Casablanca Conference
The Casablanca US/UK Summit on Jan 13, 1943 was held to coordinate Allied military strategy against the Axis powers, and to resolve Allied tactics in air operations in the run-up to D-Day. The participants included Pres. Franklin Roosevelt, Prime Minister Winston Churchill, and the most senior level political and military leaders of the U.S. and Great Britain.

Numerous major strategic issues were agreed upon involving increased support for the Soviet Union on the Eastern front, new strategies against Japan, and the adoption of a policy of unconditional surrender to be demanded of the enemy.

Disagreements over target and timing of the much anticipated invasion of the continent were finally resolved with the decision that Nazi occupied Europe would have to wait a year (at least) while efforts in the Mediterranean would concentrate on invading Sicily and the Italian mainland to knock Italy out of the war.

**Precision Bombing vs. Area Bombing:** Also debated at the Summit was the issue of whether the U.S. Army Air Force should proceed with its plan for daylight precision bombing against specific German targets. Or instead—conduct area “carpet” bombing at night in concert with RAF Bomber Command. General Ira Eaker persuaded Churchill that adding U.S. daylight strategic bombing on top of what the British had been doing at night for three years was the best plan. Eaker’s most commanding point was that a “round-the-clock” Anglo-American bombing offensive was the most effective way to exhaust and keep the pressure on German defenses.

In a related issue, the conference attempted to clarify whether the death of civilians by area bombing of strategic targets and populated cities was justified in order to destroy the morale of non-combatant workers and enemy inhabitants. Most British military leaders, and particularly Marshall Arthur Harris—also known as “Bomber Harris”—strongly believed in (and ordered his Bomber Command to exclusively conduct) area bombing. Most American AAF leaders and air crewmembers preferred precision bombing, mostly on moral grounds. But they had to live with the reality that the precision bombing of European targets was rarely as precise as intended. The controversy was never resolved. Harris stubbornly continued to conduct area bombing raids on heavily populated areas, and the devastation of Germany’s major cities and related civilian casualties by the end of the war spoke for itself.

**Target Priorities:** The Summit had reached a loose agreement on how to bomb, but not what to bomb. So a week later it issued a new directive named “Pointblank” which launched the official beginning of The Combined Bomber Offensive (CBO) by the RAF and the Eighth Air Force, and identified the primary targets of the Allied bombing campaign in the following order:

a) German submarine construction yards,
b) German aircraft industry,
c) Transportation,
d) Oil plants,
e) Other targets in enemy war industry.

Heavy Bomber and Aircrew Losses: Another contentious debate at the Summit, which remained unsettled, had been whether Allied air bombardment alone would win the war against Germany. However, by 1943, Allied bomber losses had become so severe that many of our air planners and commanders were beginning to doubt whether they would at least guarantee air supremacy for the coming invasion of “Fortress Europe”. Of all the reasons behind the losses – bad weather, faulty equipment, flak, and fighter defenses—the German Air Force was the most significant. It had always been a potent enemy, but the Luftwaffe was becoming an increasingly vicious force. The best of our escort fighters, the P-38 Lightning and the P-47 Thunderbolt, were able to offer protection to American bombers, but their limited range was exploited by the Luftwaffe. Once our fighter pilots were forced by their limited fuel to turn back, and the bombers continued on alone, the German pilots swept in for the kill. It was often a massacre. It had become obvious by mid-1943 that losses of our heavy bombers and crews were becoming unsustainable. Ridding the skies of the Luftwaffe would require significant improvements in strategy and tactics.

Targeting the Luftwaffe
Recognizing this threat, the 8th Air Force and British Air Ministry drew up plans that would alter Pointblank priorities. The destruction of the German fighter force and its aircraft production facilities, previously number two, would now become priority number one. Only after the German Air Force was weakened to the point that it posed no threat to Operation OVERLORD, the invasion of the continent, would other industries become significant targets. The force they set out to destroy was an ever growing one: German fighter production had actually increased throughout the summer and into the autumn of 1943. During this same period and through year-end, the Eighth continued to experience appalling losses of bombers and aircrews, particularly from German fighter attacks.

The P-51 Mustang
A breakthrough finally occurred in late 1943 with the arrival of the P-51 Mustang. It was a new, fast and agile long-range American fighter equipped with drop tanks, auxiliary fuel sources that allowed it to escort bombers deep into Germany and back. In early 1944, P-51s and other fighters equipped with drop tanks or belly tanks became available in growing numbers. With OVERLORD only months away, the Allied goal became “nothing less than the annihilation of the Luftwaffe”.

New Leadership
In early 1944, as a result of pressure from Washington, DC, new leaders were put in charge of Operation Pointblank. Carl Spaatz became commander of all U.S. Air Forces in Europe (Eighth, Fifteenth, and Ninth Air Forces). Ira Eaker was moved to the Mediterranean; and the more aggressive Jimmy Doolittle was brought in from the Fifteenth in Italy to take over Eighth Air Force, which was building up to a formidable fighting force thanks to American mass production.
**New Escort Tactics**

The combined arrivals of Doolittle, the spectacular P-51 fighter, and drop tanks could not have been more timely. The bomber-boys were now elated at the thought of having their “little friends” escorting them all the way to any targets their “heavies” could reach. But Doolittle believed fighter planes were offensive rather than defensive weapons, and made a dramatic change in their mission. Rather than continuously cling to their squadrons of bombers, the escort pilots would now aggressively seek out, attack, and destroy any German fighter planes sent up to intercept the bombers. They would pursue Luftwaffe fighters back to their bases, strafe their air fields, destroy as many enemy planes as possible, and seek out targets of opportunity on their way back to home bases. It was called “search and destroy”, and was everything our fighter pilots had hoped for. The bomber aircrews were outraged and demoralized at the renewed prospect of little or no escort protection. Doolittle admitted, “It was a difficult decision to make, but from the time we made it, we began to take ascendancy in the air.”

**Waiting on the Weather**

American daylight precision bombing depended on a secret weapon installed in our heavy bombers. The Norden bombsite had been successfully tested in the clear skies of the Arizona desert, and pronounced fit for duty in our air war against Nazi Germany. It utilized a mechanical analog computer fitted with a telescope; the bombardier would enter variables of speed, direction, and altitude, advise the pilot when to switch over to autopilot, sight the device on the target, and have it release the bombs at the precise moment required. However, the Norden’s big flaw was that the target had to be visible. European skies routinely were shrouded by industrial haze and cloud cover that could reach up to six miles high. Moreover, even in clear skies, the bombsite was most accurate only at altitudes much lower than our bombers had to fly to evade enemy flak. The outcome of these factors in the reality of air war was mission cancellations, diversions, recalls—and frequently ineffective bombing results.

Following Doolittle’s arrival on January 6th and into February, he and Spaatz, like Eaker before them, were hamstrung by the weather. This prevented the kind of long-range strategic bombing the Eighth had been created to carry out, and threatened the lives of aircrews trying to fly through it. Missions continued to be cancelled with despairing frequency and the wreckage of bombers lost to the fog and cloud cover were scattered all over England.

As the discouraging weather stretched into mid-February, Eighth Air Force planners waited impatiently to deliver Operation Big Week, the massive blow against the German aircraft industry originally scheduled for the previous November. It was to be a large and complex six-day campaign fought all over Western Europe. The aim was to annihilate the Luftwaffe with continuous coordinated strikes by the Eighth and Fifteenth Air Forces and RAF Fighter Command; the strategy was to bait them and kill them. Our B-17s and B-24s—the bait—would bomb the aircraft factories, and our fighters would then annihilate the planes sent up to defend them. However, the overreaching objective of the strategy was to achieve air superiority in preparation for the Normandy D-day invasion planned for June. By February, with many more
bombers and long range fighter escorts added to his command, coupled with the
combat superiority demonstrated by the new P-51 Mustang, Doolittle’s odds of
success were much improved. But it would continue to depend on the weather.

**Big Week**
Desperate to get the best possible weather advice, Spaatz had brought a Caltech
meteorology expert to England who now forecasted a three to four day break in the
weather starting the morning of February 20. Despite bleak weather over Germany
reported by reconnaissance flights the night before, Spaatz sent out the message to
“let ‘em go”. When clouds, ice, and swirling snow greeted the fliers as they headed for
their briefings, most doubted they would take off that day. Out on the tarmacs
awaiting them was the largest strike force the U. S. Air Force had ever mounted: over
1,000 heavy bombers and almost 900 fighters. And that did not include the Fifteenth
Air Force. The high command, determined to press on, gambled that the visibility over
Germany would be favorable and so fly they did. The targets for the first day of **Big
Week** were the huge fighter production assembly and component plants in Brunswick-
Leipzig, just south of Berlin. It was not uncommon for our bombers to take off, form up
over southeast England in dangerously ugly weather, only to be recalled or diverted
when the forecasts of clear conditions over their targets proved wrong. However
similar it seemed that morning, this time would be different. As our bomber stream
entered Germany, the skies cleared and stayed that way for the duration of the
mission, just as the Caltech weatherman had predicted.

As the air battle began, German fighter pilots were startled to see American escorts,
now equipped with drop tanks, so deep into Germany. They were astonished when
they found themselves suddenly pursued by Thunderbolts and Mustangs. Prior to
Doolittle’s order to release the escorts, Luftwaffe pursuit planes would usually
assemble at lower altitudes knowing they would be safe there with the American
fighters hovering above them, glued to the bombers. On February 20th, the enemy
pilots were surprised and slaughtered.

That evening as Spaatz and his planners braced themselves for news of heavy
losses, continuous teletype reports from bomb and fighter groups indicated “no losses,
or only one or two”. They couldn’t believe it. The cost of the first day’s raid had been
only 21 bombers and 4 fighters, accounting for 214 men of the nearly 11,000 who flew
the mission. German losses were 153 fighter planes.

But the Luftwaffe quickly adjusted tactics, and during the following days of **Big Week**,
the Eighth lost 226 bombers – approximately 20% of Doolittle’s force. The Fifteenth
experienced proportional casualties. Despite such high losses, Spaatz and Doolittle
were convinced that the Eighth Air Force, now “battle-hardened” and “airplane rich”,
was destroying Germany’s war economy and winning the battle of attrition in the skies.
They were correct about the attrition: during **Big Week**, Germany lost more than 600
fighters, a third of its strength, and 18% of its fighter pilots. The severe loss of skilled
pilots, in particular, dealt a serious blow to Luftwaffe morale and capability. This
contributed to the almost complete absence of German fighters over the Normandy
beaches on June 6, D-day.
Big Week bombing effectiveness was only marginally successful: American heavies dropped an impressive 10,000 tons of explosives on eighteen airframe and ball bearing production centers, and the RAF dropped even more. But despite this massive pounding, the impact was only a two-month delay in German aircraft production. An unintended result of Big Week was a reorganization of German fighter plane production, which shifted responsibility from Hermann Goering’s incompetent Air Ministry to Albert Speer’s armaments ministry. Under Speer, aircraft industry dispersal was accelerated, hiding many new plants from Allied detection. This effectively reduced the bombing of airplane factories. However, this widely decentralized production system became highly vulnerable to the increasing destruction of rail and transportation systems by marauding American fighters. By late 1944 German assembly plants found it impossible to obtain the parts needed to produce finished aircraft.

If the five days of Big Week is taken as one single battle, then it was the largest of the war, and the point at which the allied plans for D-Day were saved. On its opening day, the Eighth mounted its first 1,000 plane raid, and flew 3,300 sorties. During the nine weeks leading up to D-Day, the U.S. Air Forces and RAF Bomber Command were continuing to achieve air superiority. Allied bombers were able to drop 197,000 tons of bombs on strategic targets in occupied areas. By comparison, in over 70 raids against London during the Blitz, the total of bombs dropped by the Luftwaffe was 18,000 tons.

**Post-Big Week**

Following Big Week, on March 2 the Eighth made the first of what would be continuing attacks on the Reich’s capital, Berlin. It was the toughest target they had yet faced. Aircrews would be meeting a regrouped Luftwaffe, with over 70 percent of its fighters based within range of the city. Berlin was a 1,100-mile round trip from their English bases, which meant the bombers would be exposed over central Germany for over five hours. In the prevailing bad weather they often had to fly over a six mile-high cloudbank that made formation flying difficult and targets difficult to see. Throughout March and into April, Spaatz and Doolittle continued to force the fight, sending out heavies on immense radar raids—baiting missions actually—in blinding weather that made accurate bombing impossible. In April alone, the Eighth Air Force lost 409 heavy bombers, the most it would lose in any month in the entire air war. It would be costly, but the objectives were critical: continue to destroy aircraft component works located in and around the city; draw the German fighters up to defend; and destroy them with our long-range escorts—fighter planes superior to those of the enemy, in larger numbers, flown by more skilled and experienced pilots using superior tactics.

In April, the formal organizational transfer of the strategic air forces to General Eisenhower, the Supreme Allied Commander of OVERLORD, took place. In a prelude to the invasion, air attacks had already begun against railroad junctions, airfields, ports and bridges in northern France and along the English Channel coastline. The skies over western Europe were now largely clear of the enemy, and the Allies had the all-important air superiority they so needed. This made it possible for the Allied commanders to consider the pursuit of additional Pointblank target priorities, particularly plans to destroy transportation and oil production.
facilities. The Ninth Air Force had already begun supporting specific pre-invasion tasks by the end of March, but even then Eisenhower’s priority remained the ‘destruction of German air combat strength’.

**The Transportation Plan**

Just prior to the transfer, RAF Bomber Command had experienced disastrous losses in night raids on Berlin and Nuremberg. This confirmed what was already crystal clear: that Air Marshall Harris’s vision of massed bombing was not going to bring about the sudden and wholesale collapse of the Third Reich. Relief was at hand, however, because now Bomber Command could get involved in the preparations for OVERLORD and specifically the “Transportation Plan”. While the Ninth Tactical Air Force would carry out an interdiction policy, hitting bridges and railway lines all across France and western Europe, the U.S and RAF strategic air forces were to target larger railway centers, marshaling yards and depots. It was estimated that the Germans used as much as two-thirds of western Europe’s railway capacity entirely for military matters. Without it, the Nazi war effort would largely grind to a halt. The night bombers of Bomber Command got the job. And thanks to improved navigational aids, experience and tactics, they proved more than up to the task, attacking their targets with accuracy, success and surprisingly little loss of civilian life.

**The Oil Plan**

Germany and Central Europe have virtually no natural oil reserves. Synthetic liquid fuel produced from plentiful coal was Germany’s alternative. Wartime Germany was a chemical empire built on coal, air (hydrogen) and water, the foundation of a chemical process that produced not only fuel but 99% of its synthetic rubber, methanol, ammonia nitric acid—the raw materials of military munitions. Gen. Spaatz believed an oil offensive would have an immediate impact on enemy “front-line strength” in the air or on the ground, and continued to press the issue. Surprisingly, prior to May 1944 when Spaatz’s oil campaign finally was authorized to begin, Germany’s synthetic oil industry had been virtually untouched by Allied bombs. On May 12, 1944, Doolittle’s initial strike sent almost 900 bombers in a raid on synthetic fuel plants. The American Strategic Air Forces would make 347 separate oil strikes and Britain’s Bomber Command would carry out an additional 158. The 8th AF’s primary targets were the Leuna works, located Ninety miles SW of Berlin, and the even larger complex at Politz, in the Silesian coalfields, 70 miles NE of the capital. Victory in The Battle of Leuna would cost the Eighth Air Force 1,280 airmen. The plant was damaged irretrievably, and after June 1944 German production of aviation fuel for the remainder of the war was little more than a month’s supply in the period before the raids. In raids that cost it 230 heavy bombers, the Fifteenth aided by the RAF, reduced the output of the main Ploesti fields by 90 percent. By September, oil imports from Romania had been completely stopped.

**D-Day**

Since late March 1944, Eisenhower had exercised close command of the air components in England, and as June approached, the heavy bombers were hitting targets in northern France as well as deep into Germany. The Luftwaffe’s pilots were usually beaten whenever they showed up. Adolf Galland, commander
of German fighter forces, reported almost 40 percent of its fighter planes and nearly a quarter of its pilots lost during April. There were not enough replacements, and those that existed were of increasingly poor quality. The one overriding reason to destroy the Luftwaffe had been the invasion of Europe. And now the Allied plan was working. In reflecting on the June 6th assault on Normandy, Galland further recalled that from the very first moment of the invasion, the Allies had absolute air supremacy. When the invasion forces reached the beaches just after daybreak, the Luftwaffe was nowhere to be seen. Whereas the Americans and British put 14,674 sorties into the air that first day, the Germans mustered fewer than 250.

**The Battle of Normandy**
The eighty-day-long Battle of Normandy started 6 June 1944 on the bloody invasion beaches and ended decisively with the retreat from the “Falaise Pocket” of what was left of the German Seventh Army. Operation Cobra, the final phase of that battle, was won at St. Lo after two days of coordinated attacks by heavy and medium bombers of the Eighth and Ninth Air Forces (under the indirect command of General Eisenhower) and engagement by ground forces of VII Corps of U.S. First Army. In two days of air strikes, cataclysmic bombings of the German positions were executed by over 2,500 sorties of heavies (plus other bombers and fighters) dropping over 3,300 tons of explosives. This type of massive bombardment of concentrated enemy troops by heavy bombers had never been attempted before, and despite the tragic accidental “friendly-fire” loss of American troops, proved to be the decisive factor in the victory. Although heavy bombers were rarely used this way afterwards, close air support of infantry—a German innovation—became one of the salient causes of Germany’s defeat. With the Luftwaffe almost absent from the skies, Eighth and Ninth Air Force fighter-bombers inflicted lethal damage on German divisions that were pushed back in panic to the western borders of their homeland by swift-moving American infantry, artillery, and armor. The Germans were decimated by Allied air-tank battle teams.

The Battle of Normandy was the most decisive battle on the Western Front. The Germans lost over 400,000 combatants—killed, wounded, or captured—and the Allies suffered over 225,000 casualties, two-thirds of them Americans, among them 8,536 airmen killed and missing. The battle was a prelude to the liberation of Paris and the triumphant Allied drive across France to Germany’s western border. The battle for France was almost over, and the battle for Germany still lay ahead. It would be a murderous fight, despite the dramatically reduced threat of the Luftwaffe.

References:

"Masters of the Air, America’s Bomber Boys Who Fought the Air War Against Nazi Germany”, by Donald L. Miller
“Big Week, The Biggest Air Battle of World War II” by James Holland
“Fire and Fury, The Allied Bombing of Germany 1942-1945” by Randall Hansen
“The Story of World War II”, by Donald L. Miller (original text by Henry Steele Commager)
“Contrails”, by The Eighth Air Force Historical Society, The Birthplace Chapter