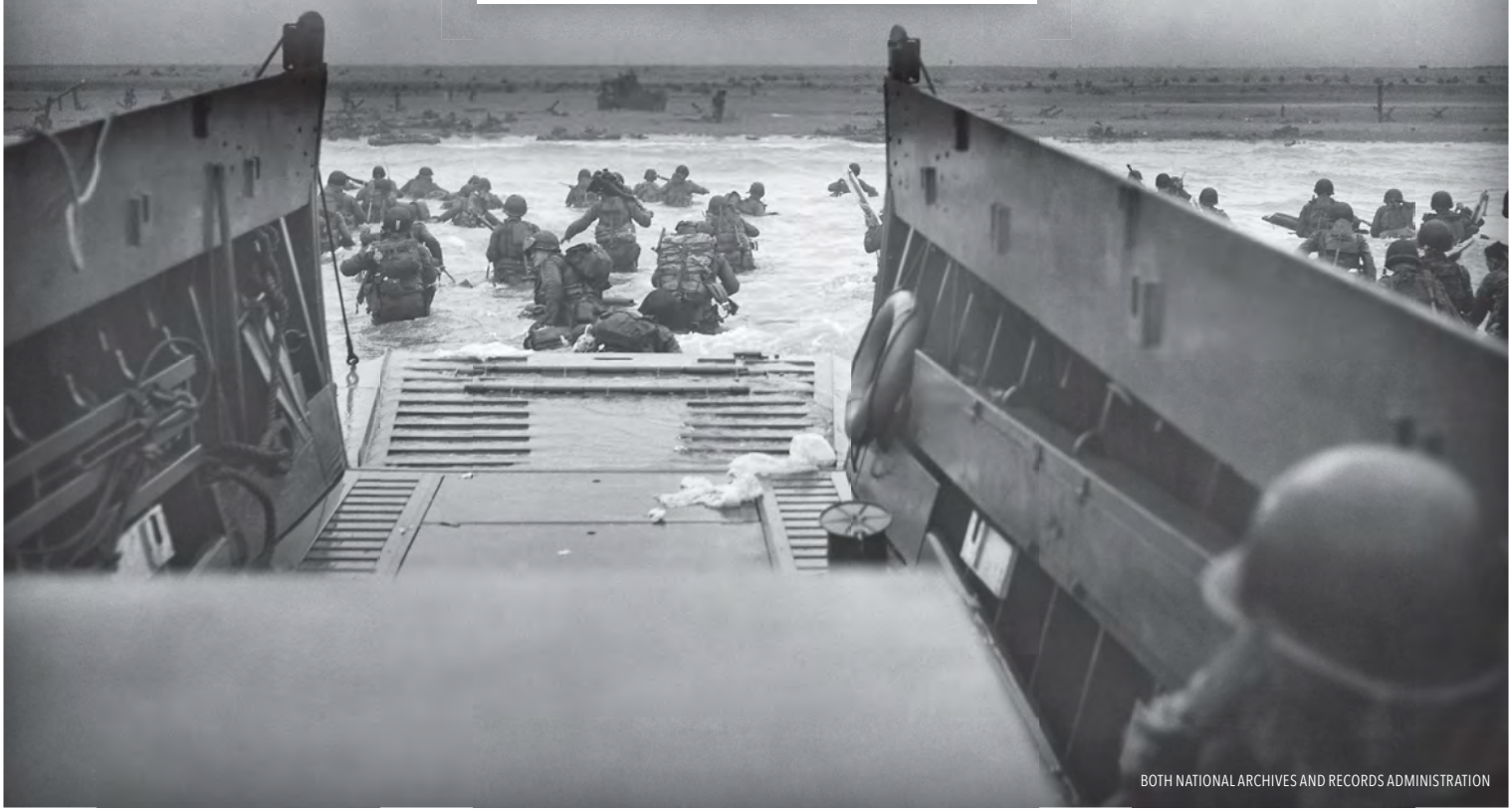
AN AEROPLANE SPECIAL

Saluting the role of air power in the momentous events of 1944

D-DAY 75

1944-2019

- ***That's All, Brother***
  A D-Day lead C-47 revived
- **In the vanguard**
  Pathfinding by Albemarle
- **Low-level recce**
  Army co-operation Mustangs
- **Maiden mission**
  P-47 pilot's baptism of fire
- **Joining forces**
  FAA squadrons in Coastal Command
- **Database**
  The Allied assault gliders in depth



BOTH NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

BROTHER

Many outstanding D-Day veteran Douglas C-47s still fly, honouring these aircraft and the heroism of their crews in supporting the Allied invasion. Arguably none, however, boast the historical significance of the Commemorative Air Force's *That's All, Brother*

WORDS AND PHOTOGRAPHY: LUIGINO CALIARO

in ARMS

C-47A Skytrain N47TB *That's All, Brother* is assigned to the San Marcos-based Central Texas Wing of the Commemorative Air Force.

ABOVE: Looking back 75 years, to *That's All, Brother*'s service in 1944 with the 438th Troop Carrier Group at Greenham Common. VIA CAF

US Army Air Forces Station 486, Greenham Common, Berkshire, towards midnight on 5 June 1944. The rumble of 72 Pratt & Whitney Twin Wasp engines builds to a crescendo as 36 Douglas C-47 Skytrains and C-53 Skytroopers roll for take-off, their destination Normandy, their objective to begin the Allied airborne assault on occupied Europe. Heading this first wave of paratroop-carrying transports is a C-47A named *That's All, Brother*, in the hands of 438th Troop Carrier Group commander Lt Col John M. Donalson and Lt Col David E. Daniel, boss of the 87th Troop Carrier Squadron — the latter accompanied by his dog. They will lead the phalanx towards drop zone 'A', ready for the men of the US Army's 101st Airborne Division to jump at 00.48hrs on 6 June — D-Day.

Wittman Regional Airport, Oshkosh, Wisconsin, the afternoon of 31 January 2018. The rumble of two Pratt & Whitney Twin Wasp engines builds to a crescendo, as one Douglas C-47 Skytrain rolls for take-off, its objective to remember that momentous day in 1944. Not just any C-47, either, but *That's All, Brother*, with Doug Rozendaal and Thom Travis at the controls. The restoration of this important aircraft was the result of many factors, but it was achieved above all thanks to the tenacity and passion of the Commemorative Air Force. Having discovered the machine's real identity, the CAF engaged for several years in a strenuous fundraising campaign to enable the Skytrain's return to its D-Day configuration. And, 75 years on from its part in history, it will reappear in the skies over Normandy.

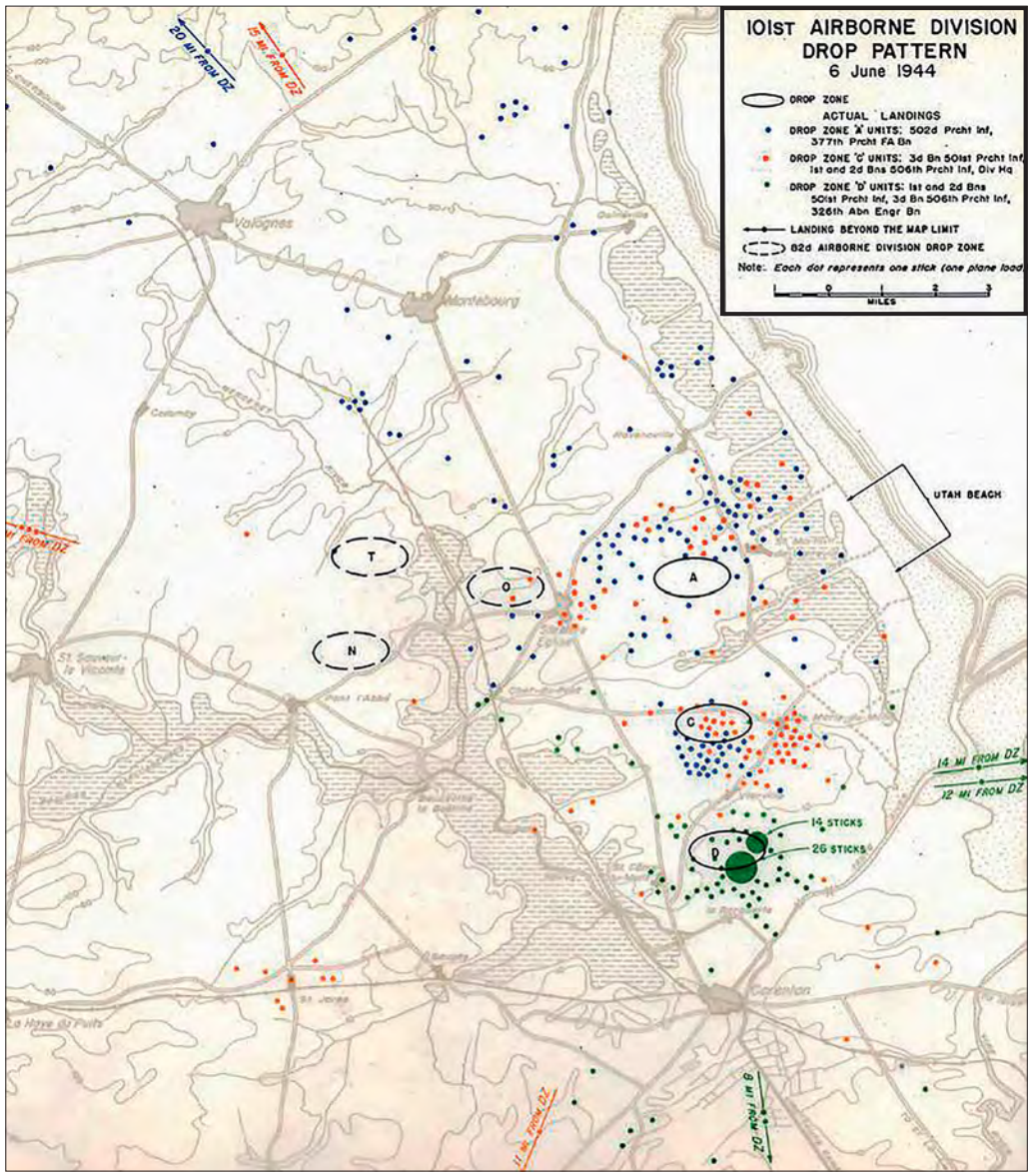
The airframe rolled off the Douglas production line at Oklahoma City as a C-47A-15-DK in early March 1944. It was taken on charge by the Army Air Forces a few days later, presumably on 7 or 8 March, with serial number 42-92847. The following month saw it being transferred to Europe, and on 27 April the C-47 was assigned to the 438th TCG/87th TCS, part of the 53rd Troop Carrier Wing, under the command of the 9th Air Force and based at Greenham Common. There it was christened *That's All, Brother*, and awaited its part in the invasion.

The first phase on the night of 5-6 June involved the deployment of three air-transportable divisions behind German lines. During Missions 'Albany' and 'Boston', the opening phases of Operation 'Neptune', paratroopers from the 101st and

82nd Airborne Divisions respectively were to be dropped behind Utah Beach into the Cotentin peninsula, taking possession of the few lines of communication in the area and its hinterland. The main objectives were the towns of Ste-Marie-du-Mont and Ste-Mère-Église and the bridges over the Douve and Merderet rivers. Towards 04.00hrs, Missions 'Chicago' and 'Detroit' were to involve a mass landing by 100 gliders, loaded with soldiers and equipment. The day's last assault by elements of the 101st Airborne was to take place in the evening, Mission 'Keokuk' being another glider-borne insertion for further reinforcement purposes.

Mission 'Albany', led by *That's All, Brother*, would involve more than 6,900 paratroopers jumping from 432 C-47s and C-53s. They were divided into 10 formations, composed in turn of vics of three aircraft. The formations were organised into waves comprising 36, 45 or 54 aeroplanes each. Because of the inevitable confusion surrounding the embarkation of so many troops, each aircraft was made easily identifiable to them by the application to the forward fuselage of a large letter with a number in white, according to a precise plan. This required the dropping of 15 to 18 paratroopers from each aircraft into three zones east and south of Ste-Mère-Église, marked with the letters A, C and D on the maps, with six-minute intervals between them.

Fundamental to the success of the operation was the drop of around



The 101st Airborne Division's drop pattern for Operation 'Neptune'. Drop zone A, closest to Utah Beach, was where *That's All, Brother* disgorged its paratroops. VIA AIR MOBILITY COMMAND MUSEUM

John Donalson (left) with other 438th TCG crew members during 1944. CAF

LEADING FROM THE FRONT

At the time of D-Day, Col John Munnerlyn Donalson was the commanding officer of the 438th Troop Carrier Group. Gaining his degree at the Georgia Institute of Technology, he was employed by Tennessee Coal and Iron in Birmingham, Alabama. Donalson became a military pilot in Texas in 1925, and on the American entry to World War Two during December 1941 he was called to active service, commanding several AAF bases before being posted to Britain where he assumed command of the 438th TCG. As part of that assignment he participated in many paratroop-dropping and resupply missions, beginning with D-Day.

At the end of the war, Donalson was appointed chief of the general staff of the governor of the state of Alabama, and in 1948 he became the first commander of the newly formed Alabama Air National Guard. Retiring from active service as a major general, he returned to a successful career in the metal industry, founding the Tennessee Forging Steel Corporation at Chattanooga. He passed away in Birmingham, Alabama, in 1987, becoming only the second person to be inducted into the Alabama Aviation Hall of Fame.

TOP: Having been acquired by Basler Turbo Conversions, the historic C-47 was stored in the markings it had worn for some years on the US airshow circuit — those of a Vietnam War-era AC-47 gunship. CAF

ABOVE: The Skytrain's rejuvenation under way at Oshkosh in February 2017. CAF

ABOVE RIGHT: The maiden post-restoration flight on 31 January 2018. Promotional wording was applied to the C-47 in advance of its repaint into original markings. CAF

300 'pathfinders', who had the task of capturing the drop zone and positioning Eureka radio transmitter/receivers and signal lights to enable its identification by the transport pilots. The first pathfinder elements of 'Albany' took off at 23.15hrs on 5 June, also in C-47s.

Despite their efforts, there were problems for the Americans, principally due to the poor weather conditions and the difficulties encountered by the pathfinders in installing the transmitters. When combined with the reaction of German flak batteries, the paratroop drops were rendered a hazardous business indeed. Those who reached the ground were spread well outside the intended landing area, some of them a considerable distance away. *That's All, Brother* was itself hit by flak, though not badly damaged.

Still its day was far from done. On the night of 6 June, the C-47 was tasked with involvement in Mission 'Elmira'. Similar to the 101st Airborne's Mission 'Keokuck', it was to deliver urgent reinforcements — in the form of personnel, artillery pieces and other equipment — to the 82nd Airborne Division, which had landed in the morning during 'Boston' and 'Detroit'. 'Elmira' saw the release of more than 200 Waco CG-4A and Airspeed Horsa gliders, towed by four waves of Skytrains, with a significant amount of fighter cover.

> "*That's All, Brother* was involved in most of the major European operations involving airborne troops"

The 438th TCG contributed 50 C-47s, which released 38 Horsas and 12 CG-4As as the fourth wave, landing at around 23.10hrs. Despite the German response and a series of problems linked to the fact that the release point was moved at the last minute, 'Elmira' achieved its goal. More than 130 tonnes of materiel and supplies were successfully delivered to the 82nd Airborne. However, 157 soldiers out of the 1,190 carried in the gliders were lost, the majority during the landing phase. Five of the C-47 tugs were shot down and 92 damaged; one pilot was killed. Twenty-six of the 352 glider pilots lost their lives or were badly hurt.

Like so many of its brethren, *That's All, Brother* went on to be involved in most of the major European operations involving airborne troops. After D-Day it flew on numerous

transport missions to France, evacuating injured soldiers on the return legs. On 15 August it took part in Operation 'Dragoon', dropping paratroops during the invasion of the south of France, operating with a detachment based in Italy. The same role was played at Arnhem on 17 September in the course of Operation 'Market Garden', while between December 1944 and January 1945 it performed transport sorties during the Ardennes offensive, otherwise known as the Battle of the Bulge.

That's All, Brother's final use as a paratroop jump platform occurred on 24 March 1945. On that date it dropped members of the 507th Parachute Infantry Regiment, 17th Airborne Division, as part of Operation 'Varsity', the crossing of the Rhine near Wesel.

The war in Europe over, 42-92847 returned to the USA on 4 August 1945, ending up at Bradley Army Air Field in Connecticut. Disposed of onto the civilian market and registered as N88874, the aircraft was operated by numerous companies prior to being acquired by the Randsburg Corporation in August 1998. For a time, between 1999 and 2003, it was displayed by the Aero Heritage Museum at Falcon Field in Mesa, Arizona. During this period the C-47 underwent a restoration process, appearing in the colours of an AC-47 'Spooky' gunship, with the camouflage and the installation of the side-mounted Gatling guns that would have been carried in the Vietnam War.

The C-47 was then sold on 3 December 2008 to Oshkosh-based Basler Turbo Conversions, with a view to its possible conversion to Pratt & Whitney PT6A turboprop power. Aside from the new engines and five-bladed propellers, the modification work includes the structural reinforcement of the fuselage and the renewal of the on-board electrical, hydraulic and fuel systems, a task that on average requires some 45,000 hours of work, at the end of which just under 30 per cent of the original aircraft remains. However, the aeroplane remained in storage at the Basler facility until early September 2015, when it was sold to the American Airpower Heritage Museum — now the CAF Airpower Museum — of Dallas, Texas. Here its wartime background came to light.

The information was discovered casually when an historian, Matt

The colour scheme applied following restoration depicts *That's All, Brother* prior to its first D-Day mission, before the subsequent application of mission marks.

THE 438th TCG AT WAR – AND IN PEACE

The 438th Troop Carrier Group was constituted on 14 May 1943 and officially activated at Baer Field, Indiana, on 1 June. The unit, flying C-47s and C-53s, was transferred to Britain in February 1944 and based at Greenham Common from March, coming under the control of the 53rd Troop Carrier Wing, part of the 9th Air Force's IX Troop Carrier Command.

The 438th was involved in all the major events of the last two years of the war in Europe, playing an especially important role on D-Day. In July 1944 it sent a detachment to Canino, Italy, to support Operation 'Dragoon', the Allied invasion of southern France, dropping paratroops and towing gliders. Later its aircraft took part in Operation 'Market Garden' at Arnhem and efforts to resupply Bastogne in the course of the Battle of the Ardennes. From February 1945 it operated from Prosnes, in north-eastern France, and later from Amiens. At the end of the war the group helped repatriate Allied prisoners.

The 438th returned to the United States in September 1945, and was deactivated at Lawson Field, Georgia, on 15 November. It was re-formed in 1949 as part of the US Air Force Reserve, flying C-46s, before a change of role in 1952 saw it becoming the 438th Fighter-Bomber Group, operating F-51s, F-80s and F-86s until November 1957. A long disbandment followed, until December 1991, when the 438th Operations Group was activated at McGuire AFB, New Jersey. It acted as the operational element of the C-141 Starlifter-equipped 438th Airlift Wing. There was another hiatus between October 1994 and December 2001; since then, the 438th Air Expeditionary Group has been activated and deactivated as necessary to support expeditionary operations. Its designation is now the 438th Air Expeditionary Advisory Group.

ABOVE: The Skytrain undertakes wide-ranging tours of the USA, and offers passenger rides. It will be continuing these efforts prior to the Europe trip this year.

Scales, researching information on Col Donalson, approached Basler Turbo Conversions to ask whether any of the aircraft it had modified or held in storage had the serial 42-92847. Receiving a positive response, it was possible to confirm the details. A local journalist who was conducting historical research into Wittman Regional Airport learned of the story and published an article about the C-47 in a local paper. This sparked a race to avoid the historic transport being converted, and in a short space of time the CAF had reached an agreement with Basler not only to safeguard the aircraft, but also to return it to flying condition in its D-Day livery and configuration.

Despite the collaboration of Basler and the CAF's volunteers, it was still essential to initiate a fundraising effort. In what was then an unprecedented strategy, the organisation decided to create an online campaign using the popular crowdfunding platform Kickstarter. The results took the CAF's directors completely by surprise. The response was incredible, bringing in more than $75,000 in just a few days and eventually raising $350,000 in a month. In parallel, praise is due to the CAF and numerous companies, above all Basler Turbo Conversions, which made available technical and human resources.

Within the limits of what was practical, the restoration sought to preserve as much as possible of the

RIGHT: Parachutists jumping from the C-47, in a potent demonstration of one of its wartime roles.

TOP: The paratroop seats that line the fuselage interior.
ABOVE: Modern navigation and radio systems are a must for operation in the present-day air traffic environment, and have been fitted within the otherwise period instrument panel.

original aircraft, installing period components drawn from across the United States. Given that it is the CAF's firm intention to present the C-47 to the American public as widely as it can, new navigation and radio systems have been installed — albeit within the original cockpit configuration — while there has been a complete overhaul of the electrical and hydraulic systems.

The final result of more than 22,000 hours of work was to be seen during the trouble-free post-restoration flight on 31 January 2018. At that time the aircraft had a temporary external finish, paint stripping having allowed some of its former colours to show through. After test-flying, the C-47 was repainted into its 1944 scheme. Management of the aeroplane was assigned to the CAF's Central Texas Wing, based at San Marcos Regional Airport. In its hands the rejuvenated *That's All, Brother* has toured widely, and this year will carry out its longest deployment since World War Two for the D-Day 75th anniversary commemorations. If ever one needed a reminder that the term 'warbird' covers more than the likes of Spitfires and Mustangs, this C-47 is it.

Invasion-striped C-47s at IWM Duxford. Many more will fill the airfield this June. BEN DUNNELL

DAKS OVER DUXFORD, NORMANDY AND BERLIN

It promises to be one of the aviation events of the decade. For several weeks in June, the largest gathering of Douglas C-47/DC-3 variants ever seen in the modern era will come together in Britain, France and Germany to commemorate the 75th anniversary of D-Day and the 70th anniversary of the end of the Berlin Airlift.

At the time of writing, 38 examples of the Douglas transport and its derivatives were booked to attend the Daks over Duxford and Daks over Normandy elements. *That's All, Brother* will form part of the D-Day Squadron, the entire contingent of US-based aircraft making the trip (see also pages 6-7). They will fly the North Atlantic ferry route from Oxford, Connecticut, via Goose Bay, Narsarsuaq, Reykjavík and Prestwick, ending up at IWM Duxford. Joining them will be aircraft from Denmark, Finland, France, Hungary (the Goldtimer Foundation's Lisunov Li-2), Iceland, the Netherlands, Norway, Russia, Sweden, Switzerland and the UK.

Arrivals at Duxford will take place on Sunday 2 June, a normal museum opening day, as is Monday 3 June. Tickets for those days must be purchased in advance, though standard IWM rates apply. The Daks over Duxford event — also advance ticket-only, with special rates applying — takes place on Tuesday 4-Wednesday 5 June. The first day will see two flying programmes, including a Dakota formation display, a freefall parachute team jump and a solo performance by Dakota Norway's DC-3; there will also be numerous other Dakota sorties, including photo flights with Harvards and a Dragon Rapide from Classic Wings, and a practice mass round-canopy parachute jump. The flying programme will be repeated on the morning of the second day, before preparations for the cross-Channel formation flight with parachutists on board. All the aircraft will set off en masse from Duxford between 13.40 and 14.05hrs, proceeding via Colchester, Southend, Maidstone and Eastbourne prior to the Channel crossing. Escort will be provided by P-51 Mustangs and Spitfires.

If all goes to plan, the formation will fly past at Le Havre at 16.20hrs and conduct a parachute drop at Sannerville from 16.30-17.00hrs. The machines will land at Caen-Carpiquet. There, on Friday 7-Saturday 8 June, will be held Daks over Normandy, again a ticketed event, though it will be possible to pay on the gate. Much the same programme will be mounted as on the first day at Duxford. There will be no activity on 6 June due to the governmental D-Day commemorations in Normandy.

The Dakota armada is then due to make for Germany. Its first stop is Wiesbaden from Monday 10-Wednesday 12 June, followed by Fassberg from Wednesday 12-Saturday 15 June, and finally Berlin from Saturday 15-Tuesday 18 June. There will be public events at the US Army airfield in Wiesbaden on 10 June, and the Luftwaffe bases at Schleswig-Jagel and Fassberg on 15 June as part of the annual Tag der Bundeswehr. The mass departure for Berlin will form part of the Fassberg event, and is due to take place at 16.00hrs. A flypast over Berlin will be staged an hour later, before the aircraft land at Schönhagen, their base for events in the German capital. The city is set to witness another flypast at 13.00hrs on 16 June, along with 'Candy Bomber' drops at the former Gatow airfield, now home to the Militärhistorisches Museum. Schönhagen itself hosts an event on 17-18 June.

Readers should note that all these details are subject to change; they were believed correct at the time of writing. For more information, see www.iwm.org.uk/events/daks-over-duxford, www.daksovernormandy.com and www.luftbrueckeberlin70.de.

Ben Dunnell

Vanguard *of the* Invasion

Without the deployment of pathfinder troops into Normandy, the main airborne landings on D-Day would have been rendered far more difficult. Dropping the men of the 22nd (Independent) Parachute Company fell to a small number of RAF Armstrong Whitworth Albemarles

WORDS: DAVID NICHOLAS

Pathfinder troops from the 22nd (Independent) Parachute Company prepare to board Sqn Ldr Merrick's Albemarle, V1740/8Z-A, of No 295 Squadron at Harwell, Berkshire, on 5 June 1944.
H. D. CHERRINGTON

Part of the detailed plan for the Allied landings in Normandy required the seizure or destruction of key points such as bridges or gun emplacements by parachute or glider-borne troops. Behind the British beaches, some small targets could be seized by coup de main, though the delivery of the main body of the 6th Airborne Division would be to large landing zones (LZ) as Operation 'Tonga'.

The division comprised the 3rd and 5th Parachute Brigades, together with the 6th Airlanding Brigade which would be delivered by glider, as would the support troops and heavy weapons. Its LZs were 'V' near Varaville, 'K' at Touffreville and 'N' at Ranville, with 'W' near Ouistreham as a back-up in case of problems at any of the others. To mark these areas, pathfinder troops would be dropped with light signals and radio location aids to assist the glider pilots and transport crews in finding them and ensuring a suitable concentration of delivery, which was seen as vital to success.

Responsibility for pathfinding before the main 'Tonga' drop fell to the 60 men of the 22nd (Independent) Parachute Company under Maj Francis Lennox-Boyd. They would be dropped by Armstrong Whitworth

RAF TRANSPORT COMMAND ORDER OF BATTLE, 6 JUNE 1944

No 38 Group (commanded by AVM L. N. Hollinghurst)
Roles: Glider-towing, para-drop and airborne resupply

Squadron	Types	Base
190	Stirling IV, Horsa	Fairford
196	Stirling IV, Horsa	Keevil
295	Albemarle I/II/V, Horsa (unit code 8Z)	Harwell
296	Albemarle I/II/V, Horsa (unit code 9W)	Brize Norton
297	Albemarle I/II/V, Horsa (unit code P5)	Brize Norton
298	Halifax V, Horsa, Hamilcar	Tarrant Rushton
299	Stirling IV, Horsa	Keevil
570	Albemarle I/II/V, Horsa (unit code V8)	Harwell
620	Stirling IV, Horsa	Fairford
644	Halifax V, Horsa, Hamilcar	Tarrant Rushton

No 46 Group (commanded by Air Cdre A. L. Fiddament)
Roles: Glider-towing, para-drop, airborne resupply and casualty evacuation

Squadron	Type	Base
48	Dakota, Anson, Horsa	Down Ampney
233	Dakota, Anson, Horsa	Blakehill Farm
271	Dakota, 'Sparrow' (Harrow), Horsa	Down Ampney
512	Dakota, Anson, Horsa	Broadwell
575	Dakota, Anson, Horsa	Broadwell

Notes: *Anson and 'Sparrow' were ambulance aircraft.*

ABOVE: The loading of Albemarle V1740 under way. In the early hours of D-Day, these were among the first Allied troops to land in France. H. D. CHERRINGTON

Albemarles in order to carry out their difficult, but vital, task. On the eve of D-Day the RAF had four Albemarle squadrons: at Harwell, 295 under Wg Cdr Brian Macnamara and 570 led by Wg Cdr Richard Bangay, while at Brize Norton were 296 under Wg Cdr D. I. McInnies and 297 whose CO was Wg Cdr J. G. Minifie.

The Albemarle had, of course, been conceived as a medium bomber, but suffered many delays and only 32 of the eventual 600 examples were built as bombers. Most of those that entered RAF service were special transport (ST) or glider-towing (GT) variants. The first unit to receive the type was No 296 Squadron at Hurn in January 1943, which took it into action as both a glider tug and paratroop-dropping platform during the invasion of Sicily later in the year. Subsequently, three more squadrons were re-equipped for those duties, while some served with No 511 Squadron as VIP transports.

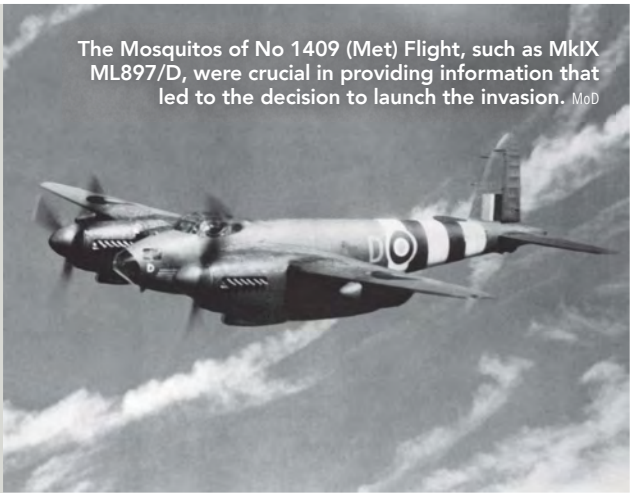
The Pathfinder Company included a headquarters element and three platoons, each of an officer and 32 men. They in turn were sub-divided into three sticks, led by a sergeant or corporal. One of the troops' tasks was to set up Eureka ground-to-air homing beacons that could be received by Rebecca receivers carried by the transport aircraft. Coloured panels and battery-powered Holophane lamps to mark the DZs by day and night were supplemented by electronic aids. Additionally, the company was to assess whether the selected drop zone (DZ) was defended and, after the arrival of the Main Force, was employed as a small reconnaissance force.

The success of the main landings hinged on this initial drop, scheduled for just after midnight on 6 June. Following briefing, Lennox-Boyd led the first stick of 10 aboard Albemarle V1701 of No 296 Squadron, while Capt Ian Tait's stick embarked in No 297 Squadron's P1383. These aircraft, flown by Sqn Ldr Whitty and WO Rickard respectively, departed from

MET RECONNAISSANCE

THEY ALSO SERVED

The most critical decision to be made by the Allied high command before D-Day was simple: when? With key factors such as tides and moon conditions being predictable, the great critical unknown was the weather. Based at Wyton and flying the PR Mosquito, No 1409 (Met) Flight had been transferred to the control of the Pathfinder Force to conduct weather reconnaissance sorties over Germany ahead of bombing raids, and its work had assumed great importance. In the days immediately prior to D-Day its sorties reached far and wide to the west, gathering meteorological data to allow forecasters to establish any improvement in the weather coming from the Atlantic. Eventually, based partly on information provided by No 1409 Flight Mosquito missions, Gen Eisenhower made his momentous decision and issued the direction for 6 June, saying simply, "OK, let's go."



The Mosquitos of No 1409 (Met) Flight, such as MkIX ML897/D, were crucial in providing information that led to the decision to launch the invasion. MoD

Brize Norton at 23.10hrs en route to DZ 'N'. Ten minutes later, Sqn Ldr Merrick in V1740/8Z-A and another Albemarle of No 570 Squadron flown by Flt Sgt Kirkham left Harwell and headed for DZ 'K', carrying two more sticks under the command of Lts Vane de Latour and Wells. Flying as an observer in Merrick's aircraft was AVM Leslie Hollinghurst, the air officer commanding No 38 Group. A final pair of Albemarles followed, these from Harwell and destined for DZ 'V' carrying the remaining two sticks from the company under Lts Midwood and Vischer. They flew inbound to their target area at low level, crossing the coast at 1,200ft and dropping their troops from just 500ft.

All six aircraft arrived safely over the dropping area on the banks of the Orne near Caen, but then difficulties were encountered. Parachuting from the belly of the Albemarle was not easy, especially when encumbered with equipment.

The two Brize Norton aircraft dropped their sticks onto the south-east corner of 'N', but sadly Lennox-Boyd made a premature exit and was lost. Due to a navigation error, Vischer's stick was also dropped here, rather than at 'K'. The three sticks then set up the DZ to receive gliders. At 00.17 and 00.20 on D-Day, Merrick and Kirkham disgorged their sticks uneventfully and returned to base by 02.00. The first Eureka beacon was set up on 'K' by 00.35, together with a Holophane lamp. Three of the aircraft had to make additional runs, and one took 14 minutes to drop its load.

The drops onto DZ 'V' went well, though most of the equipment needed for the marking proved to be unserviceable when it was either lost or rendered useless after landing in the marshy ground. Several of the men sustained broken legs, an ever-present hazard with night parachuting. This area, where the Main Force troops were to capture the Merville battery was — ironically — the most difficult to locate.

Efforts at the other DZs were, however, less successful. Some troops were dropped onto the wrong DZs, while the first to jump from Flt Lt Brierley's aeroplane became lodged in the exit door and could not be moved. It had to abort after being hit by flak, having gallantly made seven runs in an attempt to free the man and accurately find the DZ.

The loss of the marker equipment and the absence of some of the

During Operation 'Tonga', No 570 Squadron Albemarle V1767/V8-N — named *Now or Never* — was flown by the unit CO, who towed a Horsa glider into the Normandy LZ. H. D. CHERRINGTON

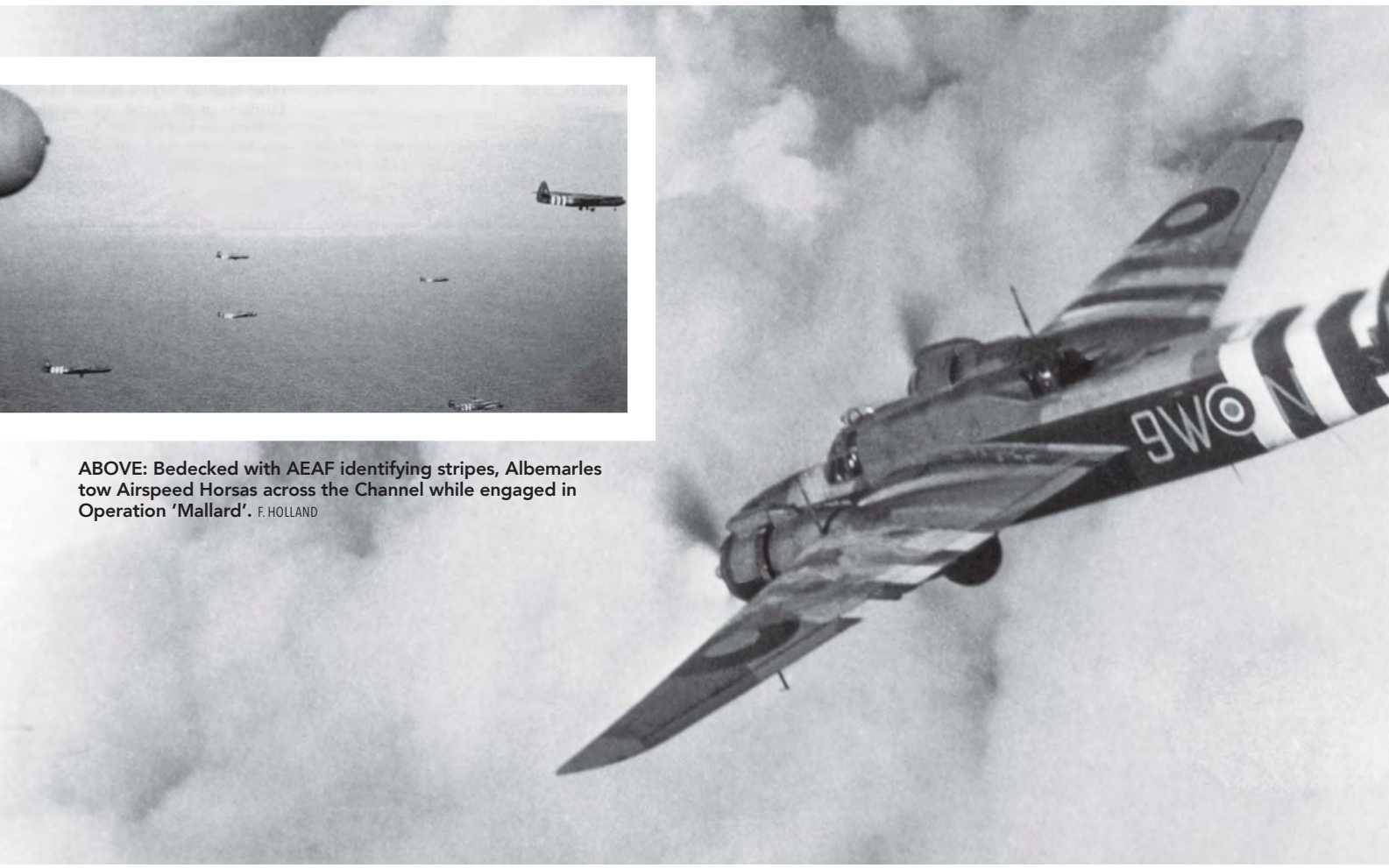
In advance of the main landings, Albemarle STV V1823/P5-S from No 297 Squadron towed a Horsa into Normandy on Operation 'Tonga'. It did likewise on the evening of D-Day during Operation 'Mallard'. W. E. BARFOOT

THEY ALSO SERVED

SOE SUPPORT

The Special Operations Executive (SOE) was much engaged in preparing for the invasion. The SOE-supporting RAF aircraft from Nos 138 and 161 Squadrons continued operations, the last Westland Lysander sortie beforehand being 2 June's Operation 'Japonica' when T1446/JR-P from 'A' Flight, No 161 Squadron in the hands of Flt Lt Taylor landed two agents. On the night of 5-6 June, Plt Off Tattershall in a Handley Page Halifax dropped five agents and 10 supply canisters to the Resistance in an area 30 miles south-west of Caen. Other Halifaxes flew resupply sorties, while a Lockheed Hudson piloted by Fg Off Ferris dropped an agent over France. Another task was Operation 'Titanic', when seven Halifaxes from No 138 Squadron and four from 161, joined by a quartet of No 149 Squadron Short Stirlings, dropped dummy parachutists around Yvetot and Marigny. Once on the ground they fired dummy 'weapons' to simulate airborne landings. Flt Lt Johnson's aircraft deployed two three-man SAS teams near Isigny as part of the plan to cause confusion. These were the first Allied troops to land in Normandy, albeit by just 15 minutes. Activities to support the Resistance and the Maquis continued in the days and weeks after D-Day.

Most unusually for an aircraft belonging to a covert unit, spy-dropping Lysander IIIa T1446/JR-P was fully bedecked in AEAF stripes. Its pilot was Fg Off 'Luck' Newhouse. L. NEWHOUSE VIA R. L. WARD



ABOVE: Bedecked with AEAF identifying stripes, Albemarles tow Airspeed Horsas across the Channel while engaged in Operation 'Mallard'. F. HOLLAND

TARGET-MARKERS

From the spring of 1944, the might of the Allied strategic air forces had been focused on pre-invasion support. Immediately prior to the invasion, many targets such as heavy gun emplacements required precision marking, usually using Mosquito markers. Bomber Command's Main Force conducted Operation 'Flashlamp' overnight on 5-6 June, targeting 10 major gun batteries situated around the Bay of the River Seine. Five of them overlooked the Anglo-Canadian landing areas and the rest were on the eastern side of the Cherbourg peninsula where the Americans were due to land. It was a complex series of attacks, carefully timed and co-ordinated, and requiring extreme precision in their execution despite the predicted poor conditions. In No 5 Group of Bomber Command, the marking role was the task of No 627 Squadron, stationed at Woodhall Spa. It targeted a particularly important battery at La Pernelle, overlooking Utah Beach. Four of its Mosquito FBVIs — which, uniquely for Bomber Command aircraft, carried full black-and-white Allied Expeditionary Air Force identity stripes — illuminated the target with 'spotfires', allowing the following Avro Lancasters to mark with green target indicators. Further No 627 Squadron aircraft backed up Pathfinder Force markers at St-Pierre-du-Mont, though this bombing raid was less successful. The serials and codes of the unit's invasion-striped Mosquitos that operated that night were DZ353/AZ-B, DZ415/AZ-Q, DZ418/DZ-L, DZ421/AZ-C, DZ462/AZ-N, DZ477/AZ-K, DZ516/AZ-O and DZ518/AZ-F.

THEY ALSO SERVED

This No 627 Squadron Mosquito FBVI, DZ353/AZ-B, marked gun batteries on the night of 5-6 June but was lost during a mission to attack railway targets near Rennes two nights later. B. HARRIS VIA P. H. T. GREEN

pathfinders led to the main drop being less concentrated than would have been ideal. Clearly, insufficient time had been allowed in the plan between the delivery of the pathfinders and the arrival of the Main Force. Merrick, Kirkham and their navigators, WO Farrow and Flt Lt Richardson, each received a DFC for their efforts that night, as did No 570 Squadron's WO Balmer.

The main elements of the 6th Airborne Division arrived over the targets shortly afterwards in a fleet of 359 Dakotas, Stirlings and Halifaxes, plus further Albemarles from all four squadrons. This initial delivery of the division was completed by a third wave one-and-a-half hours later, which included no less than 45 Albemarles each towing a Horsa glider filled with men or heavy equipment such as Jeeps and anti-tank guns.

It was far from straightforward as Flt Sgt Norman Fendall, a wireless operator with No 295 Squadron, recalled: "The trip was reasonably uneventful except for our encounter with a low-based bank of cloud just prior to reaching the French coast. Our skipper literally dragged the glider through the clouds until we

The evening of 6 June saw Albemarle STV V1785/9W-N of No 296 Squadron towing a Horsa to Normandy. W. E. BARFOOT

broke from the cloud. We were then able to continue and released our glider as planned."

In all, 73 Albemarles had participated. One of No 295 Squadron's 10 aircraft on the main lift was V1749, flown by Wg Cdr McNamara, which carried Maj Gen Richard Gale and elements of his divisional HQ. However, V1606 of No 296 Squadron and 297's V1773 were shot down by German flak.

With their initial role on Operation 'Tonga' fulfilled, the transport crews enjoyed a brief rest through the morning of this momentous day while the groundcrews laboured to prepare for the next operation. That afternoon they briefed for Operation 'Mallard', the reinforcement and resupply task. It was to deliver to Normandy the remainder of the 6th Airborne in more than 250 aircraft, towing 250 Horsas and Hamilcars. No 570 Squadron, for example, towed 20 Horsas to LZs near Caen, though two gliders had to cast off and ditch in the Channel. As evening approached this huge force, under the cover of a sizeable fighter escort, headed for Normandy at 1,000ft — the final act on D-Day by the transports.

THEY ALSO SERVED

Warwick I BV531/AQ-P taxiing at Portreath in June 1944 at the time it made the first successful rescue with the airborne lifeboat. D. F. R. EMS

AIR-SEA RESCUE

The staff planning the D-Day landings anticipated significant losses of both aircraft and ships, so detailed efforts were made to make air-sea rescue (ASR) provision over the Channel. Specially trained and equipped ASR squadrons had aircraft located at coastal airfields throughout the area. No 276 Squadron had detachments at Bolt Head, Devon and Portreath, Cornwall with Spitfires and airborne lifeboat-equipped Vickers Warwicks to cover the greatly increased amount of flying over the western Channel as the invasion approached. Further east at Warmwell, Dorset, No 275 Squadron had Spitfires and Supermarine Walrus amphibians, while No 277 Squadron at Shoreham, Sussex ('A' Flight) and Hawkinge, Kent ('B' Flight) also used these types, plus a few Supermarine Sea Otters. Finally, the northern Channel and the Thames Estuary were covered by the Warwicks of 'A' Flight, No 278 Squadron at Bradwell Bay, Essex and Spitfires and Walrus at Martlesham Heath, Suffolk. They all flew patrols on D-Day — significantly, on 'D+1', a No 276 Squadron Warwick, BV531, made the first successful rescue with an airborne lifeboat when one was dropped to a Liberator crew that had ditched 70 miles off the English coast. In all, No 276 Squadron saved 30 lives during June 1944.

Sitting at Shoreham in late June, Spitfire Vb BL591/BA-U from 'A' Flight, No 277 Squadron flew ASR patrols over the Channel on D-Day. Behind is a D-Day-striped Sea Otter. E. PHIPPS

Every man was keen for the momentous day

When the new North American Mustang, in its early Allison-engined variants, was chosen to supply the RAF's army co-operation squadrons in January 1942, it created a combination that proved pivotal when the day finally came to send Allied forces back to France. In the lead-up to D-Day, RAF army co-operation Mustangs would provide vital photographic reconnaissance of the Normandy coast, and as operations began, highly specialised artillery spotting and tactical reconnaissance flights **WORDS:** MATTHEW WILLIS

It was a small, but hardened, group of RAF, Royal Canadian Air Force and US Army Air Forces Mustang squadrons that geared up for the long-awaited invasion of 'Fortress Europe'. In the event, their handful of ageing aircraft provided much of the information that Allied commanders needed to secure the beach-head and push inland.

Only a few RAF and RCAF units were still flying the Allison-engined Mustang on army co-operation missions by the time of the invasion, three British and two Canadian, though another two squadrons would partially re-equip with the fighter later on and one more would briefly operate the Mustang I for the first time. Nos 2 and 268 Squadrons, RAF were incorporated into No 84 Group, No 35 Reconnaissance Wing,

while No 168 Squadron, RAF and Nos 414 and 430 Squadrons, RCAF became part of No 83 Group, No 39 Reconnaissance Wing. As 1944 went on, the remaining Mustang units took on an increasing number of sorties concerned with preparations for invading Europe. From February onwards, several of them undertook a series of missions to photograph targets in France.

Their task — carried out in concert with the AAF's 67th Tactical Reconnaissance Group, also equipped with Mustangs — was photographing the French coast in detail, to enable military planners to shape the Allied landings on the coast of Normandy. Col George Peck of the 67th TRG set out the importance of the task, saying, "This is to be one of the most secret missions of the war. This information […] cannot be divulged to anyone. You will not only endanger your own lives but will endanger the lives of millions of soldiers". The 67th TRG's 107th Tactical Reconnaissance Squadron was equipped with F-6Bs, equivalent to the RAF's Mustang II, while the 109th TRS had the newer Merlin-powered F-6C.

Complete and unbroken photographic coverage of the invasion areas was required, and the American, British and Canadian tactical reconnaissance squadrons played a crucial role in building up this record of the territory on which the battle for 'Fortress Europe' would be fought. The squadrons carefully planned how the pilots would conduct these missions. 'Strips' of coastal and inland areas were marked out. These would be painstakingly covered between 15 February and 20 March 1944.

Swathes of the Normandy coast allocated to No 430 Squadron were dismissed by several of its pilots as a decoy, thinking they were too far from England to be the site of a seaborne invasion. In truth, photography was undertaken of a much larger area of coastal France than required, this in order to help keep the location of the invasion secret from German forces in France and to minimise the risks of it being leaked at home.

Photography was generally carried out by pairs of Mustangs, in a patchwork of sorties that would add up to a full picture. Each pair was made up of a flight leader carrying out the main objective, and a 'weaver' designated to cover the leader and keep watch for enemy fighters. This configuration was developed during operations over occupied Europe in 1942-43, and proved so successful it was adopted by the US reconnaissance squadrons. For consistency, all the sorties had to be carried out at similar tide states and light conditions, and each photographic mission was preceded by a meteorological flight. It was dangerous work — occasionally aircraft failed to return, and one Mustang took a seagull strike to the windscreen, an occupational hazard of flying low over beaches. In addition to the photo mosaics, numerous other specific targets were highlighted for reconnaissance between February and May.

> **"This is to be one of the most secret missions of the war. This information cannot be divulged to anyone"**

A number of the army co-op Mustang squadrons decamped to Dundonald in Scotland in early 1944 for training with No 516 Squadron, RAF in spotting for naval guns during shore bombardments. This unit was a 'development' squadron of Combined Operations Command, set up with the aim of developing expertise and tactics in combined operations. In February, No 414 Squadron spent two weeks at Dundonald, followed by No 2 Squadron in March and No 268 Squadron in April.

The detachments began with lectures on naval gunnery, followed by some flying in the local area to identify the bombardment targets on the Mull of Kintyre. Crews visited the ships they would be spotting for during training to help build up mutual understanding. Bombardment practice started with army 25-pounder artillery before moving on to proper naval guns. Once the pilots had found their feet, Royal Navy ships would open fire with their main guns, their shells being directed onto the target by the Mustang pilots in the air. Some of the ships involved in the training were the 6in cruisers HMS *Belfast*, HMS *Enterprise*, HMS *Sheffield* and HMS *Glasgow* and the 5.25in cruiser HMS *Diadem*, most of which also took part in the D-Day bombardments. The aircrews then made further visits to the ships to discuss the training operations, iron out any problems and suggest potential improvements.

MAIN IMAGE:
An Odiham-based Mustang I of No 39 Wing — made up of Nos 168, 414 and 430 Squadrons — pictured in July 1944. Army Co-operation Command Mustangs only wore invasion stripes for a short while. RAF ODIHAM

BELOW:
Lt Col George Peck (left), commander of the US Army Air Forces' 67th Tactical Reconnaissance Group, inspects one of the unit's F-6Bs with reigning world heavyweight boxing champion Joe Louis, who was touring deployed American military units with the US Army Special Services Division. The 67th TRG worked in tandem with RAF Mustangs on D-Day. USAF

TOP LEFT: Bound for Normandy in late June 1944 is a No 2 Squadron Mustang I. NO II(AC) SQUADRON

TOP RIGHT: NCOs carefully remove the vertical F24 camera from a Mustang I of No 430 Squadron, RCAF at Dunsfold, Surrey, after an evening sortie in May 1944. The squadron was one of several responsible for providing a mosaic of photographs covering the entire invasion area. VIA MATTHEW WILLIS

ABOVE: No 430 Squadron Mustang I AM227/L over France on 20 July 1944. This Canadian unit had photographed the Normandy beaches in the months before the invasion. RCAF

Shortly before the invasion, 10 squadrons combined at Royal Naval Air Station (RNAS) Lee-on-Solent. They included Fleet Air Arm Seafire operators, RAF Spitfire units, the US Navy's VCS-7 flying Spitfires and Seafires, and the three squadrons of Mustangs — two RAF and one RCAF — that had trained in naval gunnery spotting. They were to perform artillery spotting for the Western and Eastern Naval Task Forces during Operation 'Overlord', supporting the landings of the US First Army on Omaha and Utah Beaches, and British and Canadian troops on Gold, Sword and Juno Beaches respectively.

British and Canadian Mustang squadrons started 6 June spotting for naval guns, but switched to tactical reconnaissance as troops gained a foothold. The operations record book for No 414 Squadron records, "there was no complaining… and every man was keen for the momentous day which was about to begin."

The Mustangs launched for their first bombardment spotting at 05.00hrs. At No 2 Squadron, three two-aircraft flights, a mixture of Mustang Ias and Mustang IIs, left Lee-on-Solent at intervals of two to three minutes. One of the Mustangs went unserviceable before take-off, so Fg Off McElwain continued alone. His target was successfully neutralised, as was that of Flt Lt Percival and Fg Off Broderick, while Flt Lt Weighill and Fg Off Shute directed the bombardment accurately onto their target, though it may not have been knocked out completely. On this occasion they were able to carry out their task with no more interruption than a little light flak.

Four more flights left at around 06.00, three of which successfully engaged targets. Fg Offs Burt and Crane experienced intense flak, Crane's Mustang taking a hit to its mainplane, and returning to Lee. Burt attempted to carry on, but his radio failed. The next four pairs went up between 09.00 and 10.00, putting the training to good use. Some improvisation was necessary as certain objectives were found to be decoys, and other tasks were thrown up on the spur of the moment when the Mustang pilots spotted a likely target that had not previously been identified. Sqn Ldr Gray and Flt Lt Furneaux turned the ships' fire onto a concentration of 100 motor transports in the south-western corner of the Bois de Calette wood, while Burt and Fg Off Hope also found an impromptu target. Flt Lt Corrigan's wireless failed on his second mission, so his 'weaver' Flt Lt Black controlled the shoot instead.

The other squadrons had similar experiences. No 414 Squadron's aircraft left for their initial sorties at 05.00. Targets typically included coastal batteries and other first-line defences, as well as concentrations of forces such as tanks and motor vehicles. Each squadron covered targets from Le Havre to the Cherbourg peninsular, the extent of the invasion front.

Fg Off Richard Rohmer was flying over the beaches at 'H-Hour' on a reconnaissance flight, and was able to witness the handiwork of the gunnery-spotting Mustangs at first hand. "Below us the terrain was crater-pocked from the thousands of bombs that had rained down during the night", he wrote in his memoir *Generally Speaking*. "New craters were being made before our eyes as

shell after shell from the battleships, cruisers and destroyers standing offshore smashed down under us. The devastating barrage was now lifting from the shore working inland in an attempt to destroy any enemy forces that might impede the imminent beaching of the first landing craft."

The squadrons switched roles as planned later in the day, to tactical reconnaissance. In particular, the First Canadian Army was served by the Mustangs of No 35 Wing. After the morning's spotting, No 414 Squadron flew back to Odiham and rested until going back into action at 18.00hrs. The other two Mustang units flew throughout the afternoon.

When the duties on 6 June changed to tactical reconnaissance, the two-aircraft flights began to search railways, marshalling yards and roads beyond the beach-head for signs of reinforcements. Most missions were successful, reporting the locations of railway and river traffic including a tug towing pontoons near Quevillon. Fg Offs Haworth and Varley reported back that there was extensive flooding in the area of Carentan and Ste-Mère-Église caused by the Germans destroying canal locks.

The weather closed in later that day, though, and some missions were aborted. The landings had proved lucky with the conditions from a reconnaissance perspective, gaining a toehold before the visibility deteriorated.

The following day, tactical reconnaissance missions continued for all the Allison Mustang units in the campaign. The focus was often on bridges: specifically, whether they remained intact and if they were likely to be able to bear the weight of motor transports or tanks. The Mustangs also reported anti-glider defences and movements of troops or transports, as well as attacking any targets of opportunity that presented themselves. The experience in attacking trains before the invasion was put to good use, and helped to hamper German forces bringing reinforcements forward by rail. Squadrons generally flew between 10 and 25 sorties a day following the invasion, depending on weather and the serviceability of aircraft.

> **"The experience in attacking trains was put to good use, and helped to hamper German forces bringing reinforcements. Squadrons generally flew between 10 and 25 sorties a day"**

No 414 Squadron patrolled the Chartres and Caen areas and reported columns of motor transports and a concentration of goods trains. Flt Lt Burroughs and Fg Off Bromley surprised a Ju 52/3m and shot it down, the squadron's first aerial victory of the second front.

The Allies had secured air superiority over the beach-head, so losses to enemy aircraft were relatively light for the RAF Mustang squadrons. Even so, roaming groups of enemy fighters could still cause trouble. On 10 June, Flt Lt Hutchinson and Fg Off Mossing

ABOVE:
A Mustang I of No 2 Squadron, one of the longest-serving Mustang army co-operation units, makes an airfield beat-up.
VIA MATTHEW WILLIS

BATTLE-HARDENED OVER EUROPE

The experiences of 1940 led the RAF to conclude that a high-performance fighter-type aircraft was required to provide tactical reconnaissance in the face of enemy air superiority. The equipment of army co-operation squadrons with the superlative Mustang, however, came from inauspicious beginnings, on the heels of a double failure. Army Co-operation Command was formed in December 1940, and for much of its first year tried without success to replace its inadequate Westland Lysanders with the Curtiss Tomahawk. The programme was beset with an inadequate supply of aircraft, mechanical unreliability and bottlenecks in conversion to army co-operation standard. At the beginning of 1942, the Lysanders had still not all been replaced and more than half the Tomahawks were unflyable through a lack of spares.

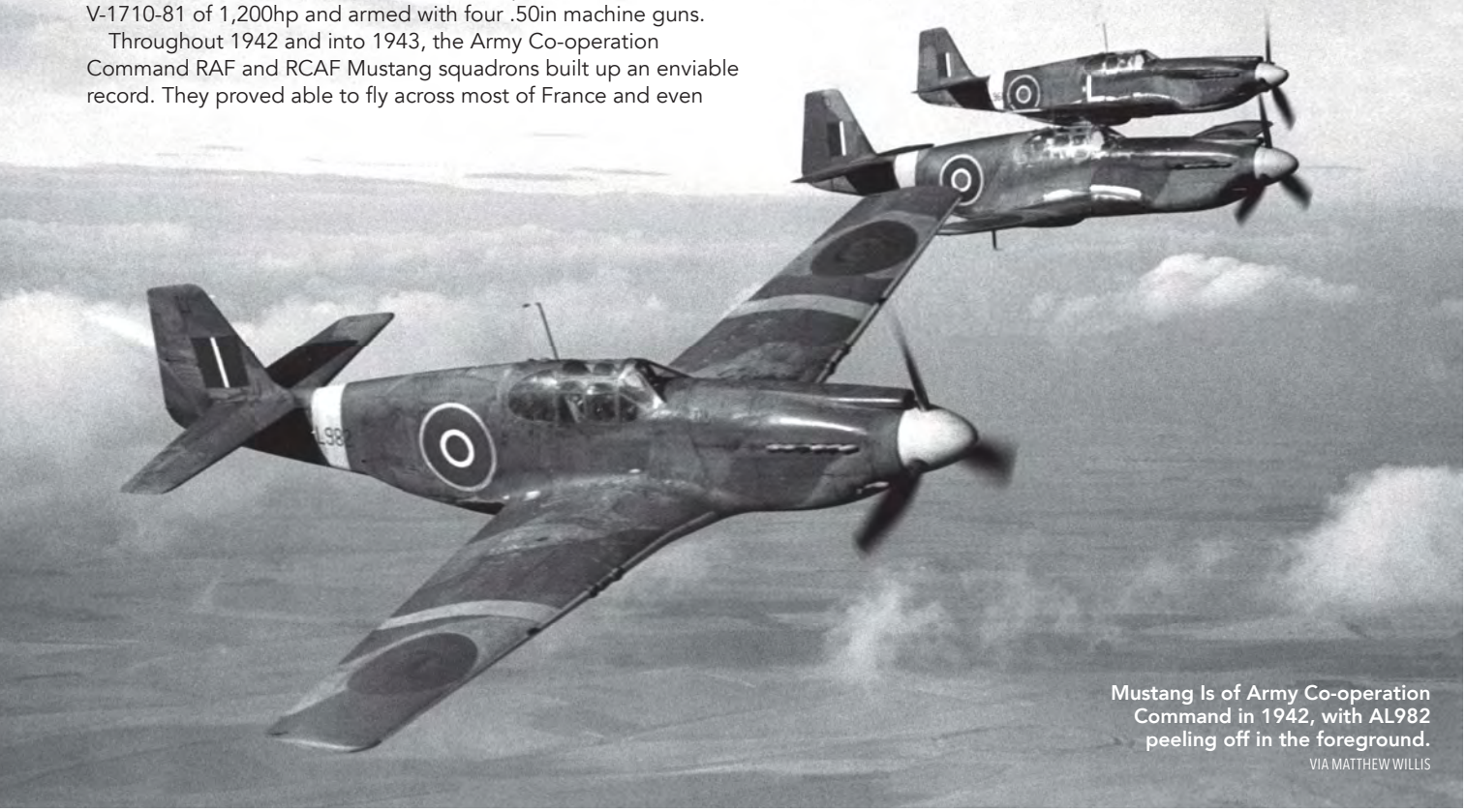
Meanwhile, the generally promising Mustang was found in testing to perform poorly as a day fighter above 15,000ft, at a time when air combat in Europe was typically taking place over 20,000ft. Its low-level performance was excellent, however, and its range recommended it for Army Co-operation Command's purposes. The Mustang had a more reliable variant of the Allison V-1710 than the Tomahawk, and was not subject to competing demands, while the Curtiss type was also required for fighter squadrons in the Middle East. Lockheed, based at Speke, modified the Mustangs as they arrived from the US with oblique and vertical reconnaissance cameras, army radios and various smaller adaptations, to fit them to the role. A number of Royal Canadian Air Force squadrons were equipped with the aircraft and attached to Army Co-operation Command during 1942.

The most numerous model of Mustang used by these units was the Mustang I (which had no AAF equivalent), powered by an Allison V-1710-39 of 1,150hp and armed with four .50in and four .30in machine guns. Supplementing these were smaller numbers of the Mustang Ia (P-51), which was similar but armed with four 20mm cannon, and the Mustang II (P-51A), powered by a V-1710-81 of 1,200hp and armed with four .50in machine guns.

Throughout 1942 and into 1943, the Army Co-operation Command RAF and RCAF Mustang squadrons built up an enviable record. They proved able to fly across most of France and even into Germany virtually with impunity, bringing back intelligence, photographs and carrying out a programme of nuisance raids against enemy communications, chiefly rail and river transport. They also took part in the flawed combined operations at Dieppe in 1942 — experience which would prove useful two years later.

When Army Co-operation Command was incorporated into the new 2nd Tactical Air Force in June 1943, the Mustang squadrons helped form a battle-hardened core that was adept in the techniques needed to support an army on the ground with information, target recognition and pinpoint strafing attacks. It was natural that they would be of vital use in preparations for the invasion of France in 1944.

Returning from a mission over occupied Europe in 1942, Mustang Is of No 170 Squadron are greeted by fellow pilots. When it switched to the Spitfire, this squadron passed its valuable Mustangs on to No 168 Squadron. VIA MATTHEW WILLIS



Mustang Is of Army Co-operation Command in 1942, with AL982 peeling off in the foreground. VIA MATTHEW WILLIS

of No 414 Squadron were attacked by eight Fw 190s after photographing gun positions. Mossing damaged one, before the Focke-Wulfs themselves were bounced by Spitfires and three of the German fighters were shot down.

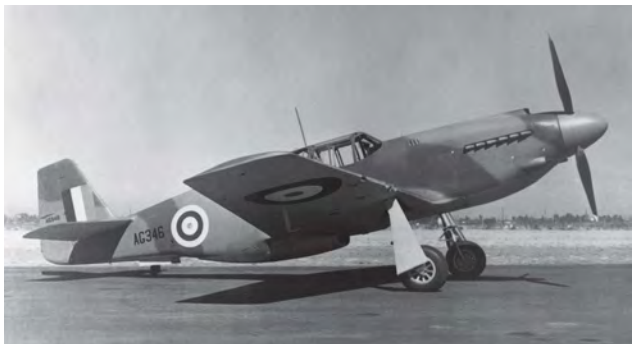
As the invasion 'bedded in', the Mustangs' role continued to be important. A few of the squadrons began to operate from forward airstrips, and then moved to bases in France. Attrition among the now-rare army co-operation Mustangs and their highly trained specialist pilots led Air Marshal Sir Arthur Coningham, the 2nd Tactical Air Force commander, to rule that they should no longer attack targets of opportunity, sticking instead to the reconnaissance brief for which they remained prized.

The squadrons combined superb training and tactics, developed during the course of two years of operations over occupied Europe, with the most suitable aircraft for the job. Indeed, the performance and reliability of the Mustang I/Ia/II at low level were somewhat better than most other types, including the later Merlin-engined Mustangs, as was their ability to return with damage to the engine. Indeed, when No 268 Squadron replaced its Mustangs with Typhoons in 1945, it soon switched again to Mustang IIs. It was a perfect synthesis of unit and machine that enabled such a small number of aircraft to make such a big contribution to the invasion.

ABOVE:
No 168 Squadron pilots relax in front of their Mustang Is at B8 Sommervieu, Normandy, during June 1944.
CROWN COPYRIGHT

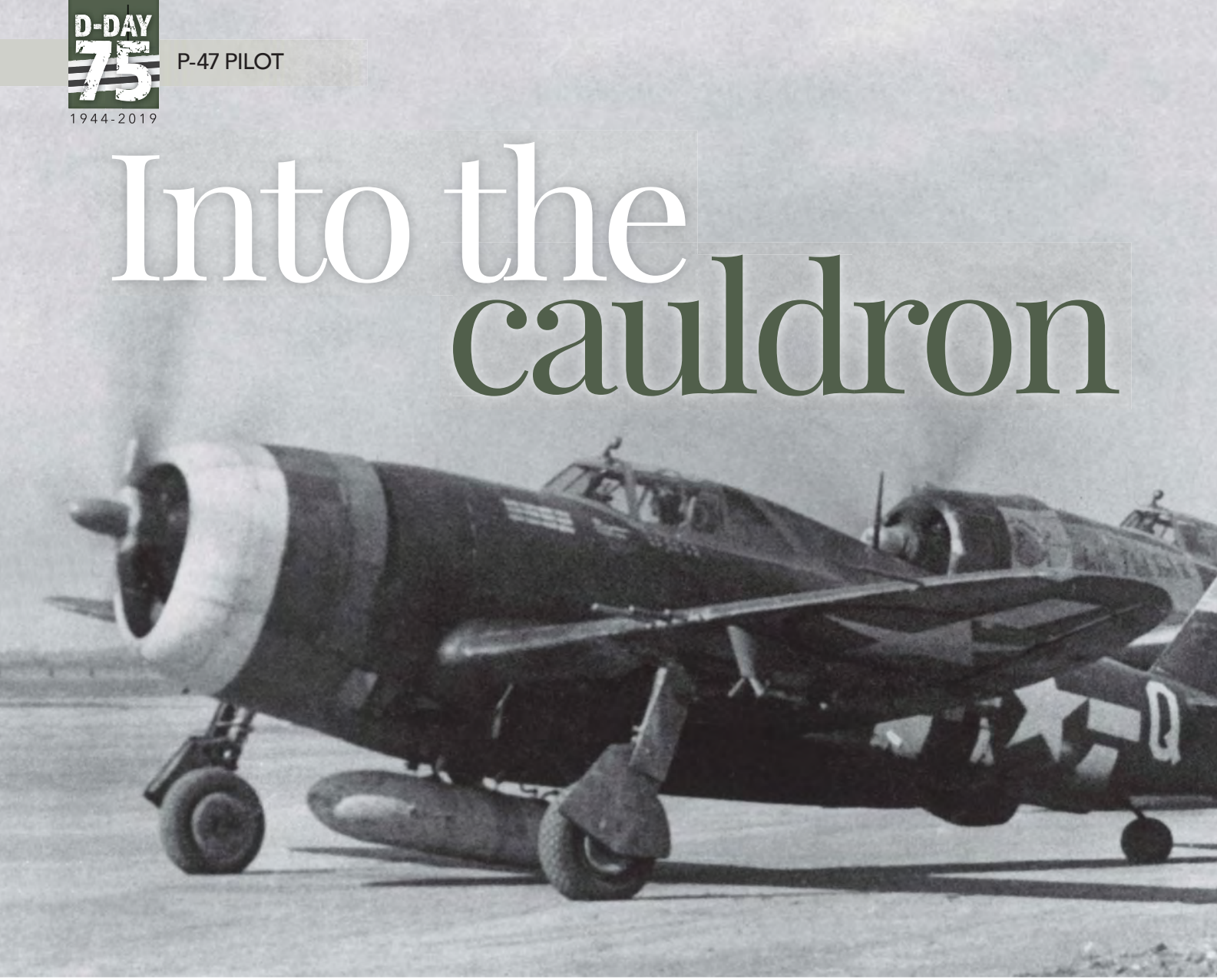
STERLING SERVICE

The second production Mustang built by North American, AG346 had a remarkable career that took it to — and through — D-Day. It was the first Mustang to arrive in the UK, making landfall at Liverpool docks on 24 October 1941, and contributed to the type's assessment and preparation for service when it was evaluated by the Aeroplane and Armament Experimental Establishment at Boscombe Down and the Duxford-based Air Fighting Development Unit. AG346 then went to Nos 225, 63 and 26 Squadrons, No 41 Operational Training Unit, and back to operational use at No 16 Squadron, before being issued to No 168 Squadron, with which it took part in operations in support of the Normandy landings. The machine was eventually shot down by flak near Gacé in lower Normandy on 20 August 1944.



A pre-delivery image of Mustang I AG346 taken at the North American Aviation factory airfield at Inglewood, California.
VIA MATTHEW WILLIS

Into the cauldron



For one P-47D Thunderbolt pilot with the 9th Air Force, D-Day proved a baptism of fire — it saw his debut operational mission. In the thick of the action as Allied forces advanced through France in the summer of 1944, 2nd Lt Archie Maltbie came to have another experience he would never forget

WORDS: THOMAS McKELVEY CLEAVER

At 02.00hrs, 6 June 1944, dawn was already rising with double British summer time. The rumble of 48 Pratt & Whitney R-2800s reverberated across the quiet English countryside that surrounded the former RAF station at Beaulieu, between Southampton and Bournemouth, which was now home to the 9th Air Force's 365th Fighter Group — also known as the 'Hell Hawks'. On the taxiway, the big Republic P-47s, each resplendent in the black-and-white identification stripes hurriedly applied with mops and brooms by the groundcrews two nights before, 'S-turned' under their heavy loads of two 500lb bombs on the wing shackles and a 110-gallon drop tank on the centreline mount as they taxied toward the runway in the growing dawn light.

At the runway, the flag man checked each pair as they moved into position. The engines roared as the pilots advanced their throttles to take-off power, then started their roll as they were waved off. Number eight of the 16 P-47s from the 388th Fighter Squadron was 2nd Lt Archie Maltbie, who had arrived in the squadron three weeks earlier and for whom this was his first operational mission. Maltbie ran his hands over his woollen trousers to dry his sweating palms, then pulled on his flying gloves. The two aircraft ahead moved into position and took off. The groundcrew signalled Maltbie and his element leader to move forward. Once on the runway, he scanned the engine instruments, worked the controls quickly in a last-minute check, and pushed the throttle forward when the chequered flag came down. Half-way down the runway, the Thunderbolt's tail came up, and then he was airborne as the main gear thumped into the wells. A right turn brought the two Thunderbolts over the Isle of Wight in a matter of moments. They joined the rest of the formation as the fighters circled until all had joined up, then headed east across the English Channel towards the coast of Normandy.

P-47D Thunderbolts of the 365th Fighter Group ready to start a mission from a forward base during the summer of 1944.
IWM/ROGER FREEMAN COLLECTION

"I'll never forget what it was like that day", Maltbie recalled. "There were so many airplanes in the sky that there was a serious risk of collision, and there were so many ships in the Channel it seemed that you could have walked from ship to ship from England to France". The assignment for the 365th was to patrol the Cotentin Peninsula, to block Luftwaffe aircraft from attempting to attack the invading American forces at Omaha and Utah Beaches and attack any enemy ground units spotted. After an hour, the Thunderbolts were free of their bombs and most of their ammunition. Returning to base, the pilots told the excited groundcrews what they had seen. After a quick meal, they were back in their aeroplanes for a second sweep of the beach-head.

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"We thought that was it for the day when we got back from the second mission, but all of a sudden there was a call that radar had picked up the Luftwaffe heading toward the beaches, and all the airplanes that had been fuelled were scrambled. There were no Germans around by the time we got there". When they returned, night had fallen on England. "It really was the longest day I can ever remember."

During the weeks following the invasion, the 365th's pilots averaged a mission a day, regardless of the weather. This was far more than the two to three per week the unit had flown in the weeks leading up to D-Day. As busy as those weeks were, two sorties stood out in Maltbie's memory. "The breakout from St-Lô was the greatest massing of air power I ever saw. First, practically the entire 8th Air Force struck the German lines, and it seemed like forever that we were orbiting off to the side, waiting for all those bombers to fly over the target. They had divided the roads behind the front into grids, with a squadron of fighter-bombers assigned to each. As soon as the heavies turned away, we bombed and strafed every square inch. It was incredible to think that anyone could have survived under that."

> **"I'll never forget what it was like that day. There were so many airplanes that there was a serious risk of collision"**

The breakout from St-Lô effectively ended the Battle of Normandy, as Gen George S. Patton's Third Army was sent east in an attempt to cut off the retreating German army by linking up with the British and Commonwealth armies advancing from the northern sector. Realising they were being cut off, the Germans fought harder to maintain an escape route and managed to prevent the meeting of the two armies, holding an area around the town of Falaise that would become known as the 'Falaise Gap'. For 10 days, Allied fighter-bombers from the USAAF

ABOVE:
At Balleroy, France, in August 1944, Archie Maltbie talks to 388th FS officers following his successful return from behind enemy lines. He's still wearing his civilian 'escape suit'.
DON BARNES COLLECTION

ABOVE: The 365th FG used the excellent low-level attributes of the rugged Thunderbolt to good effect over northern France during 1944. This is P-47D 42-76390 *Elsie II* in the hands of Maj David Harmon, radioing information on enemy tanks to an advancing US tank column.
IWM/ROGER FREEMAN COLLECTION

ABOVE RIGHT: Archie Maltbie remained with the 365th FG, becoming an assistant operations officer prior to the war's end. He retired from the post-war US Air Force Reserve as a lieutenant colonel, and died in June 2018, aged 94.
USAF

and RAF struck the German forces relentlessly from dawn until dark.

"After the third day, you could smell the stench of death in your cockpit, even at high altitude, before you got there. All those men, and the horses and other animals they used to pull the carts, all the equipment that was burned up — it was a smell you could never forget". As RAF Typhoons rocketed the German Panzers, AAF P-47s dive-bombed the convoys and strafed everywhere. "You almost felt sympathy for the Germans trapped down there."

On 18 July, Maltbie's squadron was flying a strike mission over Falaise. "We had just dive-bombed a railroad overpass to the east. As we were re-forming, air control alerted us that there were enemy aircraft in the area. The sky was very cloudy. All of a sudden, we spotted four P-51s being attacked by about 20 Messerschmitt [Bf] 109s. The 11 of us dove into the fight to help. The 109s scattered after our first pass, then came back around to fight. All of a sudden, I had a 109 on my tail, and as I was taking evasive action my element lead yelled over the radio that I had a hung bomb."

> **"After the third day, you could smell the stench of death in your cockpit, even at high altitude, before you got there"**

With the 500-pounder still under one wing, Maltbie was at a considerable disadvantage with the nimbler Messerschmitt as he twisted and turned over the forest, trying to shake off his attacker. "He was peppering me full of holes, and then all of a sudden he was gone. One of my buddies had shot him off my tail". Maltbie stayed around, and even with the bomb still on the rack was credited with two Bf 109s damaged.

A month later, as the Allies fought toward Paris, the recently promoted 1st Lt Maltbie had an experience he would never forget. "The Germans were trying to retreat across the Seine River to get out of France. We had bombed all the bridges, so they were using pontoon bridges. We were briefed to fly a patrol along the river from Le Havre to Rouen, to dive-bomb any pontoon bridges we came across."

Near a forest, Maltbie spotted what looked like trucks and other vehicles on a country road. "The squadron CO detailed my flight to go down and take them out. When we did, we saw they were ambulances, so we broke off the attack. As we were climbing back to join the others, I saw three other airplanes off in the distance, approaching our formation. As they got closer, I recognised they were [Bf] 109s. I warned the others and the two of us turned to go after them.

"I was coming up on tail-end Charlie, when I suddenly saw two more coming in from the side. I broke off my attack and turned into them. One of them flew across my nose and I raked him. As I turned to get on his tail, he slowed, and then exploded. I was so close, I flew through the fireball, and my 'plane caught fire. I was about 3,000ft over the forest when I bailed out."

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As Maltbie came lower, Germans under the trees opened fire on him. "They were shooting at me with 20mm light flak, and three or four of those went through my canopy. I was sure I was going to be killed. I pulled on the risers and started swinging back and forth as I came lower. I saw one little clearing in the middle of the forest, and I managed to steer myself toward it."

The clearing was only about 50 yards wide, but Maltbie managed to drop into it without getting his parachute hung on any of the tall trees nearby. He hit and rolled, and was up and moving toward the trees as he shucked his harness and pulled in the billowing canopy. "I got into the

trees, which were quite thick, and hid the parachute in some bushes. I took off running through the forest, trying to put as much distance as I could between me and that clearing before the Germans got there."

After what seemed like a long time squeezing through the trees, Maltbie found a well-used path and took off down it. "I covered maybe a kilometre or so before I had to stop when I ran out of 'go'. There was a low hill with a lot of rocks on it. I climbed up there and hid while I caught my breath. I checked my escape kit, and oriented myself with my compass. I figured the best thing I could do was head west and hope I could evade the Germans."

Just as he felt ready to get up again, he spotted four Germans with a dog coming along the trail in the direction from which he had come. "I was sure they were hunting me with that dog, and I figured the jig was up. They even paused right where I had turned off the path and climbed the hill. I was sure that dog was going to come charging right up to me. It seemed like forever before they decided to move on."

❖

Thoroughly frightened by the experience, the young pilot stayed in his hiding place and drifted off to sleep thinking of Joan Dawson, the young English nurse he had met in London on the first day of a week's leave on 3 August, who had accepted his proposal of marriage seven days later. "I woke with a start when I heard the dog barking. The four Germans were coming back, and I was now certain they'd figured out this was the only place I could be hiding, but they just walked on down the trail back the way they'd come". With sunset approaching, Maltbie decided to wait until dark before heading out.

"Moving through the forest at night was slow going. All I could do was keep orienting myself with the moon and heading west. By dawn, I was close to the edge of the forest, so I hid in the trees. As it got light, I could see some farmhouses in

ABOVE:
Having been damaged in combat with an Fw 190A-7 of JG 26 near Caen on 10 June 1944, P-47D 42-76297 from the 365th FG/358th FS force-landed on Sword Beach at St-Aubin-sur-Mer. Despite the lack of damage to the aeroplane, the pilot lost his life.
VIA THOMAS McKELVEY CLEAVER

BELOW:
A flag man waves off a pair of 365th FG 'Jugs'.
DON BARNES COLLECTION

ABOVE: A mixture of bubble-canopy and 'razorback' Thunderbolts from the 365th during later operations over the Ardennes. The P-47D in the foreground, 42-28932, was a regular mount of Maltbie's at this time, and he shot down a Ju 88 in it.
NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

the distance, and there was one cottage that was pretty close. I hid in the hedgerows and crawled up to it. I could see a young woman in the yard, peeling potatoes. There didn't seem to be anyone else around, so I gathered up my courage and decided to approach her."

Maltbie had made a fortunate choice. Rolande Barbey had studied English in school, so they were able to communicate. After his explanation, she went inside and returned with her mother. "Her husband had been taken as a PoW in 1940, so the Barbeys hated the Germans. With Rolande translating, her mother told me they would help me". Maltbie stayed with the Barbeys for several days while the escape was arranged. "Rolande's fiancé, André, was a member of the local Resistance. He took the photo from my identification card, and they made me forged identity papers. I had to give up my uniform, my dog-tags, my pistol, everything that would identify me as an American if I was stopped by the Germans.

"The identity card identified me as 'François Leguehenec', and that I was Basque. They would usually either make you out to be a deaf-mute or a Basque, because while there were a lot of Germans who spoke French, there were very few who spoke Basque, so you could get away with not being able to speak French. The card said I was a woodcutter who worked for Jean Blard, a local farmer. I worried what might happen if I was stopped and they looked at my hands."

> **"The identity card said I was a woodcutter. I worried what might happen if they looked at my hands"**

A week after being shot down, Maltbie was ready for his escape, riding a bicycle provided by André. "I was told to ride to this village 25km away, and go to the doctor. They would then send me on to the next station until I could find the Allied lines". Maltbie set off early that morning. "A couple hours later, I ran into a German patrol. They demanded my papers, and I just kept shaking my head and making out I didn't understand what they were saying, which was pretty easy to do since I didn't. Those papers worked, and they sent me on my way."

❖

Before he could get to his destination, Maltbie ran into a patrol of French-Canadians from the Canadian Army. "Of course, I had no way to prove I was an American, and they didn't speak English all that well, so they decided I was a refugee and took me back to their unit."

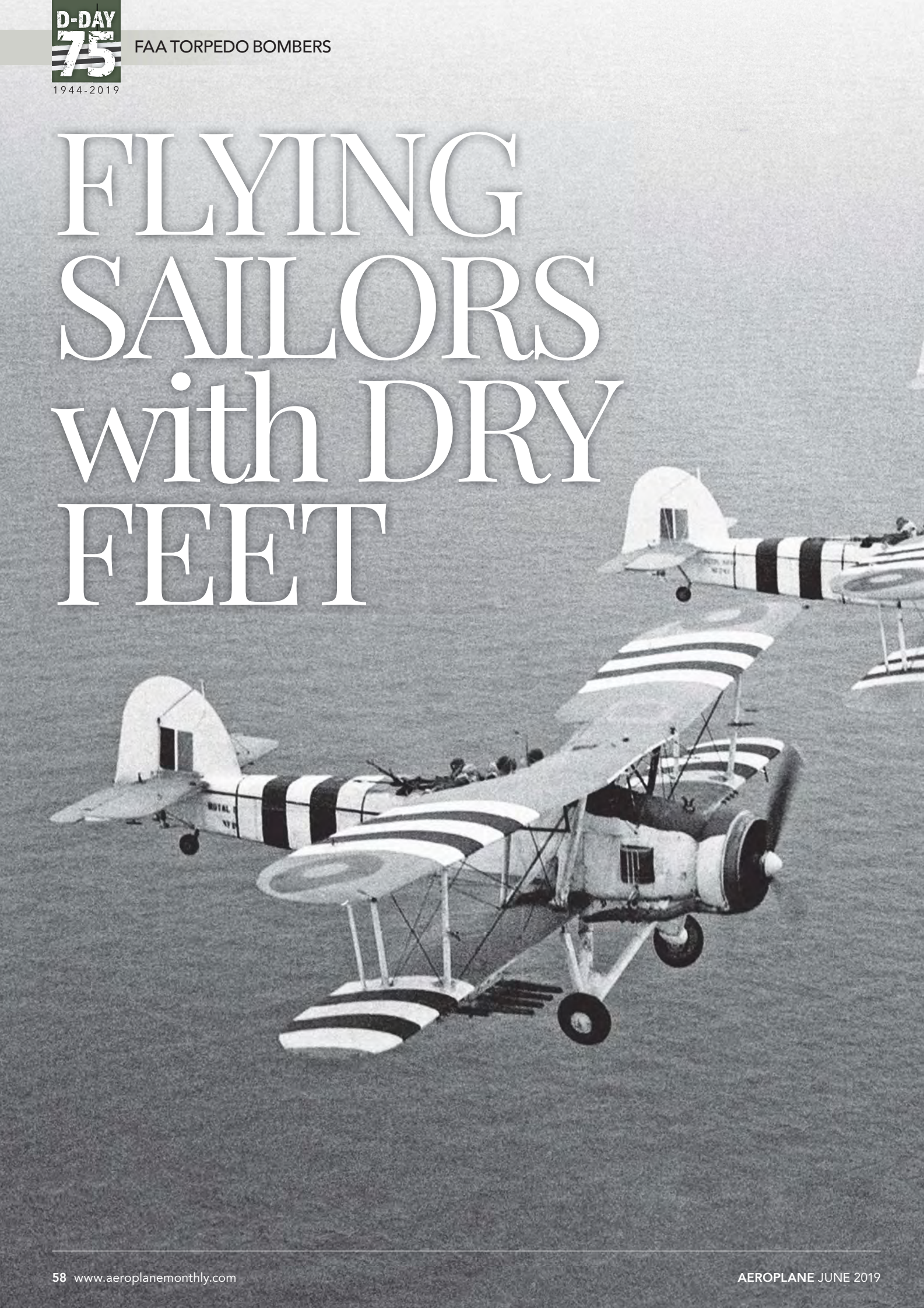
Once with the Canadians, Maltbie's troubles were far from over. With no American military identification, he was either a spy or a refugee. "I guess I was lucky. They gave me the benefit of the doubt, and treated me like a displaced person. After a couple days, I was put on a truck with some others and we were taken back to British headquarters at Caen". There Maltbie was still unable to convince anyone of his identity. "They said I'd have to be taken over to England and interrogated at Manston, and if my story checked out I'd be turned over to the Americans."

In the meantime, Maltbie was delivered to a PoW camp run by an older British major. "The group was now stationed […] a few kilometres away from Caen. I asked the major if he could take me over to the base, because I knew they'd vouch for me. He said that was outside regulations. I knew I had been gone long enough that they would be sending a telegram to my parents that I was missing in action. I asked the major if I could at least make a 'phone call to the base, so they'd know I was alive and wouldn't send that telegram. No, that wasn't in the regulations either. I'd just have to wait until I got to Manston."

Maltbie met another escaped American pilot named Stevenson in the camp, who was also unable to identify himself properly. "We decided we were not going to wait for whatever the British were going to do to us. That night, we climbed an apple tree and got over the fence. We managed to get into Caen without being stopped, and ran across an American army Jeep. We hid in the alley and waited till these two guys came out to the Jeep. It turned out they were army CIC [Counter-Intelligence Corps]! When we explained to them who we were and what happened and asked if they would help us, they just about fell out of the Jeep laughing so hard about us having to escape from the British to get home. Thankfully, they gave us a ride straight to [the group's base]. The telegram about me being missing would have been sent to my folks the next day."

Maltbie would fly on through the rest of the war, promoted to the rank of captain in March 1945. "On 8 May 1945, when we got the word it was over, I was in the squadron operations tent. I looked over at the roster board, and of the 36 pilots assigned to the 388th Fighter Squadron, there was me and two others who had flown the D-Day missions. All the others I'd crossed the Channel with that morning were gone. Ten had finished their tours and made it home. The rest had been shot down, dead or prisoners."

FLYING SAILORS with DRY FEET



Operating from land bases, the Fleet Air Arm's torpedo-bomber-reconnaissance aircraft augmented RAF Coastal Command's assets throughout Operation 'Overlord' — and in greater numbers than the Admiralty had envisaged

WORDS: MATTHEW WILLIS

When Allied forces went ashore at Diego Suarez, Oran, Sicily and Salerno, they did so covered by Fleet Air Arm aircraft flying from Royal Navy aircraft carriers. The landings in Normandy, however, were different. Fighters and gunnery spotters were the only naval aircraft seen over the beaches themselves, with the strike arm of the naval air service seemingly absent. The truth, however, was that more than a third of the Fleet Air Arm's operational torpedo-bomber-reconnaissance (TBR) strength would be in action during the first months of fighting in Normandy, and naval strike squadrons continued to support the invasion until the end of the war in Europe. Meanwhile, even more of the FAA's strength was borrowed to facilitate the Allies' advance into north-western Europe, mostly without the floating bases the service was chiefly associated with.

As plans for the invasion of France began to be drawn up, the RAF was keen to see FAA involvement, though carriers were ruled out at an early stage. In January 1944 ACM Sir Charles Portal, Chief of the Air Staff, made a request for 48 TBR aircraft and 232 fighters to support the invasion (72 of the latter for gunnery spotting, the rest for defence against air attack). These would operate from the 'unsinkable aircraft carrier' of Britain itself.

The aircraft requested represented approximately 20 per cent of the Fleet Air Arm's strength in operational strike aircraft, and virtually all of its first-line fighters. The following month, the First Sea Lord, Admiral Andrew Cunningham, responded that two TBR squadrons could be spared at the cost of taking two escort carriers out of circulation, but only two further units could be found, and then only by effectively immobilising the fleet carrier HMS *Indomitable*, one of only five such vessels expected to be in an operational state at the time. An alternative would be to find the squadrons by postponing operations in the Mediterranean. This seemed to be a false economy, as one of those operations was 'Anvil' (later 'Dragoon'), the invasion of southern France, which had been intended to coincide with the Normandy landings as part of a two-pronged assault.

The reason FAA strike aircraft were in demand by Portal and Trafford Leigh-Mallory, commander-in-chief of the Allied Expeditionary

LEFT:
Swordfish IIs of 838 Squadron, Fleet Air Arm, patrolling in line-abreast over the English Channel. This photograph is generally dated August 1944, by which time instructions had been issued for invasion stripes to be removed from upper surfaces.
VIA MATTHEW WILLIS

ABOVE: Fleet Air Arm Swordfish seconded to Coastal Command. The original caption on this press photograph states, "Some of the 'Swordfishes' on an airfield somewhere in Britain" — the 'somewhere' probably being Maydown in Northern Ireland, where several of the FAA squadrons lent to Coastal Command were based before and after 'Overlord'. VIA MATTHEW WILLIS

Air Force, was less because of their experience in amphibious operations and more for their proficiency in anti-submarine and anti-surface vessel warfare. This was a capability the RAF was well aware of and valued highly, as numerous FAA squadrons had operated under RAF command in the UK and overseas in the preceding years. In fact, the RAF had formed its own squadrons using FAA types for this purpose: No 119 Squadron on the Fairey Swordfish and No 415 Squadron, RCAF with the Fairey Albacore. Unfortunately, Coastal Command was even more stretched than the Fleet Air Arm, and simply did not have the capacity to meet all its ongoing commitments while protecting the invasion fleet from submarine and surface attack.

Coastal Command was aware that the Kriegsmarine, anticipating an invasion, was holding back large numbers of U-boats from Atlantic operations. This made it imperative that anti-submarine squadrons were put in place and trained to high efficiency. Though fewer than the fighters requested, the demand for TBR aeroplanes represented a stretch. The FAA had 34 TBR squadrons in front-line service by late 1943, and most of them attached to 'trade protection' carriers were still operating the obsolete Swordfish.

Initially, Cunningham only committed the FAA to providing two TBR squadrons. The War Cabinet Chiefs of Staff Committee recommended, "that this requirement should be met to the extent rendered possible by immobilising the two trade protection carriers but not *Indomitable*" — in other words, to accept just two TBR squadrons. However, the number required would creep up over the following months.

> "The increase of TBR squadrons to six for 'Overlord' was by this time having a serious effect on the Fleet Air Arm"

At the beginning of 1944, the FAA was equipping the squadrons specialising in torpedo and dive-bombing with the Fairey Barracuda, and its anti-submarine units with the Grumman Avenger, though supplies of the latter were preventing total replacement of the Swordfish. By May, the two squadrons initially promised had risen to six: 816, 819 and 838 on the Swordfish, and 848, 849 and 850 with the Avenger.

It was imperative that the units involved were as skilled as possible, given the risks to 'Overlord' if U-boats could get in among the invasion convoys. Most of those selected already had some experience in anti-submarine warfare, notably the veteran 816, which had been protecting convoys against U-boats for nearly two years. However, 849 was more 'green' than most and undertook a course at the FAA's anti-submarine school at Eglinton, Northern Ireland, in February 1944.

The time available was also taken to train squadrons in night attacks on submarines and Schnellboote, known to the Allies as E-boats, and Räumboote, or R-boats. Robin Brand, who flew Barracudas in the anti-submarine role with 815 Squadron after the war, described the technique developed for this purpose: "We worked in pairs at night. We had it worked out on a time basis that we would split up when we detected the E-boats on the radar, and the leader would go right round the other side of them, fire his 'glow worms' [flares], then the second Barracuda would attack… That was quite fun, and a bit hairy at night as well."

ACM Sholto Douglas, air officer commanding-in-chief of Coastal Command, issued a directive to the groups involved in April, setting out their tasks for the coming invasion. Douglas wrote, "On the assumption that the enemy would direct his U-boat offensive principally against the cross-channel convoys, the Admiralty appreciated that the bulk of his U-boats would operate from the Bay [of Biscay] ports and endeavour to penetrate the SW Approaches to the Bristol, St George's and English Channels… The main focus of our anti-U-boat operations was therefore to be in the SW Approaches". He added, "It was also necessary to provide to some extent […] against the possibility of the movement of U-boats through the North Sea". The strategy was to 'flood' an area of the south-western approaches with aircraft so any submarines attempting to pass through it could not expect to do so on the surface without being detected and attacked. If they submerged, they would have to recharge their batteries before reaching the invasion convoys, making them vulnerable to aircraft to the east.

In addition, it was fully expected that the Kriegsmarine would send its formidable Schnellboote against the invasion convoys, especially at night, the German light forces having proved highly dangerous to coastal

shipping since the beginning of the war. Therefore No 19 Group would also be responsible for hunting and engaging the fast attack boats and destroyers in the south-western approaches, with No 16 Group doing the same in the southern waters of the North Sea. The danger posed by these forces was especially apparent after the disaster that overtook Exercise 'Tiger', a rehearsal for 'Overlord', in April, when three groups of Schnellboote penetrated naval patrols and attacked a convoy, sinking two tank landing ships and causing heavy loss of life.

Douglas had a particular task in mind for the FAA units under his command: "In addition to flooding the selected area, plans were made for the protection of our cross-channel convoys sailing along the South coast of England. I allotted this task principally to the Fleet Air Arm Squadrons (eight of which were placed under my operational control for 'Overlord'), backed by such 19 Group aircraft as I could spare from their main task". These coastal convoys were principally between Lynmouth and Portland to the west, and between the Nore and Beachy Head to the east.

The main 'battle zone' for Operation 'Neptune' was considered to be the area bounded to the west by a line extending from Jersey to Portland, and to the east from the North Foreland to Calais. Coastal Command was expected to operate mainly on the flanks, in particular the 'flooded area' to the west. No fewer than 21 Coastal Command squadrons and four of the FAA units were based adjacent to this zone — 816, 849 and 850 Squadrons at Perranporth in Cornwall, and 838 at Harrowbeer in Devon. Meanwhile, 848 and 819 Squadrons would be located at Manston, protecting the eastern flank. All six units arrived at their temporary bases in April. Although there were months to go until the invasion, Coastal Command's support of it had already begun, monitoring the Kriegsmarine's submarine movements and countering them wherever possible.

The increase of TBR squadrons to six for 'Overlord' was by this time having a serious effect on the FAA. A report to the War Cabinet noted, "The allocation of six Fleet Air Arm TBR Squadrons for shore-based anti-submarine duties during 'Overlord' has reduced, temporarily, the numbers of escort carriers which would otherwise have been available for A/S [anti-submarine] duties

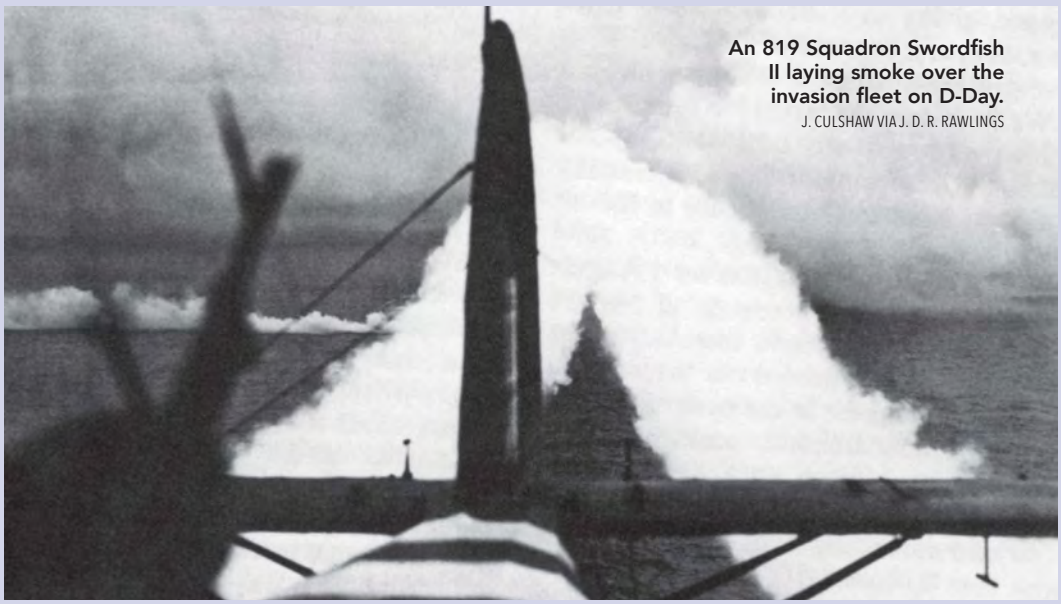
Swordfish II NE932/A was among those on 819 Squadron's strength at Manston on 6 June 1944. With it are unit CO Lt Cdr P. D. T. Stevens and observer Sub-Lt J. Culshaw.
J. CULSHAW VIA J. D. R. RAWLINGS

LAYING A SMOKESCREEN

One of the more unusual activities carried out by Fleet Air Arm squadrons during operations in support of 'Overlord' was laying smokescreens to protect Allied shipping. The concentration of vulnerable shipping in and around the Channel required to allow the rapid build-up of forces in the beach-head posed real risks to the success of the effort. No fewer than eight convoys were due to arrive on the day following the initial landings. Some were required to pass through the narrows at the Straits of Dover, which were covered by heavy gun batteries, and provided a 'pinch-point' where Schnellboote could wreak havoc. One means of safeguarding the convoys was to cover the passage of the convoy with smokescreens — a tactic familiar to the Royal Navy for use in naval battles.

It was intended for the smoke to be laid by motor launches (MLs), but there were insufficient launches equipped for this role to cover convoy ETP1 — the first attempt to pass large troop ships through the Straits for four years. Admiral Ramsay, in command of Operation 'Neptune', noted that, "arrangements were made with Coastal Command for FAA aircraft to assist MLs in laying smoke screens for this and other convoys". After some difficulties were encountered, Ramsay wrote, "A most effective smoke screen […] was finally laid and convoy ETP1 passed through the Straits at 1700, 6th June, without any enemy interference."

The aircraft laying the smokescreen on this occasion were the Swordfish of 819 Squadron, commencing at 15.18hrs and maintained as long as necessary. As Ramsay observed, smoke-laying by naval Swordfish was employed for future convoys. Another FAA type carried out similar missions, laying smoke to protect the invasion fleet off the Normandy shore on D-Day and after: the Fairey Albacores of No 415 Squadron, RCAF undertook these flights by day, and anti-shipping strike missions by night throughout June and July.



An 819 Squadron Swordfish II laying smoke over the invasion fleet on D-Day.
J. CULSHAW VIA J. D. R. RAWLINGS

Wildcat Vs and Avengers of 846 Squadron — the former recently transferred from 1832 Squadron upon its disbandment — aboard HMS *Tracker* sometime between 5 June 1944, when the invasion stripes were applied, and 10 June, on which night *Tracker* was involved in a collision with Canadian frigate HMCS *Teme*. KEY COLLECTION

WHY WHERE THERE NO CARRIERS ON D-DAY?

Previous Allied amphibious assaults, from Salerno in 1943 back to Narvik in 1940, had involved the Royal Navy's fleet aircraft carriers. The operations in Madagascar, North Africa, Sicily and Italy all saw fleet carriers providing direct support of the landings, the assembled ships and their supply lines. In doing so, the Fleet Air Arm had built up considerable skill and experience in such operations. So, why were the Royal Navy's large carriers most conspicuous by their absence from participation in Operation 'Neptune' on 6 June 1944?

In one sense, they were not absent but merely further away than they had been in earlier landings. Several fleet carriers were located in the North Sea in the spring and summer of 1944, including giving the appearance of preparing to invade Norway, to prevent the heavy units of the Kriegsmarine escaping to attack the invasion fleet. There was even a plan, Operation 'Hermetic', to counter any major effort by Kriegsmarine heavy forces to break out and attack the invasion fleet — a threat that was never realised but had to be considered by Allied planners.

> "The operation of carriers would have hampered the vast naval operation to land and support amphibious forces"

A second factor was the sheer demand on the RN's fleet carriers across multiple theatres. The nature of the eastern theatre was such that fleet carriers were essential to projecting power — the distances involved were simply too great for land-based aviation. HMS *Illustrious* was in eastern waters in June 1944, carrying out attacks on Japanese-held targets in the East Indies, and was joined by *Victorious* and *Indomitable*, the latter having just worked up after repairs. Both sailed a few days after the D-Day landings.

The chief reason, however, that fleet carriers did not take a direct part in Operation 'Neptune' was that for landings in Normandy, they were not a necessity. Indeed, their operation would have hampered the vast naval operation to land and support amphibious forces. The shipping lanes connecting England to the invasion zone ran north-south, while the carriers would have needed to steam east-west into the prevailing winds to launch and recover their aircraft, repeatedly cutting across the path of the invasion fleet. Normandy could be supported entirely by land-based aircraft, freeing the RN's valuable fleet carriers for other vital tasks.

in the Atlantic, and these carriers will be used temporarily for ferrying aircraft and also for DLT [deck landing training] while the regular DLT carriers are refitting". Indeed, six escort carriers were effectively taken out of front-line operation. Pressure on the FAA was partly alleviated, however, by the postponement of Operation 'Dragoon' until August due to a lack of landing craft.

Worse was to come, though. A further two squadrons were requested, and a pair of brand-new Avenger units — 854 and 855 Squadrons, fresh from training in Canada and the US respectively — decamped to Hawkinge on 22 May, immediately beginning four to five-hour patrols over the Channel. An additional Avenger squadron, 846, was briefly seconded to Coastal Command in Northern Ireland, covering the western approaches during June and July after its carrier, HMS *Tracker*, was damaged in a collision. In July, the Hawkinge squadrons' activity began to take in anti-surface vessel operations at night.

When 'Overlord' was launched on 6 June, the Kriegsmarine was aware that an invasion was imminent, but the timing and exact location had been successfully kept secret. That meant the majority of operational U-boats were still assembled in Biscay ports when the huge naval bombardment began the invasion at 05.45hrs. Large numbers of U-boats quickly left their Atlantic bases and headed for the Channel — Coastal Command sighted 36 off the mouth of the English Channel in the four days after the invasion began. Most of the submarines making for the invasion area were fitted with Schnorkels, breathing devices that allowed them to operate their diesel engines while submerged, making them hard to spot both visually and with the use of ASV (anti-surface vessel) radar. For the rest of the month, 47 sightings were made, more than half of them resulting in attacks.

Light surface forces, meanwhile, were pitted against the invasion fleet "on quite a considerable scale", according to a dispatch from Douglas. Admiral Bertram Ramsay, in charge of Operation 'Neptune', the D-Day landings, noted, "Throughout the month of May enemy E-Boat activity in the Central Channel increased, and it was apparent that more E-boats were being moved to Cherbourg and [Le] Havre". Douglas went on, "The operations of Coastal Command against these light forces consisted mainly of continuous anti-shipping patrols in the Channel. Albacores, Avengers, Swordfish, Beaufighters and Wellingtons made a great many attacks, mainly at night, against E-boats, R-boats, 'M'-class minesweepers and trawlers". He added, "We know from prisoners of war that hardly an E-boat put to sea without being spotted and attacked from the air… there is no doubt that the menace of the enemy's light forces was held in check by the operations of the Royal Navy and Coastal Command."

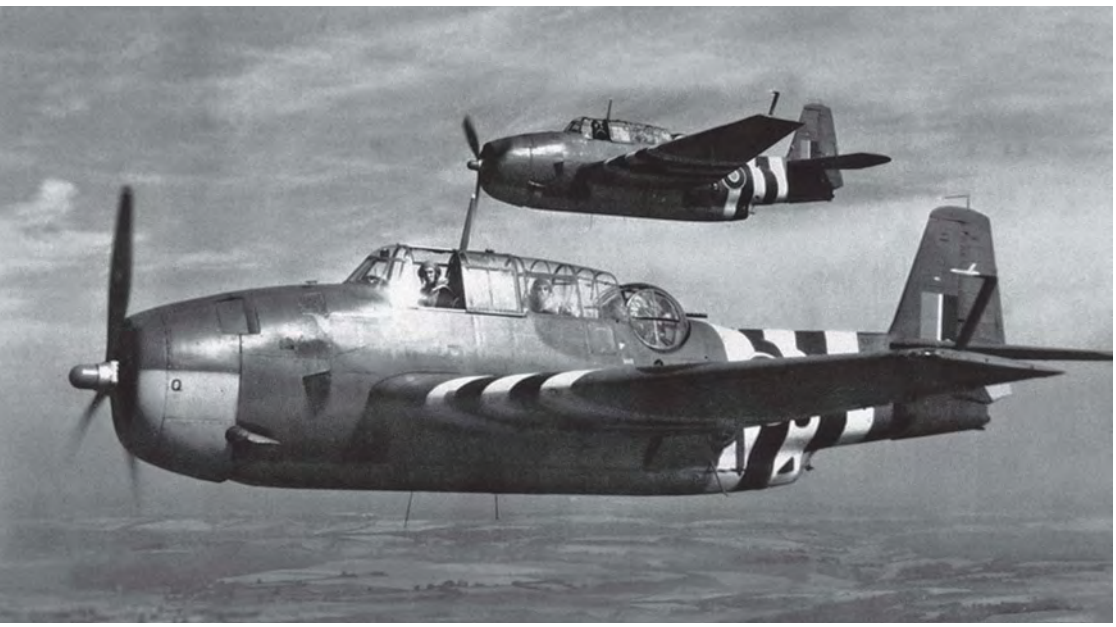
> "Albacores, Avengers, Swordfish, Beaufighters and Wellingtons made a great many attacks, mainly at night"

One example of such an engagement came on the night of 22-23 July, with a patrol between Cap Gris-Nez and Cap-d'Antifer by an Avenger of 855 Squadron, crewed by pilot Sub-Lt R. Johnson, observer Temporary Sub-Lt J. Gleeson and telegraphist/air gunner Temporary Leading Airman S. Norman. Two legs of the patrol passed without incident, but on the third a contact was picked up and the crew spotted a group of nine E-boats in three columns to the south, illuminated by flares dropped by a second aircraft. Johnson decided to attack immediately, but the flare went out just before they reached the Schnellboote. A second approach also failed, and by now the Avenger had been spotted and was under heavy fire. Finally, on the third approach, Johnson attained a good position, but just as he released the stick of four bombs, the aircraft was hit by a 40mm anti-aircraft shell. Johnson ordered the crew to bail out and did so himself, later being picked up by a German patrol boat. Of the other two crew members there was no sign. The cannon shell struck near the observer's position, and the gunner's station was notoriously difficult to escape from in an Avenger, so it is likely both Gleeson and Norman were killed before they could escape. Johnson later reported that he thought his bombs had hit the target. No Schnellboote were reported lost that night, but it was quite possible that the bombs did some damage.

The FAA squadrons operating with Coastal Command had more success later in the month. On the 26th, 850 Squadron Avengers sank a supply ship and damaged another off St Peter Port, Guernsey. A few days later, German forces attempted to reinforce defences near St-Malo by sea, and on 29 July Associated Press made the following report:

"Avenger planes of the Fleet Air Arm, operating with Coastal Command, without loss bombed and machine-gunned three armed

BELOW: Avenger II JZ554 of 854 Squadron pictured around June 1944. This is the aircraft that, being flown out of Hawkinge by Sub-Lt Davies on 9 July that year, shot down a V1 thanks to the efforts of telegraphist air gunner LAC Fred Shirmer in the turret.
NO 53 SQUADRON



ABOVE: 854 or 855 Squadron Avengers flying from RAF Hawkinge in June-July 1944. Both squadrons covered Channel operations respectively from May until September, when 854 left for the Far East on HMS *Activity*, and October, when 855 disbanded. VIA MATTHEW WILLIS

minesweepers and four landing craft all crowded with German soldiers outside St Malo yesterday evening. One landing craft was sunk and a minesweeper damaged. The ships, it is believed, were carrying troops in a night journey to Granville to reinforce Rommel's line facing the Americans."

A landing craft was confirmed destroyed and the auxiliary minesweeper M 4447 damaged, to be lost later that day when it hit a mine.

Many V1 flying bombs were seen during night patrols, roughly aimed at the areas where invasion support forces were concentrated. The gunners in patrolling aircraft took pot-shots when they could, and two V1 kills were awarded to Avenger crews. In a similar reversal of roles, FAA Seafires were credited with the destruction of a submarine.

In his dispatch to the Secretary of State for Air on 1 November 1944, Sholto Douglas wrote, "As the enemy-occupied ports fell into our hands, the night patrols of the Beaufighters, Avengers and Wellingtons moved eastwards along the coast. This happened so quickly that there were no attacks off the Belgian coast after 7th September, and our attention was turned completely to the intensification of the offensive against the enemy's shipping operating off the Dutch and Norwegian coasts."

By August, the need for FAA squadrons supporting the Channel operations appeared to lessen, while the demand for TBR aircraft elsewhere — particularly Avengers — was acute. The Swordfish-equipped 816 Squadron disbanded, and 849 went to Belfast in September to embark on HMS *Rajah*, while 848 joined HMS *Formidable* and 854 HMS *Activity*, all bound for the Far East. One unit, 819 Squadron, took its Swordfish to Belgium to tackle shipping off the Dutch coast along with the RAF's No 119 Squadron, while in October 855 Squadron disbanded, and 850 and 838 decamped to Northern Ireland to help cover the western approaches, as Atlantic convoys ramped up again.

In the latter months of the operation, the Allied command began to feel that more support was needed for the sea crossing between the southern coast of England and the continent, and Coastal Command took control of two more FAA squadrons. These were 810 and 822, both operating the Barracuda, to be based at Thorney Island near Chichester. These units had just returned from the East Indies, where Barracudas were being replaced with Avengers. Early in 1945, the squadrons gained the newest variant of the type, the MkIII, equipped with ASV MkXI radar which gave more precise returns and was better at picking up small targets like a Schnorkel than earlier models of ASV. It also had a 'blind bombing' function, useful for night operations.

Pilot Derrik Armson of 822 Squadron described the unit's operations: "There were a lot of German midget U-boats around the coast of France and up the east coast to interdict shipping, so we went to various places on the south coast, doing dawn and dusk patrol, mainly around the Channel Islands.

"When we were on the south coast, on the RAF station at Thorney Island, we were doing anti-submarine patrols at dawn and dusk, and shipping rescue. When we were flying out to the Channel Isles, we had depth charges — four on each flight. I nearly blew up a fishing float, which I thought was a submarine's periscope. There must have been a strong tide flowing at that particular time, and I saw this little blob and thought, 'there's one'. We dove down towards it and I was all ready to drop the depth charges when I saw it wasn't [a submarine], it was just a fishing float."

These operations were known as 'High Tea'. George Twist, a TAG with 822 Squadron explained, "This was laying sonobuoys. If you thought there was a submarine in the area you laid these things and followed the signal. You tuned in on them and watched the patterns get closer and closer until you were on top of the sub and you could drop depth charges."

The squadron moved from Thorney Island to Manston at this point, partly due to the increased risk to Channel convoys from new midget submarines operating from the Scheldt, and in particular to cover the last operation of the innovative Operation 'PLUTO' (formally pipe-line underwater transportation of oil, but with another colloquial name by which it was better-known). George Twist said, "We were sent to Manston, which was a fighter station, to protect PLUTO — the pipe-line under the ocean. We 'umbrella-d' it — it was a massive operation, with 'bobbin' about four storeys high, towed out by tugs. The pipe that was laid was 4in steel-covered, and it sat on the sea floor after it had been rolled out". PLUTO had first been used in August, with two routes: one to Cherbourg and the other to the Pas-de-Calais. The last pipe for the latter was not laid until May 1945, by which time the war in Europe was nearing its end.

For the duration of 'Overlord', 132 Fleet Air Arm TBRs operated from shore bases in support — a far cry from the 24 originally promised — and more continued to assist cross-Channel operations after the invasion period officially ended. The last word should go to Sholto Douglas, who in his dispatch to the Secretary of State for Air, wrote, "I would like to mention particularly the Fleet Air Arm Squadrons which were incorporated in my Command for Operation 'Overlord'. They performed their duties with outstanding keenness and precision."