HEADQUARTERS
U.S. STRATEGIC BOMBING SURVEY
(PACIFIC)
APO 234
C/O POSTMASTER, SAN FRANCISCO

INTERROGATION NO: 300

Place: Nagoya
Date : 2 Nov 45

Division of Origin: Military Analysis, Team #3

Subject: KAGAMIGAHARA Air Depot

Personnel interrogated and background of each:

Major General YUI, Sadao, graduated Military Academy 1913; Infantry assignments 1913-25; taught air navigation SHIMONOSHIZU 1925-30; Inspector of aircraft factories, 34-35; Executive Officer, MUKDEN KOKUSHO (Air Depot), 36-37; Executive Officer, KAGAMIGAHARA Air Depot, 38-39; Commanding Officer, NANYUAM Air Depot, China, 39-41; Inspector of factories in TACHIKAWA area Aug 41 to Jan 43; Jan 43 to date, Commanding Officer, KAGAMIGAHARA Air Depot. Promoted to Major General June 45.

Where interviewed: ASAHI Building; Hq, KAGAMIGAHARA Air Depot.

Interrogator: Capt Haskins

Interpreter: Lt Sneider

Allied Officers Present: Capt West, Lt Palfrey

SUMMARY:

A discussion was held concerning the functions of the KAGAMIGAHARA Air Depot, including the processing and equipping of new planes received from the factories, the heavy repairs and modifications performed and the ferrying of planes to tactical units.

RESTRICTED

I N T E R R O G A T I O N

Q. How does the size of KAGAMIGAHARA compare with the other depots in Japan?

A. It is about the same size as TACHIKAWA, the only other depot with which I am personally familiar, except that no research activities are carried on at KAGAMIGAHARA.

Q. What tests are applied by the Army before accepting planes from the factories?

A. Theoretically an engine would be run in for 10 hours, then torn down and inspected for defective parts, reassembled and tested again for 1 hour. These are optimum test periods, but as the war progressed, shortage of fuel caused these time schedules to be substantially reduced. I do not know exactly what schedules for engine testing obtained at the end of the war.

Q. What tests were applied to the assembled planes?

A. Originally a plane was given a 2 - hour flight test, but by January 1943, shortage of fuel had reduced this time to 1 hour. Moreover, if the plane seemed satisfactory after a ½ hour test, it was landed and accepted. These times apply more to the newer type planes. At the end of the war, while a ½ hour test was supposed to be the minimum still seasoned planes (i.e. types which had been in production for some time) were merely flown once or twice around the field. If found satisfactory, they were accepted forthwith.

Q. What further tests were administered to planes at the depots?

A. None; if the inspectorate approved the plane at the factory, it was accepted by the Army and considered available for delivery by the depot to the transport pilot.

Q. Was armament put on at the KAGAMIGAHARA Depot?

A. Yes; the average time a new planewas at the depot before being delivered to a ferry pilot was about 1 week.

Q. What types of planes were handled by the depot, tactical or trainer types or both?

A. New planes processed were tactical types only; no new trainers were received since manufacturers of trainers were not located in this area. Types handled while I was at the depot were:

Ki 43 (Oscar
Ki 44 (Tojo)
Ki 61 (Tony in-line)
Ki 84 (Frank)
Ki 27 (Nate)
Ki 45 (Nick
Ki (Tony, radial)

Ki 21 (Sally)
Ki 49 (Helen)
Ki 67 (Peggy)

Ki 46 (Dinah)
Ki 51 (Sonia)
Ki 102(Randy)

Ki 46 (Dinah)
Ki 48 (Lily)
Ki 36 (Ida)
Ki 57 (Toosy)

Ki 55 (trainer)
Ki 79 (trainer)
Ki 92 (trainer)
Ki 9 (Spruce)
Ki 86 (Cypress)
Ki 54 (Hickory)

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Division of Origin: Military Analysis Division

Subject: The Kagamigahara Air Depot

SUPPLEMENT

The following is a supplementary interrogation of Maj Gen YUI (Interrogation No. USSBS 300), Military Analysis Div:

Q. You have stated that there was no planned reserve or pool of planes. Did planes ever pile up at the Depot?

A. There were periodic accumulations of aircraft at the Depot, but that was not the result of planning but rather of a number of accidental factors such as weather and delays in ferrying caused by reorganization and the like.

Q. Was there any dispersal of your maintenance facilities?

A. Yes. Dispersal was first carried out on a large scale at this depot in April 1945 as a protection against Allied attacks.

Q. How did that affect the period required for repair?

A. At first, the length of repair was increased by as much as 50%, but this additional time was gradually reduced as the system got under way to 25% by the end of the war.

Q. What modification of aircraft did you perform?

A. We performed small-scale modifications as directed by Air Headquarters and, in individual cases, by combat units in the field. After November 1944, the principal modifications performed were installation of bomb racks for two 100-KG bombs for special attack planes. Other modifications included installing extra fuel tanks for bombers and small-scale armament modifications.

(NOTE: In addition, the documents supplied at the interview disclose that wireless, radar, oxygen equipment, parachutes and photographic equipment were also installed at the Depot.)

Q. What percentage of planes repaired at the Depot were trainers - by years?

A.

1941	5%	1943	15%	1945	20%
1942	15%	1944	20%		

Q. What was the principal maintenance failure of the planes you handled; what were its causes and what was done about it?

A. The most frequent failures for all types of aircraft involved the landing gear. The equipment was structurally weak and in addition, inferior pilots punished the planes unnecessarily in landing; also the landing fields were bad. Efforts were made at the factories to strengthen the landing gear, but that was no protection against poor pilots and bad airfields. Moreover, in some cases, strengthening

Q. Which planes had the most frequent maintenance failures and what were they?

A. Ki 61 (in-line Tony) caused the most trouble. There was very bad vibration. Ki 45 (Nick) had trouble with the hydraulic system in the fuselage. Ki 84 (Frank) had, I am told, a bad landing gear, but we rarely processed this type.

Q. How large a reserve or pool of new planes did you have at KAGAMIGAHARA?

A. None. I considered this very unfortunate and always felt that we should have had a reserve always on hand to be drawn upon by the tactical units.

Q. How was allocation handled?

A. It was all done by KOKU HOMBU (Air Headquarters, Tokyo). As soon as new planes were deliverad to us, it was reported to KOKU HOMBU and they allocated these planes to tactical units immediately in comformance with their monthly schedules.

Q. How were planes ferried to tactical units.

A. Prior to 1940 each depot had its own complement of ferry pilots who ferried the planes to the tactical units, but since that date KOKU YUSOBU (Transport Command) was responsible for ferrying.

Q. Did pilots from tactical units ever pick up their own planes at the depot?

A. In some cases, notably when the Transport Command was short of pilots. This was also true in the case of new plane types difficult to fly; tactical pilots also came to the depots to instruct ferry pilots in operating these new types. In such cases tactical pilots would not come in to KAGAMIGAHARA itself, owing to the congestion there, but would pick up planes at branch depots, KAMEYAMA and KOMAKI.

Q. Then KAGAMIGAHARA Depot had no pilots of their own?

A. We did have a small number of pilots (at the end of the war there were 20) of below average calibre, many of whom had washed out of training school. These were used for short ferry hops in Japan, and, in rare cases, to Korea.

Q. What losses occured in ferrying?

A. On an average, I would say that losses amounted to 10% on short hops and 30% on long, overseas flights.

Q. What were the principal causes of these losses?

A. On long hops, about one half due to engine failure and one half due to navigational ineptitude. On the short hops, losses were principally from engine failure. These percentages applied to both new and repaired aircraft, but engine failure was particularly common in new type planes which had not been adequately tested.

Q. Where did the planes which were repaired at the depot come from?

A. On the average I should say 80% from Japan, 15% from Korea and 5% from Formosa. The planes from Korea and Formosa were only those which could not be repaired locally in the branch depots.

Q. What was the average time required for repair?

A. The average time was about 1 month, although for extensive repairs 2 to 3 months were required.

A. Were you troubled by shortages of parts?

A. Yes, certainly during all the time I was at KAGAMIGAHARA, KOKU HOMBU placed such emphasis on the production of new planes that the factories were unable to turn out replacement parts in adequate volume.

Q. Was there any interchange of parts among the depots?

A. Yes.

Q. Was shortage of adequate maintenance personnel a limiting factor?

A. Yes indeed. Mechanics would be sent to this depot green and after I had trained them they would then be assigned to distant units. We had to use these men while they were being trained. There was a gradual deterioration in the quality of our mechanics throughout the war. Had we had a sufficient supply of spare parts and adequate, trained maintenance personnel, we could have cut down our average time required for repairs by one half.

Q. How many planes were in the depot when you assumed command in January 1943.

A. About 300, of which 200 were new and 100 were being repaired.

Q. How many were there at the end of the war?

A. About 60 new planes and 40 being repaired. There was a steady decline in the total number of planes on hand throughout the period.

Q. What proportion of these planes were trainers?

A. About 10%.

Q. To whom do you report in KOKU HOMBU?

A. To the Chief of Staff, General KAWABE. The OSAKA and TACHIARAI depots are under the 6 Air Army, but I am directly under KOKU HOMBU.

Q. What section of KOKU HOMBU deals specifically with depots?

A. HOKYUBU (Supply Section), of which Colonel MATSUZAWA is the head.

Note: General YUI was asked to prepare 2 charts:

(a) Showing new planes processed and planes repaired by month from December 1941 to August 1945.

(b) Showing planes repaired by types and the commonest failures of each.

Transcript of Supplementary Interrogation (Maj Gen YUI).

A. the landing gear merely put additional strain on the fuselage which broke down instead.

Q: List the principal failures of each of the aircraft types you handled at this depot.

A. KI 43 (Oscar) landing gear
KI 44 (Tojo) landing gear
KI 61 (Tony) landing gear, oil system in the fuselage, bad engine vibration, poor coupling.
KI 84 (Frank) landing gear
KI 27 (Nate) weak tail landing
KI 45 (Nick) oil system in the fuselage
KI 49 (Helen) oil system in the fuselage
KI 67 (Peggy) weak wing fabric, weak tail landing
KI 46 (Dinah) Mark 3 - fuel injection pump blocked up due to carburetor change
KI 48 (Lily) oil system in the fuselage, propeller pitch control

The following Exhibits were submitted at the interview:

Exhibit 1 - Tabulation of Planes Processed and Repaired.
Exhibit 2 - Statement on Maintenance.
Exhibit 3 - Mechanical Failures.

EXHIBIT 1

	Planes Processed	Planes Repaired
1941		
Dec	270	60
1942		
Jan	230	60
Feb	230	70
Mar)	)	)
Apr)	)	)
May)	200	) 60
June)	)	)
July)	to	) to
Aug)	)	)
Sep)	300	) 70
Oct)	)	)
Nov)	)	)
Dec)	)	)
1943		
Jan	260	) 60
Feb	290	)
Mar	300	) to
Apr	300	)
May	280	) 70
Jun	250	70
Jul	270	70
Aug	300	80
Sep	280	70
Oct	310	75
Nov	380	70
Dec	320	80
1944		
Jan	360	100
Feb	380	120
Mar	360	130
Apr	450	140
May	300	160
Jun	280	150
Jul	350	180
Aug	250	200
Sep	260	170
Oct	290	150
Nov	320	130
Dec	280	160
1945		
Jan	300	150
Feb	250	120
Mar	270	100
Apr	200	110
May	170	130
Jun	120	120
Jul	100	100
Aug	? 70	?

(See following page for explanatory notes)

NOTES:

1. This table is based on estimates

2. Figures for repaired planes cover numbers handled at KAGAMIGAHARA Air Depot and all branches. Relative percentages of repairs performed at main and branch depots is as follows:

KAGAMIGAHARA	43%
Hamamatsu	17%
Komaki	10%
Kameyama	8%
Matsumoto	15%
Ina	7%

EXHIBIT 2

1. Aircraft Repairs

This depot made three types of repairs on aircraft and airframes - major; intermediate, and minor repairs. Major repairs involved overall airframe repairs and took a long time. Every part of the aircraft was disassembled, spotchecked, and overhauled. Generally, these repairs took about 1-2 months. A small plane required 3,000-5,000 man hours, and a large plane 4,000-6,000 man hours. Intermediate repairs were those made on defective parts of the plane. The time required for these repairs depended on the position of the defective part. Minor repairs, simpler than intermediate repairs, could be finished in 1-5 days. Good examples of minor repairs were wheel changes and the repair of the bomb racks. The above applies not only to airframe repairs, but also to propeller and engine repairs.

2. Supply and Maintenance

Planes were received in this depot after the last test flight was completed. We made the necessary modifications and after test flights and time flights sent them to the tactical units.

EXHIBIT 3

Mechanical Failures at the Kagamigahara Air Depot
(Listed in order of incidence)

A. Fuselage
failure of landing gear
leakage in oil pressure system
fuel system breakdown
inflammable hand pump
oil leakage in gaskets
oil leakage in lubricating oil
weakness in tail wheel supporting structure
oil leakage in fuel tanks
tire failure
electrical system breakdown
poor insulation

B. Engine
vibration
RPM too slow
breakage and failure of parts in general
poor insulation
decrease in power as the lubricating oil temperature increased.

C. Propeller
vibration
poor pitch control
damage to propeller tip