

Air and Space this Week

Item of the Week

WWII ETO STRATEGIC BOMBING: EIGHTY YEARS AGO – PART 1

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Kane Johnson Wood Baker Jerstad

Warfare circa 1943 required abundant men, material, and supplies; the transportation system and its defenses to get them where they were needed; and the industrial/manufacturing infrastructure that could support the entire effort.

Many strategic targets were available. The problem was to find the ones that would be most effective militarily, yet do-able operationally. But one thing was certain, oil products, their acquisition, refining, and transportation, was of paramount importance.

Especially when Rommel's tanks were running wild in northern Africa.

ETO STATUS IN AUGUST, 1943

A lot was going on in the European Theater of Operations in the summer of 1943. The great tank battle at Kursk was won by Russian forces, at a serious cost. The Allies invaded Sicily on July 10; Palermo was captured on July 22. Hamburg was fire-bombed in Operation Gomorrah on July 24. Mussolini was arrested on July 25.

Prior to July, 1943, combat on all fronts was going the Allies' way. However, German resistance was fierce on all fronts, and gains were made at a high cost. A full-scale invasion of Europe, especially from the north and west, lay in the future. But first, the German military, and ***its ability to wage war***, had to be weakened significantly. That meant strategic long-range bombing attacks on heavily-defended targets.

Bombing technology improved dramatically throughout the War, but was still relatively primitive in mid-1943. Bombing from high altitude was safer than coming in a low level, but bombing accuracy suffered the higher the bombers went. If the target were huge (like a city), inaccuracy wouldn't matter so much. But if the targets were small, accuracy mattered. More than safety.

Allied military planners wanted to hurt future German military capability. Some targets were obvious, such as aircraft and other key manufacturing industries and their supply lines. The value of others was perhaps more subtle. One such was the German's ability to produce ball bearings (more in Part 2 of this Item coming later).

But there was one critical industry that all could agree on – the German military absolutely could not operate as a fighting force without oil and the fuels refined from it. And the Germans had captured early on the biggest oil processing facilities in Europe, those centered around Ploesti, Romania.

PLOESTI: TIDAL WAVE – THE PRECURSOR

Military genius was not required to realize the importance of Ploesti's oil. The initial problem faced by the Allies was that their bombers lacked the range, and the protection, to reach Ploesti. German complacency on the matter was shattered on June 11, 1942, when a small group of only a dozen B-24 bombers made a poorly-planned attack on Ploesti.

Army Air Force (AAF) planners were scrambling the month after Pearl Harbor to devise ways to support what would become the China-Burma-India theater of operations. They envisioned the creation of the Tenth Air Force, with fighters, light bombers, cargo planes, and a group of 23 long-range B-24s. Col. Harry Halverson would command the B-24s, and he was allowed to pick the best crews for those bombers he could find. His unit would become known as the Halverson Project. Col. Halvorson had flown with Tooey Spaatz and Ira Eaker on the "Question Mark" aircraft that set a flight duration back in 1929 (see [here](#) for more info), so he was a logical choice to command this long-range group.

The original plan for was to have Halverson's planes fly from Florida to Brazil, then on by stages to base in Chungking. But by mid-May, Japanese pressure on Chungking required a plan revision. British bases in Egypt could provide support for the bombers, which could get there via flights through Khartoum. Some of the bombers required service before combat, but 13 were ready to make the first AAF attack on Europe.

Their target was the Ploesti oil complex.

The route to the target was a bit tricky; Halverson ordered his planes to violate neutral Turkish airspace in order to save fuel. Thirteen B-24s took off, but one, for some reason not recorded, dropped its two tons of bombs on Constanta, a Romanian port. The remaining dozen faced bad weather, and went in at 14,000 feet. Antiaircraft fire was light, and defending fighters were few. But in spite of that, bombing accuracy was terrible. Halvorson and three of his bombers returned to the planned base, another five made friendly bases elsewhere in Iraq and Syria, and four landed in Turkey and were interned. The mission was widely regarded as a failure, but it did disperse the illusion that the big bombers of the day could win the War on their own.

The Germans did not regard the Halverson attack as a failure. They saw it as a painless reminder of something that they already knew, that Ploesti was absolutely vital to their war effort, and they spared no effort at hardening the facilities there and building up both antiaircraft and fighter plane defenses. They put the next 13 months to very good use, and would be ready the next time the Allies came to call.

PLOESTI: THE PLAN

The AAF turned over the planning of the next big attack on Ploesti to one of its top-rated planners, Col. Jacob Smart.

The Ploesti complex had grown since Halverson's attack the year before, and now had a dozen big refineries that could produce huge amounts of petroleum products for the Reich, and was the nexus of a rail transport system that could move petrol to the places needed.

The first decision Smart faced involved the basic plan. First, he'd have to stick with B-24s, as they were readily available, could carry a heavier bombload, and had greater operational range than the B-17 Flying Fortress. Some of the targets in the Ploesti complex were relatively easy to hit, such as the rail system, but the critical manufacturing and refining parts vital to each target were much smaller. Burning oil tanks could be impressive, but the products they contained could be replaced readily. The need for pinpoint accuracy required targeting more precise than was possible at altitude. Col. Smart decided that the attack had to go in at very low level. Accuracy would be assured, and flying low, while it would aid ground gunners, would provide them only a fleeting target, and defending fighters would not be able to attack from below (B-24s of that vintage had no ball turret to protect against attacks from below). Smart thought that if a large number of low-flying bombers could hit the targets from several directions at the same time, the German defenses would be overwhelmed. Col. Smart opted to give his plan the name "Operation Tidal Wave," which he intended to roll over Ploesti like the namesake.

There was one problem with Col. Smart's plan. He didn't know diddly about the B-24 and its operational characteristics! He insisted on leading the mission, even though he only got checked-out in the B-24 a few days beforehand, and had never flown a combat sortie in the B-24. More critically, he did not know anything about flying and maneuvering the B-24 in the tight formations he planned for Tidal Wave.

Smart's plan was for five different heavy bomb groups to make the attack. Two were available at newly-captured Benghazi: The Ninth Bomber Command under General Lewis Brereton, with the 376th Bomb Group, nicknamed the "Liberandos," under Col. Keith Compton (who would lead the entire mission) and the 98th Bomb Group, nicknamed the "Pyramiders," commanded by John "Killer" Kane. Three other groups from the Eight Bomber Command in England were added: the 44th Bomb Group, nicknamed the "Eight Balls," under Col. Leon Johnson; the 93rd Bomb Group, nicknamed the "Flying Circus," commanded by Col. Addison Baker, and the new 389th Bomb Group, nicknamed the "Sky Scorpions," under Col. Jack Wood.

All five bomb groups were to base out of Benghazi, starting before dawn on August 1, 1943, 80 years ago this next three weeks. That day would become known as "Bloody Sunday."

The bomber stream would be about 20 miles long. The planes were to remain in visual contact with one another and maintain very strict radio silence *en route*. The round-trip distance was 2,400 miles, so the bombers had to carry additional fuel tanks in their bomb bays, leaving room for only two tons of bombs apiece. They were to follow a series of three navigational way-points after they flew north across the eastern Mediterranean, turned northeast at Corfu, and

then headed over Albania into western Romania. They would descend over the Transylvanian Alps to the Romanian town of Pitesti (WP1). From there, the bomber stream would split, with four bomb groups flying on to WP2, the town of Targovisti, while the fifth group, the Sky Scorpions, would take a more northeasterly track from WP1 to a target at Campania. The four groups would fly from WP2 to WP3, the town of Floresti, then turn southeast to attack their individual targets at Ploesti. After the four group's bomb run, they would turn southwest and depart the area, joining up with the Sky Scorpions coming down from Campania.

PLOESTI: THE MISSION

The complex mission plan required very precise navigation and timing. Secrecy was also thought to be of paramount importance, in order to minimize German defensive planning.

General Uzal Ent, the mission commander, flew with Compton at the front of the Liberandos. Once his group was assembled, Compton headed north at high speed, oblivious to the fact that his planes were new and many of the other B-24s in the bomber stream were not, and were incapable of keeping up with Compton's group.

A tragedy occurred while the stream was over the Ionian Sea. The B-24 with the mission's lead navigator aboard fell into the sea without warning. The plane with the mission assistant navigator aboard broke formation to assist, but then its pilot realized there was no way to even drop life rafts from the B-24. This plane was unable to regain speed and altitude in time to re-join the bomber stream and had to abort the mission.

Worse, much worse, Compton (who was actually navigating his plane from the pilot's seat, rather than relying on its regular navigator) really screwed up the works. He turned his group and that of Baker, who were still far in front of the groups of Kane and Johnson, much too soon, over W2, Targovisti, not WP3, Floresti. Off they went to Bucharest. The other three groups followed the mission plan as best they could.

The tight turn over Floresti could not possibly be made with a stream of B-24s in close formation. The planes on the inside of the turn would have to basically stop and pivot while those on the outside would have to fly faster than possible to keep up. The tight turn shattered the bomber stream.

Baker soon realized the mistake that had been made, and turned his Flying Circus group back toward Ploesti. Their timing and formation were disrupted, but he went into attack the biggest of Ploesti's refineries, Astra Romano, originally assigned to Kane's group, anyway. The antiaircraft gunners had a field day.

Leon Johnson's Eight Balls' target was the Columbia Aquila refinery complex. His group and Kane's flew straight into the attack, almost side-by-side, unfortunately with a rail line equipped with a special train and a number of flak cars between them. The train ran along between the two groups, firing away, until the fast-acting gunners on either side disabled its locomotive and killed most of its gunners, but not before several bombers went down.

Kane was astonished to see his target afire (from the remnants of Baker's group). Smoke from the burning oil tanks was thick, and a number of planes were lost when they hit chimneys, barrage balloon cables, or other unseen obstructions.

A sub-group of 21 of the Eight Balls split off on the way in, led by Lt. James Posey. Their assigned target was the smaller refinery, Creditul Minier. They bombed it out of the War, and none of the 21 were shot down.

General Ent's sole contribution to the mission was negative. Frightened by the heavy flak up ahead, he ordered the Liberandos to abort the mission before they had even been fired upon, and pick up safer targets of opportunity. Compton panicked, too. When he heard Ent's order to abort, he pulled the emergency bomb release on his control column and dumped his entire bomb load through the bomb bay doors before turning and running.

Not everyone in Compton's group were cowards. Norman Appold gathered four other planes and went into attack, causing serious damage to one of Ploesti's refineries.

On the flight back to Benghazi, Compton conferred with General Ent and then sent a "Mission Accomplished" signal back to base!

ANALYSIS

A total of 1,752 airmen participated in Operation Tidal Wave. About a third of them were KIA, another ~300 were WIA, and more than 100 became POWs. Fifty-three B-24s were lost, almost a third of those on the mission, and only about 50 were still fit for service when they did get back. Kane's group lost 22 of 47 B-24s, and Baker's group lost 27 of 39 B-24s. Tidal Wave was the costliest bombing mission of the War, in terms of the percentage of losses relative to the number of aircraft committed.

There were other factors that contributed to the debacle at Ploesti, apart from Smart's ignorant plan, Compton's incompetent navigation, and Ent's cowardice. First among them was the underestimation of the level of German defenses, which were much heavier than expected, Halverson or no Halverson. Had the mission been flown exactly as planned without problem, losses still would have been staggeringly heavy due to the German defense and preparation.

The importance of German intelligence and the possibility of radio interception was also grossly underestimated. The Germans had to have been alerted by the arrival of 200 or so long-range B-24s in Benghazi before the mission; there were not many targets worthy of long-range bombing reachable from there. German intelligence would have had to have been asleep for them to not be suspicious, and they were wide awake. And while radio silence was observed there were some signs found after the war that radio intercepts not related to the actual mission itself helped the Germans know that a Ploesti raid was in the offing.

There were many acts of courage amidst the chaos. Five American airmen were awarded the Congressional Medal of Honor (MoH).

Lt. Col. Addison Baker, CO of the 93rd Bomb Group (Flying Circus), and his co-pilot, Maj. John Jerstad, both were awarded a posthumous MoH. After turning north near Bucharest and heading back to Ploesti, they were hit heavily three times by flak. They did not turn away or crash-land short of the target, they instead continued to lead their group toward the Columbia Aquila refinery. After bombing, Baker and Jerstad attempted to gain enough altitude for the crew to bail out of their flaming bomber. Alas, all perished.

Lt. Lloyd Hughes, a member of the Sky Scorpions, was also awarded a posthumous MoH, for his actions, similar to those of Baker and Jerstad. The left wing of his bomber, the *Eager Eagle*, was shot up by flak, and pouring gas. Rather than quit, he continued into the inferno, trailing gas all the way, right up to the bomb release point. After scoring direct hits, which helped put the Steaua Romana refinery out of action for the duration, his entire plane was aflame, preventing his crew from bailing out. He tried to make a controlled crash landing, but the flames weakened the main spar of his left wing, and it came off when the plane was near the ground. The *Eager Eagle* cartwheeled to destruction. Amazingly, six of his crew survived the crash, but four succumbed immediately after.

The stories of Killer Kane and Leon Johnson had a happier ending; both were awarded the MoH and both lived to receive it. They had kept their groups together in the chaos and bombed effectively.

Damage to the refineries at Ploesti was significant, but much less than Sharp and Compton had hoped. A lot of the damage was repaired quickly, and the mission did not contribute much to the success of the overall War effort.

Ploesti would have to have another visit.

Part 2 of this Item will be the strategic bombing missions flown against the ball bearing manufacturing plants at Schweinfurt and the nearby FW 190 manufacturing plant complex at Regensburg.

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