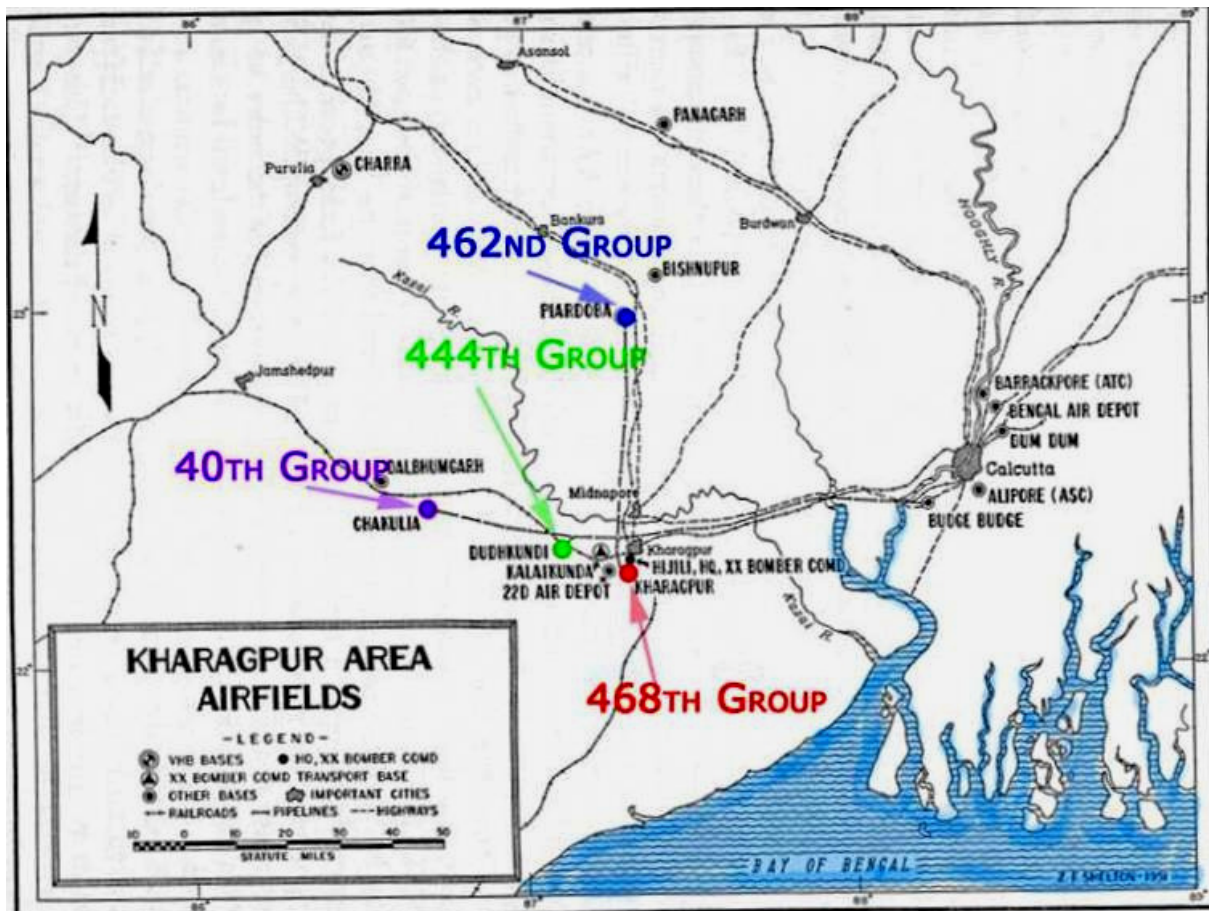




## KHARAGPUR FLIGHT LINE & OPERATIONS By Dr. Yates C. Smith

Camp Salua, or B-1 as it was sometimes called, was about 5 to 7 miles south of Kharagpur. Kharagpur was about 75 miles west of Calcutta. Between Kharagpur and B-1 was Bomber Command Headquarters where the 58<sup>th</sup> "Test Wing" was located. It was rumored that the British government had Gandhi in house arrest there. It had also been a Technical College or school at one time. The vegetation of that area was a low scrub oak brush intermittent with savannah type topography.

There were four B-29 bases in India. The 40<sup>th</sup> Bomb Group was at Chakulia; the 468<sup>th</sup> Bomb Group at Kharagpur; the 462<sup>nd</sup> Bomb Group at Piardoba; and the 444<sup>th</sup> Bomb Group at Dudkhundi.



Slide courtesy of James L. Pattillo

It was decided by the 468<sup>th</sup> Bomb Group that the official marking for our group would be a star and streamer on each side of the nose of the airplane. The name of the airplane would be painted in the streamer. The color of the star and streamer indicated the

The Story of The “Billy Mitchell Group”  
468 H-Bomb Group – From the C.B.I. to the Marianas



squadron. The colors selected were white for 792<sup>nd</sup>, red for 793<sup>rd</sup>, blue for 794<sup>th</sup>, and yellow for 795<sup>th</sup>. There were also two large diagonal stripes on the vertical stabilizer of the same color as used on the nose of the airplane. Our crew decided on the “The Challenger” as the name of our airplane (42-6284). Someone, probably in Bomber Command, decided we should paint a bomb and camel on the nose of the airplane to designate a bombing mission or a “Hump” trip. They were painted on the Pilot’s side of the airplane started at the edge of the bombardier’s window.



Photos by Dr. Yates C. Smith

Our airfield consisted of one runway with a connecting taxiway. The main runway was 10,000 feet long. Off the connecting taxiway was herring-bone parking lanes where B-29's could park. To get the B-29's back on the taxiway, they were usually pushed with a military half track or a Cletrac.

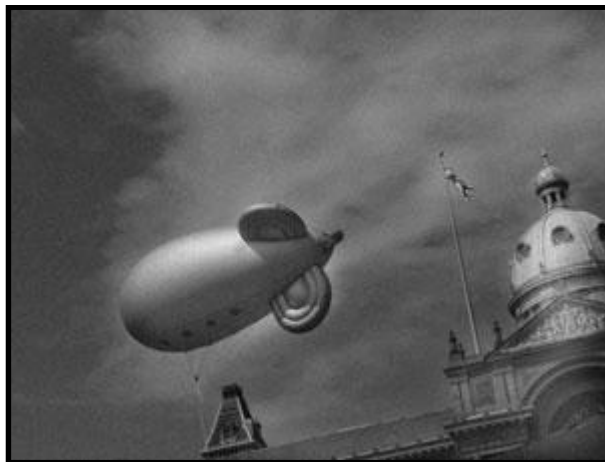




At the time of our arrival, the herring bone taxi lanes were still under construction by 382nd Engineer Construction Battalion, a black engineering battalion transferred from the Ledo Road. They had 21-1 ½ yard cement mixers in a row. The concrete was all batch made, and delivered in 6 X 6 Army trucks. These American black soldiers were quite large compared to the Indian men. The Indian men did not like the black soldier as the Indian women seem to prefer the American blacks.

There was one instance, when I went to the flight line late one afternoon. There were Indian soldiers used for guard duty on the B-29 parking area. An Indian soldier had one of the U.S. black soldiers sitting on the ramp by our B-29. He had caught him after hours without a pass, and was holding him with a rifle. The black soldier asked me if I could make the Indian soldier let him go. As all I had on was a flight suit, I got Maj. George's A-2 leather jacket out of the plane, and put it on. With the Major insignia, I was able to set the black soldier free. The Indian soldier would have had him sit there all night otherwise.

Salua was protected by a platoon of British soldiers commanding a battery of anti-aircraft guns which in turn were manned by Indian soldiers. If I remember correctly, the tour of duty for the British soldiers was 7 years. They also had some anti-aircraft balloons held by cables. They would let the balloons up and down by winches. There were also a few U.S. P-40 fighters based there for our protection. As those balloons would normally be raised and lowered daily, it was natural one of them would get away. The U. S. fighter pilots would enjoy seeing that happen as it gave them an opportunity to scramble, and shoot them down.



British anti-aircraft balloon

There was one hanger at base engineering. It had a steel frame with a canvas cover, and many small buildings for the engineering staff. There was also a large building about half way down the runway. It contained Group Operations, the tower, and a large assembly room for crew briefings before a mission. There was a fire station there, and an on duty ambulance.



The city of Kharagpur was about 75 miles west of Calcutta. There was a road connecting these two cities; however, from some of the people who traveled it, “You only did that once”. The trip took probably all day to drive the 75 or so miles.

Kharagpur was a railroad town, the railroad being the main operation there. The railroad station was the hub of the city operation. Of course, there was a British segment of the population who were stationed there to operate the city government, and the railroad facilities. You just have to understand at that time, the British controlled everything. The section of Kharagpur where the British lived, there was a cricket field, polo field, and the other amenities of those who lived there. Due to the excess amount of labor available, each British household had a large number of servants, gardeners, guards, and keepers.

The air base was about 10 miles south of Kharagpur. About three miles before we got to the base, was Bomber Command Headquarters. Bomber Command Headquarters was a walled compound. It had been a Technical School, and was reported to be the location where Gandhi was held in house arrest. There was one main two story building with three or four smaller one story buildings within the wall compound.



**Bomber Command HQ, Kharagpur, India  
From the collection of Dr. Yates C. Smith**

My parachute was a 24 foot chest pack. All I wore was the harness. In case of bail out, I would pick up the parachute and snap it on the two large rings on the front of the harness. The snaps were the back side of the parachute. I felt much safer with this type of parachute. If anything should go wrong, I had the chute right in front of me where I could work on it. The 24 foot chute was a small diameter chute, and means you would come down a lot faster. On the side of the harness at the hips joints, were two additional



rings. The seat pack snapped on these two rings. The seat pack included a one man life raft with all of its equipment. We were also issued flack hats and flack vests.

Soon after our February 1<sup>st</sup> 1945 (Thursday) flight to Singapore when we had our terrible accident and Wilfinger was killed, Major George was made Squadron Operations Officer. Harry Olsen was made our Command Pilot, and promoted to Captain. Our Co-Pilot was a replacement pilot from Eureka, CA named Russell “Russ” Markstrom. He was well liked by everyone on the crew from the very beginning.

The normal maximum gross take-off weight recommended by Boeing was 120 to 125,000 lbs. We were taking off in the range of 135,000 to 138,000 lbs. We would normally figure 135 MPH take off speed for 135,000 lb. gross weight. Our normal landing speed was 110 to 112 MPH at a low gross weight. With the extra weight, and the extremely hot days in India, it was just a horrible situation. The day time temperatures in India could reach 115 to 120 degrees F during the middle of the day. As we had no hangers, it was impossible to work on the planes during the middle of the day. Work on the flight line usually stopped by 1000 and did not begin again until about 1500.

The following is information sent to me by Major James Pattillo from the 468th Bomb Group.

“On most of our long missions, the front bomb bay was filled with 2-620 gallon fuel tanks. It was then only necessary to pull pins on bombs in the rear bomb bay. Usually all I carried with me was my parachute harness. I would take the tunnel to the rear gunner’s compartment, and enter the rear bomb bay through a hatch just below the tunnel. There was just enough room to go behind the bomb racks (two on each side of the plane), and pull the pins. Normally we would be at low enough altitude, and would not need oxygen. Every front bomb bay I remember looking into (after leaving Salina) was either absolutely empty or carried 3 bomb bay tanks each netting us 620 gallons. Those in forward bomb bay were 'permanently' installed, and required actuation of separate control at Bombardier's station.

People often ask how we got 3 bomb bay tanks into a front bomb bay. The simple answer is “We left it to the Ground Crew”. They mounted each one on its side with its upper edge (fore and aft) near the Tunnel and its bottom edge swung out toward the nearest wingtip; this left enough room in ships with 2 gun upper forward turrets (what I call '2 gun' ships) to carry 5,400 gallons in wing tanks (and had empty space in center wing section of bomb bay big enough for 'a Mack truck'...and where my crew carried extra toilet paper stolen from Smoky Hill's BOQs night before we left for 'Overseas'.

The '2 gun' ships carried 1,800 more gallons in three forward bomb bay tanks (pre-mission total on board 7,200 gallons). I took such a bird (42-6271) out of Salina in April 1944 (and in June jumped out of due to the first I think absolutely uncontrollable runaway prop in 468<sup>th</sup>...468<sup>th</sup> crews had many balky or momentarily over speeding props, but so



far as I know, anytime crew had runaway they never got under control This meant the 468<sup>th</sup> was about to lose the airplane...and much or all of crew. (NO hero !!)

The 3rd airplane I was regularly assigned to fly (468<sup>th</sup> received it in July 1944) came with 4 gun upper Forward Turret (I called it '4 gun ship'), 3 bomb bay tanks mounted in forward bomb bay, and Center Wing Tank that netted us additional 600 gallons. (The center wing tank sat right 'smack' in middle of airframe, between the 2 bomb bays. It was the best place aerodynamically to add such a heavy load. The airplane would have worked much harder to carry that load if it had been placed anywhere else on airframe.)

The “4 gun” bird regularly loaded with 6,000 gallons in wing tanks (because it had center wing tank) plus 1,800 gallons in 3 tanks in forward bomb bay. The rear bomb bay carried much more weight as airplane could lift off the ground...which was not always as much as B 17s and B 24s carried (on the shorter flights). Military aviation commonly loads its planes at 10% or more above the aerial vehicle's design gross weight.”

This is the end of Major Pattillo's remarks.

On most of our missions, there was a point of no return. It was usually calculated by the navigator and the flight engineer. When we reached that point, it meant that any further travel would put you into a position that you could not reach your home base if something went drastically wrong with the plane, such as a loss of an engine. The pilot and the engineer made a very serious decision as the condition of the plane. If there was any doubt, then it was necessary to decide if we would go to the alternate or secondary target.

On a night when we were directed to load bombs, I had been told the number of bombs, sizes, and types of fuses to be used, whether the fuses would be instantaneous or a .1 second delay. The instantaneous fuses would go off as soon as the bomb struck anything. The .1 second delay would penetrate a building or soil before exploding. I have seen 500 lb. General Purpose bombs delivered by truck from the ammo dump to the airplane. When the trucks would arrive, they would drop the tailgate. The truck would start in reverse, and the driver would apply the brakes quickly. The bombs would roll out the back and fall on the ground. There was no chance for an explosion, as the bombs had not been fused. The bombs would be rolled under the bomb bay, and with a cable hoist, mounted into the airplane. Then the bombs would be raised, and placed on the bomb shackles.

After all of the bombs were in place, it was my duty to start taking out the front and rear plugs. On most missions the bombs would be fused with both a nose, and tail fuse. The fuses were delivered to the airplane in wooden boxes. Each fuse was packed in a metal can in the partitioned wooden box. The fuses were screwed in the bomb very carefully. A safety wire was attached to the bomb shackle, and through the propeller of each fuse. There was another safety tag attached to the fuse for me to remove after takeoff. When the bomb was released, and fell from the plane, the safety wire that was attached to the



bomb shackle stayed with the airplane. The bomb fell free of the safety wire. The fuses had a 2 or 3 inch propeller. The safety wire prevented the propeller from turning until it was clear of the airplane. When the bomb was free of the airplane, the fuse propeller would begin to turn. After about 50 revolutions, the bomb fuse propeller would fall off, and the bomb was armed.

After takeoff, it was my duty to enter the bomb bay, and remove the safety tags. If it was a 20 bomb mission, fused nose and tail, then there were 40 tags to remove. I saved a tag from every mission and dated it with target destination, types of bombs, bomb load, air speed, and altitude. After the bombs were loaded and fused, we were through with our job until takeoff. It was usually late at night before all of the bombs were loaded. A lot of our work had to be done late in the afternoon, because of the excessive heat during the day.

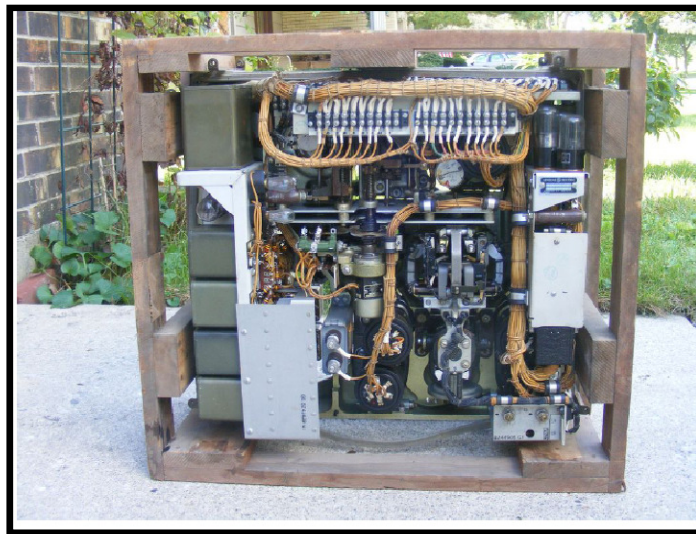
While the bombs were being loaded, the gunners and ground armament personnel would be loading all the gun turrets with 50 caliber ammo. The first production B-29's had 2 50 caliber machine guns in each turret. There was a top front and aft turrets, and a lower front and aft turrets. The tail turret had 2 fifty caliber machine guns and a 20 MM cannon. After a few missions, the 20 MM cannon was removed for weight considerations. Due to the number of frontal attacks, they started making B-29's with the top forward turret with four 50 caliber machine guns.



42-24487 “Bengal Lancer”  
One of the first planes received in the 468<sup>th</sup> Bomb Group with 4 top forward turret guns  
National Archives photo



The gun turrets were all remotely controlled. The bombardier had primary control over the top and lower front turrets. The senior gunner had primary control over the top aft turret, and secondary control over the top forward turret. The tail gunner had primary control over the tail turret, and secondary control over the lower aft turret. In formation flying, the side gunners on the outside of the formation had primary control over the lower aft. The side gunner on the inside of the formation did not have control of a turret. The control over these turrets could be released from one gunner to another by flipping a release switch. There was a cam in each turret that would automatically raise and lower the guns. This kept the guns from firing into the propellers. There was also a limit switch that prevented the top turrets from firing into the vertical stabilizer.



Central Fire Control computer

There was also a limit switch on the lower turrets to prevent them from firing into the radar dome, bomb bay doors, and propellers. There were gun sights for each gunner and the bombardier. You had to dial in the wing span of the fighter. There was a lighted circle in the gun sight. You put the center dot on the enemy plane, and adjusted the lighted circle until it had his wing span, and then pushed the trigger. The computer calculated the distance the distance the plane was from the B-29, his speed in comparison to yours, the lead and drop of the 50 caliber bullet we were firing. If everything went correctly, you could nail him. The gunnery computer was under the floor in the gunner’s compartment. A computer of today that would do the same job, would probably weight less than 20 lbs.

The radar system was the latest for the times. The radar room was located behind the gunner’s compartment. The radar operator had a table located on the left hand side of the plane. His scope was connected to a radar dish on the lower side of the plane between the front and rear bomb bays. Wilfinger had the capability of making bomb run and dropping bombs from his position. He would normally do this if there was a cloud under cast was such, and it was inadvisable for me to make a bomb run from the front of





the airplane. Charles Brooks, Kingsville, MD reported at the 1990 Omaha Reunion that B-29's were painted black on the bottom to reflect radar. Some thought it was to reflect ground search lights.

There were missions where we carried a counter-radar measure officer. He had his equipment in the radar room. His main purpose was to scan enemy radar frequencies, then jam them. Some of these counter-radar men were Navaho Indians. They could talk to each other Navaho's in other B-29's. It was impossible for the Japanese to translate the Navaho language.

There were two bunks on the right hand side of the radar room, and a toilet. The toilet had heavy paper bags that were placed inside. These bags were reinforced with a tar like material to make them water proof. It was the duty of who every used it, to clean it.

On most of our missions we flew at pretty low altitude after takeoff, usually below 10,000 feet unless there was a mountain range. We tried to stay at the lower altitude as long as possible, in order to have a lower gross weight when we started to climb to bombing altitude. Most all of our missions were above 20,000 feet with the exception of the mine laying operation at Singapore, and Cam Ran Bay. If I remember correctly, that was under 3,000 feet at night. On most of the return flights from a bombing mission, Harry Olson and Winston Fisher would try to get the B-29 “on the step.” It was a maneuver where the plane was in just a very slight nose down altitude; however, it was not losing altitude. You can get extra speed at a normally lower power setting. The long range power setting was usually 21 inches of mercury, 2100 RPM, and automatic lean on the fuel mixture. On the return, everything possible was done to conserve fuel. Fisher (Flight Engineer) would transfer fuel from the bomb bay tanks to the wing tanks as soon as space was available in the wing tanks.

There were cases where the fuel transfer pumps went out. There would be plenty of fuel in the bomb bay tanks, and center wing section, but it could not be transferred to the wing tanks. Engines could only be fed from fuel in the wing tanks. One of Fisher's main jobs was to keep up with the gas consumption of fuel required, a change in the power setting, and the trim tabs to get maximum performance of the aircraft.

The gas consumption on takeoff was tremendous. Normally we would be pulling 45 to 47 inches of mercury, 2500 to 2550 prop RPM's fuel mixture on automatic rich, and the turbo supercharger on position 8. That meant the waist gate on the exhaust manifold was 80% closed. You only pulled that kind of power setting for about 60 to 90 seconds, to get off the ground and get the gear up. Takeoff power setting would be using 3,000 gallons of gasoline per hour for 4 engines. This would be using 12.5 gallons of gas per engine per minute, or .69 gals/cylinder/minute. With the high atmospheric temperatures in India, it was all those engines could do to get us off the ground.

The maximum power setting was 51 inches, 2800 RPM and superchargers set on position 10. If that power setting was used over 4 minutes, all four engines would have to be



inspected very closely upon return to the Base. Power setting for climbing was 37 to 39 inches of mercury, 2300 RPM for the props, and carburetors set at full rich. At level flight, with that power setting, we could indicate 270 airspeed. The long range cruise power setting (190 MPH) was 31 inches of mercury, 2100 prop RMS, and carburetors set at Automatic lean.

If the bombing mission was a daytime operation, we would usually be in a formation of 3 aircrafts. We would have a definite time to be at the IP (Initial Point) to assemble our formation. If it was a night mission, it would not be in a 3-plane formation. It did mean you had to hit your IP right on schedule so as not to be in the way of another plane. Each plane had a time at IP, altitude, and airspeed from there to the aiming point of the target.

Most of our missions were extremely long, and lasted over 12 hours. We had on board an electrically heated food box. The box was about 2 feet high, 6 inches deep and 18 inches long. It had a door on the front with individual trays on the inside. The mess hall would prepare us some kind of sandwiches, hard-boiled eggs, and coffee. Mess Sgt. Reilly would make turkey, ham, chicken, or roast beef sandwiches. He would have to go to Kalkundi to get the meat packed in 5 lb. boxes. As soon as we came off of the target, were in a safe zone, one of the crew members would plug in the food box. In about 30 minutes, we each had a short snack to tide us over.

We did carry a case of "K" rations under the floor boards in the gunner's compartment. These "K" rations were there in case of an emergency, such as cash landing, provided that the plane did not burn. "K" rations were manufactured by the company that made Cracker Jacks. An entire meal was packaged in a box the same size as a box of Cracker Jacks. There were three types of meals, breakfast, lunch, and dinner.

**Breakfast:** Instant coffee, a can of diced ham and scrambled eggs, a candy bar, 4 cigarettes, a packet of sugar, a package of hardtack, and matches. The hardtack was a high energy bar.

**Lunch:** a can of cheese, a packet of crackers, a packet of lemonade powder, a packet of sugar, 4 cigarettes, and candy wafers.

**Dinner:** Can of hash, 4 cigarettes, a packet of sugar, a packet of instant coffee, and a packet of crackers.

A lot of men began smoking from these rations. As I look back now, it was a promotional idea by the cigarette manufacturers that got a lot of men to start smoking who probably would have not done so otherwise.

Upon our return from a mission, everything had to be stored away, such as parachutes, oxygen masks, binoculars, and other equipment. A small truck would meet us at the plane for a trip to the Operations office. At the office, we were met by two men. One was



usually the Chaplain, and the other was Dr. John Rounsaville, the flight surgeon. They would pour us a drink. If someone took fruit juice, the Chaplain would say, “That’s my man.” If he wanted a mug of Scotch Whiskey, then John would say, “That’s my man.” I have returned from those flights, and was so tense, that I would drink ½ mug of straight Scotch or Bourbon, and not even know what I had done.

If the mission ended back in China, we would be permitted to sleep over night before flying back to India. The only danger was an attack on our airfield from the Japanese fighters. On one such occasion, I had been awake the night before I left India, supervising the bomb loading. When the loading was completed, we flew to China. Was briefed, and immediately took off for our mission. By the time we got back to A-7 from the mission, I had been awake for the best parts of 2 days. My eyes burned from being awake so long, and it was difficult to close them. I asked Dr. Rounsaville, if he had anything that would put me to sleep. He gave me a red capsule (he had punctured at each end), told me to go to my tent, and go to bed. I was looking at an old Life magazine. He told me the second time, “you had better get in the sack.” I told him that I would. John said, “you had better go now, or you won’t make it!” The last thing I remembered was pulling back the tent flap. I do not remember getting in the sack or anything. I was told the next day that a hot poker game had taken place in the tent while I was asleep. I didn’t hear a thing, as I was dead away.

On July 4<sup>th</sup> 1944 (Tuesday) - Gen. K. B. Wolfe, Commanding General of the 58th “Test Wing” returned to Washington, DC. General “Blondie” Saunders took command until his accident. The accident occurred when Gen. Saunders was returning from one of the other B-29 bases to B-1 (Camp Salua) in a B-25 at night.

Aug. 29<sup>th</sup> 1944 (Tuesday) - Major Gen. Curtis E. LeMay took command of the 58th Test Wing.