

# AIRCRAFT PROFILE

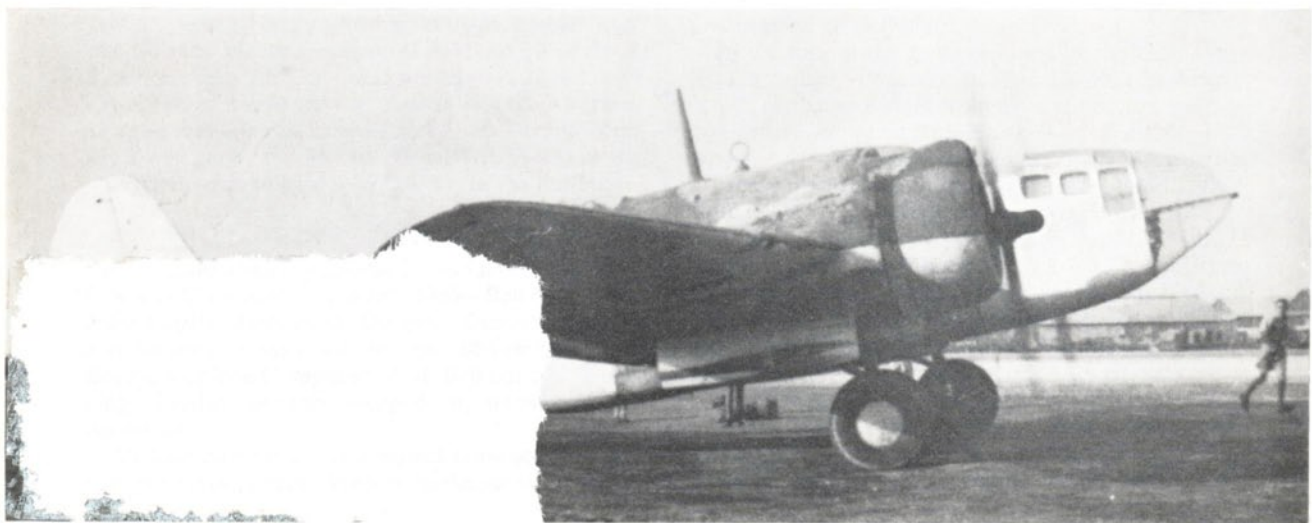
29

# 232

## Martin Maryland & Baltimore variants

35p

by Christopher F. Shores





An Armée de l'Air Martin 167A-3 about to leave the ground during the Battle of France, June 1940.

(Photo: Musée de l'Air via R. C. Jones)

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by Christopher F. Shores

In the second half of 1937, the United States Army Air Corps announced a design competition for a new two-motor Attack (A-prefix) light bombardment aircraft. Key requirements were a 1,200 pounds bomb capacity and a range of 1,200 miles at a speed in excess of 200 miles per hour. A fixed, forward-firing armament for ground attack was also obligatory. From this competition stemmed by progression two light bombers from The Glenn L. Martin Company of Baltimore, Maryland. Both bore Army Air Corps designations—A-22 and A-30—yet neither was to serve in combat with the American air arms. Each is remembered now by its British Royal Air Force name, the Martin Model 167 (A-22) as the Maryland, and the Model 187 (A-30) as the Baltimore.

## FRANCE ORDERS THE MODEL 167

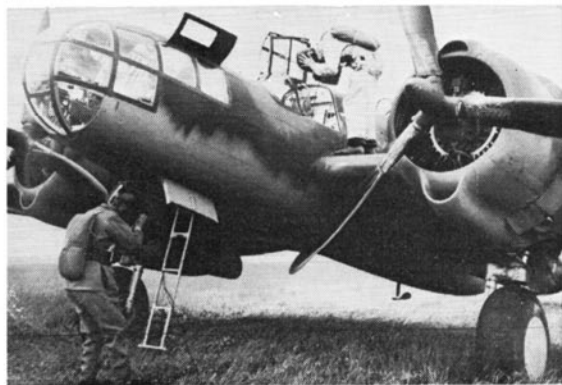
Four companies submitted tenders for the U.S.A.A.C. competition in July 1938—Bell (who withdrew shortly afterwards), Douglas, Glenn L. Martin and Stearman (which was by then affiliated with the Boeing Airplane Company). With Bell out of the running, another aspirant stepped in, namely North American.

All four companies then gained contracts to build one prototype apiece. With remarkable swiftness of

purpose, the quartet of competing companies had their experimentals built in a matter of months. Irrespective of any U.S. War Department orders in the offing, the four manufacturers could confidently count on the reasonably high expectation of foreign orders from European nations whose governments had to re-equip their starved “peacetime” air forces for the war which now seemed inevitable.

Of the four prototypes examined by the U.S. Army Air Corps, only the Stearman Model X-100 (the Army’s XA-21) failed to benefit from the competition and was not proceeded with. The North American NA-40—which, curiously, was allocated no Army XA number—eventually became the Army’s (Model NA-62) B-25 Mitchell. The Douglas entry, the Model 7B (XA-20), not only won the Army’s competition but also gained acceptance by the French Purchasing Commission. Suitably adapted to French *Armée de l’Air* needs, it became the DB-7 B-3 (*Bombardement-Trois Place*). The DB-7 also became the R.A.F.’s Boston (and Havoc night-fighter) and the U.S. Army’s A-20 Havoc.

For the Glenn L. Martin Company, the U.S.A.A.C.’s preference for the Douglas XA-20 to their own Model 167W (Army XA-22) meant comparative freedom to devote a major effort on export orders. In fact, the



French aircrew prepare to enter their 'Glenn' during the early summer of 1940. (Photo: E.C. Armées via R. C. Jones)

French Commission had already (January 1939) placed a substantial 115-aircraft order with Martin before the prototype XA-22 was first flown by the Army Air Corps on March 14, 1939.

In prototype configuration, the Model 167W had a crew of three and was powered by Pratt & Whitney R-1830-37 ("Twin Wasp") air-cooled, 14-cylinder, two-row radials each delivering 1,100 horsepower at 5,000 feet. At rated altitude, the XA-22 had a top speed of 280 miles per hour. The service ceiling was 20,000 feet. Light-calibre 0.30-inch Browning machine-guns, six in all, comprised the offensive/defensive armament. Four guns were fixed and forward-firing (two in each mainplane) and two were flexibly-mounted—one in a retractable dorsal turret which was covered by a streamlined hatch when not in use and the other firing from a ventral rear position.

The French variants of the Model 167W became the

Model 167F and the *Armée de l'Air* Martin 167 A-3 (or Army support, 3-place). To French air and ground crews, the Glenn L. Martin light bomber became simply the "Glenn".

As the Model 167F, the Martin 167 A-3 switched to two 950 h.p. (later 1,100 h.p.) Wright R-1820 "Cyclone 9" single-row, 9-cylinder radials. French instrumentation was installed and the six machine-guns were to be 7.5-mm. (0.30-in.) Belgian Fabrique Nationale FN-Brownings. External bomb carriers on the wings brought the basic internal load of 1,200 lb. up to 1,760 lb.; though, in combat, the former bomb weight was rarely exceeded. The original dorsal turret was scrapped in favour of a lighter-weight, semi-retractable turret. This and other refinements permitted an improved ceiling and a slight top speed increase of 8 m.p.h. to 288 m.p.h.

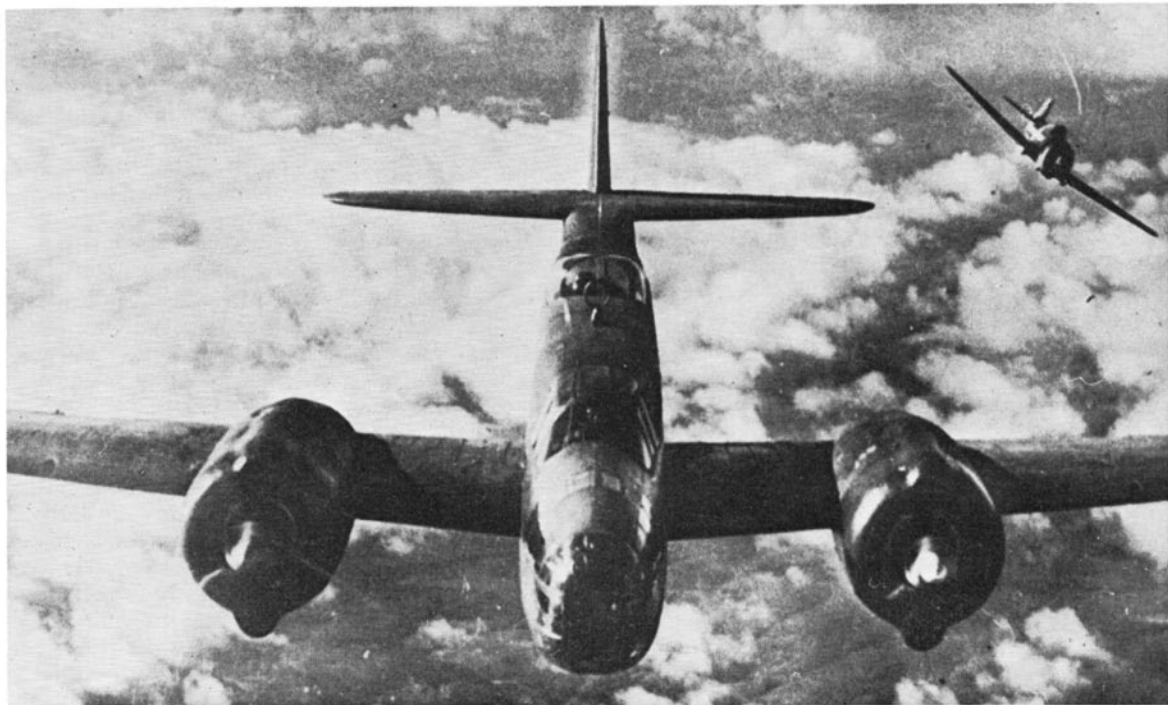
To meet the French bulk order for 115 Model 167Fs, the Glenn L. Martin plant at Baltimore was expanded to provide virtually double the existing facilities. This expansion programme was completed in a record 77 days and the 115 bombers for the *Armée de l'Air* were all produced within six months of contract signing. However, a U.S. government arms embargo prevented delivery until the ban was lifted in October 1939. A second contract for 100 additional 167 A-3s had by then been placed and production continued. By November 1939, the first 115 had been shipped out of the U.S.A. Of the second batch, only 25 had arrived in France before the signing of the Armistice of June 1940.

#### MARTIN 167 A-3s IN FRANCE UP TO JUNE 25, 1940

Despite the original ground-attack concept of the Model 167W/XA-22 for the U.S.A.A.C., the French

Martin 167A-3 of the *Armée de l'Air* over North Africa probably in late 1940; note escorting Curtiss Hawk 75A fighter.

(Photo: E.C. Armées via R. C. Jones)



opted to employ the 167 A-3 as a horizontal, medium-level bomber. A conventional role.

In consequence, *Armée de l'Air* "Glenns" were allocated to bomber formations, the first being units of Groupement I embracing the Groupes des Bombardement GB I and II/62 and GB I and II/63; with 12 to 18 bombers per Groupe.

By May 10, 1940 GB I/62 and I/63 were both ready for action in south-western France, while the other two Groupes were still in French North Africa completing their training. Within two weeks of the start of the *Blitzkrieg*, all four units had been rushed to the Northern Front, the first sorties being flown on May 22. Between then and June 14, 363 sorties were made against bridges, *Panzer* concentrations, supply convoys and other similar targets. These attacks were made from between 300 and 3,000 feet, and consequently losses to the accurate German light anti-aircraft fire were heavy. The 17 Martins lost in this period were mainly attributed to this cause.

When Italy declared war on France on June 10 and began moving across the frontier, the Martins were switched to this new combat zone. They flew 55 sorties between June 15 and 24 for the loss of one aircraft. Apart from the loss of 18 Martins in the air, a considerable number were destroyed on the ground in Northern France by the German *Luftwaffe*. By June 25 when the Armistice was signed however, no flyable example remained in the country. The combatworthy 167 A-3s GB I/62 and I/63 having been flown to Banaka (Mali), and GB II/62 and II/63 to Thies, Senegal, both in West Africa.

Despite the lack of self-sealing tanks, the "Glenn" was well-liked by its crews, and had been selected for service in all the multi-engine landplane escadrilles of the *Aéronavale*, the French Naval air arm, Escadrilles 2B, 3B, 5B, 6B and 7B in North Africa being so equipped. The *Armée de l'Air*'s GR I/22 at Rabat, Morocco, received a number of these aircraft for reconnaissance duties, and GB I/39 in Syria was also re-equipped with them.



*French aircrew in tropical garb and somewhat the worse for wear, after crash-landing in this Martin Maryland of the Free French Detachment Permanent des Forces Aériennes du Tchad in North Africa. (Photo: E.C. Armées via R. C. Jones)*

## MARTIN 167 A-3 WITH THE VICHY FORCES

On September 23, 1940 British Naval forces accompanied Free French forces to the area of the port of Dakar in French West Africa, where a landing was planned. This proved a fiasco, as it had been planned on the incorrect premise that no resistance would be offered. After attacking the French naval units, the force withdrew in the face of fire from the battleship *Richelieu*, and increasingly accurate bombing by the Martin 167s of the GBs in the area. Meanwhile in retaliation for this attack, 10 Martins of Esc. 6B and 7B, escorted by Dewoitine D.520 fighters, bombed Gibraltar on September 24 and 25, and a few weeks later aircraft from these units attacked the cruiser H.M.S. *Sheffield* and a number of destroyers which had intercepted a French convoy off Nemours, scoring several hits.

As already mentioned, GB I/39 in Syria had received Martin 167s during 1940, and it was here that

*Martin 167A-3 of GB I/61 (Escadrille 1er.) in 1941, resplendent in full Vichy Air Force markings.*

*(Photo: E.C. Armées via R. C. Jones)*





One of the *Aéronavale* Martin 167Fs of Flottille 4F, shot down by Curtiss Tomahawks of 3 R.A.A.F. Squadron over the Palmyra area of Syria on June 28, 1941. The photograph is one of a series taken by the Australian squadron following the conclusion of hostilities with the Vichy forces. (Photo: via R. C. Jones)



Ex-R.A.F. Maryland I, carrying the "one-off" serial BS761, and serving with GB II/20 "Bretagne", which crash-landed at Zouar after receiving anti-aircraft damage when bombing Italian forces in the Fezzan area of southern Libya on December 29, 1942. (Photo: E.C. Armées via R. C. Jones)

the bombers were next to see action—once more against Allied forces. Before the actual invasion of Syria started, there had already been considerable air activity in the area, and GB I/39 had lost one Martin to Hawker Hurricanes of No. 80 Squadron, R.A.F., while on reconnaissance over units of the British fleet. When the invasion began on June 8, 1941, 12 Martins were on strength, three equipped for reconnaissance, three for dive-bombing and six for level bombing, and these were quickly in action against advancing Australian and Free French troops.

In mid-June, *Aéronavale* Escadrilles 6B and 7B, forming Flottille 4F, flew in from Morocco and quickly joined the *Armée de l'Air* units on operations. Late in June, all French bombers were turned on an Allied column, *Habforce*, advancing from Iraq on Palmyra. Thus, for several days when virtually no fighter cover was available to this column, it was brought to a halt by air attack. This situation was considerably ameliorated on June 28 when Curtiss Tomahawks of No. 3 R.A.A.F. Squadron intercepted six Martin 167Fs of Flot. 4F and shot them all down with great loss of life. Next day one of GB I/39's aircraft was shot down and four were destroyed on the ground. The Naval bombers then flew a few night sorties against Haifa in Palestine, but early in July both units withdrew; Flot. 4F had just four Martins left by this time, three of 6B and one of 7B, but only one was in a fit state to fly back to Morocco. GB I/39 had received eight replacement aircraft during the short campaign, having lost five shot down, seven on the ground and one in an accident; seven flew back to France, but two of these crashed en route.

By late 1942 the Vichy authorities were fearing another British attempt to move on Dakar, and Esc.

Ex-R.A.F. Maryland I supplied to the Free French Detachment Permanent des Forces Aériennes du Tchad, is seen here on a landing ground at Zouar in the southern Sahara. Flown by the Escadrille "Nantes" of the Groupe "Bretagne", this Maryland was previously an *Armée de l'Air* Martin 167A-3, No. 228, and later received the R.A.F. serial MQ228.

(Photo: E.C. Armées via R. C. Jones)



5B was moved down to West Africa for reconnaissance purposes; over Freetown, Sierra Leone, on October 11, 1942, one of these was intercepted and shot down by a Hawker Hurricane of the resident R.A.F. fighter squadron, No. 128. A month later, on November 8, the Allies did move, but into Morocco and Algeria. Nearly all Martin 167Fs available were in the Casablanca area, on the Atlantic coast of Morocco, where U.S. landings were supported by an American carrier force. On the initial morning of the landings Grumman F4Fs of VF-9 from U.S.S. *Ranger* encountered eight Martin 167Fs of Flottille 3F (Esc. 2B and 3B) taking off to attack the invasion vessels and shot down three, a fourth later crashing while trying to land at Sidi Yahia. Several others were damaged, but managed to reach the latter airfield, but a strafe later in the day destroyed another three on the ground.

An *Armée de l'Air* unit, GB I/22, was issued with four Martins during the afternoon to make good losses of Lioré et Olivier LeO 451s, and next day all available *Armée de l'Air* and *Aéronavale* Martins, LeO 451s and Douglas DB-7s carried out an attack on the U.S. shipping without loss. By November 10, when hostilities ceased, only a few Martins had survived the fighting.

## ALLIED USE OF THE MARTIN 167 MARYLAND

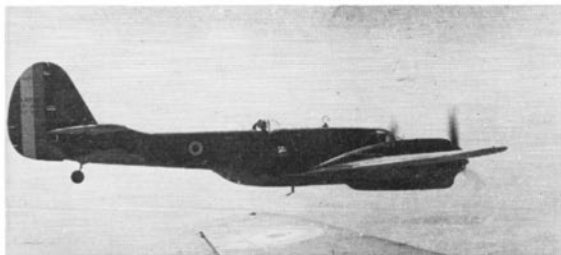
Following the fall of France, the British Purchasing Commission took over the residue of the second French contract, totalling 75 aircraft. The first of these reached the United Kingdom late in June, the first 32 having no British equipment or provision for it, though this was rapidly provided in the last 43 of the order. The "Cyclone 9" engines were also replaced by "Twin Wasps". Named the Maryland I and serialised AH205-279, the aircraft delivered to England were mainly used for evaluation and various other non-operational duties; some were supplied to the Royal Navy's Fleet Air Arm which used them for high-speed target towing. But, a few were also issued to 771 Squadron for long-range reconnaissance, these discovering many German ships which were later attacked. It was an aircraft from this unit which discovered that the German battle-cruiser K.M. *Bismark* was absent from the Norwegian fjord where it had been moored, this report resulting in the massive hunt which ended with the destruction of this mighty vessel.

Most Maryland Is however, were delivered direct to the Middle East for general reconnaissance and bombing duties, and here also at least six French

aircraft which had escaped to continue the fight, were taken over, these being given the serials AX689-693 and HK845. Following evaluation of the Mark I, 150 examples of the Mark II were ordered, these having "Twin Wasp" S3C4-G engines with two-speed superchargers which boosted performance generally, maximum speed being increased to no less than 316 m.p.h. Serialled AH280-429, these were all delivered direct to the Middle East, 72 going to the S.A.A.F. which re-numbered them in the 1601-1700 range. Production began in December 1940 and ended in April 1941, first deliveries being made during March 1941.

First operational R.A.F. unit to receive the Maryland was No. 431 Flight which was formed at Malta on September 19, 1940 with the arrival from England of three of the early French-equipped Martin 167Fs and one Blackburn Skua. One of these aircraft crashed early in the Flight's life, but the other two, soon reinforced by more Marylands, began a series of long-range reconnaissance missions to all sectors of the Mediterranean within reach. Against the Italian aircraft which opposed it, the performance of the Maryland allowed its use at times in quite an offensive manner, and this was first demonstrated by Pilot Officer Adrian Warburton when he shot down a seaplane on October 30, 1940. During the latter part of the year at least one Maryland was used as a night fighter in defence of the island, and Warburton shot down a Savoia Marchetti S.M.79 in flames in this "night-fighter" Maryland on the night of Christmas Eve.

In January 1941, the Flight became No. 69 Squadron, now with five Marylands on strength, and operations continued at an increased level. Although often intercepted by enemy fighters, the Maryland could generally rely on its good performance to escape, and it was not until January 11 that the first was lost in action while over Taranto. Marylands remained with the squadron throughout 1941, joined by a few Hawker Hurricanes in the summer, and apart from the invaluable reconnaissance work they performed, their greatest exponent, Warburton, had with his crew,



*Martin 167A-3 of the Armée de l'Air (No. 78) seen here in flight over North Africa in mid-1943.*

(Photo: E.C. Armées via R. C. Jones)

destroyed 10 enemy aircraft (seven in the air and three on the ground) by the time he left the unit in September 1941 as a Flight Lieutenant, D.F.C. and Bar.

At the same time as No. 431 Flight was entering action, two French Martin 167Fs, which had escaped from GB I/39 in Syria, were sent to join No. 8 Squadron at Aden, where they were known to the Free French authorities by the rather grandiose title of Escadrille de Bombardement No.1. Both aircraft flew reconnaissance and bombing missions over Italian East Africa, but both were shot down by Italian fighters before the end of 1940. At this time three of the first Maryland Is supplied to the S.A.A.F. arrived at Nanyuki, Kenya, and No. 14(B) Squadron, S.A.A.F., was formed around these. In Spring 1941 they were attached to No. 12(B) Squadron for reconnaissance duties over the front, and in April sufficient Marylands had arrived for a detached flight to take part in the bombing of Addis Ababa before its capture. Immediately thereafter, No. 12 Squadron withdrew to Nakuru to convert to Marylands, while No. 14 Squadron, now fully-equipped with these aircraft, moved to Egypt to join the R.A.F. in the Western Desert; here the unit was re-numbered No. 24 S.A.A.F. Squadron to avoid confusion with the R.A.F.'s No. 14 (Blenheim) Squadron, which was operating in the same area.

In the Desert, No. 39 Squadron had been the first

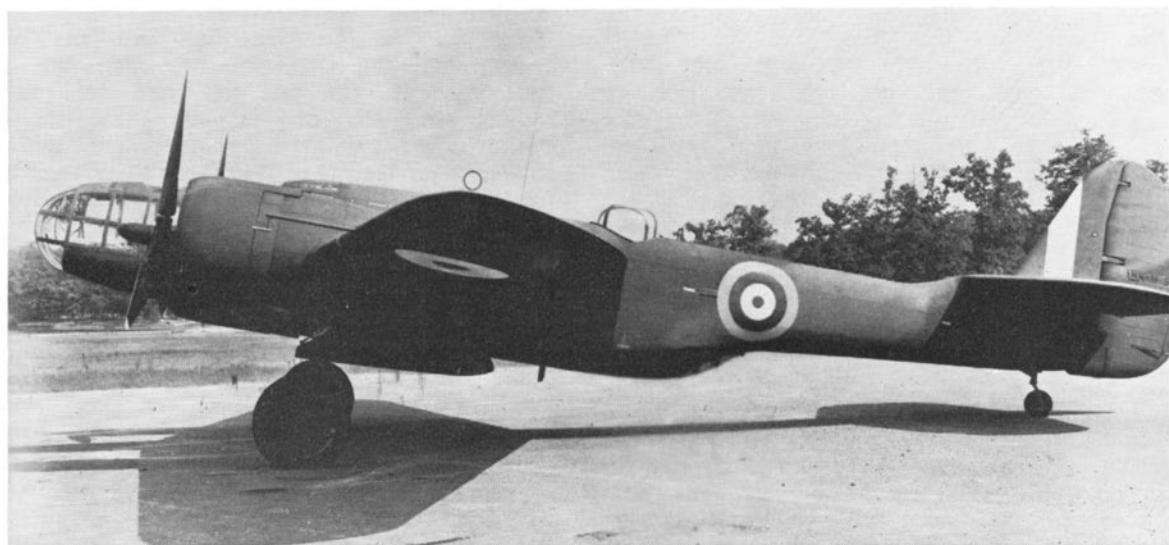
*Martin 167F courier aircraft, registration F-BACS, of GC I/34.*

(Photo: E.C. Armées via R. C. Jones)





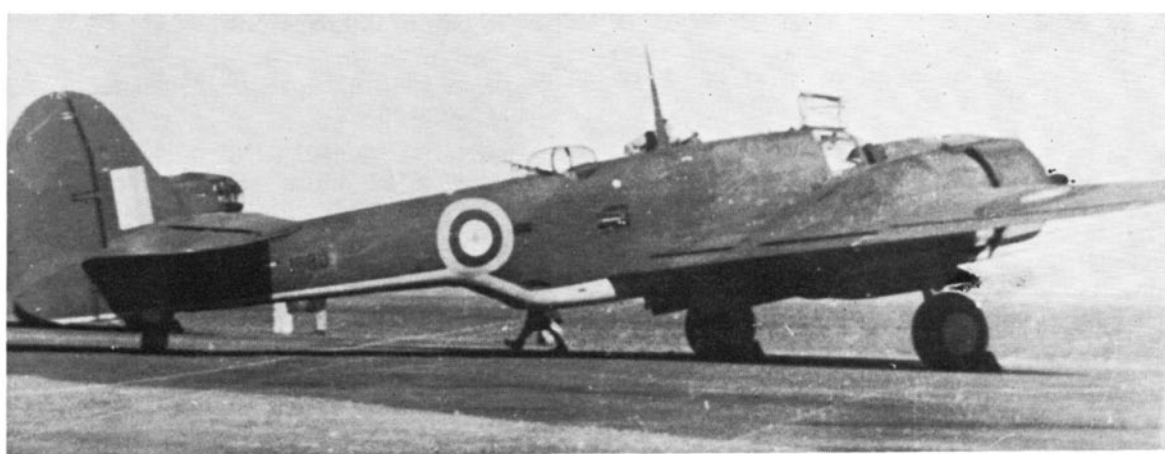
Another Martin 167F, this time F-BAHC, was used as a long-range mailplane, principally on the route to Madagascar.  
(Photo: E.C. Armées via R. C. Jones)



Early Maryland I before delivery to the R.A.F.; note no serial, U.S. civil registration attached to rudder and matt black undersides.  
(Photo: via R. C. Jones)

The first R.A.F. unit to operate Marylands was No. 431 Flight at Luqa, Malta. Here is one of the Flight's aircraft, believed to be AH261, during its take-off run. Like several of the initial Marylands to be received, this one is equipped with an Armstrong Whitworth manually-operated dorsal turret.  
(Photo: Newton via R. C. Jones)





S.A.A.F. Maryland (serial 1680), of 24 S.A.A.F. Squadron, still in dark earth/dark green/sky finish in summer 1941 in Egypt. See later photograph on page 227. (Photo: S. W. Donaldson via D. Becker and R. C. Jones)

unit to exchange its Blenheims for Marylands, and had begun some reconnaissance sorties early in May. These had not been without event, one Maryland being shot down over Derna on May 5 by Oberleutnant Gerhard Homuth of I./J.G.27 in a Messerschmitt Bf 109 E, this same pilot claiming another on the 8th when two were lost in one day. No. 24 S.A.A.F. Squadron joined No. 39 before the end of the month, the air echelon initially being attached to the R.A.F. unit when it first arrived, for operations over Crete where the last of the British Expeditionary Force to Greece was fighting to escape. Here the South Africans suffered their first loss when one aircraft force-landed on the island on May 25; on the 31st, however, operating in company with flights of long-range Hawker Hurricanes, Lt. Kearney shot down a damaged Junkers Ju 88 and Lieutenant Williams accounted for a Messerschmitt Bf 110 in flames.

In June, while the French Martin 167Fs were fighting so desperately against the Allies in Syria, those of Nos. 39 and 24 S.A.A.F. Squadrons took part in Operation *Battleaxe*, the brief and ill-fated British summer offensive against the newly-arrived *Afrika Korps*. Both units flew bombing sorties in squadron formation at this time, but immediately afterwards No. 39 resumed reconnaissance and patrol activity. In July it was joined in this by No. 203 Squadron, newly-arrived from Iraq, and re-equipped with Marylands also. The Marylands remained a useful offensive aircraft, one crew of No. 203 Squadron shooting down an S.M. 79 on July 4, while on July 11 Sergeant Berriman of No. 39 Squadron claimed another. During the month the latter unit again joined 24 S.A.A.F. Squadron on a number of bombing raids, escorted by Curtiss Tomahawks, Hawker Hurricanes and F.A.A. Grumman Martlets, but in August, No. 12 S.A.A.F. Squadron arrived from Kenya, forming No. 261 Wing with No. 24 S.A.A.F. Squadron; No. 39 Squadron then becoming entirely a general-reconnaissance unit.

Losses, although not heavy, were by no means light; on August 21, No. 24 S.A.A.F. Squadron bombed Gambut, escorted by Hurricanes, but lost two Marylands, while No. 39 Squadron lost one near Tobruk to Italian fighters on August 22 and one to Bf 110s later in the month. 24 S.A.A.F. lost another on September 14 and on 29th one of 203 Squadron's aircraft was

shot down by no less a personage than Leutnant Hans-Joachim Marseille of I./J.G. 27.

A third S.A.A.F. unit, No. 21 Squadron, had formed in Kenya in June, arriving in Egypt in July. In mid-September it joined No. 261 Wing to begin bombing operations but on an early sortie over Bardia on the 25th of this month, one Maryland was shot down by a Bf 109 E, though this was in turn shot down in flames by the front guns of Major Britz's Maryland.

At this time, No. 39 Squadron withdrew to rest and re-equip; a nucleus of crews and aircraft remained as a strategic reconnaissance flight, attached to No. 24 S.A.A.F. Squadron. But, in October, this unit withdrew to convert to Douglas Bostons, and at the same time 261 Wing was re-numbered as 3 S.A.A.F. Wing. The detachment moved to No. 12 S.A.A.F. Squadron. However, this unit found it difficult to administer the extra crews and aircraft, and it became an autonomous flight within the Wing, coming under the administrative control of No. 223 Squadron as one of its flights. (Up till then, No. 223 had been in the Suez Canal Zone, acting as an operational training unit for Maryland and Boston crews.) Concurrently, some Marylands of another new S.A.A.F. unit, No. 60 Squadron, also joined the Wing for photo-reconnaissance duties, deploying to No. 223 Squadron detachment. During this period it should be mentioned that No. 39 Squadron, until its withdrawal, had maintained a small French flight, known as Escadrille de Bombardment No.2.

No. 21 S.A.A.F. Squadron suffered a run of bad luck, two of its aircraft colliding over Benghazi on October 30, and two more being shot down by Italian fighters in the same area, one on November 5 and one on the 6th. The squadron now experimented with rear-firing "scare" guns fitted into the rear of the engine nacelles. It is believed that a Bf 109 was possibly shot down by these on November 15.

In mid-November 1941, the long-awaited *Crusader* offensive began in the Desert, and both Nos. 12 and 21 S.A.A.F. Squadrons were heavily engaged performing squadron and wing bombing attacks on troop concentrations and supply lines. Despite fighter escorts, two of No. 21's aircraft were shot down on the 18th and one of No. 12's by *flak* on the 19th. The following day, nine Marylands of No. 21 S.A.A.F. raided El



Adem without escort; they were intercepted by I./J.G. 27's Bf 109s with disastrous results, four bombers being shot down, three by Leutnant Hans-Arnold Stahlshmidt.

In December came a series of very different operations; shortage of Bristol Beaufighters led to the decision to operate the S.A.A.F. Marylands briefly as long-range fighters, to intercept tri-motor Junkers Ju 52/3m transports flying between Crete and Africa. Initially, the crews were not happy, considering their aircraft to be hardly suitable for this role. But, on the 11th, four from No. 12 S.A.A.F. Squadron intercepted three Ju 52s, claiming one shot down and one damaged. A pair from No. 21 S.A.A.F. Squadron attacked four more but one Maryland was hit by return fire and crash-landed on return to base. Captain Thackwray shot down one Ju 52/3m with his front guns, while his gunner claimed a second. Asked to repeat these sorties next day, both squadrons sent out aircraft in pairs. Two of No. 12 Squadron attacked eight Ju 52s; Lieutenant F. A. Ruse shot down two and both crews between them damaged four more. On a later sortie two Marylands were lost. No. 21 Squadron had less luck, one pair being shot down by Bf 110s, while a second pair also met fighters, one more Maryland being lost.

Both units then returned to normal operations, but on December 23 each lost a further aircraft, and three days later No. 12 S.A.A.F. withdrew to receive Bostons, all remaining Marylands going to No. 21. This unit remained in action only a few more days before also withdrawing.

By the start of 1942, the Maryland had already gone from the front in the Middle East as a bomber, though a number still remained for reconnaissance duties. On Malta losses began to rise at the turn of the year, due to the arrival in Sicily of units of the *Luftwaffe* with Bf 109 Fs, but the end of January 1942 found No. 69 Squadron still with 14 on strength. The heavy *blitz* of early 1942 quickly destroyed many of these on the ground, and by the end of March only two were left, the squadron then flying most of its reconnaissance missions with Supermarine Spitfires, later reinforced by Baltimores. In Africa, No. 39 Squadron returned to action during March, and on the 9th Flying Officer Bea shot down a Ju 88 while patrolling over a convoy, but the following month the squadron converted to Bristol Beauforts. No. 203 Squadron continued to operate its Marylands, losing one to a Ju 88 over a convoy on April 14 and a second on the 24th. In July, another of this squadron's aircraft was shot down by Bf 110s.

During this period, the reconnaissance flight of No. 223 Squadron had withdrawn, and No. 60 S.A.A.F. Squadron had been re-equipped with Baltimores, but No. 203, although also receiving some of these latter, continued with the Maryland for several further months—indeed a few were still on strength as late as October. On Malta, too, No. 69 Squadron impressed two Marylands passing through in transit during August, and these were used during the critical period of the arrival of the vital *Pedestal* convoy during that month. By the end of 1942 the Maryland had passed from the operational scene in the Middle East altogether after two years of most valuable work, epitomized by the example of Sergeant Welshman of No. 223

## Key to colour illustrations

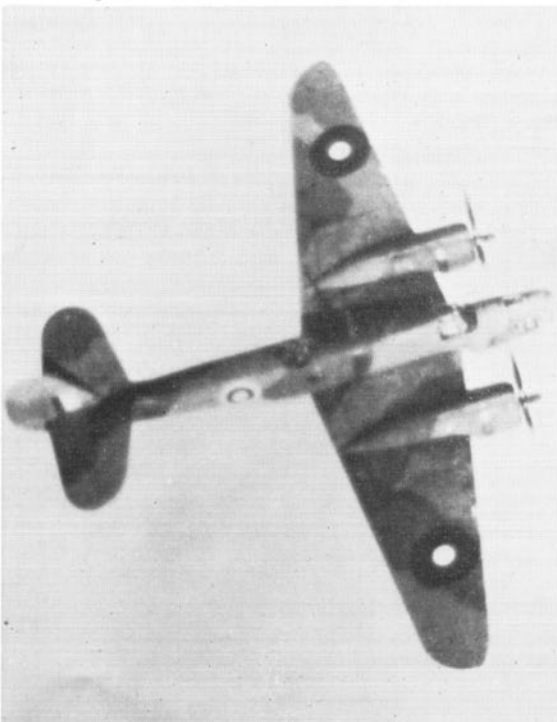
- 1 Martin 167A-3 of GB I/62, *Armée de l'Air*, summer 1940. Enlarged detail depicts GB I/62 unit badge on fin.
- 2 Martin 167A-3 of GB I/63, Vichy Air Force, Banaka, Mali, French West Africa, 1942. Enlarged detail shows unit badge.
- 3 Martin Maryland II of the South African Air Force, believed to be an aircraft of 24 S.A.A.F. Squadron, Western Desert, summer 1941.
- 4 Martin Maryland II, believed to be an Operational Training Unit aircraft of No. 223 Squadron, R.A.F., Egypt, autumn 1941.
- 5 Martin 167F of the *Aéronavale—Escadrille 6B, Flottille 4F*—used in Syria, June 1941.

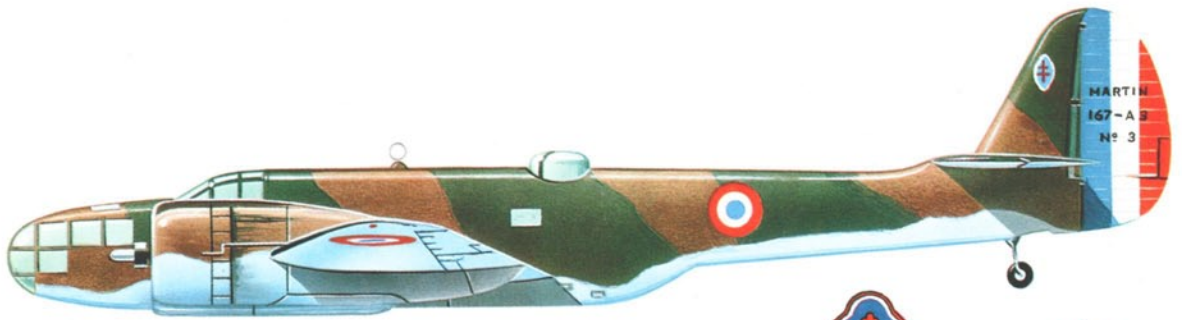
Squadron's strategic reconnaissance flight, who on March 3, 1942 in S.A.A.F. Maryland 1669 had his aircraft hit by *flak* while on a sortie over Benghazi; he was then intercepted by six Bf 109 Fs, his crew fighting these off for 35 minutes to bring home the photos taken.

In another area the Maryland also saw service briefly; following the entry of Japan into the war, No. 32 Coastal Reconnaissance Flight, S.A.A.F., in the Union received some Marylands to supplement its Ansons in April 1942, and late that month moved to East Africa. Here the Marylands joined with Bristol Beauforts of Nos. 36 and 37 Flights to form No. 20 S.A.A.F. Squadron, then taking part in the invasion of Madagascar in May, reconnoitring and bombing air-

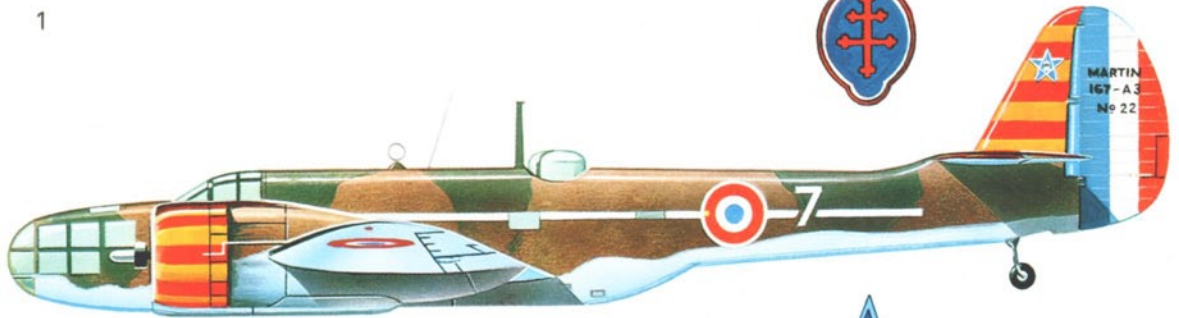
*Maryland of 24 S.A.A.F. Squadron in flight, still in dark earth/dark green finish, summer 1941.*

(Photo: D. Becker via R. C. Jones)

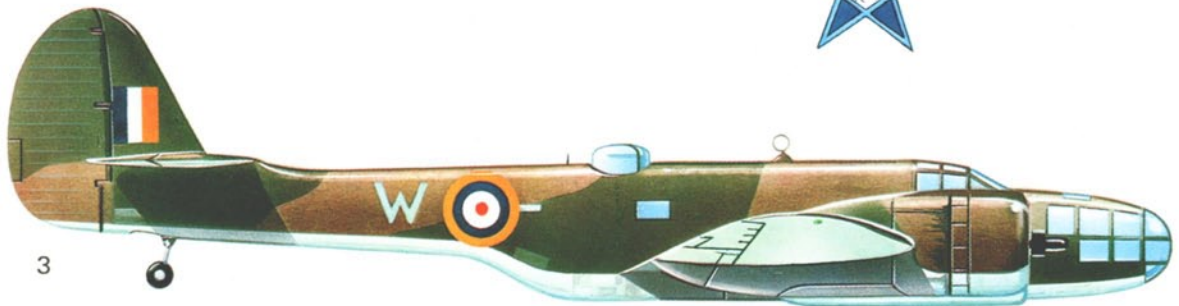




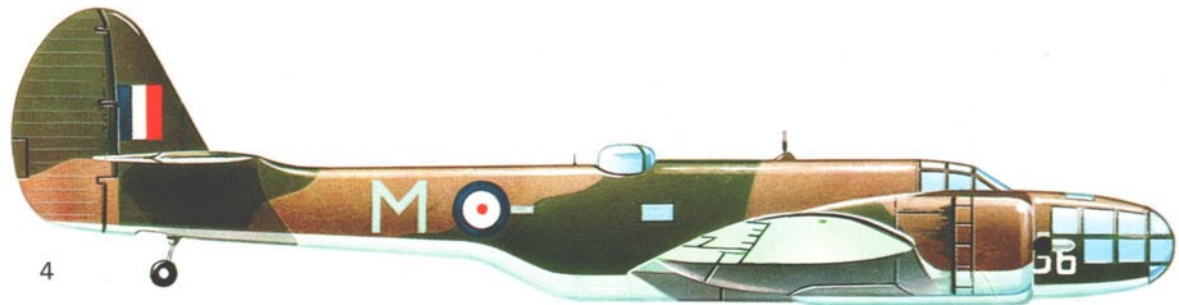
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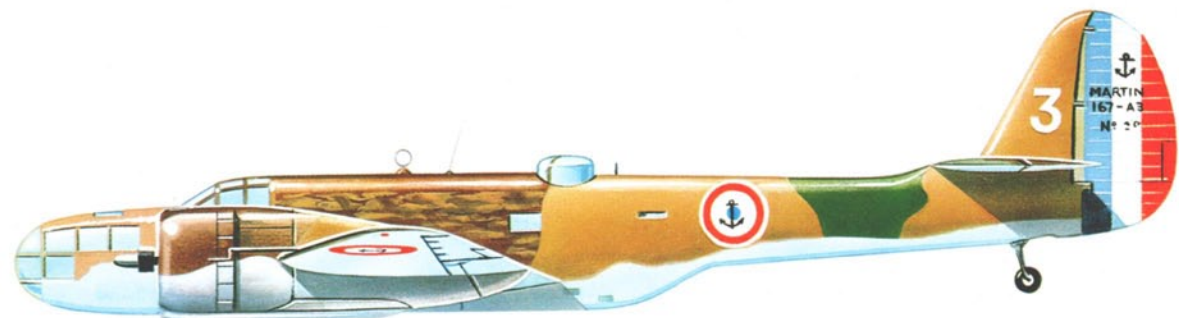
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*Green and brown Marylands of No. 39 Squadron R.A.F. in the Western Desert, summer 1941.*

(Photo: Imperial War Museum)



*This Martin 167 was used during 1944 as a V.I.P. transport, being the personal liaison aircraft of General Juin. Note his personal insignie on nose.*

(Photo: via R. C. Jones)

*Marylands of 24 S.A.A.F. Squadron at a desert airfield, summer 1941. Note the small squadron badge on the nose of the nearest aircraft, and the pair of Vickers K gas-operated machine-guns in the dorsal turret—a local modification.*

(Photo: Imperial War Museum)





*S.A.A.F. Marylands in formation over Egypt, summer 1941. Four of the aircraft in this photograph still retain the dark earth/dark green camouflage scheme; the other dozen wear the later dark earth/mid-stone scheme introduced during the mid-1941 period to Middle East Command aircraft. (Photo: Imperial War Museum)*

fields and defences. The squadron then moved to the island, continuing to support the ground forces there until September, when it was renumbered No. 16 S.A.A.F. Squadron. In November the unit returned to East Africa to convert to Blenheims.

### CONTINUED FRENCH USE

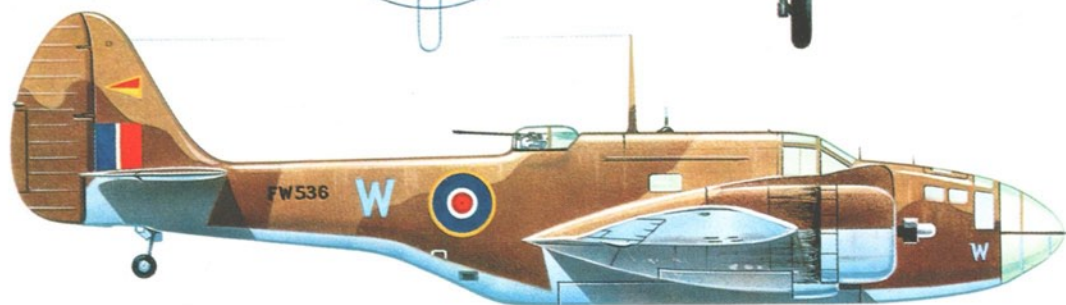
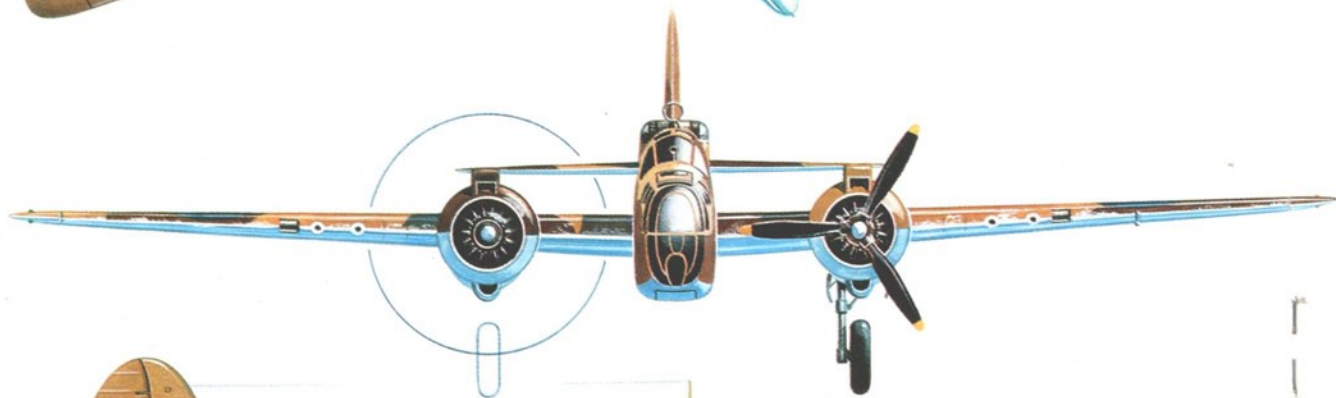
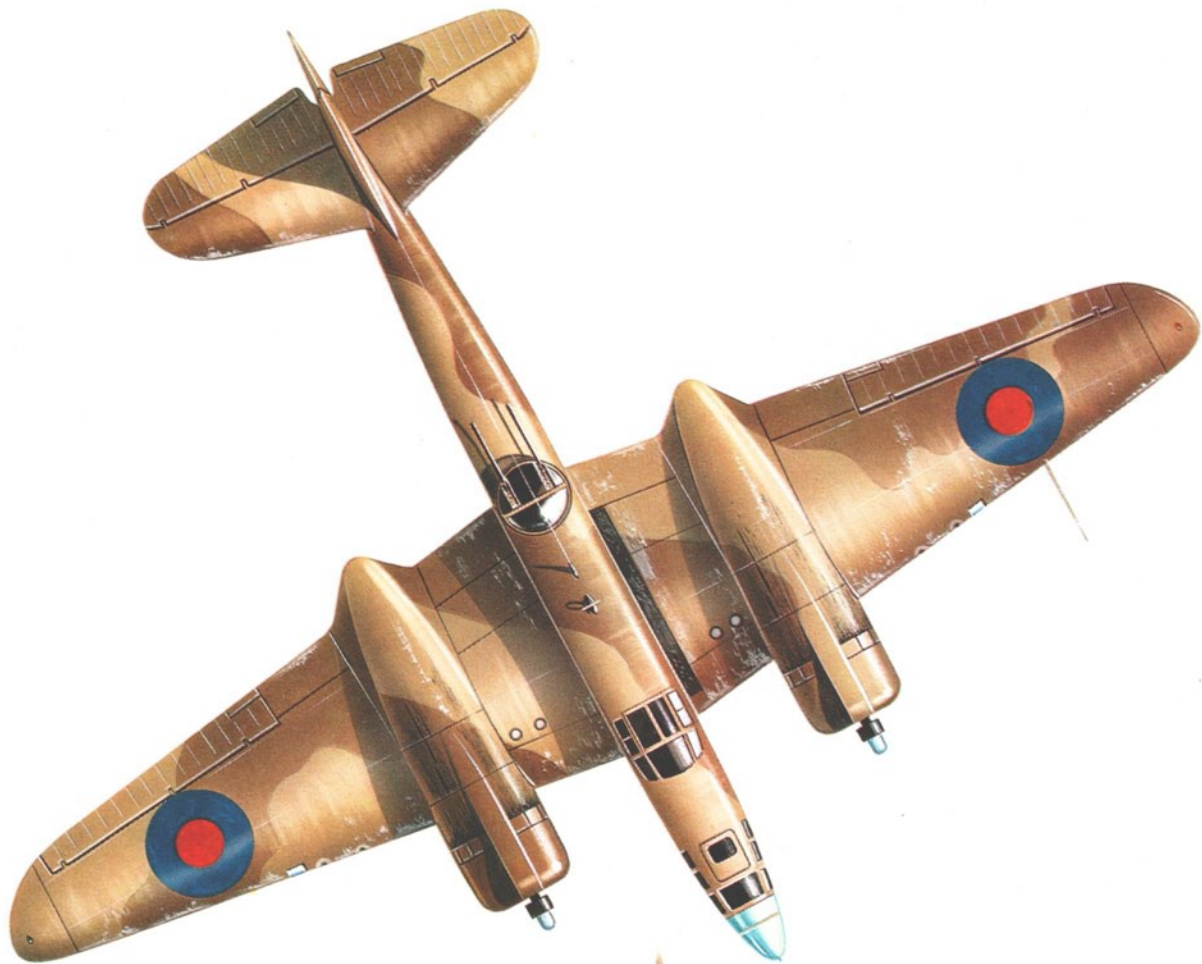
In 1940 Colonel Leclerc's Free French forces undertook operations to secure their bases in the southern Sahara, supported by a few Marylands as well as Westland Lysanders and Bristol Blenheim IVs; these particular Marylands were part of the ex-French contract taken over by the British. Known until June 1942

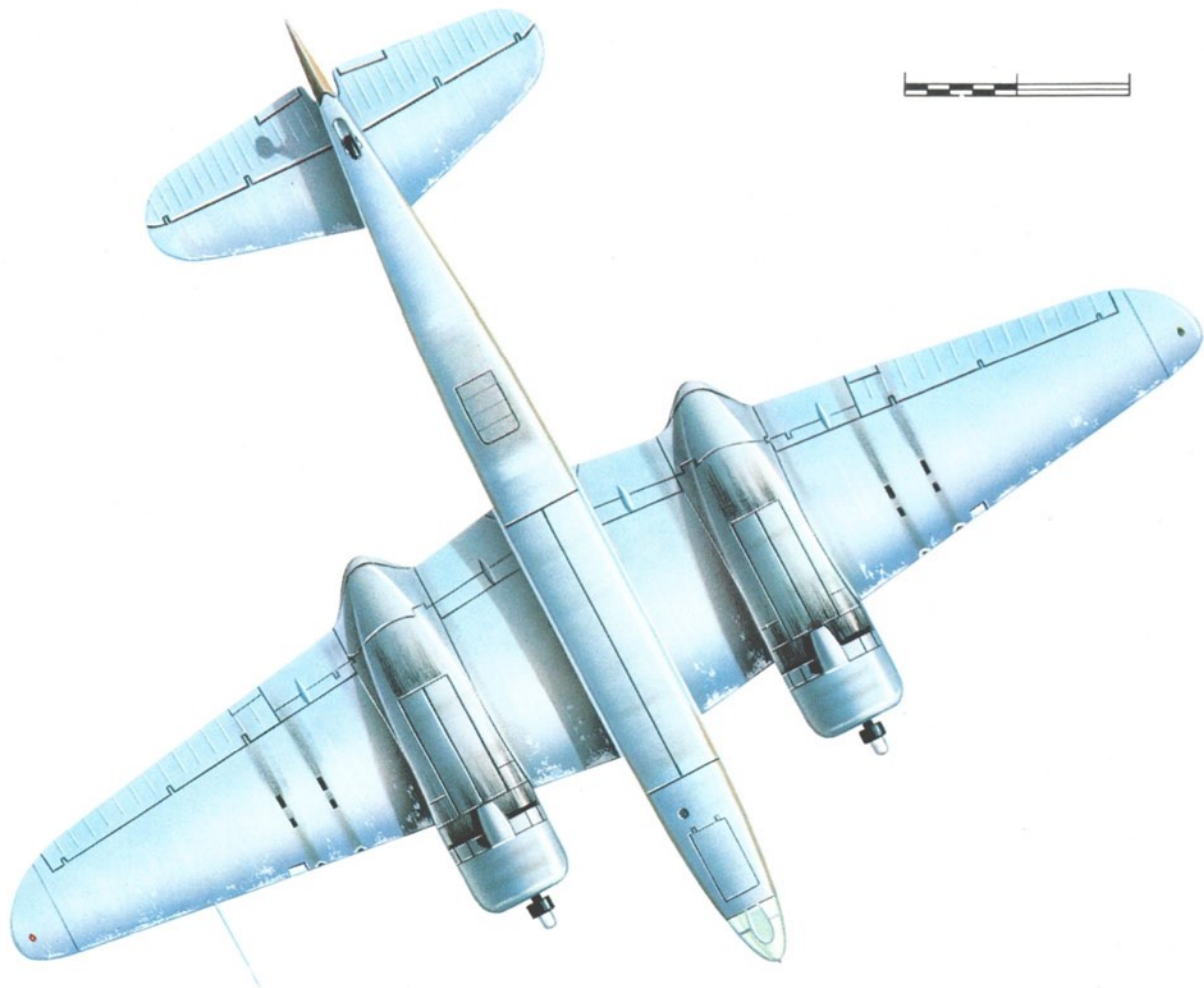
as "Detachment Permanent des Forces Aériennes du Tchad", in the latter month the unit became GB II/20 "Bretagne" and the last surviving Marylands were still operational in early 1943, covering Leclerc's forces when they crossed the Sahara to join up with Montgomery's 8th Army in Southern Tunisia.

Following the clearance of French North Africa, the *Armée de l'Air* reorganised and re-equipped here, and during 1944 a transport groupe, GT I/34 "Bearn", was formed with Martin 167Fs and Douglas DB-7s mainly for high-speed liaison flights. Despite the transport title these later undertook some reconnaissance and bombing missions over Southern France. In February

*A Maryland (1680) of 24 S.A.A.F. Squadron after repainting in dark earth/mid-stone/azure blue camouflage, seen here over the Western Desert during late 1941. The individual letter 'X' and the propeller spinners were both painted red; roundels and fin flash were yellow/blue/white/orange. Note also individual number on nose. (Photo: S.A.A.F. via K. Smy)*

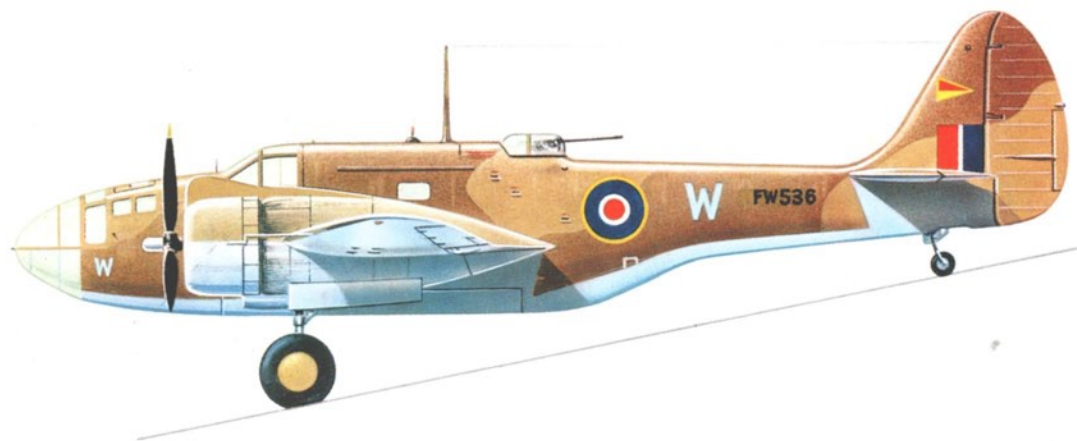


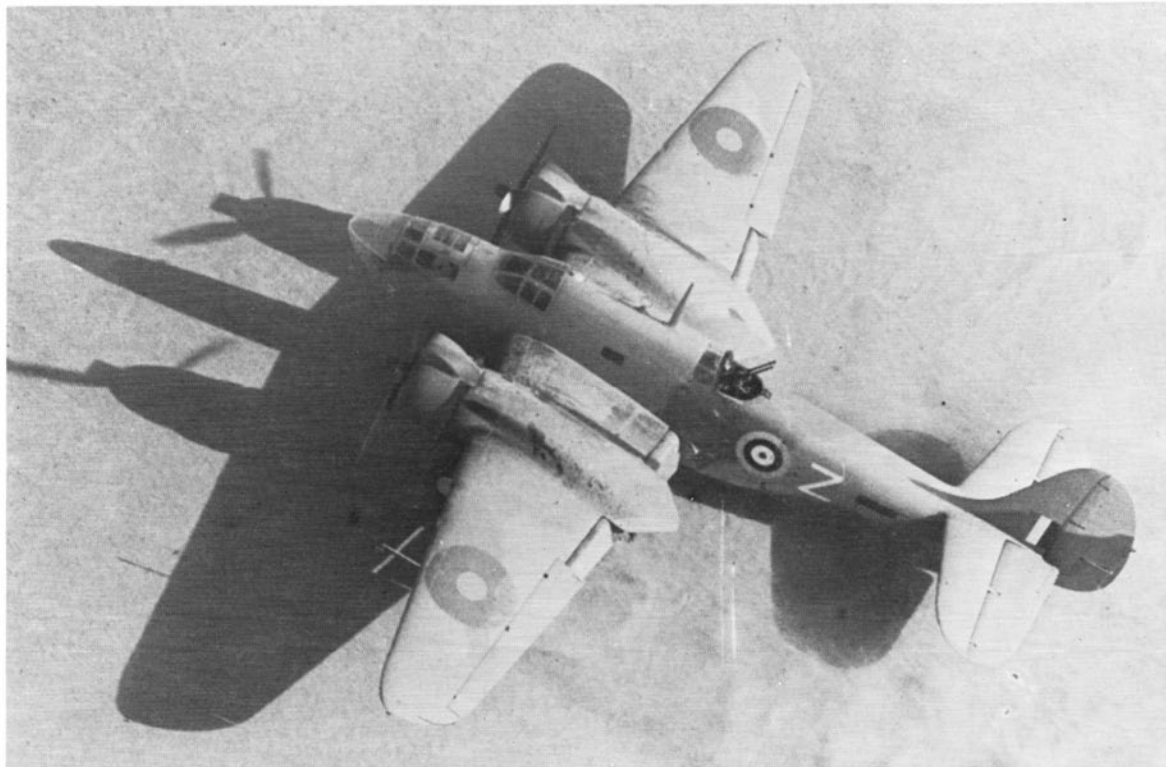




Martin Baltimore V (FW536) of No. 223 Squadron,  
Royal Air Force, Italy, 1944.

*P. Endsleigh Castle ARAeS © Profile Publications Ltd.*





*Baltimore II taxis out for take-off from a Western Desert landing ground in mid-1942.*

(Photo: Imperial War Museum)

1945, the survivors joined Martin B-26s and captured Junkers Ju 88s in GB I/31, taking part in bombing attacks on coastal forts which had been isolated on the Atlantic coast, remaining on these operations until the end of the war.

### THE MARTIN BALTIMORE

Development of the basic design was continued by Martin with the projected Model 187 (XA-23), which was to be powered by Wright R-3350-11 engines, but this was not proceeded with and the design was completed to full British requirements as the Baltimore, 400 of these being ordered in May 1940. The Lend-Lease Act was then passed and funds from this resulted in orders for 575 more in June 1941, followed by another 600 in July 1942.

The first Model 187B was flown on June 14, 1941, and deliveries of 50 Baltimore Is and 100 Baltimore IIs quickly began, the first examples reaching the United Kingdom in October. These early models featured an armament of no fewer than 11 0.30-in. Browning machine-guns, four in the wings as on the Maryland, two in the rear dorsal position (the turret was dispensed with in these first models), one in the ventral hatch and four fixed in the belly to fire downwards at an angle to the rear, as "scare" guns. The Mark Is were serialised AG685-734, and were retained mainly for Operational Training Unit (O.T.U.) work, while Mark IIs which were issued initially to the squadrons, were serialised AG735-834. The main bulk of the first British order was made up of Mark IIIs which featured a Boulton Paul hydraulically-operated dorsal turret, fitted with four 0.303-in Brownings of British manufacture; they were serialised AG835-AH184. A

number of these aircraft were lost during delivery when the S.S. *Thurso Bank* and S.S. *Loch Don* were sunk.

The Lend-Lease aircraft, which had initially to be ordered by the U.S.A.A.F., were given the U.S. Army Air Corps designation A-30, though all were delivered to the R.A.F. The first model was the Baltimore IIIA, which differed from the Mark III in featuring an electrically-operated Martin dorsal turret of reduced profile containing a pair of 0.50-in. Brownings; 281 of these, serialised FA100-380, were delivered, followed by 294 A-30As or Mark IVs, FA381-674, which were basically similar to the IIIA. The whole of the final order of 600, known to the U.S.A.A.F. also as A-30As,

*Silhouetted against the sun, a S.A.A.F. Maryland wings its way home.*

(Photo: M. Schoeman)





Long-range photo-reconnaissance Baltimore of No. 69 Squadron R.A.F., at Luqa, Malta, summer 1942. The aircraft is either a Mark I or II; note lack of powered dorsal turret. (Photo: via R. C. Jones)

but to the R.A.F. as Mark Vs (FW281-886), featured 0.50-in. wing guns and more powerful Wright R-2600-29 engines. The first of these appeared in December 1942, and when production ended in May 1944, 1,575 Baltimores had been built. Most earlier models of the aircraft and all Mark IVs and Vs were delivered direct to the Middle East; a few Mark Vs were delivered to the Indian Air Force, though they did not enter operational service. Lastly, a Baltimore G.R.VI was projected for service with R.A.F. Coastal Command, but this did not materialize.

### THE BALTIMORE IN SERVICE

First deliveries of Baltimore IIs were made to No. 55 Squadron—which had been a Blenheim unit—and to No. 223 Squadron, already mentioned as an O.T.U. for Maryland and Boston crews. No. 223's crews began training on the new aircraft in March 1942, and in April two were sent to the Maryland strategic reconnaissance flight at the front to test the aircraft under operational conditions. Then No. 55 Squadron began equipping with Baltimores during May.

The Baltimore was a relatively small aircraft and, as such, was apparently over-powered. This gave it a very high performance but made the take-off difficult. If the engines were not opened-up in complete unison, the Baltimore could, and would, "ground loop" violently! Despite this, after experiencing the under-powered Blenheims, the crews of No. 55 Squadron were delighted with their new equipment. Those in No.

223 Squadron, however, had considerable reservations about the rear upper armament, which was proving extremely difficult to manoeuvre in a horizontal plane because of the positioning of the ammunition feeds and boxes. These fears were to prove well-founded on May 23 when the squadron, having moved forward to landing ground LG 116, flew its first mission—an unescorted one by four aircraft. They were intercepted by eight Bf 109 Fs of I./J.G. 27; a straggler was attacked first and so badly damaged that it crash-landed before it could regain its base. The fighters then concentrated on the other three Baltimores, pressing their attacks to very close range; this was possible because nearly all the dorsal guns either failed to operate or could not be brought to bear. All were shot down, two in flames and one crash-landing, two falling to Oberleutnant Marseille.

At once all dorsal armament in the Baltimores was replaced by British 0.303-in. Brownings, and no further unescorted missions were flown. Both squadrons were well into the groove of bombing operations during the retreat to El Alamein in June 1942 and in the subsequent operations leading up to the Alamein battle of October. Operating in tight formations of 12 to 18 aircraft, escorted by large numbers of Curtiss Kittyhawks, the "boxes" of bombers were to become a familiar sight as they sailed imperturbably overhead to hammer Axis supply lines, airfields and vehicle or armour concentrations. Axis fighters now rarely managed to get through the escorts to the bombers,

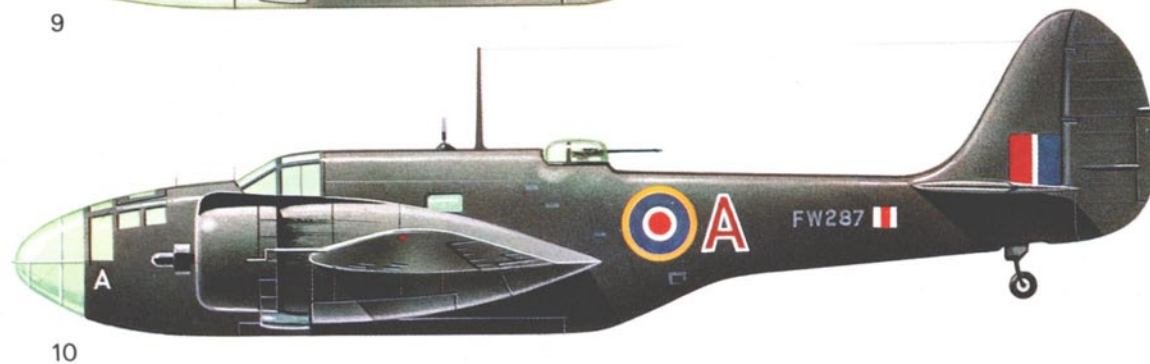
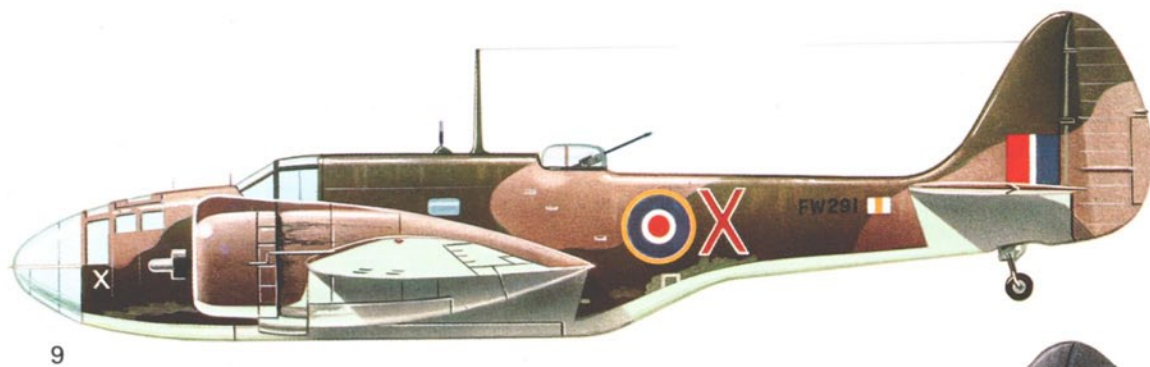
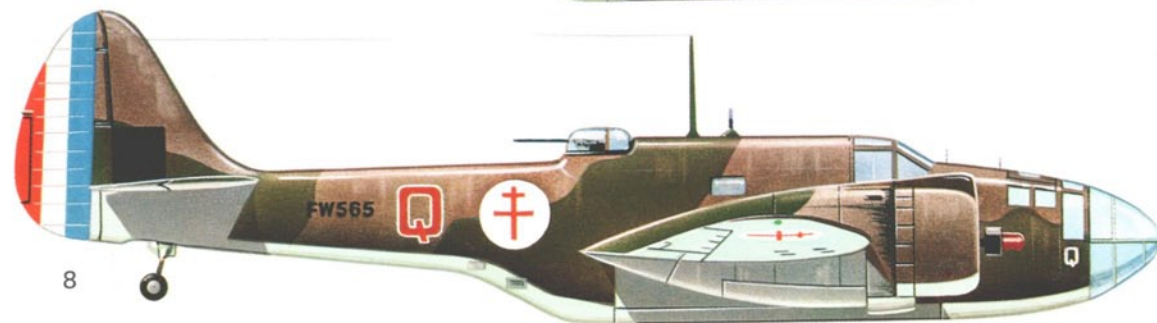
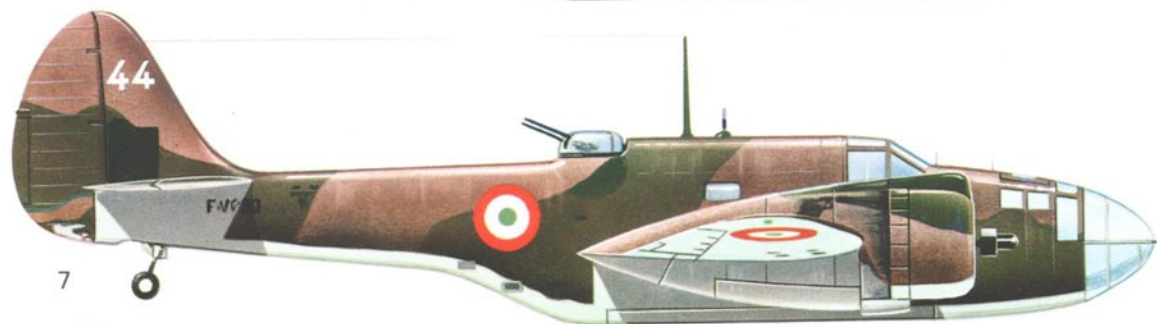
Another No. 69 Squadron Baltimore I or II on Malta in 1942. (Photo: via R. C. Jones)



With engines and cockpit transparencies shrouded against sand, this Baltimore II in the Western Desert served with No. 55 Squadron, R.A.F., during 1942. (Photo: F. J. Henderson via R. C. Jones)







## Key to colour illustrations

- 6 Martin Baltimore II (AG768) of No. 1 Middle East Training Squadron, R.A.F., El Ballah, November 1942.
- 7 Baltimore V of the *Stormo Baltimore* of the Italian Co-Belligerent Air Force, 254 Wing, R.A.F., Campomarino, winter 1944-5.
- 8 Baltimore V (FW565) of GB I/17 'Picardie', *Armée de l'Air*, Rayak, Syria, 1945.
- 9 Baltimore V (FW291) of 'B' Flight, No. 55 Squadron, R.A.F., Regina, Italy, 1944.
- 10 Baltimore V (FW287) of 'A' Flight, No. 55 Squadron, R.A.F., Cecina, Italy, 1944. This was painted in an experimental night-flying black finish, and tested when 232 Wing went over to night-interdiction operations in mid-1944.

and such losses as were suffered, were caused in the main by *flak*; this was heavy however, and damage was frequent.

Towards the end of July, No. 223 Squadron received the first Baltimore IIIs with the Boulton Paul turrets and, in August, No. 21 S.A.A.F. Squadron, which had been waiting for new aircraft since the beginning of the year, at last got its first Baltimores. Deliveries were also made to the reconnaissance units, six Mark Is going to No. 69 Squadron in June. These began flying sorties at 5,000 feet, but two were at once lost, and thereafter they were flown at 10,000 feet. In August some Mark IIs arrived, but the squadron was also using Spitfires and torpedo-dropping Vickers-Armstrong Wellingtons, and not until October were any sizeable numbers of Baltimore sorties flown. In Egypt, meanwhile, No. 60 S.A.A.F. Squadron had received Baltimores, and No. 1437 Strategic Reconnaissance Flight, the successor of the No. 223 Squadron flight, was also equipped with these aircraft; No. 203

Squadron also received some to augment the surviving Marylands.

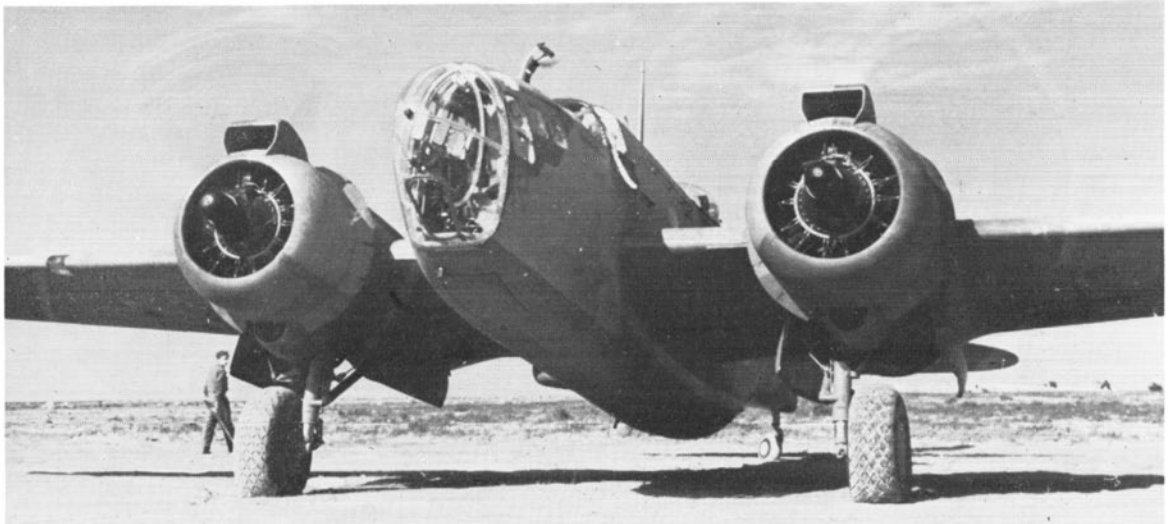
In October, No. 21 S.A.A.F. Squadron began operations again, flying alongside the Bostons of No. 12 and 24 S.A.A.F. Squadrons in 3 S.A.A.F. Wing; Nos. 55 and 223 Squadrons formed 232 Wing, both formations taking part in the Battle of El Alamein. With the rapid retreat of the Axis into Tripolitania, targets were soon beyond the range of the bomber units, and with no suitable landing grounds at first available, both wings were rested until January 1943, when 3 S.A.A.F. Wing moved up to the front again as the *Afrika Korps* stabilized before Tripoli. Operations then continued as before, but on January 13, Bf 109s of J.G. 77 broke through the escort during a raid on Bir Dufan. Three Baltimores of No. 21 S.A.A.F. Squadron being shot down by Major Müncheberg, Hauptmann Heinz Bär and Oberleutnant Siegfried Freytag—all notable *Luftwaffe* "aces".

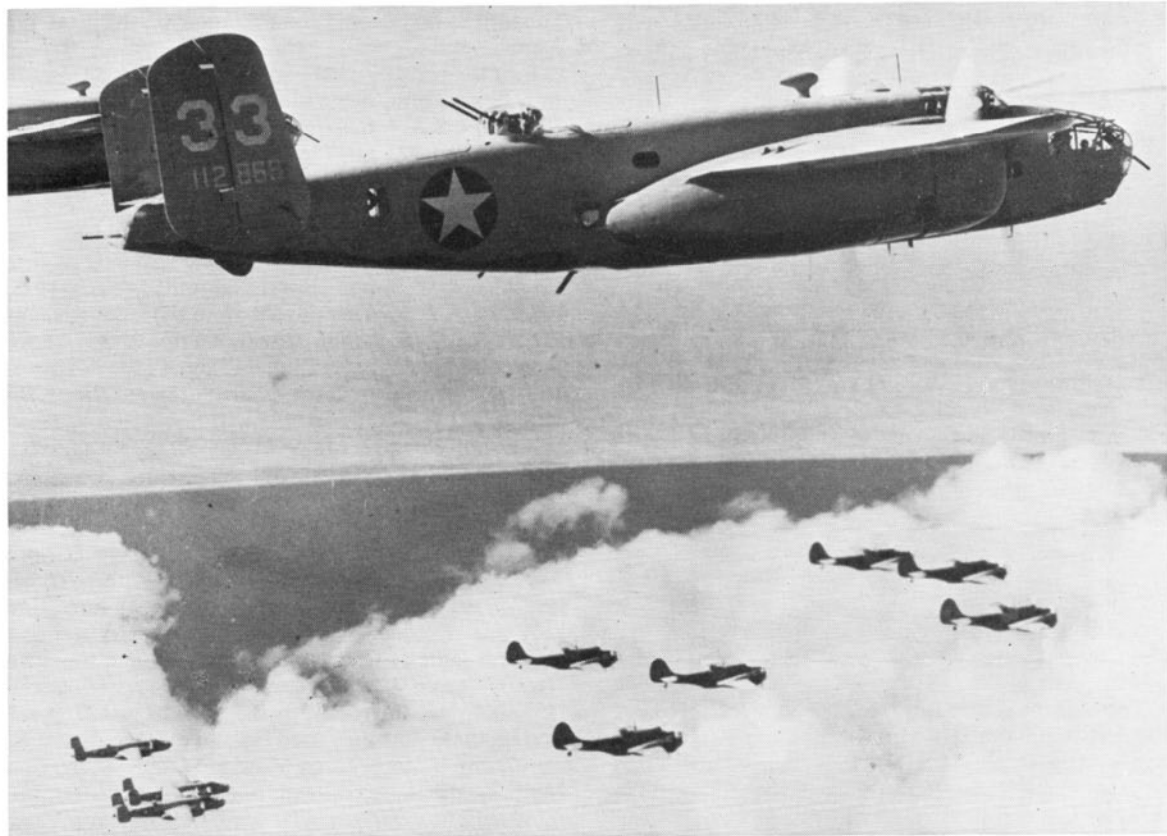
During January 1943, No. 223 Squadron got the first Mark IIIs, while No. 60 S.A.A.F. Squadron took on a few more Mark IIs, but four of these force-landed during the month through engine failures, and only one remained serviceable; in February the unit received some de Havilland Mosquitoes, and though a few Baltimore IIIs and an odd Maryland (serial BS773) found their way to the squadron during the Spring, these were only used for rear area work, and all were gone by the end of May. No. 69 Squadron on Malta continued to operate one flight of Baltimores, these suffering fairly regular losses during early 1943, but with the end of the campaign in Africa, No. 1437 Flight ceased to operate its aircraft and awaited conversion to more advanced types.

Throughout the remainder of the Tunisian campaign, the three bomber squadrons were continually in operation, joined by Douglas Bostons, N.A. Mitchells and Martin Marauders, at the same time following the Army forward in its advance. No. 3 S.A.A.F. Wing moved to Zuara in March, Senem in April (the "worst airfield ever"! ) and then to El Djem. During the last days of Axis resistance on Cap Bon, and immediately after the final surrender in May,

*Baltimore IIIA preparing for take-off on a mission over the Mareth Line in early 1943.*

(Photo: Imperial War Museum)





*Mixed formations of "mediums" were common over North Africa. Here Desert Air Force Baltimore IIIs, accompanied by B-25 Mitchells of the 12th Bomb Group, U.S. 9th Air Force, head for the Mareth Line in early 1943. (Photo: Imperial War Museum)*

*Desert Air Force Baltimore IIIA over Tunisia, returning from a raid with the top half of the rudder shot away by anti-aircraft fire. (Photo: Imperial War Museum)*

