NATIONAL MUSEUM OF THE UNITED STATES AIR FORCE

Wings & Things Guest Lecture Series

B-29s and the Korean War

Author and retired Lt. Col. George A. Larson discusses information from his latest book, "The Superfortress Final Glory: The Korean Air War, The Cold War's First Aerial Combat."

George A. Larson: I appreciate you coming out tonight. It's a real honor to be here at the museum. As it was introduction, I've got a really long history with the museum. I've been writing for the Friends Journal for about 22 years. So, it's really pleasure to be here, it's a real honor. A lot of the research that I did for this book was to honor veterans that I work with on a daily basis. I'm a member of The Black Hills Veterans Writing Group and I write a lot of personal histories.

I started it because my father was a Seabee during World War II and he built the runways on Northfield where a lot of the B-29's operated out of and he got me started on that and it is one of those things that I really wanted to do because I had the chance to literally take my father's World War II history go into Guam and go to Tahiti and actually walk in the footsteps of my father. And that's what I'm trying to do here.

The Korean War many times has been referred to as The Forgotten War just because of a lot of things had developed. The Korean War broke upon the news, news' stands in the United States on June 25th 1950 when the North Koreans invaded South Korea. Luckily the United States, through President Truman, responded almost immediately and then we got involved in the Korean War, what some people referred to as police action. So if you don't mind, I still would like to call it war and that's where I'm going to leave it because that's more exactly what happened. It was not a police action. A lot of my relatives who were in Korea in fact one of them was one of my wife's relatives, her uncle was at CHOSIN and to this day he will not talk about that.

I took a lot of research to do this because a lot of the people I was dealing with wanted this story told about their fathers or their grandfathers and this is why I did this. It is really interesting because as it was commented on, the Korean War from the air encompassed everything, more than just the F-86s more than the MiG- 15 Aerial Combat. It started out, one of the first aircraft to be used was the P-51 Mustang.

I had a close friend who at that time was a Captain flying P-51 Mustangs. Previous to that he had been flying the P-80s, they transferred him over to the P-51s because the P-51 of course World War II thing had a long range. They could loiter over the targets and at that time the North Korean Air Force was flying a Soviet version of a piston pilot plane, and was similar to the P-51. The jets had not been evolved yet in the combat so they still piston versus piston like it was during World War II.

We were fortunate because at that time in Japan we did have the F-80s that were stationed in Japan. The problem with the F-80 at that time was its very short, very short ranged and when you went from bases in Japan to Korea, it didn't have much time. Basically fly from its base right here in Itzakue Air Base in Japan to Seoul, make like one or two orbits and it had to go back because it was out of fuel but it was available for aerial combat and was a very effective aircraft later and was becoming very effective on the ground support role because it was still World War II straight wing aircraft. So it was not a high performance aircraft when we talk about the later dog fight.

Very effective, a lot of pilots who flew it, really loved it, but it got down in the weeds and provided the ground support which was very important to the troops on the ground. And I'll talk about one of my favorite planes, the B-29, because of my father took a lot of the photos during some of my other books on the B-29s. When I was able to work with Boeing Aircraft Company and they gave me some really good historical photographs of the B-29. You look here, there is the pilot's section, co-pilot and of course the bombardier was in the glass nose and there is the Norden bomb site.

If anyone remembers World War II history when The Twentieth Air Force was bombing Japan, they ran into something very unusual for the first time over Japan, the Jet Stream, and it effected their bombing and that was one of the reasons that when General LeMay took over, he finally said enough of this high altitude, we are going to go to low altitude. And my father was on the island, he actually helped them unload some of the incendiaries to put on the B-29s during the war.

In Korea, the B-29 again is flying another combat after the war, it did remarkable job, and we'll talk more about that later as far as some of the obstacles they had to fight. One of the crew members of course was the navigator, he had a very busy job because in Korea there is no beacons, they didn't have any of the radar navigation aids that they have now so it's very important for the navigator, especially the lead navigator, to know where everybody was at so when they made the bomb runs they did not, did not, penetrate across the Yellow River. They were not allowed to go across the Yellow River which was a no-no. They were under restrictions which we'll see later that happened in Vietnam as far as the bombing campaign. But it's started here where they could not cross into Communist-Chinese territory, even though there were plum targets where all the aircraft parked in neat rows along the Communist air field and they couldn't go after them.

The Flight Engineer's position was very important on the B-29. When you have a chance to walk out here you'll see the Boxscar. He controlled the throttle, he controlled the fuel makers, he looked where the fuel was to keep the aircraft balance, he was busy all the time and he knew everything on the system on the airplane so if something broke down on flight, he was expected to keep the airplane flying. He was almost like an Electrical Engineer, an Aeronautical Engineer, on board in these airplanes. Very important to the safety of the air plane.

Again, the Radio Operator, he was very busy. He had to constantly monitor incoming messages from the Command Headquarters to see if they changed targets, especially whether they would pick up advance information if there were fighters in the area, and also trying to keep information together. If they a plane go down, they would have a chance to report to Air Sea Rescue or down to the Command Center to get maybe someone back to pick up the down Airmen. It was a very orchestrated process that was carried on because of their SAC training, after the war General LeMay had started where they were very well trained. And this was very important and we'll talk about more as far as some of the odds that they had to go against flying in the air war.

The radar, the radar position and other highly trained individual because most of the bombing in Korea, when they did it was not with the Norden bombsight, it was by radar. Because if anyone has ever gone to Korea, or generally read about Korea, or looked at the weather reports, it's really overcast in Korea. They have sunny days but that's few and far in between. So a lot of their targets had to be bombed by radar and I'll talk some more about some of the radar abilities to go with these, some of the stuff the crews had to learn how to go through. But again they were well trained so they could do that.

One of the positions on the B29's was the Central Computer Controls Council for all the guns. It helped them set up fire missions and of course they still have the gunners. For example, on the B-29 was very advanced because they didn't actually sit there like you'll see on the B-17 out here sitting in front of the open window firing B-17 gun out of the window at 33,000 feet, it was freezing. If you'll notice there's no oxygen equipment, there are not heated flight suits, it's all pressurized. That was one of the developments that had the B-29 that followed on the later aircraft; it was the pressurized cabin.

Much more comfortable before I know, but again more demanding. Just up until, through SAC, they still had tail-gunner. He was the tail-end Charlie of the crew, he was the crew in the back. But they were responsible in Korea for shooting down quite a few MiGs because the MiGs have made, they were coming and made a mistake of getting too close and they would get hosed, very effective because he was all the way back all day all by himself.

That's a quick run-down of the crew. We're very fortunate that after the war, many of the B-29s were kept intact in our museums. This one is at the South Dakota Air and Space museum in Rapid City where I am from. It didn't fly in Korea but it was a trainer aircraft in the United States. It pretty much shows the, see the Greenhouse nose and you can see the elliptic cowlings, where the engines, large propellers and I go a quite a bit into more in my book when I talk about some of the problems they have with the Engineering.

It was a complicated piece of machinery, complicated to fly, complicated for maintenance. So everybody on the ground and in the air did a superb job of keeping these airplanes flying during the war. Early in the war when they first started bombing, the 19th Bomb Wing, has had been assigned to Andersen Air Force Base, Guam. President Truman gave MacArthur permission to go ahead and use the B-29s. Like you see here, it's all aluminum finish, it's kind of important because they were dropping during the day

and we'll talk more about this later what the transition and tactics that we had used going from day to night bombing.

Early on, it was such a demand in the war that a lot of the B-29s were not initially used against strategic targets, they were used against troops, tactical targets which are really difficult for a strategic bomber to do. But later on in the Vietnam when we talk about the B-52s and the Big Belly Program where they drop bombs and like especially Ka Sahn, within a couple hundred yards of Ka Sahn, to save a lot of Marines and of course later on they used it throughout the country.

But early on in the war, this time they still have not have to start fighting against turbo jets so we still, we want air superiority, destroy the Korean Air Force, it was not really a problem. So they were all silver color and of course now a day when we talk about especially, like Libya would be, just like at Ellsworth Air Force Base where I was at, we just had two B-1s fly to Libya and back and drop 100 JDAMs which is precision guided munitions. We did not have then, it was just the old 500 pound iron bombs, and here if you look at the bombs, this gentlemen here is one of the crew, has them all lined-up and they're on racks, he's been putting the tail fins on. Of course, what is missing, there's no fuses on the nose, so they would be put on wired and they would be later pulled out so they could be dropped. So these are just starting to put the bombs on.

Early on in the war, some of the crew guys, they actually had to do it themselves, some of the enlisted guys did, they just did not have enough crew personnel to take care of all the work load. Later on especially in Kadena, they hired Okinawan laborers to set the bombs on the area and screw the fins on. It was hot work in the summer time, anyone has been in the Far East, summer times over there is not fun.

And the reason why crews were so successful in Korea is because of their SAC Training, this is kind of a good example. The top, this is in Portland, Oregon, that's the actual radar return. They took a photograph with a camera and he reason they did that is below that is a hand-drawn representation of the radar returns. And see those are higher hills, that's what reflects on those. Believe or not, you know how they drew those. They had a gentlemen who would sit down with the piece of paper, white onion skin and draw those, we would different grades of sandpaper. Believe it or not, I was stationed at Castle Air Force Base in 1976 to 1977 preparing for SAC OIs and this is what I drew to put in the B-52 sight bomb folders.

That's how long that continued until we got current ability now to do it electronically where you can send it on the ground to the crew in a matter of 30 minutes. But these folders took intelligence people a long time to produce. It was a lot of labor intensive work. But because of this, the crews could go ahead and perform missions in all sorts of dirty weather that was vital to the guys on the ground because they were facing huge numbers of Communist Chinese troops later in the war, it's very , very effective.

This is the weather that was typical in Korea. Look at all those clouds and I was able to enhance that. If you look right there you could see those little dark, those are 500 pound

bombs being released on the target. They cannot see the target, but the lead ship is bombing on his radar. We destroyed all the strategic targets in North Korea by using the B-29. That greatly affected the war but most of the supplies later on then came in from Communist China supplied by the Russians. That was very effective, bomber, World War II bomber fighting in 1950-1953 under adverse conditions because the crew were so well trained and they had the equipment that was actually a head of its time during the Second World War.

When I talked about the weather, that was one of the aircrews biggest problems in Korea. Of course we do not have the satellite that we do now for weather, we did not have weather stations in Russia or China. This is a WB-29, we had B-29s equipped to fly weather routes, clear north coming down through the Sea of Japan down pass Korea to go ahead and give the crews weather information. Because it was very important for the weather officer during his pre-mission briefing to say, "this is your expected weather," and most of the time it was going to be 9/10 cloud cover. The reason I put this one in, this is a famous aircraft, that little box on top was a modification and what they did with it is this B-29 flying north of Japan in the Jet Stream detected the first Soviet atomic blast during the Korean war.

There were filters in there and when they got back they took them out and the scientist analyzed them and notice there was dust particles that were radioactive charged and that's how they detected the Soviet Union copied our plutonium bomb and later on if you read your history, where they found out that Klaus Fluchs, who was working on the Manhattan Project, had given a copy of our plutonium Fat Man bombs to the Russians.

It was very cold in Korea, crews were told that survival over the sea was very iffy if you had to ditch but all their equipment was, all the equipment before each flight was checked by the Aircraft Commander. It was many of the crew survived the bailouts because of the emergency equipment. They had to have enough equipment so if someone was hurt on board they could take care of them just like during the B-17 and the B-24 raids during World War Two. But that was part of the Aircraft Commander's job, not only to look at the equipment, but the Bombardier had to check if the bombs are properly loaded in the bomb bay. They had to check the fuel to make sure the aircraft is fuel right, they had to be sure engines have been serviced, if there was any write-ups. So it was not just jump in the plane and take off. It was a lot of pre-checks that had to be done during combat.

One of the most important ones of course was the ground personnel and this is an armor here looking at the 50 caliber machine guns on top. Then there was still the 50 calibers just like on the F-86 that they were still equipped with 50 caliber machine guns, that was their defensive guns. The high altitude, of course they had to be sure that everything had been oiled and wiped down and everything was dried and there was no moisture so when they got the altitude they wouldn't freeze. A lot of works were involved on the ground before the guys and the crews ever took off.

As was noted earlier, this was more than just the B-29's it was also ground attack aircraft. This is a B-26 with a solid nose, there's 8 - 50 caliber machine guns there. We would

carry bombs or rockets, but at night a lot of the B-26 pilots work in conjunction for the B-29. B-29 will drop air bombs, B-26 is would also be flying at low level, I mean so low that they were flying below the hill tops and a lot of times they would come back with wing damage here and the bullets will be coming down this way with the holes on the bottom of the aircraft, verse coming up like this where the holes in the top of the aircraft. It's very dangerous to fly; in fact someone would come back with pieces of tree tops in the engines.

But they flew low to take out the trucks and take out troops because at night that's the only the time the Communist could move their supplies because during the day time it was just suicide because we had air superiority. B-26 was also a very good weapon system in the hands of a great pilot.

This is the Han River Bridge, north of Seoul. That is one 500 pound bomb taking out the north bridge span. We were trying to knock it up to prevent the Communist, North Korean troops, from coming across. Then later they took out that span and then they had to cross in boats to get across the river. Eventually it was rebuilt later on, but that bridge was taken out, one bomb 500 pound, no precision guiding munitions, just down - release the bomb. That's what the B-26 pilots did.

The B-29 were also used to take out bridges, supposed to up north along Yellow. so I'm going to use this as an example. We'll say this is Communist China, this is Yellow River and this is North Korea. Well, you can't bomb there, you can't bomb there, so they had to run parallel to try to take out the approaches here. And anyone that's says from altitude trying to drop a bomb this way is hard to hit a target. But some of the bombers did take out some of the bridges.

The B-29, as was commented earlier, was more than a bomber. This was 581st Air Supply and Communications Wing. It is basically, based at Clark, but that was just the cover story. You will notice a lot of the insignia has been removed from the airplane and almost all the lower surfaces are painted black, it's only got a tail gun and we'll talk about that open hole in minute. What these airplanes did was fly over in North Korea dropping psychological leaflets and I got some examples on my book. "Surrender, go home to your families" They also flew intelligence missions at night, because you can see that they will look through observation sight, they would look for information on the ground, but more importantly it's a long bomb bay. Inside this bomb bay, it goes clear up to there, they put bench seats on either side of that bomb bay.

When I was in this conference in Hawaii I talked to gal who was in her 80s. She was a South Korean volunteer, 1 of 8, she was trained, they went up in this airplane in parachutes, they opened it up, 8 of the girls jumped out, behind the lines. Their mission was to find, they had the right dress and clothes, to find one of the commanders and one of the sectors and become familiar with that commander to find out what his troop strength was and if they were planning the attacks. Then they had to get out of that camp, cross the frontlines and get back to the ally-side of the lines. Two of these gals did. That's how committed the South Korean people were defending their own country. It's one of

the stories that a lot of people just don't know anything about how sacrifices of the Korean people did themselves.

And this open area, later on they developed when this wing started, developed during the Korean War, they would have an agent who would be dropped behind the lines. He had a radio, he would call when the specific time, it was very short range, and this aircraft would be flying overhead. Identify where he was at, he would inflate small balloon that would go up that had a line on it. He had a harness that he would put on himself around here, here and here, then he would turn around facing down wing and the plane would be coming this way. And what the crew would do is out of that spot, they would lower a U-shaped metal steel wire or cable. B-20 pilot would line up on that balloon, snag the balloon, below the balloon the guy was sitting on the ground, he would take off that way and then back and then they would reel him into the airplane. It worked, it worked.

If you ever watched the John Wayne movie about Vietnam, they show when they pulled somebody up in a balloon, that was the same similar idea. That was not fake they actually did that. One of my contacts, one of these planes was shot down over Manchuria, and I tell about him in my book, but the Colonel was one of the last ones to be retrieved because he was interrogated by the Communist Chinese, but more importantly by the Russians, because the Russians wanted find out more about what they were doing. So he was one of the last ones to be repatriated, not the last one, but one of the last groups. Again, the only armor they had was right there. Intelligence collections and that was very important during the war.

At the time our B-29s came from our SAC bases, this is the 9th Bomb Wing at Travis Air Force Base, you can just see all of them on the flight line. They would be serviced there, fly to Hawaii, then over to Guam and then into Okinawa. So it's a big effort, it was really a lot of effort for the crew members. I had a chance to talk to a lot of the people from the 19th Bomb Squadron. They lived pretty cruel lives, pretty cruel lives. You see their tents, there is no pavement, eventually they put the wood platforms down, when it rained over there, it got really sloppy and really muddy and of course in Okinawa in the winter time it gets cold guys, it really gets cold. But they were so hurried to try to get them set up just like during the war when the B-29s are flying out of [Indiscernible]. My dad was a Seabee and they took pity on a lot of the crews and built them Quonset Huts to get them out of the tents. And a lot of times my dad had a big Quonset Hut, they went back to tents and gave it to the pilots so they could get some crew rest. But that again was some of the camaraderie was developed, especially when it continued on here.

I realize it's a little blurry, but a lady sent this to me, her grandfather was assigned to the 22nd Bomb Group. That would be me back during the Korean War; I was the intelligence officer at SAC. My job was "you're going to bomb such and such target, these are the defenses, this is what you can expect. You need to fly such and such course, you need to do this, here are your safe areas." He did what I did for SAC, very important because it was a team effort to keep these guys safe flying in Korea, very, very important.

This is the Commander of the 22nd Bomb Group coming out of the Mess Tent, it was open, they eat on chow tables like they did in the Army, it wasn't anything fancy at the time. The reason it was such demanding work … that is the terrain the ground troops had to fight in, the ridge lines, vertical critical valleys. You know, if you're a navigator where in the heck are you? There's no big towns, there's nothing really - celestial navigation for them was very important to know where they're at. It was a demanding, demanding work for these guys. If you bailed out over that countryside, that was tough area. That was a tough area to fight both on the ground and in the air. Of course this in the winter time, you can see all the snow.

I put this in a kind of, this is an interesting story. The 22nd Bomb Group is told to destroy the [Indiscernible] Oil Refinery and the oil refinery is right there. You see the tidal-pull during [Indiscernible] you got a pretty good, that's the tidal-pull, there's - probably the tide hasn't come in yet, either going in or going out, I can never figure out which one that was there. This airplane there struck at there, you see all the bombs. Pretty good hit, right on target. What do you think that is? What does that look like? Does that look like a nuclear detonation? Well, the Soviet Union announced that we drop a nuclear bomb. But then now we got the ground destruction, smoke around and you got the nice column and look what's forming at the top, mushroom cloud. It's just because of all the dirt and all the oil and they got sucked up and wind conditions were perfect.

And the reason I said that is, I'll talk to you about what President Truman finally threatened the Chinese to end the war with, and it's kind of interesting, but that was blown all out of proportion again. You can't believe everything that you hear from somebody as far as what's going on in the news. That's a good example, and that's why I really wanted to show that.

I was fortunate that I got this photograph; I pried it out of one of my wife's uncles because he'd actually was with the Marines when they went into Pyongyang. This is the military arsenal that we destroyed by B-29s, so it is basically everything was destroyed, but this is a ground photo of what our bombing damage did. They were very, very effective of striking the industrial heart of North Korea and taking it out. You can see just – the destruction inside, and that's when 500 pound bomb, just right on target then took it out.

Now this is the part of Korea that most people like to talk about or know about. MiG-15, this was at our conference in Hawaii, they had this on display there in Hickam, MiG-15, and that's what made it so dangerous, 20 millimeter cannon right there. Very, very dependable airplane that could fly higher than our F-86s, but our F-86s pilots were very trained, except, interesting some of the original comments that I was able to find out in my research, they started hearing Russian on the radio, they started to seem very blonde pilots, very big pilots not like a little short, you know, Communist Chinese styles. They were Russian, they call them Honcho pilots. What the Soviet Union did was rotate their aces through the Korean War squadrons, not only them but also some of their allies in Eastern Europe to get trained against our U.S. Air Force pilots flying F-86s that they might encounter in Europe.

So it was part of the Cold War, and a lot of people just think about the air wars over Korea, but it went beyond that and then that, that was the other side of F-86. Very, very good airplane, and in the hands of the good pilot, it was exceptional – maintained a 10 to 1 superiority. Again, fifty caliber machine gun, none of this air-to-air missile, this was dog fights, close in and shoot them down. What really frustrated the pilots was that they couldn't cross the Yellow River in hot pursuit of MiGs, but later in the war, some of our pilots, they still want to cross and went after them and weren't supposed to but they did, but they get in. That's a fighter pilot mentality; we're going to get you. We'll take action and once I've got them on your tail you're not getting away until I shoot you down. You talk to any World War II pilot, guys in Vietnam, guys from the Dessert Storm, any fighter pilot, once they get into that groove, they want to down it.

During the Korean War, SAC was very, very, hesitant to release any aircraft other than the B-29s. This is the RB-45C which is a twin engine on each side, four total engines, it's a totally reconnaissance aircraft. I tried to find out when I was talking to people why SAC released these 4 aircraft, there was a lot of pressure, but they released these 4 aircraft. Interesting story about this, even though it was a turbo jet they could not climb above the MiG-15s, and could not outrun the MiG-15s. So it was still was vulnerable as the B-29s, but even more important was what's missing on that airplane was not a single gun, alone unarmed and unafraid, especially during the Vietnam war when we have the F-101 pilots, there's a famous photographs from Vietnam War when they're flying over North Korean, I mean North Vietnamese MiG site, I mean SA-2 site, when they were running out trying to finding missiles, you see the shadow on the ground and of course the aircraft has already gone by, but they got a lot of intelligence. But again, it was not a lot of weapon systems; SAC was trying to build-up for nuclear deterrents, so they kept the better aircraft at home.

We started seeing something unusual in Korea because of Technological Warfare. This was formed by the Marine Corps. It is a Douglas F-3D, twin engine, it's a twin pilot and they had a weapon's officer and they're sitting in the right seat. The weapon's officer would have this head down on a radar scope. They flew ahead of the B-29s at night, to try to locate climbing MiG-15s that had been launched under Communist Radar Control to shoot down the B-29s. Very dangerous flight, of course, notice the color, it was dark blue, but they would fly ahead, they were trying to intercept anybody who was trying to get ahead of the B-29 formation. They were told, "don't fly behind it because anybody in the B-29 gunner seat sees anything behind, you're going to be shot down, they will shoot at you," because at night they couldn't tell friend or foe.

The reason I put this in is because right there, that is a KC-29 converted into, that is the boom behind it, that was one of the first flying booms Boeing come out with, and they refueled the RB-45C because it was very short range and needed to be refueled. The fighters could be refueled, the bombers could be refueled, but that was the early conversion into a tanker before they had the '135, and after the war, they put the B-29s back into storage.

So, there's a lot going on in the Korean War just beside the MiGs and the F-86 air war. Now later on in the war, remember I showed you that first photograph. Look at here, see it's all been painted black underneath. They did that in order that so the airplanes could fly at night and hide in the darkness because by later in the war, starting 52' on, the Soviet Union has supplied North Korea with a lot, and the Communist Chinese, with radar-guided search lights. And what the search lights were, weren't for any of the aircraft, they were to guide the fighters that were launched from the ground because at that time the fighters did not have radar so couldn't go find the airplanes. They had to be visually be vectored in to find it.

When the Marine Corps was ahead of them, they were listening to that frequency so they could know something was in the air. So that's how they intercepted our bombers at night but they try to use these color scheme to protect their bombers because we took loses, they took loses during the day that they just couldn't keep up. The reason they did this in --- this was kind of a black day in 1951. October 23rd, MiG-15 blue pass, are F-86 squatters during the day, they shot down 3 B-29s, 5 were heavily damaged and basically written of when they landed and only 1 escaped undamaged, and those canon shells just ripped this thing apart. Even though the gunners were trying to fight them off, it was just, there was always more MiG-15s than we had aircraft, because again, we didn't take a lot of F-86s out Europe to go to Korea because we are afraid that Korea was the first step of maybe going on, another phase of the Cold War.

That is an Atomic Detonation. The reason I show this is, finally Trumann had had enough. He kept going to Pyongyang Conference, nothing was getting done. So he leaped, he authorized SAC four Atomic Bomb B-29 crews, to Okinawa and that's all was the intention. But the bombs were never sent to Anderson Air Force Base because you couldn't put atomic weapons in Japan because our treaty with Japan at the end of the war - couldn't do that. And this started something, at that time SAC wanted a nuclear weapon for their aircraft, they had to go to the Atomic Energy Commission, build warehouses, pull out it out of storage and then have them shipped to the base.

Well LeMay, we got 4 of the bombs out and we put it in New Mexico and that eventually started where SAC had control of their own nuclear weapons. But that was kind of developing process that went on during the Korean. But that wasn't one of the all the reasons that pushed on, there's one of the things that helped us during Pyongyang. This was one of the aircraft that was developed after the B-29, the B-50, and looked a lot like B-29, different engines, this solves all the heating problems - changing the plugs on the B-29s, that's just terrible. You have to take the cowling off, you had to climb basically inside to work on the carburetors, it was just terrible. They overheated, it was a lot of problems to work on, but this replaced for a while in SAC, replaced the B-29 as the medium bomber. And of course, the large B-36 at the time was coming on and this was the last of our piston bombers that SAC had and this is the [Indiscernible] as you can tell because it's got the turbo jet engines on either side and we used that for takeoff and to increase performance from running into the bomber.

Lightweight, the lightweight aircrafts could get up around 53,000 feet, but again SAC needed this because of this bomb bay. If you go out there and look at the B-36 you'll see this great big cylinder out there and that was the H-bomb, 42,000 pounds, and the only thing that could carry it was this airplane. Big, big, big bomb. But again that was development before we started going to miniaturization and other weapons. But that was part of, we were afraid the Soviets were going to destroy us. As was mentioned, Korean Air War was also use of C-47s, C-46s, Carter-Transfer. This is right after General McArthur landed in Inchon and we took Seoul back. This is [Indiscernible] Air Base, that is destroyed hangars, you can see right there in the background.

There are the Red Cross tents and they tried to do the best they could because there were just thousands of refugees that come across. I talked at one of the nurses who flew Medevac and that saved a lot of lives. Of course, when you think of Korea Medevac, you think of M.A.S.H, right, well there was more than that. There was regular flights flying out on the transport from there to Japan before they sent back to United States. They saved thousands of our wounded, and they continue on today in Afghanistan where we have just spectacular ways of saving people who severely wounded. Well that was part of the Korean War that doesn't get on. A lot of these guys flew heroic missions during the [Indiscernible] evacuation, flying into frozen strips to take out Marines who would have died if they had not been able to fly out.

Later on is the work address, they started replacing some of the tents, very quickly crude wood building, you see the sides are still open, but that was better than the tent. But again, what was more important? We got a support troops on the ground. You get it back thought the day and this is what we're going to provide you. But again this is all very dedicated air crews flying under extreme difficulties.

Later on in the 50s, toward the end of the Korean War, if anyone has been on a military base, does that look awful familiar to you? That design was mass produced around the world, Germany, Turkey, Japan, even one at the VOQ when I was on Guam that looked just like that, and that was in the 70s. Standard design, that's eventually what they put on the bases. But it was a matter of evolution for our air crew members. But again, you're almost at the end of the war here before that first one was up at Yokota.

And I would like, these are just the groups, and I don't go into all that much detail here but in the book I go into a lot of detail. If you look here you see the 22nd Bomb Group and the 92nd Bomb Group. You see those dates; anybody read the history of the Korean War, what happened later on after about that date? MacArthur said "I won the war and send him home," so what happened right after that? All the Communist Chinese came across the river and it was just another ball game. But so they sent those units home but we kept, we kept that group, there and there. It was hard to say "I won the war, I won the war" so it was a different type of war when it comes out, very interesting when you study about the Korean War.