HEADQUARTERS
U. S. STRATEGIC BOMBING SURVEY
(PACIFIC)

INTERROGATION NO. 444

PLACE: Tokyo
DATE: 26 November 1945
TIME: 1000-1145

Division of Origin: Military Analysis

Subject: Japanese Naval Air Personnel and Training.

Personnel Interrogated and Background of Each: Capt MIENO, Takeshi

Graduated from Naval Academy 1924; pilot with 2,000 logged hours. Staff Officer of Carrier Division #5 and stationed on carrier Zuikaku from September 1941 until July 1942, during which period ship was in Pearl Harbor attack and in Solomons. In July 1942 he went aboard the carrier Hiyo as Air Officer. After the initial trials of the ship (which were unsuccessful and caused her to return to the Navy Yard), he was transferred to the Naval Air Station at Usa (Kyushu), a training base, where he was on duty from March 1943 to April 1944 in the rank of Commander. From April 1944 until September 1945 he was attached to Naval Air Hq, Tokyo, as Director of Training.

Where Interviewed: Naval Air Hq

Interrogator: Donald Meiklejohn, 1st Lt, MI

Interpreter: Walter Nichols, Lt Comdr, USNR

Allied Officer Present: Charles A. Haskins, Capt, MI

SUMMARY

The flying experience of the JNAF pilots at Pearl Harbor averaged about 800 hours, with a minimum of 300 and a maximum of 2,500. That level was maintained by the first-line JNAF pilots until the Battle of Midway; the level fell off only gradually through 1942, but declined considerably in 1943 as field training was curtailed. In the Okinawa campaign, the average flying experience of pilots was between 200 and 300 hours, but that training had been under instructors of less ability than earlier. Physical standards for flying candidates were lowered slightly during the war,* and the washout rate in flying schools was reduced from nearly 40% to about 5%.

B-29 attacks against Japan interfered with training mainly by destroying installations at training bases, and also by suspending training during the alert period. The curtailing of training on Formosa was caused by both Allied air attacks and by expectation of an Allied landing there.

Training was expedited after the Saipan campaign and continued until February 1945, when all training units were converted to tactical units; a revised program was reinstituted on 1 May for pilots only, directed mainly at preparation for Kamikaze operations.

*TABLES ATTACHED.

The JNAF had no arrangement for rotation and rehabilitation of pilots.

Maintenance personnel quality fell off badly toward the end of the war as a result of a radical shortening of the training course at the beginning of 1944.

Q. You were a Staff Officer on the Zuikaku at Pearl Harbor?
A. Yes.

Q. What was the flying experience of the pilots employed there?
A. The best trained had 2500 hours; the average was about 800 hours; the minimum training was 300 hours. A Chutaicho (Air Unit Commander) had between 1000 and 1500 hours.

Q. When did the quality of the JAAF pilots begin to decline?
A. At the time of MIDWAY, in June 1942.

Q. Did the decline reflect a decrease in the amount of training?
A. The training in the schools was maintained as before, but training in units was shortened.

Q. What disposition was made of the pilots who survived the MIDWAY disaster?
A. They were assigned to other carriers; as they were the best pilots, they were distributed among various carriers. Some were sent back to Japan as instructors.

Q. Why did not the Zuikaku take part in the Battle of MIDWAY?
A. The Zuikaku arrived back from the CORAL SEA only 10 days before the MIDWAY force sortied and required rehabilitation of personnel before she could sortie again.

Q. What happened to the quality of your pilots after MIDWAY?
A. During 1942, in the SOLOMONS Campaign, the quality of our pilots was maintained. In 1943 the average experience of carrier pilots went down to about 600 hours, and thereafter 500 hours was accepted as the minimum requirement for carrier pilots. (Capt MIENO stated that in his opinion the experience of the land-based pilots was higher than that of carrier pilots and was as high - on the average - as 1500 hours for pilots of twin-engine bombers in December 1941.) By the time of the OKINAWA campaign the average experience of pilots was between 200 and 300 hours, and some operated with as little as 100 hours. By that time the quality of instructors had fallen off and the fuel shortage was impeding training.

Q. Why did instructor quality fall off?
A. The best instructors had to be sent to tactical units and were lost in battle. Their places were taken by pilots who had just graduated from flying school. In addition, the student load per instructor approximately doubled by 1945.

Q. Was there any shortage in aircraft available for training?
A. Not at the beginning of the war, but in 1945 we had to set aside many combat type trainers for tactical employment.

Q. What was the assignment of the 100-hour pilots in the OKINAWA campaign?
A. Kamikaze flights.

Q. When in 1944 did pilot quality really drop off sharply?
A. There was no sharp drop but only a gradual levelling off: our best pilots were lost in increasing numbers in battle and the men who took their places were progressively less well trained.

Q. Was there no drop in school flying time during the war?
A. Yes, the officer's course was shortened from one year to 10 months and the enlisted personnel course from ten months to eight months. Thus an overall loss of 10% in flying time was suffered.

Q. Were the physical standards for flying personnel lowered during the war?
A. That is explained on these charts (SEE ATTACHED).

Q. Did age requirements drop?
A. Yes, there was a drop of two years in the age requirement for pilot candidates during the war. Some candidates of 14 years (Japanese count) were admitted, spent two years in school and one or more years in combat training before going into combat.

Q. Was the washout rate for candidates lowered during the war?
A. Yes, it fell from 40% at the beginning of the war to about 5% at the end.

Q. What was the effect of Allied air attacks on JNAF training?
A. The B-29's destroyed some equipment but occasioned no great interference with training itself.

Q. What type of equipment was destroyed?
A. Installations at the flying schools. When the B-29s attacked in daylight, there would be an alert and training would be suspended. The loss of equipment and facilities at the training bases did cause some reduction in training.

Q. What was the effect of air attacks on training in FORMOSA?
A. We had four training air groups (KOKUTAI) on Formosa until the end of 1944; they were given up because of the increased severity of your air attacks and also because we expected you to make landings on FORMOSA.

Q. What was the effect of the 10 October carrier attack against FORMOSA?
A. The commander of JNAF training on FORMOSA reported that he could not carry on any training after that attack, but Tokyo informed him that the training situation was hard everywhere and accordingly he continued the training until the end of 1944.

Q. What was the effect of attacks by different types of Allied planes?
A. Both types of Army planes interfered, but the greatest cause of suspending training was the expectation of Allied landings. Your long-range fighters kept our training planes out of the air except for the regular times when you did not come. Until your heavy raids began there was not much restriction of training - after that the restriction was great. There was no training in Kyushu of any kind in 1945 except for suicide training: all the units there were converted to tactical units.

Q. What was the output of trained pilots in 1945?
A. I don't know; our records have been burned. After SAIPAN we didn't know where you would strike next, and so we speeded up training. After the PHILIPPINES Campaign we knew that Japan would be invaded, and so, in February 1945, we stopped training and converted the training units to tactical units. The training started again in May. One class graduated in February - possibly 1,500 pilots. The size of the class was kept down by lack of fuel.

Q. Did you graduate pilots after May on the same scale?
A. When the trainees were put back into training they had to repeat a part of their course; probably between 1,000 and 2,000 were graduated in and after May.

Q. Were any observers retrained as pilots in or after May?
A. No. Before the war many candidates completed training for both observers and pilots, but that practice became impossible when the training was reduced. Besides, in 1945 we had all the pilot candidates we needed and anyway the observers did not have the essential qualifications for pilots.

Q. Had the JNAF any arrangement for rotating and rehabilitating pilots?
A. No. Only the badly beaten up units were sent home.

Q. What changes occurred in the quality of maintenance personnel during the war?
A. At the end of the war the quality of maintenance personnel was very bad; at the beginning we had no shortage of trained personnel. When the JNAF was expanded, training for ground crews was shortened from one year to four months for crews of every type.

Q. When was the training shortened?
A. Before I came to Naval Air Headquarters - around the beginning of 1944.

Q. Why was it that the JNAF expanded its training program so rapidly at the expense of the quality of its pilots?
A. The Navy's airmen opposed the lowering of quality, but it was ordered by the Naval General Staff because we had to meet the numerical increase in American air forces and also because our field of operations had been extended.

Q. Was your loss of skilled pilots in 1944 and 1943 greater than you had expected?
A. Yes.

Q. What is your estimate of the pilot output of 1944?
A. In all, both observers and pilots, about 1,000 were graduated in 1944. (Note: Official charts indicate that this figure is low.)

Q. What month was the highest in terms of training output?
A. July or August 1944, when 4,000 were turned out.

Q. What was your strength in flying personnel at the end of the war?
A. About 8,100 pilots and 9,000 observers. (Note: These figures also are slightly below official JNAF figures.)

Q. Is it true that all regular Naval academy graduates received flying training?
A. All were given a one month's course, mainly to determine who was fit for further flying.

Q. Were they all trained to solo?
A. No, but each flew about ten times with dual controls.

Q. When was the practice introduced?
A. About 1920. It was discontinued last year, temporarily, because of the great expansion in the academy.

End of Interrogation

APPENDIX TO INTERROGATION 444

PHYSICAL REQUIREMENTS FOR JNAF FLYING PERSONNEL
PEACE TIME STANDARD

Class A Standard (Officers and Reserve Officers)

	Above 18 yrs of age	Under 18 yrs of age	Under 17 yrs of age
Height (cm)	155.0	154.0	152.0
Weight (kg)	48.0	46.0	43.0
Chest (cm)	77.0	76.0	75.0
Chest Expansion (cm)	5.5	5.5	5.0
Lung Capacity (cubic cm)	3.0	2.9	2.8
Grasping Power left and right each (kg)	25.0	24.0	23.0
Mercury retention (sec)	40.0	35.0	35.0
Breath retention (sec)	50.0	50.0	50.0

Class B Standard (Enlisted Men - Junior Pilots)

	Above 18	Under 18	Under 17	Under 16	Under 15
Height (cm)	157.0	156.0	154.0	151.0	147.0
Weight (kg)	49.0	47.0	45.0	41.0	38.0
Chest (cm)	79.0	78.0	77.0	74.0	71.0
Chest Expansion (cm)	6.0	5.5	5.5	5.5	5.0
Lung Capacity (cubic cm)	3.0	3.0	2.8	2.6	2.5
Grasping Power, left and right each (kg)	28.0	26.0	24.0	22.0	20.0
Mercury retention (sec)	45.0	40.0	40.0	35.0	30.0
Breath retention (sec)	50.0	50.0	50.0	45.0	40.0

NOTE:

1. Class A Normalization is applied for those above non-commissioned officers, and also for the Navy reserves (air branch); and Class B Normalization for non-commissioned officers.

2. Those who reach the standard in mercury retention, but pulse rate either increases more than 12 every 5 minutes or becomes very irregular will be disqualified.

3. The breath retention test is only applied when the mercury retention test is difficult to apply.

4. When selecting Class C YOKARENSHUSEI (flying cadet), the height standard may be lowered to 2 cm from Class B normalization.

APPENDIX TO INTERROGATION 444 (Cont'd)

	CONDITION FOR DISQUALIFICATION
Blood Pressure	Those who show marked disorder.
Eyesight	Those who do not reach eyesight 1.02 of each eye. However, at regular and special temporary examinations, with exception of pilots for fighters and bombers to be in special flying duties, those who reach above 0.8 of each eyesight and 1.02 of corrected eyesight may be eligible.
Balance of Eye Muscles	Those who show latent squint of more than 3.0 degree or vertical squint of more than 1.0 degree.
Hearing	Those who have disorder. However, those who reach $\frac{600}{600}$ in whisper and $\frac{100}{200}$ in clock at regular and special examinations may be eligible.
Ear Tube	Those who have contraction.
Tumbling Test	Those who react more than 15 seconds to tumbling and show strong sensitive counteraction.
Pulse	Those who show marked disorder in number and in nature of pulse.
Refraction	Those who show marked disorder and those who have hypermetropia exceeding "DIOPTRIE".
Light Perception	Those who do not reach 0.5
Adjustment	Those who show 15 cm minimum focus (for above non-commissioned officers, and 12 cm for others), or those who have fatigue in optic nerve.
Field of Vision	Those who show marked disorder.
Depth Vision	Those who go over 40 mm total of 10 times.
Tuning Fork Test	Those who show marked disorder.
Hopping Test	Those who show marked meandering or leaning of more than 2 meters.
Tumbling Angle	Those who do not reach 28 degrees or those who show marked difference between left and right.
Induced Eyeball Concussion	Those who do not reach 15 seconds of duration or exceed 45 seconds.

NOTES:

1. Each item after pulse is to be applied to the adaptability test only.

2. For selection of Class C Flying-Cadets in each precinct, tests will be conducted on blood pressure, eyesight, hearing, and ear tube of this normalization chart; the rest of the items will be tested in the specially designated RENSHU KOKU TAI (training air group).

APPENDIX TO INTERROGATION 444 (Cont'd)

WAR TIME STANDARD

	Above 17	Under 17	Under 16	Under 15	Under 14
Height (cm)	154.0	152.0	149.0	145.0	141.0
Weight (kg)	46.0	43.0	40.0	37.0	34.0
Chest (cm)	76.0	75.0	72.0	69.0	67.0
Chest Expansion (cm)	5.5	5.0	5.0	4.5	4.0
Lung Capacity (cubic cm)	2.9	2.8	2.6	2.5	2.3
Grasping Power, left and right each (kg)	22.0	22.0	22.0	20.0	18.0

NOTE:

Sight of each eye: 1.0

However, those who do not reach 1.0 of one eye, but above 0.8 and both eyes sight reach 1.2 may be eligible.

Mercury Retention — Those who do not reach the following standards, and those who reach the following standards so far as mercury retention, but whose pulse rate increase more than 12 in every 5 minutes or show marked disorder.

Year	Above 17	Under 17	Under 16	Under 15	Under 14
Time (seconds)	35.0	30.0	30.0	30.0	25.0

Blood Pressure — Those who show marked disorder.

Balance of Eye Muscles — Those who show latent squint of more than 4.0 degrees or vertical squint of more than 1.0 degree.

Hearing — Those who have disorder. However, those who reach $\frac{600}{600}$ in whisper but do not reach $\frac{100}{200}$ in clock.

Ear Tube — Those who have contraction.

Tumbling Test — Those who react more than 15 seconds to tumbling and show strong sensitive counteraction.

Field of Vision — Those who show narrowness and defect.

Tuning Fork Test — Those who show marked disorder.

Hopping Test — Those who show marked bend or leaning of more than 2 meters.

NOTE:

1. Each item after light perception will be applied only to those who are going to be pilots.
2. The examination for these tests will be carried out at the Naval station and at specially designated air groups (KOKUTAI).
3. For the secondary physical test examination to be conducted for the candidates of Class A and B flying cadets the standards up to the tumbling test will be applied.
4. Besides No. 1 and 3, blood pressure, field of sight, and tuning fork test will be conducted according to necessity.