

# The History of the Twentieth Century

## Episode 431

### “Bombing Your Allies”

#### Transcript

[music: Fanfare]

At the end of 1943, the US Eighth Air Force, the one based in Britain, published a booklet touting the accomplishments of its first year of bomber raids in Europe. Spread across the first two pages of the booklet was a map showing every target the Americans had bombed in 1943.

Two of the targets were in Norway, four in the Netherlands, and eight in Belgium. Nineteen of them were in Germany, and 33 of them were in France, as many as in all the other countries combined.

Welcome to *The History of the Twentieth Century*.

[music: Opening War Theme]

Episode 431. Bombing Your Allies.

The French government first began drawing up civil defense plans against possible air attacks in 1923. In 1935, the National Assembly passed legislation providing for mandatory participation by all citizens in civil defense measures. In 1938, the Ministry of Defense appointed a national director of civil defense, whose job was to coordinate civil defense among France’s ninety departments.

In June 1940, France was defeated by Germany and agreed to an armistice that divided the country into a German occupation zone, an Italian occupation zone, and unoccupied France.

In July 1940, the British War Cabinet approved bombing German military targets in occupied France within 30 miles of the coast. That year, most RAF bombing raids were meant to disrupt the German bombing campaign against Britain or German efforts to marshal an invasion force or maintain the U-boat blockade. Some of these attacks were conducted by RAF Coastal Command.

By 1941, however, as the prospect of an invasion of Great Britain grew more distant, RAF Bomber Command turned its attention away from these immediate threats and began targeting the German military generally. As you know from our previous episodes on the bombing

campaign in Europe, Bomber Command's definition of a military target quickly expanded to include any industry, transportation, or utility site that supported the German war effort. By mid-1941, Bomber Command had catalogued hundreds of targets in occupied France, including some beyond that 30-mile limit.

French records indicate that about 300 French civilians were killed by British bombing raids in 1940. That number increased to 1,300 in 1941. In May of that year, the mayors of Dieppe, Brest, Lorient, and Bordeaux registered a protest against the RAF bombing of residential areas in their cities, submitted to the British government via US diplomatic channels. The Vichy government itself also protested to the British government, through their embassy in Madrid, twice that year. Again, the complaint was the bombing of French civilians in residential areas.

The British bombing campaign also drew protests from the governments-in-exile of Norway, the Netherlands, and Belgium and from Charles de Gaulle's Free French movement. Again, the issue was the bombing of civilians and civilian property. Foreign secretary Anthony Eden asked the Air Ministry to please undertake measures to minimize civilian casualties, but little changed. There was hardly anything Bomber Command could do to reduce civilian casualties in occupied countries other than stop bombing occupied countries, but that was a step Bomber Command was unwilling to take.

Bomber Command did refrain from using its nighttime "area bombing" tactic against targets in occupied countries. German cities were getting the full treatment, which involved large-scale nighttime incendiary attacks meant to burn down German workers' homes—excuse me, "de-house" German workers—but in Britain, officials felt German civilians had in some sense brought this upon themselves, while it was impossible to say the same about civilians in occupied countries, so Bomber Command relied on daytime raids with their greater precision when bombing those targets. Even so, the bombers were not accurate enough to avoid civilian casualties altogether; Bomber Command was often forced to weigh potential civilian casualties against potential military benefits when planning attacks.

Information from resistance groups in the occupied countries suggested that their publics wanted to see the British bomb not only German military bases but factories that produced goods for the German military. By the second half of 1941, the British government came around to the view that bombing occupied countries proved to their citizens that Britain was still in the war and still cared about what was happening in their homelands. The Norwegian resistance agreed that people in Norway felt that RAF bombing raids proved Britain's interest in Norway. The Belgians reported that a lack of aerial raids on their country was interpreted by their citizens as a sign of British cowardice.

The second half of 1941 saw a marked increase in British bombing raids for these reasons, but also for the very practical reason that the midyear German invasion of the Soviet Union required

the redeployment of most of the Luftwaffe to the Eastern Front. Bombing Western Europe became much safer than it had previously been.

Speaking of the Luftwaffe, it was they who were responsible for air defense and civil defense in occupied France, and this was a source of friction. Only German officials had the authority to sound an air raid alarm, but the responsibility for notifying the Luftwaffe of approaching British bombers was put on the French, who were not particularly keen on warning their enemies about an Allied bombing raid.

In the German and Italian occupation zones, the occupying powers imposed a blackout over the territories they controlled, but they were irritated by French authorities in the unoccupied zone. The French did not enforce a blackout over the unoccupied zone, and the Germans and Italians complained the bright city lights in the unoccupied zone served as landmarks that helped British planes orient themselves on missions into the occupied zones. Even when the French agreed to enforce blackouts, the enforcement was spotty and the results unsatisfactory to the occupiers.

In spring of 1942, the Germans demanded a full blackout in unoccupied territory within 100 kilometers of the German occupation zone, and temporary blackouts in the rest of unoccupied France, to be ordered whenever British planes were spotted overflying unoccupied France. French officials called the demand “inopportune” and entered into negotiations with the Germans which dragged on for five months before the French finally accepted the German demands in August 1942.

The following month, the Luftwaffe flew reconnaissance flights over unoccupied France to gauge the effectiveness of the blackout. Luftwaffe pilots reported sighting many brightly lit French homes that showed no evidence of any effort at a blackout and automobiles driving along French roads with headlights fully lit.

French military leadership were reluctant to cooperate with the German military on this or any other question, and for the ordinary French civilian, refusal to observe the blackout rules was an easy way to express their opposition to the Germans. Free French radio broadcasts into France encouraged noncompliance with the blackout.

In November, following the Allied invasion of French North Africa, the Germans occupied unoccupied France. Now they could now impose blackouts over the entirety of France whenever they wished. Even so, civilian cooperation was spotty and the Germans lacked the resources to track down every French home that was still flouting the rules. The French military consistently dragged their feet whenever the Germans asked them for cooperation on this or any other military matter.

The Germans next requested the government in Vichy create a national director of civil defense. Their hope was to establish an all-French civil defense organization responsible for the entire country. They created a new, French-operated air raid warning system, but the system still

required German approval before an alert could be sounded. Often the sirens went off only after the bombs began falling.

About 1,300 French civilians were killed by British bombing raids in 1941. In early 1942, the British War Cabinet authorized Bomber Command to undertake raids against industrial targets in occupied countries if the industrial site's production was assisting the German war effort.

On the night of March 3, 1942, the RAF tried out the new policy by bombing a target in the Paris suburbs for the first time. Bomber Command sent 235 planes to attack the Renault plant, which had no anti-aircraft defenses, and the surrounding workers' housing. Much of the factory was destroyed, though not the machinery, as were hundreds of houses and other buildings. Nearly 400 French civilians were killed and 550 seriously injured—far heavier casualties than had yet been inflicted on any German target.

The British were not only testing their ability to bomb a target in Paris. They were also testing how French public opinion would respond to a heavy bombing raid. Before the attack, the RAF dropped leaflets across northern France, warning that factories making products for the German war effort would be targeted. The leaflets suggested workers look for jobs in rural areas or, if that was not possible, to go on strike and demand protection. The BBC warned French civilians to stay away from any business that traded with the Germans.

After the attack, the British were keen to learn how the French reacted to the bombing raid. Publicly, French officials organized solemn events in memory of the victims, while French newspapers, radio, and newsreels emphasized the cruelty and injustice of bombing France and killing French civilians for the supposed purpose of "liberating" them. But that was the state-controlled media. When information began trickling in about the reaction on the street, it seemed most French civilians applauded the attack, though they made half-hearted attempts to disguise their glee. The French were more likely to blame the deaths on the Germans, for failing to provide proper defenses or shelters.

As for the effect on the plant, it was reported that only about 10% of the machinery was destroyed, and within months, the factory was back to full production.

From 1942 until the end of the war, RAF Bomber Command, and later also the US Eighth Air Force, repeatedly attacked the port cities on the west coast of France, chiefly Brest, Lorient, St.-Nazaire, La Rochelle, and Bordeaux, because these communities were the unwilling hosts to German U-boat bases.

At first, Bomber Command was instructed only to attack the docks and only when the weather was clear and visibility good. This soon proved insufficient, and the Germans built massive concrete bunkers over their submarine pens that made the U-boats and their docks virtually invulnerable. In April, Bomber Command's chief, Arthur Harris, requested from his superior, Sir Charles Portal, permission to attack the cities themselves. Harris reasoned that bombing raids on

the cities would force French workers to leave and deprive the Germans of their labor. Portal told him that was contrary to government policy.

Ironically, eight months later, in January 1943, with U-boat sinkings in the North Atlantic setting new records, the War Cabinet reversed its policy under pressure from the Royal Navy, and gave the green light for area bombing of those French ports used by the U-boats. But this was also when “Bomber” Harris’s raids on German cities were producing those spectacular firestorms and causing mass destruction. Harris was now convinced this was the key to winning the war and decided that attacks on these French ports would be a pointless distraction.

But as we’ve seen, over the first half of 1943, air attacks greatly diminished the U-boat threat, but those air attacks were against U-boats at sea, not the ones in port, tucked safely away inside those bunkers.

This was also the year the American Eighth Air Force began its bombing campaign; in April, the Americans made a daylight raid on that Renault plant again with 85 B-17s. There were next to no anti-aircraft defenses and the air raid sirens didn’t sound until a minute or so before the raid began, leaving civilians out on the streets enjoying the spring afternoon little time to get to shelter. Fewer than half the American bombs hit the factory; the others fell scattered across residential neighborhoods. One bomb somehow managed to make its way into a Métro station before exploding, killing eighty people who had sought shelter there. Altogether, about 400 civilians were killed and 600 wounded in that attack, prompting the Free French in London to complain to the British that inaccurate American bombing was alienating the French public.

The Eighth Air Force agreed to restrict its attacks to certain clearly military targets and try to improve accuracy, but later that year both the Americans and the RAF succumbed to the temptation to raid the French aircraft industry. Many of these plants were located in what used to be unoccupied France and had not previously been attacked. The French aircraft industry produced nearly 700 planes for the Germans in 1942, and nearly 1,300 in 1943. These planes were used solely for training purposes, but nonetheless, every French training plane freed up a German warplane for combat.

In August and September, the Americans struck hard on the port city of Nantes, which had an aircraft factory and a locomotive works and where German surface ships were docked and the Luftwaffe had established an airbase. Nantes had not previously been bombed, so civilians were slow to react to the sirens, at least the first time. In three large raids, on August 16, September 16, and September 23, the Eighth Air Force devastated the city and ran up the highest civilian casualty figures yet seen in France: almost 1,500 killed and 2,500 wounded, again because of bombing inaccuracy.

Lack of anti-aircraft defenses meant that American losses were light, just a handful of planes.

The number of French civilians killed in Allied bombing raids doubled between 1941 and 1942, from 1,300 to 2,600, and nearly tripled in 1943, totaling 7,400 that year, plus thousands of people wounded. The French public reacted to these losses with a mixture of anger and confusion.

The French Air Force studied the results of Allied bombing raids—yes, there was still a French Air Force, although the armistice forced its reduction to a pale shadow of what it had been. But that meant there were plenty of staff with nothing else to do, so they picked over the bomb damage in an effort to ascertain exactly what the Allies were trying to accomplish.

Typically, most Allied bombs fell a kilometer or more away from the intended target. The scatter of the bombs dropped by both the Eighth Air Force and the RAF was so widespread the French assumed there must have been some purpose behind it, though they couldn't work out what that purpose might be.

Eventually, the French reached the only logical conclusion: that Allied bombers simply weren't very accurate. One French report on one raid concluded, "The results obtained have no relation to the means employed, and this bombardment represents, like all the others, a waste of materiel, without counting the unnecessary losses in human life they provoke."

[music: Ravel, *Miroirs*.]

In early 1943, once they took control over civil defense in the whole of France, German occupation authorities began ordering evacuations of women, children, and older people from cities that were frequent targets. This mostly meant French coastal cities.

A certain amount of voluntary evacuation had already been going on. Some 200,000 French children were sent away from the most threatened communities. Algiers, in North Africa, agreed to take in children from Le Havre. The city of Brest worked out a compact with Lyon to take in its children, but the program ultimately took in no more than 100 of them. Most parents resisted separation from their children.

More commonly, French civilians donated money and clothing to those who lost their homes. The displaced typically were taken in by family and friends in nearby small towns and villages. French officials remembered the chaos of the German invasion of 1940 and the mass flight of civilians it had triggered and supported this sort of evacuation, in which the evacuees were relocated to safer areas near to their homes and resisted German urging to send evacuees to rural areas in the French interior.

Many evacuees who did leave coastal cities in early 1943 returned the following winter, which displeased the Germans, who threatened to confiscate ration cards from the returnees, or even incarceration in a labor camp. When 1944 came and it appeared an Allied invasion would come that spring or summer, the Germans forced another round of evacuations. The port city of

Cherbourg, which normally had a population of 50,000, had only 10% of that number remaining when the Allies landed in Normandy.

The experience of French civilians during the Allied bombing campaign was quite different from the experience of British civilians during the Blitz. In that latter case, it was obvious who was the enemy. In France, civilians might try to help downed aircrews escape, but those who did risked imprisonment, torture, or even execution, dangers Britons never had to think about. German propaganda in France, as in Germany, painted the Allied aircrews as terrorists indiscriminately killing innocent civilians. The Germans encouraged the French government in Vichy to adopt the same line, which they did. French newsreels headlined stories on bombing raids with titles like “War on Civilians.” French officials organized large, elaborate memorial ceremonies in which French officials gave multiple speeches condemning the Allies.

Nowhere was the right-wing Vichy government less popular than in the cities, so careful attention to the victims of the bombing raids gave the government a way to earn the gratitude of city folk. The state paid compensation to those who lost property, covered the costs of funerals, and provided pensions to the wives and children of those killed in the attacks.

The Allies had their own propaganda campaigns. Early in the war, BBC broadcasts into France encouraged French listeners to think of the Allied bombings and sabotage operations by the resistance as complementary parts of a larger strategy. Early in the war, the bombings helped reassure French civilians that France had not been abandoned, but as the years passed by and the casualty figures rose and the French still saw no sign of Allied soldiers, the public attitude began to shift against the bombings.

The propaganda tool the Allies used most heavily was the airdropped leaflet. The RAF dropped more than 150 million leaflets into France in 1942, and almost double that number in 1943. Most leaflets either warned civilians to stay away from certain targeted areas or explained Allied justifications for the targets they chose.

In 1943, the Eighth Air Force organized a special bomber unit dedicated to leaflet distribution over Germany and the occupied territories. Both the British and American leaflet campaigns expanded even further in 1944, until the Allies were virtually burying France in paper, dropping a hundred million leaflets every month, including an American newsletter in French called *America at War*, which delivered news about the course of the war along with justifications for the bombing raids.

The Allies continued to monitor French reaction to the bombings, but it could be hard to get a read on French public opinion. French newspapers and radio were caustic in their criticism, which frequently included some variations of the words “barbarian” or “barbaric.” French cardinals sent appeals to Catholic bishops in Britain and the United States asking them to appeal in turn to their respective air forces to exercise greater care in their bombing.

On March 7, 1944, American bombers from the Fifteenth Air Force, based in Italy, bombed German submarine facilities at the French port of Toulon. The attack was focused and killed 900 German military personnel. Toulon cheered, but four days later a follow-up attack was less accurate and killed over a hundred French civilians, which aroused French anger. Even worse, the raid included African-American aircrews, one of which was shot down, prompting a racist reaction from the French public.

Incidents like these gave pause to the Allied leadership. They debated among themselves whether the good the bombing raids did for the Allied war effort was offset by alienation of the French public. During the raids leading up to the Normandy invasion, no one worried more than Winston Churchill, who told his War Cabinet he feared that by the time the Normandy landings began, the French public would be wholly hostile to the Allied cause.

The Germans monitored French public opinion as well. German intelligence concluded that by 1943, scarcely anyone in France still believed Germany could win the war. French civilians organized networks that spirited thousands of British and American bomber crew members out of the country and back to their units, despite the threat of execution. Funerals for Allied air crews often drew large crowds despite German efforts to discourage attendance. The French sometimes laid wreaths on the graves of Allied aircrews; the wreaths were often adorned with sashes that read “To Our Heroes,” or similar language.

The Allied bombing campaign in the months leading up to Operation Overlord was known as the Transportation Plan, or the Transport Plan if you’re British. The goal was to cripple the French rail and road networks, and thus slow down the Germans’ ability to reinforce their front line at the beachhead following the Normandy invasion. Allied military leaders were primarily concerned with roads and railroads in and leading to Normandy, but conducted their bombing raids across France to disguise the location of the invasion.

As I’ve indicated before, neither Arthur Harris, chief of RAF Bomber Command nor Carl Spaatz, commander of the Eighth Air Force, supported using their bombers in this manner. In 1944, the strategic bombing units were targeting German aircraft production facilities; Harris and Spaatz believed those attacks would do more to support the Normandy invasion than would including their bombers in the Transportation Plan, since high-level bombing was unsuited to narrow targets like roads and railroads. They also worried about the numbers of civilian deaths in France and what effect they would have on French opinion.

The Transportation Plan had been devised within Eisenhower’s command, specifically by Air Chief Marshal Arthur Tedder, who was in command of the air forces involved in Overlord, and his science advisor, 39-year-old Solomon Zuckerman, or “Solly” Zuckerman, as he was widely known. Zuckerman was born in Cape Town, South Africa and was, say it with me, the child of Jewish immigrants from what was then the Russian Empire. Zuckerman had studied medicine at

the University of Cape Town, then at Yale University in the United States, then completed his studies at University College Hospital in London.

Afterward, Zuckerman worked as a zoologist, studying primates, and began teaching at the University of Oxford in 1934. In 1943, he began working for the RAF doing assessments of the effectiveness of bombing raids in Italy and was commissioned as an officer with the rank of group captain.

Zuckerman based the Transportation Plan on his studies in Italy, where he concluded the most effective use of bombers in that campaign was to disrupt railroad operations. The tracks themselves and bridges and marshalling yards, yes, but he believed the best targets were railway locomotives and the service depots that repaired and maintained them. When the enemy couldn't use railways, they were forced to rely on trucks, which in turn forced the Germans to burn badly needed gasoline, as well as divert those trucks away from troop transportation, which hampered German mobility.

The Bomber Mafia, who resisted the Transportation Plan, liked to refer to it as "Zuckerman's Folly." Zuckerman defended his plan by calculating casualty estimates based on RAF bombing assessments from earlier in the war and concluded the likely civilian casualties of the Transportation Plan would amount to some 12,000 killed and 6,000 seriously injured. These numbers were hardly any worse than the maximum 10,000 that Churchill had proposed.

RAF Bomber Command begged to differ. Their estimates came in at 80,000 to 160,000. That would be the number killed and the number wounded combined, but it was still five to ten times higher than Zuckerman's estimates.

In spring, during the first weeks of the execution of the Transportation Plan, intelligence reports suggested that civilian casualties were lighter than expected. But the numbers collected by the French civil defense officials disagreed. The French counted 700 bombing deaths in March, 5,000 in April, and nearly 10,000 in May, numbers significantly higher than Zuckerman's estimates.

Overall, the Transportation Plan led to some 64,000 tons of bombs dropped on France in the months leading up to the Normandy invasion. This figure alone exceeds the total of 58,000 tons of bombs the Luftwaffe dropped on Britain over all of 1940 and 1941.

The worst casualty numbers came from the part of France that used to be the unoccupied zone. French civilians there had less experience with bombing raids and were more likely to be found in the streets or in their yards, or even at their windows watching the bombs fall, rather than sheltering. The shelters in that part of France weren't all that good, either.

Another problem was that most of southern France was bombed by the Fifteenth Air Force, the one based in Italy. The Fifteenth's bomber crews had previously been participating in attacks on

German aircraft production, attacks in which American commanders had embraced the British idea that the houses of factory workers counted as a military target, the same as the factory itself. They were not experienced in the kind of precision bombing they were now called upon to perform, where they were supposed to hit railroads and bridges and avoid damaging civilian homes.

The big question is this: how effective was the Transportation Plan, and was it worth the cost in French civilian lives? This question is still controversial in our time. French estimates suggest rail capacity in France in early June 1944 was down to half the normal figure, and down as low as 10% of normal in the northern parts of the country. A report from the German Ministry of Aviation dated a week after the Normandy landings said that the breakdown of rail lines in France was severely hampering supply and making strategic movement of German troops by rail practically impossible, which was the whole idea.

That sounds pretty good, but you also have to take into account that a substantial portion of this damage was inflicted not by Allied bombers but by the French resistance. Resistance leaders understood and accepted that civilian casualties were an unavoidable part of the campaign to evict the occupiers, but they also believed that resistance sabotage was more effective and less dangerous to the civilian population.

This was particularly true when it came to rail sabotage, since the resistance had a lot of sympathizers working for the SNCF, Société nationale des chemins de fer français, the French national railway company. In the period from April to June 1944, there were about a thousand bombing attacks on French railways and 1,700 acts of sabotage. The French calculate that 2,500 locomotives were destroyed or damaged by bombing and 1,600 by sabotage. For railway cars, the figures are 55,000 by bombing and 70,000 by sabotage.

Solly Zuckerman proved quite correct, though, in his conclusion that destroying or damaging locomotives and the facilities used to service and repair them was the most efficient means of slowing down the railroads. On the other hand, the planes best suited to hit and destroy such small targets were light bombers and fighter-bombers that attacked from a low altitude, which is what Harris and Spaatz had been saying all along. Some 70%-80% of the bombs the big bombers dropped missed the target area and were therefore most likely to kill civilians.

The Germans managed to keep the French railroad network operating reasonably well in the final weeks before the Normandy landing. They accomplished this by shutting down civilian rail traffic altogether and dedicating the French rail network exclusively to the use of the German military.

That, plus some good luck in the form of bad weather that hampered the bombing some of the time, kept the system going, at least until the invasion. And after the invasion?

Well, that is a topic for another episode. We'll have to stop here for today. I thank you for listening, and I'd like to thank Suzanne and Jorge for their kind donations, and thank you to Kathryn for becoming a patron of the podcast. Donors and patrons like Suzanne and Jorge and Kathryn help cover the costs of making this show, which in turn keeps the podcast available free for everyone always, so my thanks to them and to all of you who have pitched in and helped out. If you'd like to become a patron or make a donation, you are most welcome; just visit the website, [historyofthetwentiethcentury.com](http://historyofthetwentiethcentury.com) and click on the PayPal or Patreon buttons.

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And I hope you'll join me next week, here on *The History of the Twentieth Century*, as the landings at Normandy begin. And they began with a huge paratrooper assault by two American and one British airborne divisions, amounting to about 19,000 soldiers in all. This operation eclipsed the German air assault on Crete to become the largest airborne operation in history, at that time. The Longest Day, part one, next week, here, on *The History of the Twentieth Century*.

Oh, and one more thing. I'd like to say a bit more about Solly Zuckerman. Apart from his analysis of bombing results for the RAF, he was already at that time well known for the special helmet he had devised for civil defense workers in the UK. This helmet, often referred to as the Zuckerman Helmet, was designed primarily to protect the wearer from falling masonry, as opposed to a military helmet, which is meant to protect against bullets and shrapnel.

After the war, he taught at the University of Birmingham and then the University of East Anglia. In 1964, he was the first person appointed to the newly created post of Chief Scientific Advisor to the British government. In those later years, he took an interest in the role of science and scientists in developing government policy, as well as in environmental protection. Zuckerman proposed that scientists and engineers should adopt an oath, comparable to the Hippocratic Oath in medicine, to be mindful of the social and environmental consequences of their research.

He was knighted in 1956, and appointed Baron Zuckerman in 1971. Baron Zuckerman died in 1993, at the age of 88.

[music: Closing War Theme]