HEADQUARTERS
U. S. STRATEGIC BOMBING SURVEY
(Pacific)
APO 234 c/o PM San Francisco

INTERROGATION NO. 377

PLACE: Tokyo
DATE: 17 November 19

Division of Origin: Military Analysis

Subject: TACHIKAWA AIR DEPOT

Personnel Interrogated and Background of Each:

Col TANABE, Shushiro; graduated Military Academy 1914; subsequently attained rating as Observer; Infantry assignments until March 1943; Air Headquarters, Branch Officer at Tachikawa Air Depot, March to September 1943; CO, Tachikawa Air Depot, September 1943 to end of war.

Interrogator: Captain Logan, Captain Haskins

Interpreter: Lt Comdr Nichols, USNR

Allied Officers Present: Lt Palfrey, Lt (jg) Newell, USNR

SUMMARY

A discussion was held concerning the processing of new planes; the modifications performed on aircraft to convert them for use as Soecial Attack planes; repair and maintenance problems.

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Q. Did the Tachikawa Depot ever manufacture any planes?

A. Before the war a few were made by the Depot, but none were made during the war.

Q. What types of new aircraft did you process?

A. Ki 43 (Oscar), Ki 9 (Spruce) ('til October 1944) and Ki 54 (Hickory).

Q. How many of these planes did you handle, by month from December 1941 to August 1945?

A. I cannot answer in such detail. During 1944 and 1945 we averaged about 80 Ki 43 (Oscar) a month, our peak month being about 120. The trainer types did not come through in such volume: the maximum number of Ki 9 (Spruce) we handled in one month was 20, while the greatest number of Ki 54 (Hickory) was 30.

Q. Will you trace the various tests to which a plane was subjected before delivery, beginning with the engine tests?

A. My knowledge of this procedure prior to a plane's arrival at the Depot is only general. Originally, an engine was run in on blocks for 7 to 8 hours; this included tearing it down and running after reassembly. Towards the end of the war this run-in time was reduced to 2 hours. Moreover, on seasoned types, the tearing down of the engine was omitted. At the factory the plane was test flown for 10 hours by factory pilots under the supervision of the Army representatives. This was the standard prevailing early in the war, but by the spring of 1945, this time had been cut to 2 hours. This was, of course, the average figure. If a plane proved unsatisfactory early in this test, it would have to be repaired by the factory and retested, so that in some cases as much as 4 or 5 hours might be put on a plane before it was accepted by the Army. Also, in certain cases, even the 2-hour test was not adhered to. A plane might be taken up by the factory pilot and landed at the Air Depot airfield, a flight of ½ hour or less in some cases, and that would constitute the complete factory test. As for the Depot test, originally, a 3-hour test flight was scheduled, but this was not always carried out, particularly as the fuel supply became scarce in the spring of 1945. Often, it worked out, for example, that the ferry flight to Kyushu, a matter of 3 hours, was considered as the Depot test.

Q. How long did it take to process and equip a plane at the Depot?

A. It required about half a day to install armament, cameras, radio equipment, etc.

Q. Were you ever hampered by shortages of such equipment.

A. No; there always was enough on hand.

Q. If a plane was found by the Depot to have serious defects, mechanical or structural, did you ever return it to the factory?

A. No. Once a plane had been accepted by the Army, it was never returned to the factory and it was up to the Depot to make any repairs. Should an engine require complete replacement, for example, we would install another one at the Depot.

Q. Who ferriedthe planes away from the Depot?

A. Within Japan, the units as a rule sent their own pilots to pick up the planes at the Depot. Sometimes, one of the Depot pilots (of which we had 12 at the end of the war) would help out. The Air Transport Department was responsible for ferrying planes outside Japan.

Q. Did units outside Japan ever send pilots back to Japan to pick up planes?

A. Only in rare instances; during the Philippine campaign, when there was terrific pressure for new planes, one unit did send its own pilots back to Japan to pick them up.

Q. Do you know what ferrying losses were sustained?

A. Only in a general way. I do know that as the quality of the Ki 43 (Oscar declined, and as proper testing was abandoned, losses increased. Frequently, these planes would get as far as Kyushu and develop engine trouble. After February 1945, I would estimate that 30% of the Ki 43 which started out encountered trouble en route.

Q. Were any of these planes repaired and if so, how many?

A. Yes, some could be repaired, but I do not know what proportion. The principal difficulty was mechanical failure and this would have shown up had the plane been subjected to adequate tests before starting out.

Q. What were the principal weaknesses of the Ki 43?

A. Oil leakage in the fuselage, oil leakage in the flexible coupling between the engine and the fuselage and general weakness in the landing gear.

Q. Did you keep any reserve or pool of planes on hand?

A. Up until 1945, I was always able to keep a few spare planes in stock so that when a plane was lost in ferrying, for instance, I was able to send along a replacement. After January of this year, however, I was very hard pressed and would often not have sufficient planes in stock to fulfill demands. I would know from Air Headquarters how many Ki 43's were to be produced in a given month and I would go over to the factory and try to expedite delivery of my planes. Of course, by that time, production difficulties were being experienced owing to the effects of Allied bombing and the shortage of parts at the factory.

Q. This type of reserve you speak of is the Depot's individual provision for replacement of local non-operational losses. Do I understand that there was really no overall plan in Air Headquarters for a strategic reserve of planes in Japan to back up the combat units in the field?

A. That is correct; in that sense there was no reserve, for Japanese production was never sufficient. New units were being formed at a very rapid rate and aircraft production was never able to keep pace with this expansion.

Q. When did you start modifying planes for Special Attack purposes ?

A. In October 1944.

Q. What types did you modify and what modifications did you perform?

A.

Ki 9 (Spruce)	Installed 200-litre fuel tank in rear cockpit Installed rack for 1 100 KG bomb under each wing
Ki 36 (Ida)	Installed extra fuel tank Installed bomb rack for 1 250 KG bomb
Ki 54 (Hickory)	Plans were just getting under way for converting this type.
Ki 43 (Oscar)	Installed rack for 1 250 KG bomb

Q. How many of each type did you modify, by months?

A. I cannot give these figures by months. In all we modified about 600 Ki 9, 200 to 250 Ki 36 and about 30 Ki 43. Our peak was reached in May 1945 when we turned out about 200 Ki 9. In the fall of 1944 the factory had already started turning out Ki 43 equipped with bomb racks.

Q. How long did these modifications take?

A. The Ki 9 took 5 men one day and the Ki 36 4-5 men one day. Of course, this presupposed that all the necessary parts were right at hand.

Q. Were you ever troubled by a shortage of these modification parts?

A. No, because it was all planned.

Q. Did these modifications interfere with your other activities?

A. This type of work became a more important part of the Depot's activities and from March on it was the principal thing that we did.

Q. Did you modify any planes for use of alcohol as fuel?

A. We were just beginning to. It was planned that the Ki 9 and Ki 86 were to use 100% alcohol, while the Ki 43 was to use a mixture of 80% alcohol and 20% gasoline. The Ki 9 needed no modification except that it was hard to start. Therefore, it was started on gasoline and then switched over to alcohol once it warmed up. In the Ki 43, two devices were used to heat the carburetor: either the exhaust was piped around the carburetor or else a hot air duct, warmed by the exhaust manifold, was installed.

Q. Aside from these modifications to Special Attack planes, was there ever a general policy of incorporating into older models improvements in design or equipment that had been discovered and were being incorporated in current models?

A. No, there was no such general policy. However, if a certain model was found to have a weak part, such as a crankshaft of low quality, an improved part would be designed and incorporated in subsequent models. At the same time orders would be issued to the factories to turn out an additional supply of such parts for planes of the model already in service and these parts would be issued to all units concerned. However, actual installation of the improved part would generally not be made until the old one failed in service.

Q. What types of planes did you repair?

A. All types. Each Depot was responsible for the major repairs on all plane types in its area. Our territory embraced the whole Kanto plain, and we took care of all units in the area, permenant or transient.

Q. Were you hampered by shortages of spare parts for repair?

A. Yes, after June-July 1944. The condition really became acute in April and May 1945. The original conception was that for every plane produced there should be a replacement factor of 20% in spare parts. These spare parts were spread out from the Depots, through the pipe line of delivery down to the units overseas. However, as the war progressed, the demand for new planes was so great that this 20% factor was not lived up to. There was a given amount of productive capacity and an increasing amount of it was taken up by new planes at the expense of spare parts.

Q. Were you hampered by a shortage of mechanics?

A. Not at this Depot. There was a vast training program both at the Depots and at the factories, and whenever a shortage arose, more men were brought in. We were perhaps more fortunate than other Depots since the heavy industrialization of the Kanto plain area afforded a greater supply of men with at least some mechanical training. We had a three to four week training course here. Some of the Field Air Depots used soldiers trained by the Army who were not very effective, and we had to supply some trained civilian personnel to the field.

Q. To what extent do you think the shortage of adequate maintenance personnel affected the serviceability rate of planes in the field?

A. My feeling would be that the shortage of spare parts, caused both by insufficient production and by shipping losses en route, was a far greater factor.