B-29 is city's big contribution to the war effort

This article from the Wichita Eagle details the features of the Boeing B-29 Superfortress. The B-29, the most powerful U.S. bomber during World War II, put Wichita on the map and provided the city with the tremendous influx of money and people that were required to build the airplane.

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B-29 Is City's Big Contribution to War Effort

By BURTIS T. DOZE

Wichita's greatest contribution to the war effort, other than men, is the famous Boeing B-29, flying battleship, now reported in combat action.

Purpose of the B-29 is to deliver huge bomb loads to enemy territory by flying great distances at extremely high altitudes. This plane is the largest bomber in the world being a third larger than the B-17 Flying Fortress, with a wing span of 141.3 feet, overall height of more than 27.9 feet, and a length of 99 feet.

Most of the plane is constructed of aluminum being covered with sheets of the unpainted metal and by extensive use of aluminum spars and superstructure. Outside appearance of the plane's smooth look is enhanced by the butt jointing o the aluminum sheets or skin an the use of counter-sunk rivet making them flush with the surface.

Three factors make the plane readily identified. The nose of the plane is long and protrudes far out ahead of the wing. Another distinctive feature is the long slender tapering wings and the last is the great high tail which was designed, it was said to lend stability and ease of control to the craft.

One of the outstanding features in the design of the bomber is the development of the plane's wing known as the "Boeing 117 wing." This wing has an extremely high loading rate. To overcome handicaps created by the heavy wing loading a large flap was constructed into the wing to aid in landings, take-offs and to increase the service ceiling. The flap totals approximately 20 per cent of the entire wing surface and runs almost the entire length of the trailing edge. It is attached to the wing by four specially constructed heavy hinges.

Emphasis was placed on stability and pilot's control of the plane. In some case slight loss of speed was made to give greater control and stability to the plane. All controls on the plane are manually operated direct without any hydraulic or electrical type of booster. Despite the great surfaces that have to be moved by the pilot the operation is free and easy.

Bomb bay of the Superfortress is a huge affair. Special releases have been perfected which make the release of the explosives fool-proof.

Due to the extreme high altitudes special turbo-superchargers had to be made to feed air to the engines. Each motor is equipped with a supercharger and the nacelles have been so constructed and streamlined to give the greatest performance possible without cutting down on the performance of the plane or motors even at extreme altitudes.

Tricycle landing gears are regular equipment on the craft. All of the gear is made with twin wheels because of the great weight they have to carry under terrific strain. Front gear folds back up into the long nose while the two wing or rear gear rolls into the lower part of the motor streamlining, or nacelles. The main wheels are four feet eight inches in diameter and the front wheels are three feet in diameter. When the landing gears are retracted they are entirely hidden by huge doors which fit right in with the plane's streamlining.

Powered with four Wright Cyclone engines they are rated at 2,200 horsepower for takeoff and are nearly twice as powerful as the B-17. They are equipped with four-bladed Hamilton Standard propellers 16 feet, six inches long. To obtain the maximum power and yet keep the tips of the propellers below the speed of sound specially built reduction gears of planetary design were hooked on to the motor crank shaft.

First and co-pilot on the plane are relieved to a great extent of much of the technical operation and instrument calculating.

An added feature is the sensitive automatic pilot.

Key operational crew members are situated in the plane so they can communicate directly with one

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another without the use of telephone or an intercommunication system. The bombardier sits in the glassed in nose of the plane. His vision is unhampered from in front below or above. Sitting in the bombardier's position gives one the feeling he is almost riding out in the open air. One gets a thrill as he can look down between his legs and see nothing but air while in flight.

Behind the bombardier sit the pilot and the co-pilot. When the bombardier is coming on target or in the act of sighting the front guns all he has to do is to lean back and give a command to the pilots or tap them on the knee. Near the pilots is the engineer's compartment. He rides with his back to the front of the plane with his controls and instruments in front of him.

Tires are no small item. They are constructed of 10 ply fabric and built to stand the hardest punishment. Most abuse the tires take is on landings. When the wheels first touch the ground huge clouds of black smoke roll up from the intense heat and friction. The wheels go from a dead stop to a terrific speed almost instantaneously. Average life of a tire under these conditions no matter how good is only between 50 and 75 landings and take offs, it was said.

Stepping into the superbomber for your first ride one is immediately awed by its great size. A muffled roar commences and you realize the plane is beginning to taxi down the runway to get into position for a take off. As the speed of the taxi run increases you get the feeling you are riding on a modern streamline train.

A squeal starts underneath the plane and the crew chief remarks the pilot is applying the brakes to head around onto the main runway. Coming to a dead stop the motors roar louder through the well insulated cabin. The plane feels like it is shuddering all over and trying to break loose. Your seat goes up and down slowly and then you realize the pilot is "reving" up the motors. All is quiet for a minute as the motors return to idling speed. There is a pause and then a great muffled roar linked with a feeling of released power as the pilot gives full throttle to start the take off.

Tensing in your seat and moving your parachute to a more comfortable position you then realize you are on your way. Peeking out a blister the ground is moving by at a rapid clip. Soon the ground becomes a blur and starts to back away. Then you realize you are air borne in a B-29. Air currents and pockets cause the plane to rock and bounce slightly. You feel slightly heavy in your seat and wonder what is the matter. Someone says, "feel us climb" and then you know.

Going on upstairs you suddenly become interested in peeking out of a blister trying to locate familiar landmarks. Looking back is the green of the airport cut up by the white strips you know are the long wide cement runways. Higher up the plane gets the more toylike everything becomes until the earth begins to look like a model map in complete detail. You realize you are going fast because the wind whistles over the blisters and the ground still moves by although you are several thousand feet above the earth.

When the plane starts a banking U turn you realize the speed as there is a tug and a pull on your whole body and you catch your breath in shorter gasps. Crawling up in to the top blister you can see the universe. There in front of you is the great wing which seems to stretch out for a block on each side. The propellers are all turning and you can almost see the blades as they appear to be lazily biting the air. Every little bit the wing tips move and you wonder is the wing breaking and then you feel the plane bounce. You are relieved as it is nothing more than the plane hitting rough air.

Moving to another blister you become interested again in the country below. A yellow cub plane whizzes by several thousand feet below in more or less of a blurr. It's not the cub—it is you—that is traveling you realize. Looking out into space you wonder how you would feel if the other planes you see above and below and to one side were the enemy coming in to try for a kill. Then you think, suppose you had to use this bothersome parachute. Looking down at the ground you decide that the only time you would want the 'chute was when you found yourself up in the air without any kind of a plane or flying craft under you.

About that time the plane makes another bank perhaps a little steeper than the other and you see the airport in the distance. The motors seem to have lost their power and your seat gets lighter. In a short time the ground doesn't look so far away and you can begin to see the trees loom up and the smaller objects are more distinct. Ahead the ground is coming up to meet you in a hurry. The motors are still whispering softly. Then you glance out and the ground goes tearing by. You're almost down. There is an anxious moment and then a slight solid bump and you know you are on the runway. The plane seems to be moving faster than ever. You coast and coast and then there again is the squall of the brakes. The plane slows rapidly and you are pushed against your safety belt. The brake noise stops and the motors roar again and you taxi toward the parking apron.

The plane stops and you follow the others out leaving your parachute with a ground crew member. Up front the pilot steps out. You start forward to thank your pilot, Capt. Wilbur R. Britton, but see he is busy discussing the plane's performance with a member of the ground crew so you do it mentally.

Taking one last look at the Superfortress, you probably took your first and last ride in, you wonder where it will be sent to knock out the Axis. Certain is your feeling though after seeing it perform that it will get the job done it was cut out to do.

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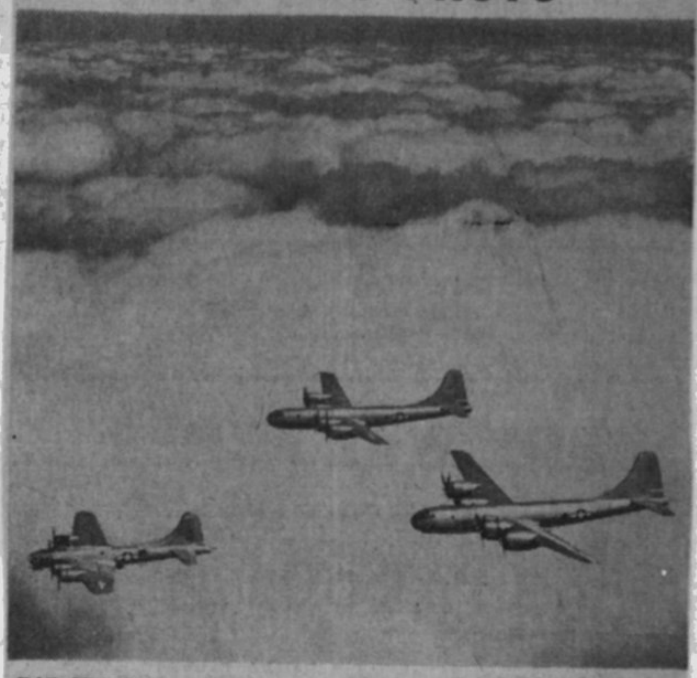
FIRST B-29 PHOTO



BAD NEWS for any member of the Axis is this famed sky trio, a pair of Boeing B-29 Superfortresses, flying with the Boeing B-17G Flying Fortress. This view illustrates the comparative size of the Flying Fort's Big Brother, and the new design features. While the Forts have been hammering away in all World war theaters, the superfortress has been developed, tested by Boeing engineers and manufactured in one of the greatest manufacturing cooperative pools this country ever established. The superfortress is equipped to carry the heaviest load of bombs, faster and farther than any other heavy bomber now flying. Armament of the B-29 has been deleted because of security regulations.