



## Spatz's Air Ambush Operation Flax and Air Interdiction Lessons for Joint Warfare in the Indo-Pacific

By: Grant T. Willis, 1st Lt., USAF | August 20th, 2024



(USAF F-35A "Lightning II/Panther" stealth fighter getting ready to taxi)

*"An army can be defeated by one of the two main alternative means-not necessarily mutually exclusive: we can strike at the enemy's troops themselves, either by killing them or preventing them from being in the right place at the right time; or we can ruin their fighting efficiency by depriving them of their supplies of food and war material of all kinds on which they depend for existence as a fighting force." - Wing Commander J.C. Slessor **Air Power and Armies, 1936***

### Old Lessons, New Students

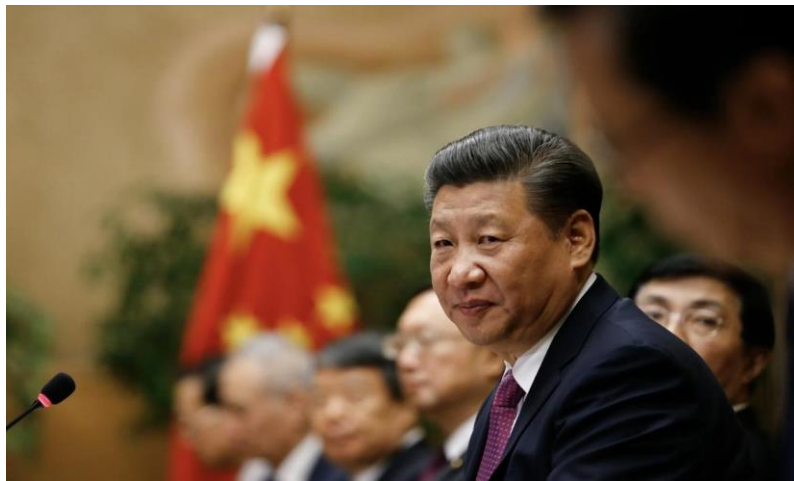
World War II is a subject that can be peeled like a never-ending onion, yielding ever more as one peels into one of its infinite layers. For Air Power

advocates, theorists, and modern-day operators, the war offers a great deal to consider. From 7 December 1941 through September 1945, the transition of the Army Air Forces into the most powerful air arm the world had ever seen did not happen at the snap of a finger and the turn of a factory wrench. It was the product of years of hard-earned lessons, both in the air and on the ground. Through the War's many campaigns and operations can operators in today's growing security environment draw the necessary lessons to spark innovation. What is old often becomes new; however, a rebirth of general concepts are augmented by new weapons and young airmen who must deploy them in battle.

Today, the United States Air Force faces a myriad of challenges within the great power sphere. The Russo-Ukraine War (Feb 2022- Present), challenges the rules-based order and European post-1945 peace. Once again formations of tanks clash upon the same ground Adolf Hitler and Josef Stalin once sent massed armies to face off along the Eastern Front. Furthermore, in the Middle East, the Iran-backed court of villains have sparked a new conflagration that represents a second continuous front of battle that challenges the values of the Western American-led order. Finally, the Air Force today must once again look to the Far East with concern as to what Chairman Xi Jinping and the Communist People's Republic of China (PRC) will endeavor to accomplish regarding their national objectives if one day they require control over the democratic and free island of Taiwan. With the world moving towards a series of parallel engagements, the U.S. Air Force has the task of mitigating

and deterring a break in the peace between the great powers, alongside their Joint and Coalition partners through the application of Air Power.

One of the primary challenges the US Air Force faces in the Pacific is that of defending against and defeating an amphibious assault. This is not a normal problem set for the Americans and there are few modern examples from our own history we can draw upon to look at what winning looks like.



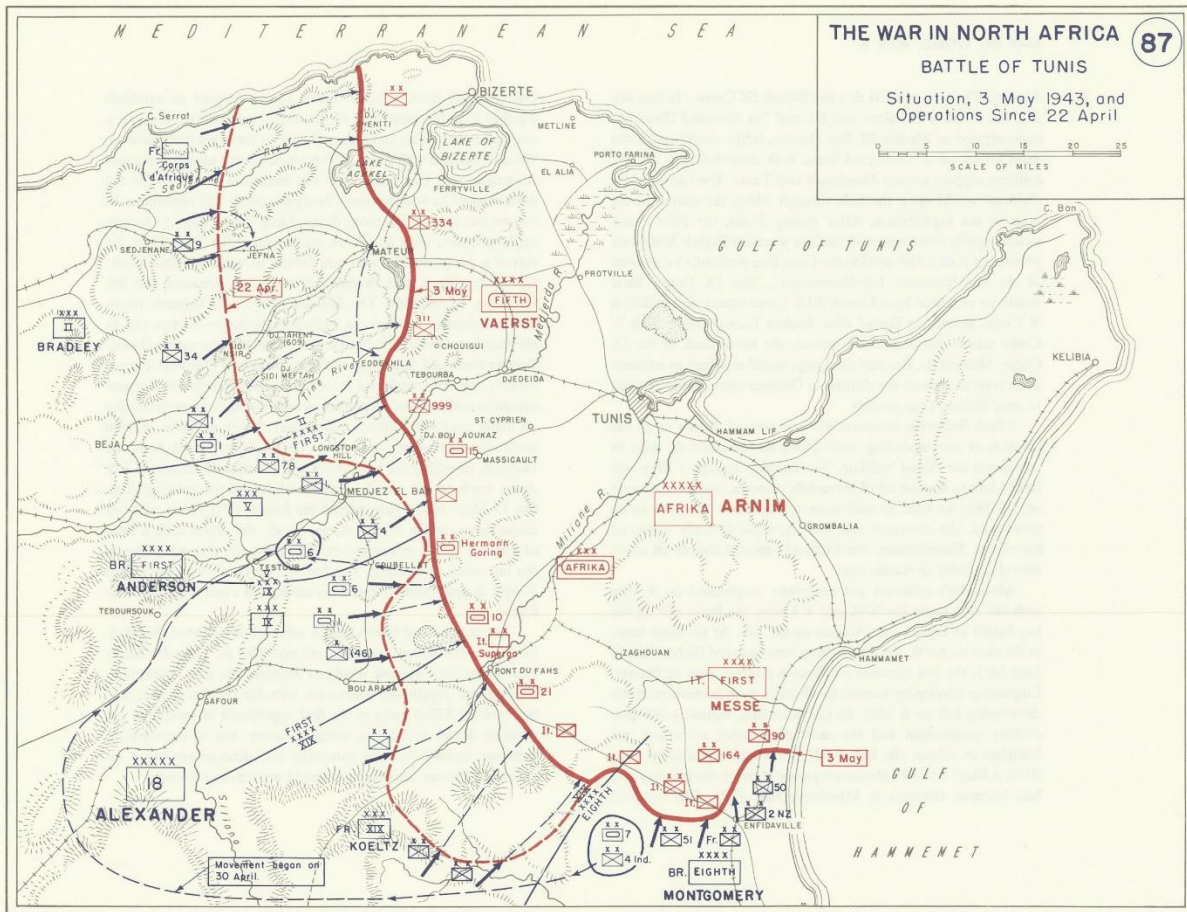
(Xi Jinping- PRC President, head of the Central Military Commission, and General Secretary of the Chinese Communist Party.)

The macro level challenges, such as anti-amphibious operations, can be broken into micro case studies which feed into that overall goal. For the purposes of this article on Air Power, I wish to explore a specific case study from 1943. In the Western Pacific, both the PRC and its armed wing known as the People's Liberation Army (PLA), encompassing all domains of service, and the United States Military face a risk to logistics, lines of communication (LOCs), resupply, and transportation of all the above to various units engaged in battle. Although a hypothetical war between the PRC and a U.S. -led

Coalition in the Pacific would be extremely destructive to all parties involved, we must endeavor to have difficult conversations about what will be required to first achieve deterrence and if said deterrence fails, to win. Taking a deeper look into what a land-based air component can do to limit an amphibious force's ability to resupply its beachhead is necessary now, not later.

The Air Force's role in interdiction has always been a vital one in our history. The dismantling of the enemy supply chain and the effect the success of said interdiction can achieve varies in our military history. From the strafing of Hitler's Panzers racing towards the Normandy beachhead to AC-130 gunships hunting North Vietnamese truck traffic along the Ho Chi Minh Trail, the USAF has received many lessons in what right and wrong looks like. One such case study that is often forgotten by Air Power operators and thinkers is the Allied aerial effort to cut Axis supply lines to the front in North Africa, particularly the Campaign for Tunisia in the Spring/early Summer of 1943. This is not an advocacy for the implementation of air interdiction, that is already an established doctrine. This is an examination of a specific case study which, if used as a historical tool, can serve to emphasize the continued refinement and innovation of said doctrine to achieve greater success on the battlefield.

### **North Africa 1943**

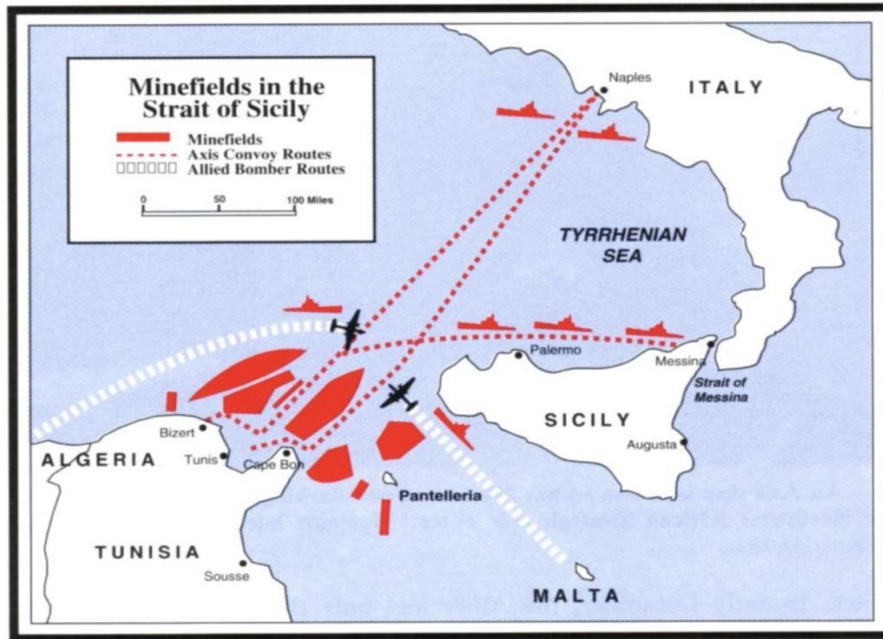


(USAF F-35A stealth fighter getting ready to taxi)

By Spring 1943, the Axis position in North Africa had been squeezed into the former Vichy French colony of Tunisia which encompassed the rough equivalent in size to the U.S. state of Georgia. After the Allies launched Operation Torch in November 1942 to secure French Morocco and Algeria, the Axis rushed reinforcements to the Italian-German position. After the Axis defeat at 2nd El Alamein by General Sir B.L. Montgomery's British 8th Army, the Allied landings during Torch had forced Berlin to decide to attempt to either evacuate the Italian and German forces back for the eventual defense of Europe or reinforce their position and continue to hold off the Allied thrust as long as

possible. Hitler decided to send reinforcements. As Field Marshal Erwin Rommel executed a long retreat from Egypt across the Libyan coast towards Tunisia, units were rushed by sea and air to Tunisia. By March 1943, Heers Gruppe Afrika (Army Group Afrika) encompassed 2 Axis Armies including 5th Panzer Army and Italian 1st Army. The Axis position defending the approaches to Tunis could only continue to resist the multiple Anglo, French, American Armies arrayed against them through continuous and uninterrupted supply by maritime and air transport across the 90 miles separating Tunisia from Sicily.

Allied air success against Axis seaborne convoys from Southern Europe was highly effective. Roughly a 60% average of supplies intended to resupply Axis forces in Tunisia were sent to the bottom of the Mediterranean and the Italian merchant fleet and Navy were suffering greatly. Port facilities throughout the Italian boot, Sicily, and Sardinia were regularly targeted by Allied bombers from Algeria and the island of Malta continued to be a thorn in the side of German-Italian convoys. Success in interdicting these supplies and influencing the battle on land could only be executed through control of the sea offshore, which ultimately must come from securing the skies above. General Carl A. Spaatz, U.S. Army Air Forces (USAAF) commander of the Northwest African Air Force (NAAF) would attempt to do just that.



### Allied Schemes

Although it was vital to focus Allied efforts to destroy maritime convoys, Spaatz understood that another avenue of Axis reinforcement to the front in Africa came from air convoys of transport aircraft flying in under fighter escort. Finding these massed flights and catching them in their short transit across the Strait of Sicily would be difficult, but vital to not only the final severing of an Axis air bridge but set back the Luftwaffe in precious cargo aircraft for other fronts for the rest of the war.





(Luftwaffe Me-323 showing off its ability to land armor in Africa while it unloads a Marder II tank destroyer or “assault gun” which were used by various units in Army Group Afrika, including Fallschirmjager units.)

Flying from aerodromes in Naples, Palermo, Bari, and Reggio di Calabria, some 500 Luftwaffe and Regia Aeronautica planes made their runs across the Strait of Sicily to Tunisian air bases at Sidi Ahmen and El Aouina. Through converging intelligence updates from ULTRA and a skillful use of radar, Allied air planners organized a series of sweeps designed to catch masses numbers of transports at once, maximizing the losses they could inflict.<sup>1</sup> Through exploitation of ULTRA intercepts, the Allies lulled the ever-efficient Germans into a sense of safety by not attacking daylight air convoys to establish a sense of safety and reliability. To avoid suspicion by the Germans that their signals

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<sup>1</sup> Mark, Eduard. “Aerial Interdiction: Air Power and the Land Battle in Three American Wars.” <https://media.defense.gov/>, 1994. <https://media.defense.gov/2010/Sep/21/2001329823/-1/-1/0/AFD-100921-022.pdf>. Pg. 46.



intelligence (SIGINT) had been completely penetrated, the raids against Axis air supply convoys had to be timed sparingly to cause maximum damage with little regularity. Richard Davis describes the importance of the intelligence gathered on the Axis supply situation in his work, *Spaatz and the Air War in Europe*, writing, “Enigma [ULTRA] made it plain that his higher rate of fuel consumption [the principal air transport cargo] and the increasing destruction of his shipping had made the enemy critically dependent on air supply.”<sup>2</sup> Spaatz understood the importance of these aerial convoys and rapidly directed plans to be drawn “to get after” the daily parades of axis transport aircraft crossing the straits of Sicily and into Tunisia.<sup>3</sup> In perfect German fashion, the flights became regular and predictable, thus a series of air ambushes became possible to catch masses of transports in the air and on the ground. P-40 “Warhawks”, P-38 “Lightnings”, and Supermarine Spitfire fighter aircraft were organized to jump the transports in air while a mixture of Allied medium and heavy bomber units smashed known departure and arrival airfields used by the enemy aircraft. The operational plans to intercept these convoys were shelved during the Kasserine Crisis, but once the front stabilized, the Axis air bridge became a priority once more. By April, the American-led NAAF in conjunction with the British-led Desert Air Force (DAF) were ready to catch these convoys in a series of strikes codenamed Operation Flax.

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<sup>2</sup> Davis, Richard G. Carl A. Spaatz and the air war in Europe, 1993.  
<https://media.defense.gov/2010/Oct/12/2001330126/-1/-1/0/AFD-101012-035.pdf>. Pg. 190.

<sup>3</sup> Ibid., 191.



General Carl A. Spaatz, 1945.

### **Operation Flax- Severing the Air Bridge**

On 5 April 1943, the first Flax operation was launched with 26 P-38 “Lightning” fighters and several flights of B-25 “Mitchell” medium bombers. They had caught and attacked 50 Ju-52 transports flying with 20 Me-109 fighters, 4 Fw-190 fighters, and 6 Ju-87 Stuka dive bombers with 12 merchant vessels sailing below them. The German air convoy lost 11 of their precious Ju-52s, 2 Me-109s, and 2 Ju-87s for the loss of only 2 American P-38s. Meanwhile the B-25s had sunk 2 Seibel ferries, a destroyer, and claimed 15 of

the naval flotilla's fighter escorts.<sup>4</sup> Simultaneously, American heavy B-24 and B-17 bombers hit airfields in both Tunisia and Italy causing significant damage and destruction to aircraft on the ground. The final tally for 5 April was estimated at almost 200 Axis aircraft destroyed with over 40 of them on the ground (several of these being the giant Me-323 six engine transport).<sup>5</sup> The allied total was only 3 aircraft lost and 6 missing. On top of loss of vital aircraft, the Germans also lost valuable supplies for Heersgruppe Afrika. After the raids of 5 April, the 2/JG26 historian wrote in his report, "It was an attack such as I had never been experienced even by those hardened by service in Africa! Bombs fell like hail on the airfield bursting like rolls of thunder and enveloping the entire area like a creeping barrage."<sup>6</sup>

On 10 April, a second operation was launched with a sweep by P-38s downing another 20 transports and later that same day, B-25s downed a further 25 enemy aircraft. On the morning of 11 April, P-38s caught a formation of Ju-52s flying at low level from Marsala to Cape Bon. Another 26 transports went into the Mediterranean along with 5 of their fighter escorts.

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<sup>4</sup> Craven, W.F., and J.L. Cate. "Hyperwar: Europe: Torch to Pointblank August 1942 to December 1943 (Chapter 6)." Chapter 6: Climax in Tunisia. Accessed July 1, 2024. <https://www.ibiblio.org/hyperwar/AAF/II/AAF-II-6.html>. Pg. 189-190.

<sup>5</sup> Ibid., 190.

<sup>6</sup> Curatola, John. "Operation Flax, April 1943: Severing the German Afrika Korps' Lifeline: The National WWII Museum: New Orleans." The National WWII Museum | New Orleans, April 6, 2023. <https://www.nationalww2museum.org/war/articles/operation-flax-april-1943-severing-german-afrika-korps-lifeline>.



(Left- P-40s of the 57<sup>th</sup> FG attacking Ju-52s over the Mediterranean. Right- South African Air Force Spitfire MK V's attacking Me-109s and Me-323s.)

Late in the afternoon of Sunday 18 April, P-40s of the U.S. 57th Fighter Group sighted a massive formation of Ju-52 transports flying at low level to avoid radar detection. Flying in three large “V” formations, the 90 Luftwaffe aircraft were described by one American pilot as “they were the most beautiful formation I had ever seen. It seemed like a shame to break them up as it looked like a wonderful propaganda film.”<sup>7</sup> While one squadron provided overhead cover, three other American squadrons pounced on the lumbering cargo planes while the few escorts the Luftwaffe provided were overcome by the mass of American Warhawks. Some P-40 pilots observed desperate, and most understandably, terrified Axis troops firing their small arms out of the windows of the Ju-52s at the attacking American fighters.<sup>8</sup> The official Army Air Force history describes the action on 18 April stating:

Operating from El Djem, the 57th Group began its sweeps over Cap Bon on 17 April. On 18 April occurred the famous Palm Sunday massacre. At about 1500 hours the Germans successfully ran

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<sup>7</sup> “April 18, 1943, Goose Shoot – “The Palm Sunday Massacre.” 57th fighter group. Accessed June 12, 2024. [http://www.57thfightergroup.org/history/goose\\_shoot/](http://www.57thfightergroup.org/history/goose_shoot/).

<sup>8</sup> Ibid.

a large aerial convoy into Tunisia, probably to El Aouina or La Marsa. On its way back, flying at sea level (one of the Americans described it as resembling a huge gaggle of geese) with an ample escort upstairs, the formation encountered four P-40 squadrons (57th Group, plus 314th Squadron of the 324th Group) with a top cover of Spitfires. When the affair ended, 50 to 70--the estimates varied--out of approximately 100 Ju-52's had been destroyed, together with 16 Mc-202's, Me-109's, and Me-110's out of the escort. Allied losses were 6 P-40's and a Spit. The Germans, who admitted to losses of 51 Ju-52's, worked intensively on the transports which had force-landed near El Haouaria, and several of them later took off for Tunis despite Allied strafing. Next day the bag was duplicated on a smaller scale when 12 out of a well-escorted convoy of 20 Ju-52's were shot down.<sup>9</sup>

The next morning, to rub salt into the Luftwaffe's wounds, a South African fighter unit ambushed another formation of transports, splashing 15 more into the drink. The USAAF official history noted the British and Commonwealth contribution to Flax:

Fuel was particularly short, and a decision was apparently taken to throw in the big Me-323's boasting four times the capacity of the Ju-52's. This endeavor came to an untimely end on 22 April when an entire Me-323 convoy was destroyed over the Gulf of Tunis by two and a half Spitfire squadrons and four squadrons of SAAF Kittyhawks. Twenty-one Me-323's were shot down, many in flames, as well as ten fighters, for the loss of four Kittyhawks. With Allied fighters, as he put it, "in front" of the African coast, Maj. Gen. Ulrich Buchholz, the Lufttransportfuehrer Mittelmeer, gave up daylight transport operations, although he continued for a time with crews able to fly blind to send in limited amounts of emergency supplies by night.<sup>10</sup>

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<sup>9</sup> Craven, W.F., and J.L. Cate. "Hyperwar: Europe: Torch to Pointblank August 1942 to December 1943 (Chapter 6)." Chapter 6: Climax in Tunisia. Accessed July 1, 2024. <https://www.ibiblio.org/hyperwar/AAF/II/AAF-II-6.html>. Pg. 190-191.

<sup>10</sup> Ibid., 191.

By the end of the operation the Luftwaffe had lost an estimated 432 aircraft. These losses in the Mediterranean coupled by losses suffered attempting to resupply the besieged German 6<sup>th</sup> Army at Stalingrad crippled the Axis air transportation capability for the remainder of the war. With more production dedicated to the fighter defense of the Reich and ill-fated adventures with jet and bomber aircraft, the Luftwaffe could ill-afford such attrition. General Spaatz had correctly identified the strategic nature of starving the Axis bridgehead and what was necessary from the air to accomplish the eventual surrender of all Axis forces in North Africa. The emphasis on anti-shipping interdiction as well as counter-air interdiction provided the young Army Air Forces an opportunity to showcase what joint air targeting could accomplish. The proper fusing of signals intelligence exploitation and deliberate target identification produced fantastic results that bore fruit on the ground.





(Left- WWII Poster by Curtiss Wright Aircraft Company celebrating the success of Operation Flax. Right- Clip of the front page of *The Stars and Stripes Middle East* Newspaper.)

### Analysis and Lessons Applied

Of Operation Flax, National Museum of WWII senior historian Dr. John Curatola states, “As German transportation assets dwindled with increasing pressure from both the British and US forces on the ground, the DAK’s position in Tunisia became untenable. Running out of fuel, ammunition, and other materials, the Germans eventually evacuated through Tunis. By May, only a few forces remained. These Allied attacks, combined with raids on departure and reception airfields, significantly reduced German logistical capabilities. While Operation Flax’s legacy was helping to strangle the Axis forces in Africa,

it had a significant effect on surviving *Luftwaffe* personnel. Knowing the Allied penchant for attacking the transports over the strait, when it came time to evacuate ground personnel, many of them avoided flying in a Ju 52, opting instead to squeeze into the fuselages of departing Me 109s.”<sup>11</sup> The interdiction plan for Operation Flax was a clear success story for counter air bridge operations. There are few examples in our history to draw upon for case studies that showcase how successful such a counter air mobility operation can be if it is well planned and executed.

General Michael A. Minihan, commander of U.S. Air Mobility Command in a memorandum to his forces dated 1 February 2023 stated, “SITUATION. I hope I am wrong. My gut tells me we will fight in 2025. [Chinese President Xi Jinping] secured his third term and set his war council in October 2022. Taiwan’s presidential elections are in 2024 and will offer Xi a reason. United States’ presidential elections are in 2024 and will offer Xi a distracted America. Xi’s team, reason, and opportunity are all aligned for 2025. We spent 2022 setting the foundation for victory. We will spend 2023 in crisp operational motion building on that foundation.”<sup>12</sup> Furthermore, he outlines his end state goal of, “A fortified, ready, integrated, and agile Joint Force Maneuver Team

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<sup>11</sup> Curatola, John. “Operation Flax, April 1943: Severing the German Afrika Korps’ Lifeline: The National WWII Museum: New Orleans.” The National WWII Museum | New Orleans, April 6, 2023. <https://www.nationalww2museum.org/war/articles/operation-flax-april-1943-severing-german-afrika-korps-lifeline>.

<sup>12</sup> Hadley, Greg. “Read for Yourself: The Full Memo from AMC Gen. Mike Minihan.” Air & Space Forces Magazine, January 30, 2023. <https://www.airandspaceforces.com/read-full-memo-from-amc-gen-mike-minihan/>.

ready to fight and win inside the first island chain. Maximize the use of the force and the tools we currently have and extract full value from things that currently exist. Close the gaps: C2, navigation, maneuver under attack, and tempo.”<sup>13</sup>

Statements like those made by Gen. Minihan and standing orders to all beneath Air Mobility Command (AMC) reveal the mindset many commanders have when viewing combat readiness in the Indo-Pacific. The fight to resupply and sustain forces is not one which the USAF has recently needed to execute within a high threat and attritional environment. The ongoing wars in Ukraine and the Middle East have shown us that we may wish to be finished with wars, but wars will never agree on our terms alone.



(General Michael A. Minihan, Commander, Air Mobility Command)

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<sup>13</sup> Ibid.

Page 19 of United States Joint Publication 3-03 Joint Interdiction states, “Attriting inbound enemy forces and material may isolate forces directly engaged with US forces allowing the Joint Force to generate a greater material, informational, or physiological advantage.” For the United States-led Pacific Coalition in a next Great War, taking a series of lessons to prepare operators and commanders such as those experienced by Goering’s Luftwaffe in the various Mediterranean Campaigns may hold keys to unlock hard fought experience we need before the first shots are fired.

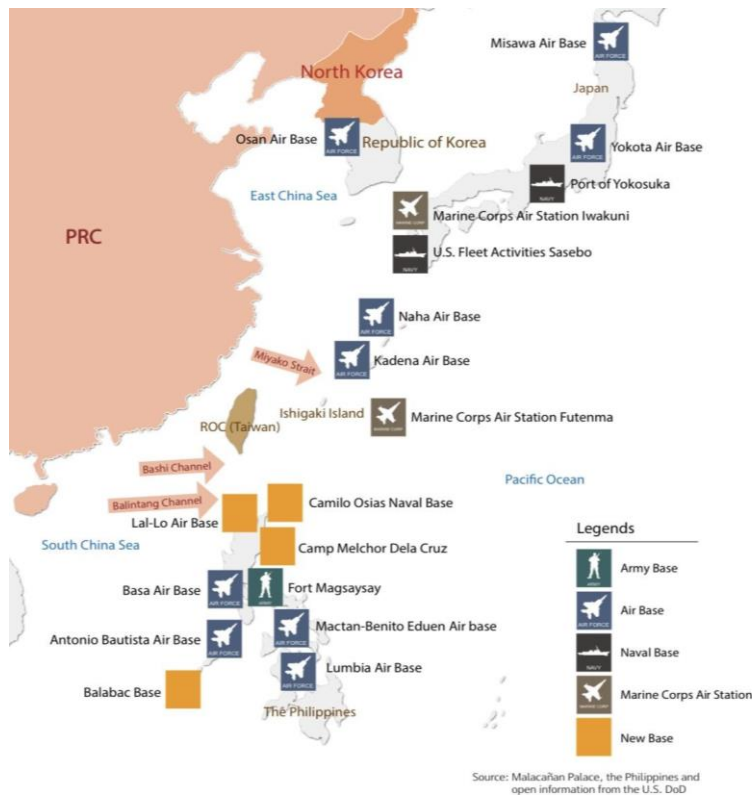


(PLAAF Y-20 transport aircraft flying in formation)

The primary lessons I would like to highlight to future warfighters from Operation Flax are the following:

1. Lack of local air supremacy may force the Allies to execute calculated attacks like what the NAAF had to execute due to sustained Axis air presence and limited air base availability.

2. The value of Intel based surgical massed strikes against high value assets with excellent timing which create lasting effects on the enemy's ability to exercise freedom of maneuver and action through the rest of the conflict.
3. The value of "covering the bases" by taking out both naval and air lines of supply. We must sever any method the enemy may turn to in order to resupply its forces.
4. The PLA looks large on paper and very capable; however, they are only as powerful as what force they can land on the beachhead(s) and how well they can regularly and reliably supply them.
5. Study German military theorist Carl von Clausewitz's notion of the "culmination point". Force the PLA to Reach the culmination point or the point at which materially they can no longer physically achieve their decided objective militarily.
6. For the U.S. we must be careful to not allow ourselves to reach this culmination point ourselves.



[ The Layout of U.S. Bases in the West Pacific ]

(Map of Allied Bases in the Western Pacific)

*“If one were to go beyond that point [culminating point], it would not merely be a useless effort which it could not add to success. It would in fact be a damaging one, which would lead to a reaction; and experience goes to show that such reactions usually have completely disproportionate effects.” – Carl von Clausewitz from **On War** (Book VII, Ch. 22.)*

## Continue Preparing for “The Day” and May It Never Come

Scenes of mass formations of C-17s, C-130s, and C-5s flying across the Pacific to resupply besieged forward bases within the 1st and 2nd Island chains spark similar images to what is possible based on the consequences of Operation Flax. We must be careful to avoid such a similar trap the Allies sprung upon the Luftwaffe while simultaneously attempting to catch our prey in a similar adventure across the Taiwan Strait. Air mobility professionals should review this case study with particular attention to how they can



mitigate the outcome experienced by the Luftwaffe. These lessons apply to both U.S. and PRC for both sides trying to resupply forward units and the side that closely examines this case study will properly prepare their people for victory. Amongst the many COAs within the Air Force's responsibilities during a great power war in the Pacific, land-based air interdiction efforts will be an important piece of the joint puzzle that must be put together to achieve overall success. Looking to case studies such as the successful Allied operations to sever the Axis air bridge to Tunisia in 1943 as well the failure of the Luftwaffe to protect that bridge can light our path ahead with the ultimate intent to Investigate the past, educate the present, and mold the future.



(USAF C-17 "Globemaster" transports flying low in formation)

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