

= Operation Flax =

Operation Flax was a Western Allied air operation executed during the Tunisia Campaign , as part of the larger North African Campaign of the Second World War . The operation was designed to cut the air supply lines between Italy and the Axis armies in Tunis , Tunisia , in April 1943 . The parallel Allied naval effort was Operation Retribution .

In November 1942 , American and British forces landed in North Africa under Operation Torch . Allied thrusts overran Vichy French Morocco and Algeria and advanced into Tunisia . The danger for the Axis Powers was now apparent . The Allied forces advancing eastward and the British 8th Army advancing westward after the victory at the Second Battle of El Alamein , would trap and destroy the remaining Axis forces in North Africa . In response to the crisis , and the poor state of Axis forces , reinforcements for the German Afrika Korps , Italian Army and Luftwaffe were dispatched by sea and air . These reinforcements duly staved off an immediate defeat in Tunisia , the last region still in Axis hands . The poor state of the roads and rail lines in Algeria meant that Allied forces faced difficult logistic challenges which enabled the Axis to prolong a defence . The inexperience of U.S. forces was also apparent at the Battle of the Kasserine Pass . Nevertheless , the growing number and experience of Allied forces squeezed the Axis toward the northern tip of Tunisia . The Royal Air Force (RAF) and Royal Navy operating from Malta took a heavy toll of Axis shipping . However , Axis supplies were still reaching the besieged Afrika Korps by air . By early April , large quantities of Axis manpower was also being evacuated by air . Although the Allies held air superiority by this time , Luftwaffe transports were operating with impunity during darkness .

In order to prevent this the Allied Air Forces , the RAF and the United States Army Air Forces (USAAF) ? were ordered to conduct operations against Axis air power by day and night in order to prevent their resupply or withdrawal . Owing to bad weather and the need to gather intelligence , the operation , codenamed " Flax " , did not begin until 5 April . Although the Axis put up determined resistance and large scale air battles took place , the Allied Air Forces succeeded in destroying the aerial link between Axis @-@ held Sicily and Italy . During the course of the interdiction operation , an air battle known as the 18 April Palmsonntag Massaker (" Palm Sunday Massacre ") took place , in which the German Junkers Ju 52 transport fleets suffered heavy losses over Cape Bon , while evacuating Heer forces escaping from the Allied ground offensive Operation Vulcan . The air operation continued until 27 April . The operation destroyed Axis logistical support . Along with the attempted airlift during the Battle of Stalingrad , Operation Flax inflicted such grievous losses on the German transport fleets that they were unable to recover .

= = Background = =

= = = Strategic situation = = =

The Axis campaign in North Africa was characterised by a lack of consistent concentrated logistics support to their forces in the field . The failure was one of the primary reasons that Generalfeldmarschall (Field Marshal) Erwin Rommel could not win a decisive breakthrough against the British 8th Army throughout 1941 ? 1942 . Rommel , at points , had recognised Malta as a serious obstacle to Axis logistical lines between Axis @-@ held Europe and their forces in North Africa . Malta lay across their lines of communication and , despite being under siege for two and a half years , it remained an active base for Allied naval and air forces to interdict Axis supply lines for much of this period . Yet Rommel failed to apply enough pressure on the Oberkommando der Wehrmacht (German High Command , OKW) to launch a planned invasion of the island , Operation Herkules . Although Malta became largely ineffective as an offensive base in mid 1942 , later that same year the Allied offensive from Malta became increasingly effective . The Axis defeat at the Second Battle of El Alamein and the Allied landings , Operation Torch , in Western North Africa , threatened to crush the Axis from both East and West . The Germans responded by sending reinforcements to Africa through Vichy @-@ held Tunisia , but by the start of 1943 they were

suffering increasing shipping losses to Malta 's forces . Some respite was won for the Axis when the Allies lost the " Run for Tunis " in part owing to rapid German reactions and the difficulty in supplying their armies through the poor Algerian infrastructure . By early 1943 , the Axis had numerical superiority in aircraft ; 690 to the Allies ' 480 .

But for the Axis , the interdiction campaign from Malta caused chronic supply shortages in Africa . By April 1943 , the Allied armies had pushed the supply @-@ starved Axis forces to the northern tip of Tunisia , near its capital Tunis . Despite the desperate situation , the OKW continued to send in significant reinforcement and supply tonnage to the besieged Axis forces by air . To prevent prolonged resistance , the Allies , now aware of the German supply timetables through the use of British Ultra , launched an aerial offensive to destroy this link . It was due to begin in the last week of March 1943 , but bad weather over Tunisia meant that it could not begin until 5 April .

= = = Axis supply situation = = =

The situation in the air , on land and at sea was gradually deteriorating . Axis supply ships had suffered heavy losses between Cape Bon and Sicily . A total of 67 % of all losses were to Allied aircraft . Theo Osterkamp was appointed Jagdführerflieger Sizilien (Fighter Leader Sicily) to fly over the area , nicknamed " Death Row " , by Axis shipping . On 7 April 1943 , the organisation was given 148 fighters for these operations . The Luftwaffe reorganised its forces in Tunisia as well . Hans Seidemann was appointed Fliegerkorps Tunis (Flying Corps Tunisia) with three commands , Fliegerführer Tunis (Flying Leader Tunis) , Mitte (Middle) and Gabès , after its headquarters ? location . Siedmann had the equivalent of 12 Gruppen (12 Groups) and maintained around 300 fighters until mid @-@ April . The German fighter defences also benefited from a rudimentary radar supported early @-@ warning network .

Generalmajor (Major General) Ulrich Buchholz ? Geschwaderkommodore (Wing Commander) of KGzbV 3 ? was appointed Lufttransportführer II , Mittelmeer (Air Transport Leader II , Mediterranean Sea) on 15 January 1943 . His forces were organised under the Naples @-@ based KGzbV N (N for Neapel , or Naples) and the Trapani @-@ based KGzbV S. KGzbV S had to make two missions a day , KGzbV S only one . The formations would be between 80 ? 120 aircraft strong . Operations were to be flown at only 150 ft (46 m) in altitude , arriving around noon in order to operate during the Allied " lunch " period . The units ? operating mostly the Junkers Ju 52 , brought in 90 tonnes daily and the giant Messerschmitt Me 323s brought some 30 tonnes with their fewer numbers . The logistical effort was made using Indian prisoners of war , who helped unload supplies . The operational method usually involved escort fighters picking up the formation on route . Only one fighter aircraft for every five transports was made available owing to various shortages . The Naples units were met near Trapani , and on the return leg fighters , including Bf 110 Zerstörer , escorted them home . The end of the airlifts at Stalingrad and in the Kuban allowed the expansion of Axis transport aircraft to 185 by 10 March . By the beginning of April , it rose to 426 . The force flew much needed ammunition and fuel to the Axis armies in Africa .

= = = Allied plan = = =

James H. Doolittle commanding Northwest African Strategic Air Force (NASAF) was ordered to formulate an air interdiction campaign . He named it Operation Flax . Operation Flax called for Allied fighters to intercept the aerial convoys over the Sicily ? Tunisia strait . Allied units were also briefed to carry out major offensive operations against Axis airfields in Tunisia and the overcrowded staging fields in Sicily . They were also ordered to carry out anti ? shipping sweeps . Flax was an operation which was unlikely to work more than a few times , as shown by the relative impunity with which the surviving Axis air transports operated at night after the operation had begun . The flight time across the Strait of Sicily was so short that aerial interception could be made only with precise intelligence . The Germans understood this but did not know that their communications had been compromised and were being read by Allied intelligence . Ignorant of their intelligence leaks , they operated by day . Since their enemy had the option of flying by night , and the weather conditions were not ideal for

interception operations , the Allies delayed the implementation of Operation Flax until the most German transport aircraft were in operation so that the blow would be as decisive as possible . Allied intelligence listened in to the Y @-@ stations until they were sure they could strike .

The tactical plan included coordinated strikes on Axis airfields carried out by Boeing B @-@ 17 Flying Fortress groups to tie down Axis fighter groups . Medium bomber units operating the North American B @-@ 25 Mitchell would fly sweeps over the Gulf of Tunis . They were to be joined by Lockheed P @-@ 38 Lightning heavy fighters which were also detailed to sweep the area . The presence of the B @-@ 25s would allow the P @-@ 38s to operate in the area without raising the Axis suspicions . It would seem as if they were there to escort the B @-@ 25s , rather than their actual intention , to interdict Axis air transports . Supermarine Spitfire units would sweep the straits further north , catching any enemy aircraft that evaded the P @-@ 38s . More B @-@ 25 and B @-@ 17 units were detailed to strike at Sicilian airfields to catch transports on the ground . The USAAF 9th Air Force was detailed to send its Consolidated B @-@ 24 Liberator bomb groups against airfields in and around Naples in this capacity as well . On 2 April Doolittle 's superiors , supreme commander of all Allied Air Forces in the Mediterranean , Arthur Tedder and commander of Allied Air Forces in Western North Africa Carl Spaatz , decided to wait for the next suitable window to launch the offensive .

= = Order of battle = =

= = = Allied = = =

The Allied order of battle involved all the major commands in the area at the time . The Supreme Allied Air Force Command was the Mediterranean Air Command (MAD) under Air Chief Marshal Arthur Tedder . Below the supreme command were the sector organisations , the Northwest African Air Forces (NAAF) commanded by Carl Spaatz . Directly subordinated to Spaatz was the Northwest African Strategic Air Force (NASAF) under James H. Doolittle . The second command was the operational / tactical force , the Northwest African Tactical Air Force (NATAF) under Air Marshal Arthur Coningham .

= = = Axis = = =

Martin Harlinghausen commanded Fliegerkorps II (Air Cops II) which , under Luftflotte 2 (Air Fleet 2) , controlled Luftwaffe operations in Africa . Attached to Fliegerkorps II were seven different Kampfgeschwader (Bomber Wings) under the Corps command ? s direct control . A large number of Jagdgeschwader (Fighter Wings) were also available . The Luftwaffe had the following forces available in April 1943 :

= = American operations = =

= = = Closing the straits = = =

At 06 : 30 on 5 April , 26 P @-@ 38s of the U.S. 1st Fighter Group conducted a sweep over the Sicilian Strait . Meanwhile , 18 B @-@ 25s of the 321st Bomb Group ? escorted by 32 P @-@ 38s of the 82nd Fighter Group ? set out on a maritime interdiction operation . Six of the P @-@ 38s returned to base for unrecorded reasons . The B @-@ 25s claimed two ferries damaged and a destroyer sunk . One B @-@ 25 was shot down .

The 1st Group arrived over Cape Bon at 08 : 00 . They reported contact with several formations of different types . They estimated 50 ? 70 Ju 52s , 20 Bf 109s , four Fw 190s , six Ju 87s and a Fw 189 formed these flights . In fact , the German formation had only 31 Ju 52s , ten Bf 109s , six to seven Bf 110s , four Ju 87s and one Fw 190 in it . The U.S. fighters attacked and a large air battle

developed . The 82nd Fighter Group also joined in . The 1st Fighter Group claimed 11 Ju 52s , two Ju 87s , two Bf 109s and the Fw 189 for two P @-@ 38s lost . The 82nd claimed seven Ju 52s , three Ju 87s , three Bf 109s , one Bf 110 and one Me 210 for four P @-@ 38s . Losses are uncertain , and a significant amount of over claiming was done . In fact , German losses amounted to 13 ? 14 Ju 52s and about three fighters . Another source states the loss of 13 Ju 52s and two Bf 109s , from 5 . / JG 27 . (The supposed Fw 189 was no doubt a mis @-@ identified P @-@ 38 .)

= = = Bomber offensive = = =

Later , 18 B @-@ 17s from the 97th Bomb Group bombed Axis airfields at El Aounina . Two Me 323s , two Ju 52s and five Italian transports were destroyed . A second mission was flown to Sid Ahmed . Both raids were flown with Spitfire escorts . Only a few German fighters intercepted , without success . The bombers claimed one German fighter destroyed .

One hour later , 35 B @-@ 25s from the 310th Bomb Group and 18 P @-@ 38s from the 82nd Fighter Group raided Axis airfields in Sicily near Borizzo . Some 80 ? 90 Axis aircraft were counted , poorly camouflaged and vulnerable . The attack achieved good results with fragmentation bombs . The attackers were intercepted by 15 Bf 109s , losing two B @-@ 25s . The bombers claimed three Bf 109s while the P @-@ 38s claimed two of the German fighters . The 301st Bomb Group attacked Milo airfield , claiming 52 destroyed on the ground . Actual Axis losses were 13 German and eight Italian aircraft destroyed with 11 German and 30 Italian aircraft damaged . Some 72 B @-@ 17s of the 99th Bomb Group bombed the airfield at Bocca di Falco . They claimed to have seen 100 ? 150 aircraft , but the raid only destroyed four Axis aircraft and damaged several . Spitfires claimed two Bf 109s for two losses . Two sweeps by P @-@ 38 groups found nothing further .

The NASAF claimed 201 Axis aircraft destroyed including 40 in the air . German sources only list the loss of 14 Ju 52s in aerial combat and 11 Ju 52s and Me 323s on the ground with 67 damaged . Aside from combat aircraft , the British Official History concludes 27 German and three Italian transports were lost on 5 April .

= = = Fighter offensive = = =

The Operation Flax attacks merged into the preparatory phase of the Sicilian Campaign as air attacks were also helping to erode air defences on the island . While Flax continued on a smaller scale , the emphasis was on fighter operations . On 10 April , Flax was renewed . Some 75 P @-@ 38s of the 1st Fighter Group intercepted 20 Italian Savoia @-@ Marchetti SM.82 and around six Macchi C.200s. The battle resulted in 10 transports and two Italian fighters being shot down . Later that morning , 27 P @-@ 38s of the 82nd Fighter Group were escorting 18 B @-@ 25s of the 310th Bomb Group over Cape Bon when 30 Ju 52s were spotted with two Bf 110s , two Ju 87s and just three Ju 88s with them . At first , 11 P @-@ 38s stayed with the B @-@ 25s acting as escort , but then the bombers joined in , flying past the transports and firing on them using their gunners . Around 15 Bf 109s were scrambled from Tunisia to help the transports and they destroyed one P @-@ 38 and damaged three more . However , the Germans had already suffered heavy losses . One P @-@ 38 pilot was killed when he flew into a Bf 110 and some B @-@ 25s were shot up . The Americans claimed 25 victories . The Germans lost 10 Ju 52s , one Ju 88 , one Bf 109 and one Bf 110 . Some Ju 52s managed to ditch and their crews survived . A Spitfire patrol later shot down four more Ju 52s . It is likely the Bf 110s " spotted " in the formation were actually Me 210s from Zerstörergeschwader 1 . RAF and USAAF units also downed a SG 2 Fw 190 on a ferry flight , and another from SKG 210 . An SG 2 Hs 129 was also shot down while another Ju 88 from III . / KG 77 was also shot down .

On 11 April , the 82nd ran into 20 Ju 52s , four Ju 88s , four Bf 110s and seven Bf 109s . The Americans claimed all of the Ju 52s and seven escorts . Actual German and American losses are unclear . In the afternoon , 20 of the 82nd ran into 30 unescorted Ju 52s . The transports fought back , losing only five and shooting down one P @-@ 38 . Its pilot was killed . The day 's total amounted to 17 Ju 52s , one SM.82 and two Bf 110s destroyed . The RAF had also been involved in

the day 's operations . No. 152 Squadron RAF sent 34 Spitfires to intercept 12 Ju 52s escorted by a handful of Bf 109s . Three Ju 52s were shot down for the loss of two Spitfires , both claimed by Wolfgang Tonne of I. / JG 53 . The German units reported no losses .

The day had been bad for the Luftwaffe . Losses amounted to 18 Ju 52s ; four belonged to III . / KG.z.b.V 1 . Raids by RAF Vickers Wellington bombers continued during the night . Ju 88 night fighters from NJG 2 downed two Wellingtons . The results of the raids are not known .

On 13 April , B @-@ 17s from the 97th and 301st Bomb Groups bombed Sicilian airfields at Castelvetro and Trapani . The Italians lost 11 SM.82s destroyed and 16 damaged on the ground . At Trapani the Germans lost eight aircraft and 40 damaged for the loss of two B @-@ 17s to the island 's fighter defences consisting of Bf 109s from JG 27 . Battles over the airfields in the afternoon were inconclusive , costing the Axis one Ju 88 from II . / KG 26 and the Allies an RAF a Spitfire from No. 232 Squadron RAF . That night , air raids killed four German fighter pilots from I. / JG 53 while two Ju 88s from II . / NJG 2 and III . / KG 76 were lost .

= = British operations = =

= = = Early sweeps = = =

On 12 April , the RAF Desert Air Force took command over most of the Operation Flax operations . The RAF used sea @-@ looking radar . However , the use of it was not all advantageous as the German formations flew low . The considerable ranges stretched the P @-@ 40 and Spitfires to the limit . The British spread their forces more thinly to maintain continuous coverage . However , on 16 April , 13 Spitfires ran into a large formation of Axis aircraft . The Spitfires shot down seven SM.82s and a Bf 109 for the loss of two . German fighters claimed three Spitfires . One of the two actual victims was Wing Commander Ian " Widge " Gleed of No. 244 Wing RAF . Gleed was possibly the victim of a Leutnant Ernst @-@ Wilhelm Reinert of 4 Staffel JG 77 . At the time of his death Gleed had 14 victories . This near @-@ disaster meant small operations were abandoned . From that point on missions consisted of three P @-@ 40 squadrons covered by one Spitfire squadron .

Later on the 16 April , in a small @-@ scale counter @-@ attack , eight SchlG 10 Fw 190s escorted by 16 Bf 109s of JG 27 led an attack on Allied airfields near Souk el Khemis . They destroyed six A @-@ 20 Havoc bombers . The next day , 17 April , II . / ZG 26 several Bf 110s were shot down by No. 260 Squadron RAF P @-@ 40s on offensive operations . In response , the American 97th Bomb Group dispatched seven B @-@ 17s covered by 40 P @-@ 38s to bomb Palermo airfields . A large air battle developed when 30 Bf 110s and Bf 109s from ZG 26 and JG 27 intercepted . The Bf 110s attacked the bombers while the JG 27 Bf 109s tackled the escort . The Germans claimed five bombers and one fighter for the loss of one Bf 109 . Actual Allied losses are unknown .

= = = Palm Sunday Massacre = = =

The patrols failed to intercept any formations of transports on the afternoon of the 18 April . In the evening , the Ninth Air Force 's 57th Fighter Group sent out all of its squadrons , including the 314th Fighter Squadron of the 324th Fighter Group , under its command . The 57th had already flown unproductive sorties in the afternoon . Still , 47 USAAF P @-@ 40s arrived in the sweep area with 12 Spitfires from No. 92 Squadron RAF . The Spitfires flew high cover at 15 @, @ 000 ft (4 @, @ 600 m) while the P @-@ 40s stayed at around 4 @, @ 000 ft (1 @, @ 200 m) . Soon enough , a large formation of 30 Ju 52 was reported by Allied pilots at an altitude of only 1 @, @ 000 ft (300 m) flying north east on a return flight . Actually , there were 65 Ju 52s , 16 Axis fighters and five Bf 110s . As the Allied fighters began their attacks , the passengers fired machine guns out of the Junkers ? windows in desperation to fend off the attack . In the air battle that followed , six P @-@ 40s and a Spitfire were shot down . The Americans claimed 146 victories , which was later reduced to 58 or 59 Ju 52s , 14 Macchi C.202s and Bf 109s and two to four Bf 110s . Actual German losses were 24 Ju 52s along with 10 fighters . The German fighter casualties amounted to nine Bf 109s and one Bf 110

. It is also possible some Italian fighters were shot down as well . Along with the 24 Ju 52s destroyed , another 35 were damaged and managed to crash @-@ land all along the Sicilian coastline . The battle became known as the " Palm Sunday Massacre " .

= = = Continuation of offensive = = =

The following day , No. 7 Wing SAAF shot down another 16 Italian SM.82s. The ease with which they caught fire led the Allied pilots to believe they were carrying precious fuel cargoes . Among those units involved were No. 54 Squadron SAAF , No. 2 Squadron SAAF . Another source gives Axis losses as 10 destroyed and four crash landed .

On 22 April , the South African No. 7 Wing sent out 36 P @-@ 40s which intercepted a well escorted Italian formation . The South Africans claimed 12 Ju 52s , two SM 79s , a Ju 87 towing a glider , a Reggiane Re.2001 , two Bf 109s and a Ju 88 for the loss of five Spitfires and three P @-@ 40s . Known Axis losses were 12 SM.79s and a Macchi C.202 ; RAF Spitfires flying from Malta downed another two transports . Later , a flight made in daylight cost the Axis 16 or 17 Me 323 transports destroyed , plus a Macchi C.202 , three German fighters and a Re @-@ 2001 , when they were intercepted by 36 Australian , British and South African P @-@ 40s covered by South African , British and Polish Spitfire units . Four P @-@ 40s were lost and one Spitfire had to force land . The main combatants in the battles were No. 1 Squadron SAAF , No. 112 Squadron RAF , No. 450 Squadron RAAF , I. / JG 27 and II . / JG 27 .

Göring ordered that no more transport flights be made . Albert Kesselring complained that this would deny the Axis forces vital supplies , and Göring once again permitted flights . This time they were to travel via Sardinia , but no more than 60 ? 70 flights would be allowed per night ; some 250 had been mounted daily before Flax . The transports also had to run the gauntlet of radar @-@ equipped Bristol Beaufighters but these rarely were successful at intercepting them . One last Allied effort was made by 70 B @-@ 24 Liberators , which bombed airfields around Bari in Italy . Some 54 German aircraft were destroyed and 13 damaged on the ground . The USAAF units claimed 50 .

= = Aftermath = =

The aerial operation had a considerable effect in strangling Axis logistics . The supplies reaching Axis units dwindled , and the Axis armies and air units remaining in Tunisia gradually ran out of fuel , ammunition and other supplies . Having lost most of its airbases , the Luftwaffe also evacuated most of its units . By early May 1943 , only the Italian fighter units , and one German Gruppe (I. JG 77) , remained as the Axis held on to a narrow strip of African coastline near Tunis . Allied air superiority was so overwhelming , that Luftwaffe personnel climbed into fighter fuselages , or squeezed into the cockpits of Bf 109s alongside the pilot rather than risk flying in transport aircraft . Most ground crew and pilots attempted to escape this way . Flying large numbers of personnel in one go and by transport was too dangerous ; 16 personnel were killed in a crash on 29 or 30 April . The last transport missions were flown on 4 May , in which 117 tons of fuel and ammunition was brought in . Some supply drops were attempted (by II . / Kampfgeschwader 1) , but most of the remaining signals , FlaK , transport and administrative staff left were captured when the campaign ended on 13 May 1943 .