

Hell Hawks!

Veteran NASA astronaut, scientist, speaker, author and consultant presents "Hell Hawks!: The War No One Told You About and the Heroes Who Helped America Win It," based on his book with co-author Robert F. Dorr.

Well, thank you ladies and gentlemen. Good evening to everybody. It's great to be with you, I want to thank General Metcalf and the entire staff here at the National Museum of the Air Force for welcoming me to Dayton this evening to join you. It's a terrific place to come to: I could spend the entire hour up here talking to you about what I saw today at the museum. It's a fabulous, fabulous place and I was here last August, enjoyed today's visit even more than my one last year. So, you are all very lucky and that you get to frequent the museum more than I do. I live in Texas and Virginia. So, it's great to spend some time here at a true Mecca of aviation history. I'd also like to extend greetings from my co-author Mr. Bob Dorr, who had originally planned to come with me tonight to give the lecture. He's laid up and can't make it tonight. But, he did want me to send his greetings and he thanks all of you for your support of the museum and he hopes you'll find the book very interesting. Bob is a well known aviation author. He's authored about 70 titles in aviation history over the course of his career as a foreign service diplomat and now for the past 20 years or more, a full time writer. So, you've seen some of his materials they are out there in the store and he's very happy about this book as well. And I'll tell you a little bit about why Bob and I picked this project in a moment.

Well, let me begin with the short story from a tank destroyer soldier in Normandy in 1944, just a few weeks after the invasion, and his tank destroyer unit was threatened with a German armored counter attack as the Germans try to break up the allied beachhead concentrations. And he writes in his account of this incident – "We were getting scared and nervous. Suddenly we heard the distinct sound of those P-47 engines, we picked up radio transmissions from the pilots telling us to stand firm and that they saw the targets. There were 12 of them in formation and they began the deadliest strafing attack I ever saw in the war. The first plane went strafe and if he saw a good target, he'd loose a 500 pound bomb. The second plane was coming right behind and the third and the fourth and so on. By the time the 12th plane finished, the first one was starting over again." And he describes how this attack went on for about 20 minutes. He could hear the concussion of the 500 pound bombs hitting that actually go into the ground about 5 feet and explode. We watched two tanks get flipped over when one of the pilots landed one square in the middle. They were very close to us. In fact the shell casings from their 50 calibers were landing in our area. We could hear the Germans firing back but not one of the planes ever got hit. And after the airstrike was over, our tank crewman John Mullack went into the German positions and writes, "The P-47 had plastered the whole area. I don't think any Germans survived unless a few scrambled to retreat. But they sure have a lot of

equipment there. Tanks, halftracks, cannons scattered everywhere; all destroyed. Many of the Germans were not even hit, the concussion from the bombs was enough to kill many of them. We would never have been able to repel such an attack. I could go on and on about this great plane."

So, I'm going to talk to you tonight about the men who made air strikes like that who deliver death on the heads of enemy soldiers – how they trained, how they fought, what their stories truly were, and that's of course the group I'm going to talk about called the Hell Hawks – the 365th fighter group in Europe in World War II, one of 18 fighter groups that were part of the 9th Air Force. We'll discuss how that group was organized but one thing I can say about all of the men who fought in these fighter groups supporting the GIs in Europe was that each day, they rose to ready their war planes knowing that everyday, some would discover what it was like to stare death in the face and they would find out how far their Thunderbolts and their courage would take them. So, let's open up the story of the P-47 pilots and the maintainers who made those planes fly into the air each day and talk about them. Here's a familiar scene for all of you – if you would come to the museum, this is the P-47D Bubbletop. It's owned by the National Museum here. This is the airplane that we are going to be talking about as a character in the larger story of the Hell Hawks. And I want to emphasize how much this story is a people story. I hope you'll find that out from my talk tonight. It's a story of the men who maintained these airplanes and flew them into combat each day until the victory in Europe was won. And so you'll learn about the P-47 tonight a bit. Some of you probably know more than I do about it but you will learn about its characteristics and it is a character in this story that's largely built around the actual men who did the fighting and the dying. Now, one of the characters in the book aside from the P-47 Thunderbolt itself is here tonight with us. We have a lot of veterans in the room tonight. Could all the veterans please raise your hands out here in the audience? Oh, good, it's about... probably about half the audience.

Of course, we thank you all for your service and of course, many of us back here supported what you did and what you do today. Do we have any World War II veterans here tonight? Oh, several, good. Honored to be with all of you folks tonight too and we have one particular World War II veteran who is a friend of mine and that's the gentleman in this photo, Bob Higgins. So, Bob where are you? Right here. Bob Higgins is, he does not have to stand up, you can see him right up here on the screen. Bob is on the right in the photo taken just a couple of years ago and on the left in 1943. Bob was one of the members of the Hell Hawks, the 365th Fighter Group. And, not only is he a veteran of the Hell Hawks, but he is also a friend of mine that I met more than 30 years ago. And, that's how the story of this Hell Hawks came to life for me. I was at the Air Force Academy in the mid 1970s, my roommate Bob's son, Tim Higgins down here, retired colonel in the Air Force is here. Tim was my roommate for at least a semester or so I guess. And I learned from Tim as cadets that his dad had been a World War II fighter pilot and to me, 20, 21 years old it's fascinating to hear that his dad had flown in World War II in a Thunderbolt which I knew was a great airplane already. So, it was that time that I heard the first mention in my life of the Hell Hawks and as 30 years went by, I realized that I wasn't hearing the story of this kind of unit, this ground attack unit in

Europe from anybody else. Not reading much about it either and I've read a lot of aviation history. Well, I learned more about this outfit and what they did representing all of those 18 fighter groups in the 9th Air Force from this gentleman on the left here, Charles Johnson. I learned from Bob and his son Tim that Charles Johnson here on the left was a crew chief, a mechanic, who maintained the P-47. And he had written as his first retirement project in the '70s a huge book – on the right hand side you see the cover, 600 pages called, "The History of the Hell Hawks." And I got to look at this book in visits to Bob's house over the years. I have learned how much history Johnson had put into this work. He had written his colleagues in the Hell Hawks the 365th and their 3 fighter squadrons, the 386, 387 and 388 Fighter Squadrons, asked them for letters and photos in their early retirement years to put together the history of their group in World War II. They were in combat for about 15 months and Charles Johnson got the records from the department of the Air Force and also collected those letters and photographs and combined them in this 600 page book. Someone here has a copy of it tonight. Raise your hand, where is Bob? No, it's this gentleman right over here. So, if you want to see this original book, see my partner over here, but it's 600 pages, it would take you a month to read through these voluminous records and it's got day by day what happened to this group.

Well, about 5 years ago, I got the idea for telling the story of the Hell Hawks and that was of course a gift from Charles Johnson back in the '70s, a time capsule. Many of the letters that he received came from veterans who have since passed away. Some of the men who he wanted to hear from had already died by the mid '70s and he had their families send letters from them. So, it's a priceless time capsule of information about this particular group. If you want to try to find one of the 2,000 copies that were printed today on eBay, it would cost you about \$350 to buy one of these books. And I got mine before the price went up and that's how I started my research. Mr. Dorr and I who had met in Virginia began to collaborate about 5 years ago on this project. And we used this as a starting point but then interviewed about 50 World War II vets from intelligence, medical staff, the operation staff of pilots, the crew chiefs, every kind of technician in the Hell Hawks, about 1,000 men in combat at any one time. And we put their stories along with the information we found in Johnson's book together to form our book, the Hell Hawks themselves. And of course to make a book readable, you have to boil that down to about 300 pages and that's what we try to do, keeping the story moving along. So, I'm going to give you a few examples of the stories from the Hell Hawks in our book and in Johnson's book to give you an acquaintance of what they did. There are far too many stories to tell you tonight. You're going to have to either look up those stories in the book or find a copy of Johnson's if you can. Well, the Hell Hawks started out as a lot of Air Force units did, stateside in the rush to get pilots trained and airplanes deployed overseas.

And in 1943, they were constituted at Richmond Army Airfield in Virginia and assigned to be a Thunderbolt fighter outfit. They thought they would be tangling with the Luftwaffe or the Japanese overseas. High altitude escort duty, air combat, silk scarves flying in the wind; that's the Hell Hawk goal. But during the course of their training in '43, until they shipped out to Europe in December of that year on the Queen Elizabeth,

the mission of the Thunderbolt pilot shifted from long range escort of the B-17s to becoming the fighter cover, the fighter bomber cover for Eisenhower's troops in the invasion of fortress Europe. So, they switched from just pure gunnery training stateside to arriving in England in December of '43 and getting a quick course on how to dive bomb with their massive Thunderbolts and they put those skills that they had already to a new use and that was supporting the GIs in the coming invasion. Now, the Thunderbolt of course, was the most massive single-engine fighter that the US built or that anybody built in World War II, almost 9 tons when fully loaded in combat and it had a powerful 2400 horsepower engine, the R-2800 upfront, massive armament and a great bomb carrying capacity, as well as being a very rugged airplane. The pilots in combat later would call the Thunderbolt a flying tank because of its ability to absorb battle damage.

Here you see the group in training back in Richmond, Virginia. Once they got to England, they began to fly escort missions, this is a photo from one of the Hell Hawks missions that we have in our book and they broke their rookie status by going on escort missions over the channel and over occupied Europe but then began to focus more exclusively on inner diction strikes behind the German beaches to try to overwhelm the German transportation and supply system before the invasion. So, all through the spring of '44 leading up to the invasion, they began to hit German supply and logistics and of course gun positions and so forth behind the beaches. And they had a perfect tool to do that in the P-47. I mentioned the heavy armament, there were eight 50 caliber machineguns on the airplane, the heaviest machinegun load of any of the allied fighters and the plane was so powerful that it could also lug up to a ton of bombs; one under each wing or perhaps one on the center line station.

You can see the tracers here in this night time shot. I don't think those airplanes are actually flying. It's been retouched by the Army propagandas but this is what the way the Thunderbolt would look firing its tracers at night. They saw them flew at night. Well, let me give you an example of some of these leading up to D-Day missions that the Hell Hawks flew. Here is a guy name Jimmy Wells, we interviewed him for our book. Jim was a lieutenant during the run up to D-Day and his flight of four volunteered to attack one of the toughest targets in occupied France and that was one of the German V1 launch sites that were aimed at London and Southern England. Heavy bombers and medium bombers had failed with up to 2,000 tons of bombs to knock out a single site on the ground, there were very tough reinforced targets and so the Thunderbolts were given a chance to go and attack.

V-1 on the left had a one-ton warhead, a pilot-less flying jet airplane. And the only way to take them out they had thought was to hit them at their sites before launch. So, Wells and his men go flying in a wave top height across the English Channel one day in May of '44 against an assigned target in a French village and they knew the target was going to be tough, they had to attack at tree top level with two 1,000 pound bombs hanging under each wing; a total of two bombs on each airplane. And they had to be going 400 miles an hour when they came across the target so that the armor piercing qualities of the bombs would penetrate and then detonate. So, Wells and his men are at tree top height flattening barley fields, bending small trees in their prop wash when the target comes into view.

The flak begins to come up from the German gun emplacements, they focus on the emplacements and the target buildings ahead and then, Wells noticed a string of telephone poles set around a perimeter. They've seen them in the recon photos but did not know the true purpose they thought maybe communications antennas, some sort of radio apparatus. When he got that close, he saw that these poles and the 1 inch steel cables strung between them were there to kill him, prevent low altitude attacks. So, he and his four Thunderbolts went under the wires, get down below 25 feet all four airplanes maybe under except one. The flight leader had his, the top of his vertical stabilizer sliced off by the cables, they went in and hit the targets at 400 miles an hour, there was an 8 second delay on the bombs, they assumed passed straightening the gun pits and the German soldiers there as they lured away the bombs behind them detonated and they escaped over the English channel. One pilot, William Cornell had flown through a telephone wire, not a steel cable but a phone wire and had it flapping around the side of his cockpit all the way back to his base. A shell fragment had come in through the canopy and sliced opened his scalp and he was bleeding and he was shouting, he ripped off his helmet and he was shouting, "May day, may day, may day" on the radio. Of course, he couldn't hear what they were saying back, he had taken off his helmet. Bloody and wounded, they all landed at the airfield back in Buley, England, their base at the time. And the medics pulled Cornell out of the cockpits, stitched him up, it was just a scalp wound, then he was flying again three days later.

When they did the post strike assessment, they found that their bombs had penetrated the bunkers and what 2,000 tons from high altitude had not done, 8 tons from the Thunderbolts had done, had wiped out this particular site. So, other fighter bombers took on high value sites and I asked him, "Did you fly anymore of those missions like that? Any of those volunteer missions against the no vault sites?" and he said, "Once was enough."

Here the armor is loading 50 caliber ammunition into the wings of a Thunderbolt's gun base – 8 guns for in each wing, firing rate was somewhere around 400 to 500 rounds per minute. If you add it all, eight of those guns together, when you squeeze the trigger for three seconds, then the striating burst, you would put about 15 pounds of lead flying into the target at mark three. And the kinetic energy equivalent of that impact was about that of a loaded delivery truck going 80 miles an hour. So, literally the blast from those guns hitting a target in a burst would blow a truck completely off the road. And that's how the men of the Hell Hawks used these weapons to literally blow a column apart, set it afire with the incendiary ammunition they had as well. And it was a deadly, deadly combination of armament and bomb and power that they had. Here is a shot of those tracer bullets again going down range. They converged about 350 yards in front of the airplane for air to air combat purposes but you can see how concentrated the burst of fire was from those weapons.

Of course, the other armament we talked about was either a 500 pound bomb as in this case or a 1000 pounder under each wing – compliments of the Hell Hawks. This is a winter of 1945 shot. And the Hell Hawks had a lot of esprit de corps. As you can see, they had chosen their name carefully and some of the pilots followed suit with their attire.

This is Louis Halk who stitched some extra regulation apparatus on his helmet. Not all the Hell Hawks pilots flew like this but it was enough to put the spirit into their men, their fellow crewmates out there, their flight mates. And Louis Halk was one of the squadron commanders early in the Hell Hawks deployment history.

So, their big test came for the first time on D-day on June 6th 1944, 65 years ago. And we have a chapter in our book about the exploits of the Hell Hawks on D-day. Imagine their job was to service flying artillery, wipe out the Luftwaffe over the beaches and then stop anything German from moving on the roads below. Whether it was strafing or bombing, they had assigned targets but then they were free to rove behind the beachheads and stop the German reinforcements from moving up during the critical hours of the beach landings on D-Day.

We interviewed John Fetzer on the right in this photo with his pal Melon Stall. Stall and he shared a tent; Stall was killed in action in July of '45. Both of them were in action on D-Day. And Fetzer was flying behind a guy named Arlo Henry. They spotted troop of panzers moving up in the counter attack positions behind the beachheads and Fetzer described for us what that was like. He looked down in the darkness of the early D-Day morning and he saw Arlo Henry his leader going first. One of the tanks had hooked its snout into a French farmhouse and had its gun barrels sticking out. Henry put both of his bombs into this French farmhouse and the explosion created a volcano of dirt and rocks and bricks flying up into the air. When it all collapsed, he said like only the chimneys were standing on the end of that farmhouse. The tank had been flipped over in the rubble. Fetzer followed behind him, skipped one of his bombs wide into a field but the other one landed right behind a tiger tank and he looked back over his shoulder as he pulled up from his steep dive and he said, "I was amazed to see this tank flipping over in mid air from the concussion of his bomb." And later he told us, he said, he did a lot of things on D-day and later in the war, on D-day, he later destroyed a half track with a 1000 pounder but he never felt that he made as much of a contribution as when he knocked out this tiger tank behind the beaches. An example of that, here in the right hand photo. Fetzer went on to fly into the fall of '44 when he was wounded and then finally sent home to the States.

On June 7th after the initial beach assault on the 6th, it was obvious that they were in a very tenuous position especially on the Omaha beach and they got this note from their commander Louis Bretender, 9th Air Force commander and it went down to the head of their fighter command General Pete Quesada who was in direct charge of the fighter bombers over the Normandy beaches. And he wrote to the 365th and the other groups that were involved. General Quesada said, "It's possible if not probable that your efforts were in large part responsible for the attack on Omaha beach continuing. History will show that you saved the day. Thanks to the air cover and the paralyzing blanket of fire power that they laid down on the Wehrmacht the German army behind the beaches." Dick Miller had interesting experience on the afternoon of June 7th the next day. He was one of the Thunderbolts over the beach all day supporting the GIs when he was hit by German flak and his airplane couldn't make it back across the channel. So, he bellies in on the bluffs over Omaha beach. And he plows his fighter plane to a stop – its nickname

was "Turnip Termite." On a previous sortie the airplane had flown solo in a Belgian field that it threw some of the crops into the engine cowling. Turnip Termite was its name. Miller stands up in the cockpit, sees some combat engineers over near the edge of the bluff and they were very grateful to see him and happy because he had just ploughed across the mind field they were clearing -100 yards swath of clear lands. So, he said, "What do I do now?" They said, "We think you should walk back along the way that you came," and they hustled Miller out 2nd lieutenant stuck him in a fox hole for the rest of the day and he was evacuated to England after a very interesting afternoon on the beachhead. Well, his boss Arlo Henry who he had burrowed the plane from was not so happy that his plane had been left behind in Normandy. But by the time Miller got back two weeks later, his anger had cool and he had Turnip Termite number 2 flying and Henry was a little more placated. The airplane itself was salvage by the engineers and parts of it were cannibalized and later used to fix up Turnip Termite 2 in France later that summer.

Miller was the first Allied pilot to land on liberated French soil during the invasion. It wasn't a very glorious landing but he was the first one to land. Now, as the Hell Hawks fought over the next few weeks during D-day, the commander of the group, the guy in the left, Colonel Lance Call was instrumental in seeing that the maintainers had the airplanes ready each morning as you know it was a maximum effort to get the planes across the channel and also at the same time they are fighting in combat to prepare the group to move to Normandy along with the other fighter groups involved with supporting the GIs up close. So, Call was handling all of that. He was a pre-war pilot, had actually served with the Royal Canadian Air Force before Pearl Harbor and was known as somewhat of a stickler for administrative detail. He walked around with a riding crop. He was a martinet in some of the sergeants' opinions, the listed man's opinion. But he delivered, he got things done on time, he had supplies and hot food for the men when they needed it. Well, he was not viewed by the pilots and the group though as the kind of combat leader they really wanted to follow into France where they knew the toughest fighting yet lay. And they complained that Call sometimes lost his way leading a formation. There was one noted incident that the veteran still recalled as they cruised by the English coastline out across towards enemy territory, somebody spoke on the radio, "There goes England." Of course, they barely made it back to England with dry fuel tanks. Another incident, some of the pilots had to drop out of formation because of Call's inability to carry enough power in the climb up through the English overcast. So, he didn't have a great reputation as a pilot and they also thought he wasn't aggressive enough in the dive bombing and straiting job that they did. The young 20, 21 year old pilots were not inspired by Call. They even suspected him of having bad eyesight and then using one of the sharp eyed pilots in the squadron as his eyes on combat missions. So, they weren't too happy about him. The night before the group was to move to France in late June, Pete Quesada the commander of the 9th tactical air command flies into the base, puts his arm around Call on the tarmac and says, "Lance you've been doing a great job, I've got another job for you. I'm relieving you." Call gets relieved. And the news spreads down the flight line like a bomb blast among the enlisted men and the pilots. Who are they going to have lead them into France? And it turns out the answer here is on the right. Colonel Rayjay

Stecker, a staff colleague of Quesada's in North Africa and in Sicily who had been serving in headquarters in England up until this point.

Stecker was a fighter pilot, West Point graduate 1932, a football star, all American and football back in the early 30s and he left the service and then come back in before the war. He was very different from Call in that he was a hands-on leader. He told the new pilots – he was a new pilot, he told the veteran pilots that he would fly at the back of the formation and watch how the job was done before he began leading combat missions himself. And that kind of unassuming character really struck the pilots well, and then he began to lead from the front and he was full of charisma. You can see he is a very good looking guy with prematurely silver grey hair, quite a ladies man. This was the image of the fighter pilot that I guess these men felt more comfortable following. And he proved himself a very effective leader in the months to come as the Hell Hawks moved into France.

During the course of their combat, experiences of about 15 months, they moved 8 times with the advancing lines of Eisenhower's armies to keep close to the battle front. Here you see, Stecker on the right with Pete Quesada, the commander of the 9th Tactical Air Command and Stecker was, as I noted it, a charismatic individual. Quesada began to assign VIP delegations to come to the base wherever the Hell Hawks were to see how a real frontline elite fighter bomber outfit operated. So, he would entertain and Quesada and Stecker would have the likes of Martha Gellhorn here appeared at the base. She was a war correspondent and also happened to be the second wife of Ernest Hemingway. So, Gellhorn was a frequent visitor to be officially entertained of course by Colonel Stecker. She stayed overnight at his quarter several times. The men wait, elbowed each other but they didn't say anything more. Gellhorn actually writes about the Thunderbolt men and I'll share a few of her comments with you in a moment. Well, Stecker proved to be a very effective leader. When they arrived in France, they began to fly out of unimproved airfields that the engineers had just carved out of the French country side. Their first base was just behind St. Mary Glees, just behind Utah beach, only a few miles inland and they could actually be shot at in the traffic pattern by German anti-aircraft artillery over on the frontlines a few miles away. Here is one of the armors sitting on a 1000 pounder and its cousins there on the frontline bombed up.

Now, the conditions were very primitive, instead of the experience of the 8th Air Force pilots who flew out of bases in England, came home to a warm Quonset hut each night after a combat mission as frenetic and as terrible as those were, they had a rather relaxed existence back in England. The men of the Hell Hawks, enlisted and officers alike, slept in pop tents. They dove into slit trenches when there was an air raid on artillery barge, the 8th ate cool KFC rations and they lived in the mud of their French airfields. And so, it was very much in existence closer to the frontline GIs than the glory stories that you hear about Silk Scarf aviators. Here is Stecker flying near the bombed out French chateau that they used as part of their base and he is ready to go into the air but he couldn't have done his combat leading in his shiny Thunderbolt here without the help of all the ground maintainers that got his airplane ready each day. What was the nemesis of the Thunderbolts in combat? Well, it's certainly the Luftwaffe was there in small numbers at

first and then more and more as the fighting near Germany. But the Germans had a very effective system of anti aircraft artillery, "flak" we would called it. And on the left is the Flak 38, a four barrel 20 millimeter rapid fire anti-aircraft gun. There is an example out here on the museum floor. It could fire upwards of 12,000 shells per minute up to about 15,000 feet in altitude. And each shell was explosive tip. So, if struck your airplane, there was a larger detonation than just a machinegun around. And on the right of course, is the deadly 88 millimeter anti-aircraft and anti-tank gun that the Germans employed in all roles on the battlefield. And the Thunderbolts of the Hell Hawks encountered these flak weapons in states over Normandy as the allies fought to get through the hedge rows. Here is Stecker on the line inspecting with one of the sergeants there and some flak damage to one of the Thunderbolts.

As I mentioned before that the Allied pilots were really confident in the ability of the Thunderbolt to protect them in combat. Had that massive 18 cylinder engine upfront to absorb frontal fire, armor plate behind and underneath and the pilot sat up high in the fuselage on top of the turbo charger docks which meant that if you did a belly landing, that crushable metal down there would protect your legs from a crash landing. And often Thunderbolt pilots thought that it was preferable to belly land the airplane rather than to try to bail out and take your chances with the silk. So, the Thunderbolt was viewed as a foxhole in the sky by the pilots.

Here's an examples of the battle damage that they survived. Here's an 88 millimeter shell hole through the machine gun bays of a Thunderbolt wing. It went right through without detonating. Over on the right you see, a hole in the cowling of this Thunderbolt and black oil streaking the entire fuselage. It wasn't uncommon for one or two cylinders to be shot off this double row Wasp and for the engine to still run and bring the pilots back to base. And they love the ability of this airplane to take combat damage and then return a pilot safely. If a coolant line on a Mustang engine or Merlin got nicked, that engine would seize in just a couple of minutes from lack of coolant. The air cool of engine on the Thunderbolt from Pratt and Whitney kept them going long after a Mustang would have expired. Here is a story from Dave Harmon on the upper left getting his distinguished flying cross. For this particular mission, he flew he dove on a flak battery that had been shredding Thunderbolts in the area and several planes had gone down to it's guns already. He was determined to get the gunners. He dove on this battery with his machineguns firing and he killed the gun crew in the dive. But one of the crew members in the German crew slump over the gun and they kept firing and he zoomed at low altitude right over the gun crew and a 20 millimeter shell went into his main fuel tank. Now, Harmon reports that he felt the thump against his seat and his seats lurks up within the cockpit, the airplane shuttered but the engine kept flying and he flew below tree top level away from the gun side and then zoomed up and made it home because the airplane is full of holes. When he got back they had to jump the airplane, it was such a wreck. But his mechanic fished out the tip of the 20 millimeter shell that detonated in the fuel tank. The tank was nearly full of gas. There was no oxygen in there to support combustion and so the explosion was muffled and the Thunderbolt brought it up. And so in his letters to us, in our research Hermon would write to Bob and I and signed his name, "Dave Hermon, the luckiest man alive." True, true...

After the breakout from Normandy in July of '44, the Germans were trapped in what was called the Falaise pocket, three sides of allies trying to hem them in and cutoff the main German army in Normandy. And it became Falaise in the area around that became known as the "killing ground" because of the allied artillery and air strikes being brought in on the Germans. Here's the German armored for self propelled gun and it's dead crew lying in the road. Some of the roads leading out of this pocket were called the 'Quarter of Death'. There was so much mayhem and chaos and horror inflicted on the retreating Germans. They all had to leave almost all their equipment behind as they retreated back across the Seine River towards Paris. The Germans in the field left their accounts either giving them in POW briefings or wrote after the war. They called this area a "Yabo Renstrecka" – a fighter bomber race course because of the circling Thunderbolts always overhead. One German Corporal wrote, "The Yabo's were a burden on our souls." And one prisoner told his interrogator, "Yeah, I saw the Luftwaffe seven of them, 7,000 yabos." And German commanders wrote about how their divisions would be desonated in the move to or from the battle front by the air power overhead. They would lose 30% to 40% of their combats strength if they try to move in daylight against the fighter bomber attacks. Well one pilot that flew over the Falaise pocket was the guy in the left, Jim McWater or Mac McWater and his crew chief here with his airplane Hollandnesk II, McWater was actually shot down by the Germans near Falaise and he bellied his airplane in, managed to escape a German patrol that was looking for him. And then he hid in a beam patch for 48 hours waiting for the resistance to come and get him, they didn't show up. There was a lot of fighting around there and they were keeping their heads down. So, finally he got tired of waiting and he heard shots in the nearby village, thought that they were executing the villagers to find out where he was. Well he wasn't the focus of the attention the Germans were pulling out because an allied armor column was moving in and he heard tanks. He crept out of the beam patch to the road and he saw a tank come down the road and then another one but he saw the star on. So, he knew it was an allied column and he jumped out and he yelled, "Stop that son of a gun." Well he had 475 millimeter cannon pointing at him immediately with all the machine guns and a dozen GI's with their M1's level with them. He said he held his hand so high that his shoulders practically popped out of their sockets. They threw him at half track to take him back to the headquarters and the radio crackles. By then Cassada had seen that each armored column had a radio that could talk to the Thunderbolts over head; a big improvement in coordination between the ground and the Air Forces. He hears the radio crackle and he hears the familiar voice. It's that of Captain Curly Rogers leading a flight of four Thunderbolts, one of his flying mates. So, he grabs the microphone and he says, "Curly, it's me Mac. I'll be back at the base tonight. Whatever you do, don't give away my cigarettes, whiskey and clothes." Unwritten rule that said, "If you went down and were missing, the pilots would sent your uniform home, a few trinkets and everything else was divided up among the survivors." So, he knew what was happening to his stuff back at the base near St. Mary Glees.

Roger comes back on the radio and says, "Mac, glad to hear you made it. I'll see what I can do about your clothes but your cigarettes and whiskey are long gone." And then McWaters back into combat and said he told us it took about a week to get his clean

underwear back from all of the other pilots in the unit. Those were in short supply in Normandy. He passed away last year and one of the sad facts of writing this book is that many of the veterans we interviewed in course have passed on. And we've lost about a half a dozen who did interviews for our book. It's very sad that we lost him in Florida last year. It was actually before the – or just after our reunion – the Hell Hawks reunion in Michigan last year. It's the last fall. So, "Rest in peace Mac McWater."

Well before I get to the story of Bob Brooking, I wanted to talk about the Germans again who reported on the affectedness of these fighter bombers. Here we had one German who said that the Germans had a system for identifying airplanes overhead. They would look up and they said if it was camouflaged, it was a British fighter, if it was silver it was an American fighter. And if you couldn't see them at all, it was a German fighter. That's because the Hell Hawks were very effective along with their other groups that's sweeping the skies over the battle front from Luftwaffe fighters that might try to aid their troops on the ground. The Germans were not able to provide close air support in anything, a fraction of the effectiveness of the allies because of air superiority.

So, we move on to the story of Bob Brooking, one of the Rookies in the Hell Hawks replacement comes in after the fighting in Normandy in France has started. He's a high time pilot from Connecticut who has got a lot of fighter hours but has never squeezed the trigger in anger. And he winds up with the Hell Hawks on his first combat mission as a Captain over Luxemburg in September '44. He gets shot up by the Germans. He was too aggressive, had to belly his airplane into a field and he was hustled by a farmer into a barn to hide out from the Germans looking for him. He survived the night. The next morning they took him into town and just then, by coincidence as the allies approached, the Germans pulled out of the Luxemburg village called Esh and they left the town. The villagers had a party. They have been under occupation for four years, they opened the wine bottles, they got everybody out in the streets with their Luxemburg flags. The only American inside was Bob Brooking and he was the parade martial for the liberation day parade on his first combat mission. He says, "I don't deserve any of this." And one of them said, "Today you are the king." And Brooking told us that if you had seen the tears coming down the faces of these towns people, they are liberated from tyranny, you would understand why the Americans were fighting in Europe in World War II. He never forgot that moment, it's captured in his photograph. And then Brooking became with his experience, quickly became a Squadron Commander in the 386 fighter squad in which was Bob Higgins outfit. Here you see Bob Higgins on the right telling some of his fellow pilots how you really put the numbers on a German fighter and air-to-air combat; and this was a ground attack unit but they flew out of these captured airfields as across France and into Belgium and Germany. They found a lot of captured German aircraft and they loved of course, as any fighter pilot would to try to mix it up with the Luftwaffe when they could be found. And so, here's Bob in a publicity photo showing how you have a successful dog fight. Is that Mac McWater on the bottom left, right there?

So, there's a story about – there's many stories about that air-to-air effectiveness of the Hell Hawks and the Thunderbolts. But one in particular sticks with me and that was October 21st, 1944, 36 thunderbolts were in the air against a German force of Fokker

490's numbering more than 60 and the Fokker 490 was the best frontline propeller driven fighter of the Germans. They also have a lot of the BF-109s. Here is one of our crew chiefs, Glenn Smith, 90 years old, still lives in Colorado Springs, sitting in a captured 109 on one of the airfields but the Thunderbolts against the Luftwaffe in this case 190 were very effective. And this case of being outnumbered almost two to one, nobody hesitated the Thunderbolts of the Hell Hawks roared up against this German flight above them and there was a tremendous dog fight on that afternoon over the German frontier. And in the ensuing combat, 21 German planes were shot down and not a single Hell Hawk was down to enemy fire. And for that distinction in air-to-air combat, the Hell Hawks won their first Presidential Unit Citation for that October 21st action. It turns out that Bob was involved in that action. He was number two behind William Cornell the Squadron in Commander and as Cornell open fire on one of the Germans, the shell casings from those 850 calibers began to stream from the bottoms of the wings through those little ejection ports and they happened to fall right in front of Bob's P-47 and he ingested a large number of brass cartridge cases, put out his engine and he was forced to belly and we'll let him tell you about how that story ended near the end of the talk. Very successful in the area of combat with the Hell Hawks and of course, here's Bob with another example of the machine at the National Air and Space museum in Dallas, Virginia right outside Dallas Airport. You can see those cannon and the machine gun barrels right over his head.

The Hell Hawks told us routinely that they were unafraid of tangling with any number of Germans fighters. They had confidence in their training, their leadership and their airplane and they would go four against 20 without blinking an eye because they knew they would come out on the end with the upper hand. Well, after the fighting in the fall of '44 up to the German frontier, as you know, Hitler launched a massive counter attack in the Ardennes in 1944, December 16th. Waited for a period of bad weather when the allied fighter bombers could not be affective and then armored counter thrust swept west into what we now called the "Bulge" in that fighting, the largest battle ever fought by American troops. There were tremendous breakthroughs of the German forces all up and down the frontlines and this live magazine photo you can see some allied tanks here in the snowy landscape of Belgium and Luxemburg. How could the Hell Hawks help when they were grounded by bad weather? They didn't let that stop them. There was this man on the left John Maximbaker, one of the squadron commanders. He was told to get something in the air to try to assist the allied units, the Americans that were being overrun on the snowy ground below. And so, Maximbaker led a flight in the air on December 17th, the day after the attack began. He found a column of tanks below the clouds and radioed back to the radar controllers, "Is that a friendly column or are these the Germans?" And the radio crackled back "That's the enemy." Maximbaker said, "I'm going down, send reinforcements." And so, he and his Squadron mates worked over one German column for the rest of that afternoon until the weather closed in, exhausting their ammunition and bombs. The next day the weather was even worse, ceiling is down to a 100 feet or less, fog lying close to the ground and the word came from headquarters that something had to be done to stop these German armored columns. And so, Stecker who had a reputation as a leader who can get things done in tough situations picked put a flight led by Bob Brooking, liberator of Esh, Luxemburg and asked him to get some men

in the air and only four of them took off through this fog with smoke pots, flare pots, lying in the edge of the runway so they can see. And he got up in the sunshine above the low cloud deck over the Ardennes and tried to follow out Quesada's and Stecker's instructions. And what he found below was just a flat undercast. He found on one little hole that he could see the landscape in so Brooking said, "Stay here." He went down to reconnoiter through this hole in the clouds, and it's a long story but to shorten it up he gets down through the clouds, sees nothing to attack – knows that there's another valley over the ridge line, he flies in the fog and clouds over the ridge line blind, hoping he won't hit the top of the Ardennes ridge that he was hopping over, down into the adjoining valley where he finds a Panzer column. They were so startled to see him in this bad weather, they don't fire, he's too close to open fire, he zooms back up for the clouds and leads his other three men down through that hole and then back on to the Germans. First they bomb the front and rear of the columns to stop the column in its tracks and then they made another pass after pass after pass with their machine guns. And their job was to take the fire power of these Thunderbolts taking off here in Belgium and put it on that German column and divert it from the thrust westward.

And so, in this post-war photograph you see what they were about. This is how low a Thunderbolt would get to the ground in a dive bomb run. And I have a passage from Martha Gellhorn who was the wife of Ernest Hemingway who visited the Hell Hawks units upfront. Here is what she writes, "A colleague and I drove up to Bastone on a secondary road through breathtaking scenery. The Thunderbolts have created this scenery. You can say the words death and destruction and they don't mean anything. But there are awful words when you are looking at what they mean. There were some German staff cars on the side of the road. They had not nearly been hit by machine gun bullets. They have been mashed into the ground. There were half tracks and tanks literally wrenched apart and a gun position hit directly by bombs. All around these lacerated or flatten objects of steel, there were usual rift-raft, papers, tin cans, cartridge belts, helmets and arch shoe, clothing. They were also ignored and completely inhumane, the hard frozen corpses of Germans. Then there was a clump of houses burnt and gutted with only a few walls standing and around them the enormous bloated bodies of cattle." She goes on to describe how deathly the Hell Hawks and their fellow P-47 pilots were in the attack against the German armored columns and one German commander wrote, "Once the skies cleared and the fighter bombers were over head that he could look back as night fell and see the line of burning vehicles all the way back to the German border." So, the Hell Hawks were instrumental in breaking the thrust of that assaults once the weather cleared. And then throughout the remaining months – weeks of December and into January they assaulted the German columns and drove them back along with the GI's of course into Germany. And before I get into this story, let me read you one more excerpt from a man who was a combat surgeon with the armored division on the frontlines who also witness a P-47 strike. His name was Brendon Fibbs. "Airstrikes on the way, we watched from the top window as P-47's dip in and out of clouds through suddenly erupting strings of Christmas tree lights. Before one speck turns over and drops toward earth and the damndest sight of the Second World War, the dive bomber attack. The speck snarling, screaming, dropping faster than stone until it's clearly doomed to smash into the earth. Then pass the limits of believe, an impossible

flattening beyond houses and trees and upward arch that makes the eyes hurt and as the speck hurdles away, "Woom." The earth erupts 500 feet up in swirling black smoke. More specks, snarl, dive, screen, two squadrons, eight of them leaving congealing, combining whirling pillars of black smoke, lifting trees, houses, vehicles and we devoutly hope bits of Germans. We yell and pound each other's backs. Gods from the clouds, this is how you do it. You don't attack painfully across frozen planes, you simply drop in on the enemy and blow them out of the existence." That's what an armored trooper wanted to see was the Hell Hawks coming to their assistance?

While they drove the Germans back with tremendous loss across the German frontier then of course, the fighting continued and it continued in both directions. On January 1st, 1945 on New Year's Day, the Hell Hawks were struck by a surprise Luftwaffe attack. Part of a big operation called Bodenplatte, Goering's last gasp to employ the Luftwaffe to try to wrench back control of the skies over the battle front. And he put 800 fighters into the air and they were assigned to devastate the front line airfields of the allies, British-American fighter fields. They cut the Hell Hawks on the ground. Two Squadrons were airborne already on the attack. One of the 386, Bob's unit was on the ground. Bob was I think, carrying his parachute out to the flight line to get into his Thunderbolt when 16 Messerschmitt 109s swept in over their fields at Medds, France and rattle their machine guns and then the ensuing 20 minutes destroyed about 30 of the Thunderbolts on the taxiways and the runways. Everybody dove for a foxhole, including Bob and he can talk about that in the Q and A.

But amazingly while those attacks continued and the Hell Hawks witnessed firsthand what they had been subjecting the Germans to; amazingly no Hell Hawks were killed on the attack, about a dozen were wounded. We have their stories in the book here. Most of them tried to flatten themselves thinner than the piece of paper in a foxhole. But the armies and the aircraft gunners opened up and in the course of that 20 minute attack, they destroyed a couple of dozen Thunderbolts. The Army shot down 8 of the 16 Messerschmitts as these inexperienced German pilots try to wheel over the field and come back for run-after-run. All the bombs began to blow up on the airplanes, they burned from the gasoline. You can see the field was a wreck and one entire Squadron had been wiped out. But that afternoon, as the two returning Squadron came and shared their airplanes among the remaining pilots of course, and they were all back in the air that afternoon flying combat strikes. The hoped for Germans surprised didn't occur and the attack largely, strategically was a failure and in fact Adolf Gallon, the German fighter Commander said, "Operation Bodenplatte was the knife in the back that wiped out the Luftwaffe for the rest of the war." Well, one German survived the shoot down. Stephan Cole, 20 years old and a Sergeant in the Luftwaffe parachutes down into a cemetery nearby. The MPs grab them and he's taken prisoner of course and taken to the operation shack of the 386 Fighter Squadron. Bob Brooking the hero of Esh, Luxemburg is the Major in charge of the operations for the Squadron. He sees this German pilot boasting about the damage that they've inflicted. Cole thinks they've won a great victory and he was so boastful and he spoke very passable English; that Brooking said that, "Cole looked out the window," jerked his thumb at the burning Thunderbolts and said, "What

do you think of that?" Brooking wanted to slug the guy but he turned on his heel, walked out, seething with anger.

About two days later, from Paris came an entire squad of brand new Thunderbolts. We built 15683 during the war. They were replaceable. Brooking goes down two days later to the stockade grabs Cole out of the guard shack marches in and out to the flight line and says, "What do you think of that?" And Cole says in his English, "That is what is beating us," recognizing that the industrial capacity of the United States was something the Germans would never be able to match. And he was glad to be out of the war. Before they took his picture he insisted that he get to comb his hair and polish his boots. He had a lot of pride. Well, here is a line of Thunderbolts in service near the end of the war. The Hell Hawks kept moving up, they moved from Medds, France back to Belgium to another airport called Florin. They wound up in Authen, the first Allied fighter group to operate out of the German Airfield on German soil. Then they wound up the war at Fritzlar. Thank you, Tim. Wind up here at Fritzlar into the spring of '45 as the war drew to a close. Everyone knew who was going to win but the fighting went on deadlier than ever. Here you see the fighter squadron and commanders, there're Bob Brooking, John Maximbaker, Bob Fry who was an Annapolis Cadet. He defected to the Army Air Forces, went out of Annapolis to become a fighter pilot and became the top ace in the Hell Hawks and then there is Stecker at the centre of the photo, briefing them on upcoming mission. Their job is of course, to put the German army out of action and they did it with tremendous effectiveness. But of course, as the Germans pull their flak weapons back with them closer and closer to the German heartland, the flak began to get more and more dense and more and more dangerous. Not only did they fight German armor, German troops in the field but the Hell Hawks also took upon themselves the job of taking out Germans supply lines, trains, troops convoys, truck columns. And this guy in the upper right corner Harold Semanski was very effective at shooting up locomotives. He was so good at it that they called them "Loco" as you might suspect. He bragged about his hatred for the Germans and his ability to take out locomotives. They said, "Why don't you shoot up the rest of the cars?" He says," If I hit the locomotive, it stops and it's not going anywhere. You guys can take care of the rest." He was so good at it that the public affairs folks heard about his exploits and wanted them to come back to Paris to do a radio interview with Armed Forces Radio. He refused. Finally, he had to be ordered back by the Hell Hawks to record an interview for broadcasting in the US. He went back to Paris, did the interview against his will and then hop in his Thunderbolt to go back to the front lines and as he took off that afternoon into rainy overcast skies he flew into a French apartment building. So, Semanski didn't make it out but the other Hell Hawks had this job of shooting up trains, bombing tanks and they did it with tremendous deadly efficiency.

Here's a pilot by the name of Sam Watts in the upper left corner. His unit attacked a German ammo dump in April of '45. They didn't have bombs so, they strafed each ammo bunker. They would explode in a titanic volcano in front of them as you see here and lots was hit by a chuck of flying concrete that came through his canopy. He had his oxygen mask on, he was knocked unconscious but the airplane was trim slightly up and he zoomed up into the sky and as it began to wing over and go into its death dive, he

came to and managed to pull the airplane out of the dive, fly back with his canopy broken to the base and of course, live to tell us about it. He trembled so much stepping out of the airplane that day that he couldn't hold the pencil to sign his name on the flight form after he got back on the ground. And for the destruction of this German ammo concentration in Southern Germany the Hell Hawks won their second Presidential Unit Citation. His was a survival story and there are many in the story of the Hell Hawks but many of the men didn't make it back. We'll talk about the losses both inflicted on the Germans and those that the Hell Hawks sustained.

Here's the tote board held up by Jordon, the Intelligence Officer that the Hell Hawks maintained of their various target categories. And the numbers; they are hard to read in this photo but you can see them here. Aircraft in the air on the ground they destroyed 259 and damaged the 141, knocked a 190 tanks, almost 400 trucks or motor transports and you can see down the line the effectiveness of the Hell Hawks won again, a dozen or more fighter groups involved in his job. And this tally of destruction was something that was largely confirmed by the ground forces moving up. Pilots tend to overestimate the number of tanks they destroyed but all of the other stuff was largely accurate and confirmed especially in tight combat situations their effectiveness was undeniable. So, this is a record that the Hell Hawks were very proud of but it came at a cost. And as the German defenses pulled back into Germany, the losses began go up in fact instead of winding down near the end of the war, they were more severe than ever. We just heard last fall from a German doctor in the town of Muuch, Germany who wrote to say that his family had erected this granite monument on the outskirts of their village and it was dedicated last year. And here's the close up of the flag in memory of the American aviators Tostaven, Wallace and Holdt and the American soldiers killed in action liberating our community Muuch from tearing in the World War II from a German citizen. The middle name, John Wallace was a Hell Hawk who was killed in the late March of '45 when his Thunderbolt was hit and he cart wheeled into the ground with his napalm load. He perished in the crash. But even today, 65 years later people remember him. Here's another person we remember Grant Stout, young pilot of 23. In March of '45 again, he's hit by flak, he seemed to bail out by his wingman, his parachute opens, he goes down to enemy territory, captured they thought, they'd see him in a couple of months or maybe a few weeks when the war was over. Well at the end of the war the Hell Hawks waited in vain. He was found to have been killed in action. And his body was sent home to upstate New York. That's not the end of the story though, what happened to Grant Stout? They saw his parachute opened and he floated to the ground. Well, they thought perhaps that his wind mates thought that he's struck the vertical stabilizer on bail out and was fatally injured. It was until the 1990s that a Canadian researcher who Bob Dorr later talked to, found out that there were records of a war crimes trial near the village where Grant bailed out. And in the war crimes trial connected by the army and his attorneys, they prosecuted four German men including one Sergeant from a flak battery nearby who were accused of murdering Stout on the ground after he had parachuted safely to earth. And the story that came out in the trial transcripts was that Meyer, one of the German Military men had incited a crowd to beat the young pilot to death and then he finished him off with a pistol in a ditch outside this German village. The rules of war were breaking down in the final weeks of the conflict. There

wasn't much guarantee that you'd be safe if he parachuted into farmers field with a pitch fork or if he landed outside of the village that has just been bombed or striated. So, even that story from the 1990's maybe not be totally accurate. There's some evidence, say our Canadian friend and a German researcher that the allies prosecuted the wrong guys and they were scapegoat by the town people who didn't want themselves to be blamed for the murder. They put the guilt on these German personnel – the military personnel in town. So, we may never know exactly what happened to Grant Stall. Same as all of the other pilots in the Hell Hawks, the guy who deserved to come home but became another victim of Hitler's Reich.

This is a story I particularly find poignant. This is the gravestone of Lieutenant Morris Miller who was shot down in late March of '45 again. On the same mission into Germany, two men named Miller from the Hell Hawks were shot down and killed in action, both from Texas. Not until 1950 did Miller's father discover his son's body. The bodies weren't recovered at the end of the war. He had to write over and over again to Army Authorities and finally the German Mayor of the town near where he was lost wrote back to say, "We discovered a crash site in a swamp on the outskirts of our town." And together with Army Authorities, the German towns people pointed out the crash site, ID the serial numbers on the machine guns and the engine and found Morris Miller remains five years after the end of the war. And then they finally brought him home, he resides now, he rests in the Galveston Memorial Cemetery just a little south of Houston where I live. So, that's the story of that Tex Miller who was shot down yet just a few miles away, anther Miller was lost that day.

Well, I want to close with a reckoning. The Hell Hawks had about a thousand men in the field at any one time. All the maintainers, the crew chiefs, the mechanics, all of the intelligence men, flight medical staff, operations people and so on, that made a fighter group tick and of course, there were about a 125 pilots at one time. Staffing the three squadrons along with staff pilots, commander and staff. So, out of that 1000 men, perhaps 15,000 served during the war altogether, during the 15 months that they were in combat. For the Hell Hawks, their toll was what we might consider rather light for an infantry unit. They lost 69 people killed in the 15months of fighting. 46 killed in action, 23 killed in training accidents or just a day-to-day hazards of operating on a battle front even behind the frontlines of the fighter base. And we have many other stories in our book "The Hell Hawks." In particular I want to tell you the story of Charles Johnson our history of the Hell Hawks author and his pilot John Fitzsimmons on the left. November of '44, Fitzsimmons goes on a combat mission over Germany and his wing mate see a German 88 millimeter shell explode very close to Fitzsimmons airplane. Now Johnson and Fitzsimmons had been working together for months. The crew chiefs today tell us that they felt the pilots were their brothers. And preparing the airplane for combat you were making sure that it was good enough for your brother to take off and fly and at the end of each take off the crew chiefs would then wait for an hour or two at the end of the runway waiting to see your pilot come back again from that mission. Well, on that November afternoon, Fitzsimmons didn't come home. His wing mates saw his plane struck. Apparently he was knocked unconscious and his airplane rolled over and descended and crashed in on German soil. That afternoon, Johnson was out at the end of

the runway. And the flight came back and he realized the worst and later that evening, that very day Johnson wrote this poem, "All eyes as one surveyed the sight, mentally counting you can't be right. Where is the one that can't be seen, where is the one to make 16? One by one sighs of relief, I stood alone in disbelief. You sensed the silenced that's yours as you go. No words are said, the others know." And yet that night after writing this poem, Johnson was assigned a new airplane, and another pilot and he got up to fight again the next morning. That's what this war was all about to the Hell Hawks and I think it's true to their story to note that the Hell Hawks fought in memory of their friends who didn't come back. They fought for their comrades who were flying wingtip-to-wing tip with them and together they fought grimly but efficiently until the victory was won. And as author and crew chief, Charles Johnson said "That P-47 was one tough airplane and I guess so were we." Thank you.