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BACKGROUND PAPER
ON
THE ENLISTED MEN OF OPERATION TIDAL WAVE

The purpose of this paper is to familiarize the reader with the involvement of the enlisted personnel in one of the most dangerous bombing missions of World War II (W.W.II). I'll discuss the first major bombing attack on the German controlled oil fields in Ploesti, Romania. I'll cover the steps leading up to the decision to attack, the training of the crews and the dangers of the mission. I'll also attempt to convey the feelings and actions of the enlisted men during the operation. To understand the significance of the bombing allow me to start with the events leading up to the first of many attacks against the oil refineries of the Ploesti area.

Warfare machinery, developed during the 20th century, requires enormous amounts of oil. The requirements of the German military during World War II was no different. In the 1930s Romania was the fifth nation in the world in oil production, behind only the United States, Soviet Union, Venezuela and Iraq. (1:4) The leadership of Nazi Germany took control of the oil fields and refining capabilities of the Ploesti area as soon as Romania joined the Axis in the early stages of W.W.II. The Germans utilized oil from Ploesti to supply the entire German fleet, one third of the German army and fueled at least half of their air force in Russia. (5:46) The location of the oil fields permitted the Germans to channel this precious commodity from Ploesti toward the Russian Front with ease. The Germans weren't the only ones to recognize the significance of the oil from this region.

Colonel Bonner F. Fellers, the U.S. attaché to Cairo, recommended a raid on the Ploesti oil fields within a month of the bombing on Pearl Harbor (1:12) At that time the War Plans Division rejected the plan since the United Kingdom, where the U.S. had bombing aircraft, was too far away and there was too much enemy territory between the two. Fortunately, this changed as the U.S. gained access to British airfields around Benghazi, Libya.

The Halverson Project was initiated to determine the feasibility of such attack. (1:14) On 12 June 1942 Col Harry A. Halverson led a 12 aircraft attack on the oil fields of Ploesti. That raid marked the first combat mission of a B-24 Liberator under American colors and it was the first U.S. combat air strike on Europe. (9:55) This first attack was of negligible benefit as it lacked adequate resources, but it did prove such attack was possible and gained support among U.S. military leaders. The initial, albeit limited, success of the Halverson Project led to the planning of Operation Tidal Wave.

Operation Tidal Wave was the brainchild of Lt Col C.V. Whitney, the Assistant Air Intelligence Officer of the Ninth Air Force. His proposal was to attack Ploesti from Syria. In March of 1943, Col Jacob E. Smart, a member of Gen Arnold's Advisory Council, also originated a plan against Ploesti. He encouraged a low altitude, mass attack, but he recommended Libya as the take-off point. In the opinion of Gen George C. Marshall, U.S. Army Chief of Staff, the

attack, even if only fairly successful could be a staggering blow to the enemy. The general was convinced that an attack on Ploesti could result in the greatest damage the U.S. could cause at the time. The commander of the Ninth Air Force, Maj Gen Lewis H. Brereton was given overall responsibility and Brig Gen Uzal G. Ent, Commander IX Bomber Command, was charged to conduct the operation. Right away the generals went into action to recruit support. (1:21-31)

Maj Gen Brereton pooled resources from the Eight and Ninth Air Forces. Soon five units were reassigned and personnel from 44th Bombing Group, 93d Bombing Group, 98th Bombing Group, 376th Bombing Group and 389th Bombing Group were enroute to the training site. (1:81-82)

The Commander of the Ninth Air Force had several major decisions ahead of him about the attack. The first decision was the location the mission should originate from, Syria or Libya. It was also his call to decide if the crews were to bomb from high or low altitude. He was aware of the increased risk, to the crews and airframes, in a low level attack, but he also realized the chance of success was much higher in a low level run. He also had to decide the type of aircraft to use. He selected B-24s over B-17s because of the limited range of the latter. Although the B-24s were not considered suited for low level operation and were viewed as slow and clumsy in low level, the general was convinced it was the only way to go. (1:32-34) He opted to send his crews in from Libya for the first large scale, minimum altitude attack by heavy bombers upon a heavily defended target. (1:1)

Heavily defended may be an understatement. Hitler and his staff were aware of the importance of the oil fields and thus ensured a very high level of protection. Enemy defenses were much heavier than anticipated. It included more than 230 anti-aircraft guns, barrage balloons, and smoke bombs. (6:162) Close to Ploesti the defensive forces maintained two squadrons of fighters, about 120 aircraft, and German pilots. Reasonably close was an Italian unit with 200 fighters and a few dozen more aircraft piloted by Romanians. (18:85) A B-24 gunner attests to the skills of the German pilots saying: "Hermann Goering had his best there at Ploesti." (18:200)

Western capital and technology was used in the 1920s and 1930s to develop the oil fields, but since the Germans took control of the resources they ensured total secrecy of its defense. The American military had to rely on old information they obtained from British and American technicians who worked there years earlier. Old information it was, as no one was prepared for the reception the bombers received. But I'm getting ahead of myself.

The training lasted six weeks. Early in the training cycle a small scale model of the Ploesti region was built in the desert to help the crews train for the attack. This practice target was to familiarize crews with their targets. It included mock smokestacks, the surrounding countryside and location of vital machinery. The model was reconstructed from information gathered from British and American technicians who were involved with the construction of the oil complex during the previous decades. For over two weeks the crews studied plans, maps and attacked the "Ploesti in the desert." During the last stages of the training the crews also viewed films of known

data of the area and concluded their training with two low level attacks with dummy bombs on the mock Ploesti. (5:47)

Winston Churchill offered bombers from the British arsenal, but his offer was declined. Still, the British did get directly involved in the training for Operation Tidal Wave as Flight Lt (F/Lt) George C. Barwell was reassigned to Benghazi as a gunnery instructor. The credibility of F/Lt Barwell was questioned by the American gunners, despite of the British Distinguished Flying Cross on his tunic, until he flew along on a number of missions and let his actions do his speaking for him. Soon he was befriended by the gunners who were thankful for the training they received from the Briton. (2:55-58)

In an article he wrote for Harper's Magazine, Capt William D. Banks described the preparation. He stated: "We learned where every cracking tower, every refining and distillation plant, and every power plant was, and practically memorized the position of every oil tank in Romania." (14:300)

The training appeared to match what the crews needed to prepare them for the attack. Capt John S. Young, one of the pilots on that mission, penned an article for the Air Force magazine in which he described the attack as "Only a continuation of a rehearsal which began six weeks earlier at our advanced bases in North Africa." (12:11)

The dangers of the mission really hit home to the enlisted men on 29 July 1943, just three days before the mass launch, when they were finally permitted to watch a film describing the planned operation. (1:71) The film also provided information on actions to take in the event of forced-landing and subsequent internment. (1:76) Crews were given all sorts of escape kits containing money in the denomination of every country they could possibly reach by plane. (14:300)

Enlisted crew members of those days had numerous tasks before take-off. It was their duty to carry all battle essentials from the tent to the aircraft. This included parachute packs, flak suits, life jackets, and escape kits to outfit the entire crew. Not to be overlooked, the culinary highlight of W.W.II, the K rations, also had to be loaded by the enlisted personnel. Each man had to make several trips between the aircraft and the tent. The flight engineer was exempt from all of this as he worked with the pilot and co-pilot reviewing pre-flight checklists. Once onboard, gunners checked their weapons, ensured ammo boxes were properly positioned and cans were full. (8:45)

Enlisted members were involved on the ground also. The anticipated engine life of B-24s was considered to reach its limit at 350 hours. The desert sand decreased this to just 60 hours. The planners anticipated receiving new engines in ample time to replace the old ones before the mission to Ploesti. Logistics and transport difficulties delayed the arrival of the engines until two days before the raid, thus maintenance personnel spent 48 straight hours installing engines. (18:103)

Aircrews and their maintenance crew chiefs have developed a close camaraderie. The pilot knows that a stamp of approval by the crew chief means the aircraft is ready, his life depends on

it. The crew chief on the other hand trusts the pilot will bring his aircraft back safely after the mission. Many ground crew personnel anguish over the fate of their aircraft, and the crew, as it flies over enemy territory. As the planes begin to return from the mission, crew chiefs anxiously await their "baby" home. When a plane fails to return it's like a death in the family. On 1 August 1943 there were tears in the eyes of many crew chiefs as they waved what might be their last good-bye to their "baby" and their friends. (8:47)

The day before the attack Maj Gen Brereton, his British Colleague, Air Chief Marshal Sir Arthur W. Tedder, and Brig Gen Ent visited with many airman to emphasize the importance of this mission. Everyone involved was aware of the dangers and some took the warning to heart. On the morning of 1 August 1943, SSgt Patrick H. McAtee, rear gunner, showed up for the briefing in his class A uniform with full decorations saying: "The general said this was going to be a rough mission, if the Germans get me, I want them to know they really have somebody." (2:78)

The planners determined, 154 aircraft was the minimum for the mission and during the early morning hours of 1 August, 23 more, a total of 177 aircraft rolled off from one of five runways around Benghazi. As the aircraft took off with 1,765 men, every state of the Union and the District of Columbia was represented. Included in that number was a Canadian flight engineer, TSgt Blase B. Dillman and British F/Lt Barwell, a top turret gunner. (2:84)

The crews trained for over a month before the 1 August launch. The low level missions may have prepared them for the expected, but courage and determination is not something one learns on a training sortie. All airman on Operation Tidal Wave knew the dangers and were ready for the ultimate sacrifice. Many wrote letters to their loved ones, hoping it won't have to be mailed. Some of the guys didn't have a chance, while others did rise to the occasion. They all did their best! The heroics presented on this paper are examples of what enlisted men are capable of if they have the courage to do what they must do.

The direct distance between Benghazi and Ploesti was 980 miles, but due to enemy control of territory between the two, crews were expected to fly around 2,100 miles. Of this distance 1,400 miles was to be over the Mediterranean Sea and 700 miles directly over German controlled territory. (1:51-53) The crews had to be concerned with early detection, but they had no choice, *but maintain radio silence and hope for no detection.*

The attack on the German controlled oil started about 35 minutes before they arrived at Ploesti. The crew of Capt Young spotted a freight train hauling oil. Two gunners, TSgt Frederick A. Leard and TSgt Fred Weckessler, were anxious to "test" their guns after the lengthy flight to the target. Upon receiving authorization from their group leader they opened fire. Other gunners followed suit and "it marked the first time in history that a routine gun inspection resulted in a Nazi train being blown right off its tracks." (12:12) That "test" of the guns may have been intended to see if they work, but as all gunners found out it was not the only time they had the opportunity to use their weapons against the Germans.

Unfortunately not all contacts with trains were as successful. During the approach toward Ploesti two of the squadrons were tasked to fly along a set of railroad tracks leading them to the

oil fields. The possibility of this approach was considered by the defense forces also. They loaded anti-aircraft guns onto railroad cars and when the B-24s approached the 88-mm cannons opened fire at the Liberators. A number of bombers were lost, but the gunners exacted revenge in good measure. One top gunner even asked his pilot to dip the wing and silenced another anti-aircraft weapon by his twin .50 caliber machine guns as they were getting out of range. (8:70)

The attack did not go according to plan. Winston Churchill was credited with observing "in war, nothing ever goes according to plan except occasionally, and then by accident." (6:160) During the long flight toward Ploesti the formation was split up and two of the groups arrived some 20 minutes early. Success was dependent, on a very large degree, on surprise and the early arrival led to some very inhospitable greeting by the Germans as their guns were blazing when the second wave of bombers arrived.

The bombing run was to take place at the altitude of 100-300 feet. (1:44) During the approach toward the target some aircraft flew low enough to see the faces of the people in the villages gaping up at them. (14:301) Maj Gen Brereton's decision to fly at minimum altitude claimed the life of at least one crew as the aircraft was lost in the blast of its own direct hit on a boiler house. Another close call involved the aircraft Brig Gen Ent was flying on, as the aircraft dipped a wing into a tree top, but fortunately it came away OK. (13:31) Low altitude had other dangers as well.

Low speed and increased vulnerability were direct outcomes of low level flight. The speed was expected to be in the 190-210 mph range. (1:43) This was considered the most ideal for bombing, but it also made the aircraft easy prey for ground fire. "It seemed like we were looking down gun barrels from every angle throughout the run" noted one gunner. (1:90)

Targets around Ploesti were not limited to oil wells, but extended to refineries and storage tanks. (1:5) During Operation Tidal Wave the B-24 heavy bombers used light bomber tactics. They swooped low over the objectives and the bombardier dropped the bombs directly on the target. This tactic also allowed the gunners to machine gun the targets. (10:98) The involvement of the gunners wasn't limited to defending their aircraft. Due to the low-level operations they were given incendiary bombs to throw out of the aircraft over the target. (7:43)

Thoughts of, Are we hit? and When will I get it? must race through the minds of all crew members over enemy territory. Once under fire, the pilots, navigator and bombardier are virtually unable to do anything about the flak hurled at their aircraft. This is the time for the gunners to take action and over Ploesti they all did just that. Not even crash-landing could silence the machine guns of SSgt Zerrill J. Steen. His aircraft was hit, both wings burning, as SSgt Steen found the source of the flak and returned fire. Other bombers were amazed to see the guns of the crash-landed and burning hulk still firing until the ammunition ran out. They were totally overwhelmed to see a burning torso emerge from the flaming wreckage, stripping off all clothes and running naked for shelter. SSgt Steen was the only one to survive from his crew. (8:82)

The crew of 1Lt Harold W. Kendall exhibited uncommon determination also. With the bomb bay doors partially open, engineer TSgt Alfred M. Zielaskowski went out to the bay full of

hydraulic fluid and fuel spray, there he patched up the hydraulics line to lower the bomb bay doors and flaps and cranked up the wheels for emergency landing. (4:1) Another crew member, SSgt James E. Goodgion, top turret gunner, fought fire in the nose of the aircraft after bell had rung for bail out. It was impossible to get to the fire with an extinguisher, so he extinguished the fire after he tore the padding off and pounded the fire out saving the aircraft and crew from certain disaster. (4:2)

Three enlisted crewmen from one aircraft, all injured by enemy fire, stuck to their guns until out of danger from enemy pursuit and only then did they seek medical assistance. (1:96)

War is hell and the experience of SSgt Lawrence C. Yates can attest to that. The heated conversation over the intercom informed tail gunner SSgt Yates of the fire taking over his aircraft. Still, he wasn't prepared for what he saw as he pulled the canvas partition aside to climb out of his protective lair. The entire waist section of his aircraft was a raging furnace and his parachute was in that inferno. He was frightened by the human suffering around him. The waist gunner was standing in the middle of the fire with a terrible look of despair, the other waist gunner was a burning, undulating torso in a fetal position on the floor. A human torch stumbled toward SSgt Yates. The tail gunner instinctively reached for his friend to grab an arm and when he did, the arm came off in his hands! Yates fainted. When he awoke all was still. The tail gunner's fortified section was torn off during the crash-landing and that saved him from certain death. He was the only one from his crew to survive. He was captured by the Germans and taken to a POW camp, but he was alive! (8:60)

Most gunners on Operation Tidal Wave were inexperienced men, with little or no previous contacts with enemy aircraft. That suddenly changed as the departing B-24s were attacked by German fighters. The gunners of Capt Young accounted for three of the 50 downed enemy aircraft. (12:12) The training and the preparation of the gunners did pay off. Preparation in other aspects also bore fruit as the case of SSgt Harvey L. Treace indicates. In the midst of attacks by enemy aircraft, he produced a can of oil from his pocket to lubricate the guns and kept firing at the oncoming fighters. (3:71)

Gunners of Lt Col Julian N. Bleyer's B-24 destroyed several enemy fighters. TSgt Bobby McCown, top turret gunner, was the most successful with three aircraft, but fellow crew members SSgt Francis Beauregard, SSgt Frank B. Kozak, and Sgt Robert E. Looke got one each. (15:1)

Some of the crew members were saved by their own daring stunts. 1Lt Roy C. Harms' aircraft was hit by 20-mm rounds from an anti-aircraft gun disguised as a haystack. TSgt Jack J. Reed returned fire, but as the fire spread, he encouraged the other waist gunner to bail out, if they get more altitude. TSgt Reed jumped at 300 feet, and watched as the aircraft crashed killing the other nine men. He landed with heavy injuries, but survived. Later he stated: "I wish I had rode her to the ground and died with the fine men who didn't have the guts to jump." (2:122)

Gunner TSgt Johnnie Brown and engineer TSgt John J. Hayes had to face an unusual task on the way back from Ploesti. Their aircraft was significantly damaged and with the pilot constantly exerting heavy pressure on the rudder to keep the aircraft in the air, the seat broke. The

two NCOs braced the back of the seat while one of them occasionally crawled around to the front to massage the legs of the pilot. (2:209)

Enlisted members, as a rule, were limited to one of three aircrew positions, radioman, engineer or gunner. TSgt George W. Guilford was an exception as he was one of eight enlisted bombardiers on this operation. He was credited with a perfect hit as three of his 1,000 pound bombs hit their intended targets, and knocked the boiler house completely out of the war. (2:161)

Some guys found humor in adversity. During the raid when he was hit by flak SSgt Martin R. van Buren observed: "Now I'll have one more medal than you guys." (2:187)

Some enlisted men had officers who really looked after their interests. After crash-landing his aircraft, a co-pilot wrote down the names of his crew and identified all of them as officers. This bit of thinking by 2Lt Joseph F. Kill allowed SSgt Charles P. Decrevel and SSgt Albert L. Shaffer to spend their captivity in the officers' POW camp. (2:155)

During captivity the enlisted POWs found ways to occupy their time. SSgt Eddy Lauary served as postmaster in a camp of 1,000 prisoners. Another form of activity, according to SSgt William Mansfield, was to fantasize about the menus: "Every time a guy had nothing to do, he would make out a long list -- porterhouse steak, creamed potatoes, thick gravy, lettuce and tomato salad, ice cream, and coffee -- United States coffee!" (11:3)

Perhaps the most pleasant task, as a POW, fell on gunner, TSgt John Chonka. When the commotion of the Romanian guards aroused the interest of his fellow POWs, the Romanian speaker was asked to determine the reason for the excitement and after a moment he announced: "The war is over!" (11:3) Actually, the war wasn't over yet, but Romania changed allegiance and was now an ally. Soon the former POWs were on the way back to U.S. controlled installations.

After returning from Ploesti, SSgt William J. Nelson laid down in the sand. A mechanic asked: "What was it like?" and SSgt Nelson responded: "Well, we started out today comparatively inexperienced. Right now I'd say we are one of the most experienced and oldest crews in the Air Force!" an opinion many men must have shared. (2:219) Back from the mission SSgt Ben Kuroki, top turret gunner, saw shadowy, dejected groups of ground crewmen waiting at empty stands and wept: "The fools! Don't they know they'll never come back!" (2:219)

After the war most of the ex-Ploesti enlisted men returned to civilian life, if they survived the war, while most of the higher-ranking officers remained in the service. Some of them, including the mastermind, Col Smart, group commanders, Col Leon W. Johnson and Col Keith K. Compton, advanced to flag officer ranks. (18:229)

The losses sustained during Operation Tidal Wave were significant for both sides. The attack claimed 540 American lives (17:15) and 54 aircraft. Of these aircraft, 41 was downed by the enemy, 7 landed in Turkey, 5 lost due to operational causes, and one landed in sea just off the coast of Turkey. (1:99) The Germans lost 50 aircraft, but more important was the 33% decrease in output by the refineries, this at a time when they really needed the oil. (17:40)

After the attack Gen Arnold dispatched the following message to Maj Gen Brereton: "Your preparation and training for (Operation) Tidal Wave satisfactorily bore fruit and we all are immensely proud of the showing you made. The impression prevails that Tidal Wave dealt a blow that will contribute materially to the defeat of the Axis." (1:101)

Five Medals of Honor were awarded for the 1 August 1943 attack on Ploesti. None of our enlisted members were recognized by our military's highest decoration, but the five Medals of Honor awarded attest to the dangers and the heroics during the attack. Nine hundred ninety eight enlisted aircrew members flew in Operation Tidal Wave. (1:176-187) Nine hundred of them were decorated for their action during the attack. Four Silver Stars, 16 Distinguished Service Crosses, one Soldier's Medal and 879 Distinguished Flying Crosses were awarded to bombardiers, gunners, engineers and radioman for their heroics over Ploesti. (16:1-36)

The damage sustained by the Germans on 1 August was significant, but follow-up bombings were necessary to keep the oil production of the resourceful Germans at bay. Eight months later the 15th Air Force began a prolonged assault. The last bombing took place on 19 August 1944 and by then a total of 13,267 tons of bombs fell on Ploesti and the near-by refineries. (17:40)

The attacks on the oil fields were considered to be major factors in the fall of the German military. Ploesti was the largest refinery system in the German economy, and shortly after the oil production capability of the region came under attack by the Allied Forces, Germany's vast war machine began to slow. Their training program for the air force was curtailed, resulting in shortage of pilots and causing higher casualties. Some panzer division were humiliated to the point of using horses. Experts agree that the failure of Germany to halt the break-through from Britain, and the subsequent sweep across France, was due to the acute oil shortage. (17:14)

Much has been written about the officers involved in this and other bombings. I hope I successfully provided the reader with some insight about the feelings, tasks, and most importantly the heroics of the enlisted men during this dangerous mission. Many of our predecessors perished on that attack and we should recognize them and everyone else on that mission for the sacrifices they made. I close with words from Col John R. Kane, group leader and Medal of Honor recipient for the Ploesti attack: "So long as America can produce this kind of men, our way of life will continue to exist." (18:16)

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