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NO. 16

UNITED STATES PACIFIC FLEET
AND PACIFIC OCEAN AREAS

CINCPAC-CINCPOA
TRANSLATIONS
&
INTERROGATIONS

DECLASSIFIED

E.O. 11652, Sec. 3(E) and 5(D) or (E)

NND750112

By: FB/MT NARS, Date OCT 13 1977

20 JANUARY 1945

NOTICE OF SPECIAL TRANSLATIONS

The CINCPAC-CINCPAC SPECIAL TRANSLATIONS listed below have been published recently and sent to a wide list of activities believed to be interested. A few extra copies are available on request to the Officer-in-Charge, JICPCA.

CINCPAC-CINCPAC SPECIAL TRANSLATION #26, 8 January 1945.
NON-COMBATANT NAVAL SHORE UNITS.

Identification and strength of miscellaneous non-combatant elements of the Japanese Naval shore establishment, taken from a copy of the Japanese Administrative Orders Manual revised to 5 April 1944.

CINCPAC-CINCPAC SPECIAL TRANSLATION #37, 15 January 1945.
DATA ON AA DEFENSE UNITS.

Material dealing with the organization, complement, and most recent identification of AA Defense Units, taken from a copy of the Japanese Administrative Orders Manual revised to 5 April 1944 and Administrative Orders dated as late as 15 May 1944. Information on the location of the units has been taken from postal material published as an annex to the Japanese Naval Gazette.

CINCPAC-CINCPAC SPECIAL TRANSLATION #39, 25 January 1945.
AA DEFENSE OF SAIPAN.

Japanese plans for the AA defense of SAIPAN. Includes a gridded map for reporting the position of enemy planes and for coordinating searchlights and gun units. Special emphasis is placed on preparations for barrage firing.

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- Account of the use of cluster (butterfly) bombs on a RABAU Airfield. Description of the effect of the bomb and methods of disposal.
- Item #12,321.....pages 3 - 6
- Japanese 20mm Mk 1 Shells; undated.
- Color markings and characteristics of various types of 20mm Mk 1 shells. Supplementary to Item #12,114, listed below.
- Item #12,269.....pages 7 - 11
- Handling of the Explosive "KARITTO"; dated April 1944.
- A Japanese explosive used for general commercial purposes.
- Item #13,303 A.....pages 13 - 14
- Premature Burst in a 10th Year Type Heavy Grenade Discharger; dated 7 January 1940.
- Description of the effect of a premature burst in a 10th Year Type Heavy Grenade Discharger. Includes an account of the circumstances under which the accident occurred.
- Item #8,071.....pages 15 - 24
- Excerpts from a Notebook on Chemical Warfare; undated.
- Detailed description of the toxicity of hydrocyanic acid gas, and its use in Type 93 and Type 100 Small Flame Throwers.

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Item #12,114.....pages 25 - 87

Japanese Aerial Ordnance and Equipment (Naval Air Headquarters); dated February 1944.

Comprehensive summary of information on Japanese machine guns and ammunition, bombs and related equipment, and wide variety of paraphernalia more or less directly related to the conduct of air warfare. Includes first documentary reference to SENDEM, a plane probably a modification of JINRAI (LUKE).

Item #13,238.....pages 89 - 102

Combined Naval Air Groups (extracted from Administrative Orders Manual, Vols. I, II, III; and Administrative Orders for 1942, 1943 and 1944).

Information on the organization of Combined Naval Air Groups. Reflects changes in the training organization of the Japanese Naval Air Force.

Item #13,239.....pages 103 - 107

Specially Established Air Base Units (extracted from Administrative Orders Manual, Vols. I, II, III; and Administrative Orders for 1942, 1943 and 1944).

Two Administrative Orders containing fragmentary information on the organization and complement of Specially Established Air Base Units.

INTERROGATIONS

PRELIMINARY POW INTERROGATION REPORT #104.....pages 109 - 131 ✓

Report of a sergeant containing complete information on the Japanese military police. The report also contains order of battle information on Army units and officers in KARAFUTO, HOKKAIDO and the Central PACIFIC. The POW was stationed on TRUK as a counter-espionage investigator from 19 December 1942 until 3 June 1944.

Item #12,371

SUBJECT: U. S. Cluster Bombs on RABAU Airfield (INATCOMI TAI Intelligence Report), dated 6 June 1944..

SOURCE: Captured on SAIPAN.

EDITOR'S NOTE:

This document is an account of enemy reaction to our use of cluster (butterfly) bombs on a RABAU airfield.

It describes in detail the action of the bombs from the time of release in the air until their final explosion. The document also indicates damage done by the bombs and three crude disposal techniques.

The information gives a good index of the effectiveness of the bombs in limiting the use of airfields.

Very Secret (COKUHI)

Instructional Intel A #13

6 June 1944

Reproduced by ETO Unit (TN: BUTAI)
SONAE (TN: 31st Army) Staff Dept

Concerning Small-Type Special Bombs:

1. Gist:

Recently the US Air Corps for the first time made mixed use of small-type special bombs (TN: believed to be U.S. cluster or butterfly bomb) in an air raid on RABAU. The objective was to damage or limit the use of the airfield. With the increased possibility that these bombs will be greatly used in the future in all areas, caution is necessary.

2. Explanation:

(1) Circumstances of use:

On 14 May the enemy using 23 carrier bombers scattered about 1000 small-type special bombs over the entire area of the RABAU West Airfield. It took us three days to dispose of this new type bomb. During this time the use of the airfield was limited and hindered.

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One maintenance man who was about to pick up a bomb was instantly killed. In addition, several men were injured in various degrees during the three days.

(2) Characteristics of small special bombs:

a. Outline of structure and action:

The size of the bomb is generally that of our standard 60 kg bomb. A time-fuze is equipped in the nose and inside the bomb shell are 24 butterflies (TN: 子爆彈). The butterflies are cylindrical and cast in two welded pieces which are enclosed in a hinged metal container. They have a combined diameter and length of 7 cm (TN: sic.) weight of about 1.5 kg. The bomb shell is divided in two lengthwise by the fuse explosion, and releases the 24 butterflies which are inside. The butterflies are each in a special case. At the same time they are released the sides of the hinged cases open to form a parachute and the round ends revolve and release the first safety catch. Next, by the impact of the ground the 2nd safety catch is opened and the butterfly is armed. After that, an extremely weak vibration will prime the explosion.

Perhaps there are also those which automatically explode after several hours (time-explosion) without being moved.

b. Power and effect of the butterflies:

- (1) Persons are instantly killed by coming very close at the time of explosion.
- (2) The blast damages eardrums at 50 meters.
- (3) Fragments flying as far as 270 meters inflict external injuries.

(3) Methods of bomb disposal:

- a. Attach a hook to the end of a rope and hook it on the case in such a way that there is absolutely no vibration of the bomb. From a trench over 50 meters away give the rope a jerk and set off the bomb.
- b. Burn with kerosene those which are not set off by the method of the previous paragraph. (Explodes in about 8 minutes.)
- c. Dispose of those with the case off (so that the hook cannot be used) by rifle fire.

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(End)

Item #12,321

SUBJECT: Japanese 20 mm Mk 1 Shells; undated.

SOURCE: Captured on SAIPAN.

EDITOR'S NOTE:

This document gives the color markings and characteristics of various types of 20 mm Mk 1 shells. It contains information confirming and supplementing that previously published in CINCPAC-CINCPOA Item #11,939 J, Japanese Machine Gun and Machine Cannon Ammunition (CINCPAC-CINCPOA TRANSLATIONS #13, 3 January 1945), and information printed here on page 25 (CINCPAC-CINCPOA Item #12,114, Japanese Aerial Ordnance and Equipment).

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Chapter 3

Shell Types and Characteristics

The types, colors, and characteristics of the shells now in use are as follows:

TYPE	IMPORTED	IMPORTED (Used in H Fighters (TN: H SEN YO))	JAPAN- ESE- MADE	STANDARD TYPE	CHARACTER- ISTICS
Oerlikon 20 mm MG Mk I practice shell	Unpainted	Gray	Black	Black	
Oerlikon 20 mm MG Mk I HE Shell	Unpainted with a yellow band (7 mm in width)	Yellow	Yellow	Rust	Percussion
Oerlikon 20 mm MG Mk I tracer shell	Green	Green		Red	Tracer time 9 seconds (3200-3300 meters)
Oerlikon 20 mm MG Mk I HE tracer shell	Black (white line 7 mm in width)	Black	Dark blue	Red	Tracer time 4.5 seconds (1700 meters) In 8 seconds, at 3000 m, it explodes.
Oerlikon 20 mm MG Mk I incendiary HE shell	Red			Yellow	
Oerlikon 20 mm MG Mk I incendiary armor-piercing shell	Red			Yellow	

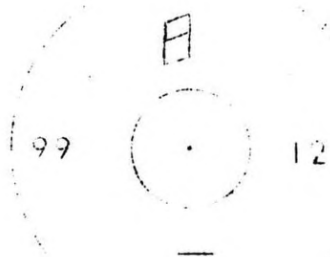
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Shell Types and Characteristics (Cont)

Oerlikon 20 mm MG Mk I, Shell	-	used in all Model 1 MG's
Oerlikon 20 mm MG Mk II, Shell	-	used in all Model 2 MG's
Oerlikon 20 mm MG Mk III, Shell	-	used in all Model 3 MG's

Markings on the head of the shell cases manufactured by Japanese armament factories.



99 - 12 = This shell case
was manufactured
in December of the
Imperial year 2599
(TN: 1939)

- = Mk I shell

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Characteristics of Mk I Shells are shown in the following table:

Characteristics	Practice Shell	Tracer Shell	Tracer HE Shell	HE Shell	Incendiary HE Shell
Total length of shell (mm)	144	140	140	143.9	140.38
Total length of projectile (mm)	62	78	78.5	82	82.5
Total length of shell case (mm)	71.5	71.9	71.7	71.7	71.9
Total weight (grams)	192	194	197.5	190.9	190.0
Weight of projectile (grams)	123.4	124	125.6	123.4	123.56
Weight of shell case (grams)	54.3		55	53.9	52.76
Fuze (grams) (TN: part illegible)			6.002		
Weight of steel jacket (TN: HIKO) (grams)					109.78
Weight of yellow phosphorus container (grams)					1.82
Weight of yellow phosphorus (grams)					2.70
Weight of detonite (TN: 千トニ"ト) *					0.73
Weight of TNT (grams)			(Black) 3.62	9.2	3.89
Weight of tracer powder (grams)		19	9.10		
Extraction pull (kg)					3.51

* (presumably nitrocellulose and aluminum)

(End)

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Item #12,269

SUBJECT: Handling of the Explosive "KARITTO"; dated April 1944.
SOURCE: Presumed to be SAIPAN.

EDITOR'S NOTE:

This document is a discussion of the qualities of "KARITTO", an enemy explosive used for general commercial purposes. No mention of military use is made.

The document is divided into 4 sections as follows:-

- I. Special characteristics of "KARITTO".
- II. Rules for use.
- III. Types and uses.
- IV. Appended chart - Measurements and weights by types.

Chemical analysis shows "KARITTO" is a loosely-packed grey powder compound of ammonium perchlorate, silicon carbide, wood pulp and crude oil.

Army Engineer School
April, 1944

Handling the Explosive KARITTO

(TN: According to 42nd Chem Lab, KARITTO is a loosely packed grey powder composed of ammonium perchlorate, silicon carbide, wood pulp and crude oil)

Contents

- I. Special Characteristics
- II. Rules for Use
- III. Types, Uses, Measurement and Weight of KARITTO

I. Special Characteristics

1. It will not decompose or explode spontaneously. It will not deteriorate even if stored for long periods in the southern tropics. (There is a case where it was left in a hole for 30 minutes at 120° Centigrade without change.)

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2. It is insensitive to impact and shock and is safe even though penetrated by a rifle bullet.
3. Chemical reaction does not occur on contact with metal.
4. Non-poisonous. However, the gases of explosion include irritant gases.
5. Its low velocity of explosion make it especially suitable for blasting dirt and rocks, etc.
6. If an excess of moisture is absorbed its power will be lost. (However, even though moisture is absorbed, when it dries out in the sunlight it can be used again.)
7. It is, in general, easy to handle. Besides having the special characteristics listed in 1-4, it can be exploded without a primer cap by means of a fuze. (TN: error for detonating cord?)

II. Rules for Use.

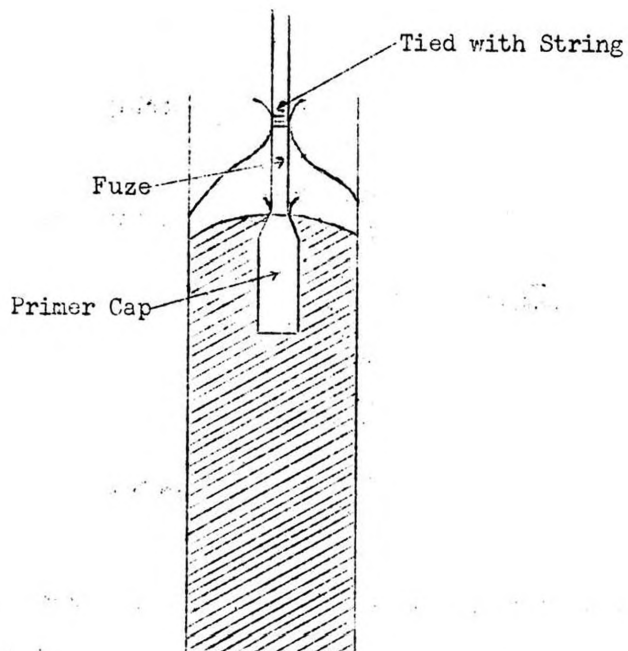
In general matters, follow explosives manuals. Items which should be given special consideration in using KARITTO are as follows:

1. Protection against moisture.
 - a. Special consideration must be given to the selection of a storage place where there is little moisture and a free circulation of air.
 - b. Before using a thorough inspection should be made, and when a considerable amount of moisture has been absorbed a test explosion must be made. KARITTO generally hardens somewhat with slight moisture absorption. When this happens, if it is loosened by rubbing from the top of the wrapping before use there will be no change in its power.
 - c. As a rule, it is used in the wrapper. When removed from the wrapper and used in powder form, it is necessary to protect it completely from moisture. (Refer to the paragraph on loading the powder charge.)
2. Attaching igniters to the powder bag.
 - a. Attaching a primer cap.

Open one end of the wrapping paper, insert a piece of wood into the center of the powder bag, opening a small hole; then insert the primer cap into the small hole and tie the loosened end of the wrapping around a fuze with string.

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Cautions:

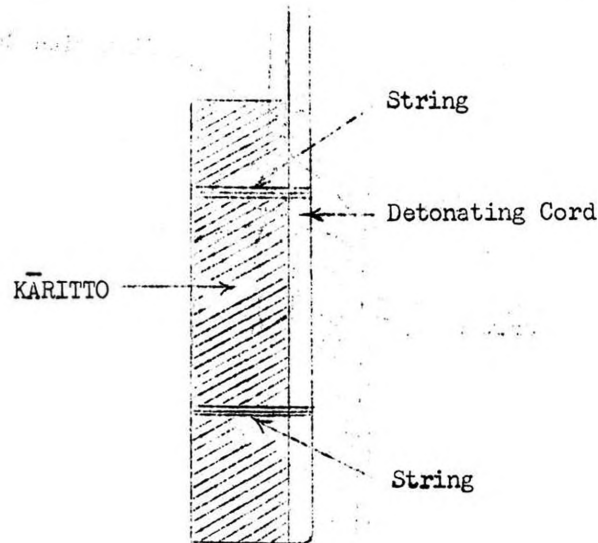
1. In making the small opening in the powder bag, do it gently.
2. Do not push the body of the primer cap deep into the powder bag. Make a fairly even surface, as in the diagram.

b. Attaching detonating cord.

KARITTO can be exploded with a detonating cord without a primer cap.

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The main points of the attachment are as follows:



3. Important points in loading for blasting earth and stones.

a. Clean the opening thoroughly, removing pieces of rock and any moisture. Pieces of rock and moisture in the opening cause incomplete explosions.

b. Make the diameter of the opening appropriate to the size of the powder bag. When it is too large the power of the explosion is decreased.

c. When two or more powder bags are being loaded one after the other, push them in gently and lightly with a stick so there is no space between bags.

d. Do not apply too much pressure when inserting the last powder bag which has the primer.

4. When used in powder form without the bag there are the following cautionary matters besides the preceding ones:-

a. Be particularly careful of moisture; it is essential to clean the hole sufficiently.

b. Push in the explosive powder piecemeal with a stick, using suitable pressure. In such a case, it is necessary to take care not to mistakenly use a metal rod, causing danger from sparks by friction with rocks.

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c. The igniter is inserted as stated above.

III. Types, Uses, Measurements and Weight of KARITTO

1. Types and Uses

Black mark (wrapped, company symbol (Z) in black).

Best used for general commercial purposes.

Purple mark (same as above, in purple). For general use in mining. Does not generate poison gases.

Brown mark (same as above, in brown). For general use in mining. Greatly reduces the production of hydrogen chloride.

Green mark #20 (same as above, in green with #20 (TN: = O₂) written on it). For use in coal mining. Mixed with compounds to prevent flame and heat when functioning.

Besides the foregoing there is a black L mark (general quarrying) and a coal mining KARITTO (for specific coal mining uses).

2. Measurement and Weight

The standard measurement and powder content of the finished article is shown in the accompanying chart.

STANDARD WEIGHTS AND MEASUREMENTS OF THE FINISHED ARTICLES

Types of Powder Bags		Powder Bag Measurements (mm.)		Amount of Powder in 1 Bag (gr.)	Number of Powder Bags per Box
		Diameter	Length		
Black Mark	20 mm.	20	115	37.50	600
	25 mm.	25	110	56.25	400
	30 mm.	30	203	150.00	150
	35 mm.	35	224	225.00	100
	Square	220 Cubic mm.		11,250.00	2
Black L Mark	20 mm.	20	125	31.25	720
	25 mm.	25	113	46.875	480
	30 mm.	30	104	125.00	180
	35 mm.	35	233	187.50	120
Purple and Brown Mark	20 mm.	20	204	37.50	600
	25 mm.	25	100	56.25	400
	30 mm.	30	184	150.00	150
	35 mm.	35	204	225.00	100
Green #20 Mark	25 mm.	25	94	50.00	450
	30 mm.	30	98	75.00	300
	35 mm.	35	108	112.50	200
Coal Mining	25 mm.	25	99	50.00	450
	30 mm.	30	102	75.00	300
	35 mm.	35	112	112.50	200

(End)

Item #13,303 A

SUBJECT: Premature Burst in a 10th Year Type Heavy Grenade Discharger,
dated 7 January 1940.

SOURCE: Unknown.

EDITOR'S NOTE:

This document describes the effect of a premature burst in a 10th Year Type heavy grenade discharger. It describes the situation at the time of the accident and gives the opinion of the officer in charge.

A photograph accompanying the document but not reproduced here shows damage caused by a similar explosion of a shell in a Type 89 heavy grenade discharger. Apparently a Type 91 grenade had been loaded with the fuse down. When the firing pin was actuated it drove directly into the fuse cap, thus starting the delay train in the grenade. Since the propelling charge was upward it was not ignited, and there was no means by which the grenade could be projected from the discharger. The entire tube of the grenade discharger was shattered into fragments approximately one inch square; the range control shaft was pulverized, and all the working parts of the weapon were blown off. Any of the fragments would have been lethal within the radius of the burst.

Battle Lessons - extracted from the professional notebook of FUJIMOTO Toshio, unit unknown, undated.

Premature Burst in the Barrel of a 10th Year Type Heavy Grenade Discharger

Time: 7 January 1940, 1050.

Place: A hill of 500 meters in the east part of CHIN SHAN SHI, WEN CH'ANG HSIEN, HAINAN TO.

Persons killed: P.O. 3rd class OYAMA Hiroshi (messenger). Killed instantly by wounds in the neck and chest.

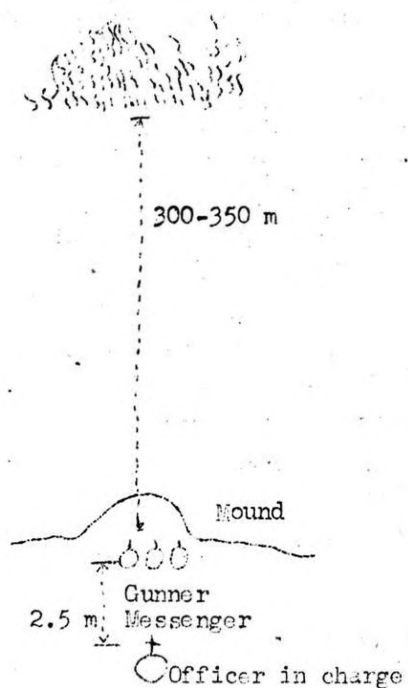
Persons wounded: Seaman 1st class TAJIRO Koji. (gunner) Left arm blown off and serious injuries on left temple.
Seaman 1st class MOZUKI Arata. Serious injuries on right leg and right palm.

Situation: 20 rounds had been fired at a range of 30 meters. The next round was loaded and although the trigger was pulled, it misfired. It was cocked directly and the trigger was again pulled. Instantly there was a thunderous sound and a premature burst.

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Battle Lessons (Cont)

Opinion: The officer in charge was about 2.5 meters in the rear. The gunner was an experienced man and had been firing frequently. Upon analysis of the damaged parts there was no trace of ignition of the propelling powder. Judging from the fact that the explosion was at the very bottom, it is conjectured that the shell was loaded upside down.



(End)

Item #8071

SUBJECT: Excerpts from a Notebook on Chemical Warfare, undated.

SOURCE: Captured on KWAJALEIN.

EDITOR'S NOTE:

This document is a detailed and concise description of the toxicity of hydrocyanic acid gas. It gives figures on the improved use of a flame thrower as an ejector of hydrocyanic acid and on the capacity and speed of spraying poison agents from vehicles.

For other material on Chemical Warfare see CINCPAC-CINCPMA TRANSLATIONS #3 (11 Nov 1944) p. 39; CINCPAC-CINCPMA SPECIAL TRANSLATION #24 (1 Jan 1945) Data on Chemical Warfare; and Allied Land Forces Headquarters SIFA, Technical Intelligence Summary #3, Hydrocyanic Acid.

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I., DATA ON THE EFFECTS OF MK-I BROWN AGENT

(TN: Blood and Nerve Poison Agent, presumably Hydrocyanic Acid; used in shells, bombs, hand grenades.)

Classi- fica- tion	Conditions Under Which Gas Is En- countered	Concentration (milligrams per square meter)	Time of Exposure (minutes)	Effects	Remarks
M E N	Without Gas Mask	under 200		No effect, even for long ex- posure	30 minutes to one hour required to return to combat.
		400 to 700	4 to 5	Renders in- capable of combat	
		700 to 1000	1 to 2	Renders in- capable of combat	
		1500	2	Death	
		2000	1	Death	
	Using Respirator	10,000	25	Death	
	Absorption through skin	30,000	10	Death	
H O R S E S	Without Gas Mask	under 100		No effect, even for long exposure	
		140	40	Difficulty in breathing	
		250	6	Death	
		Over 1000	Several breaths	Death	
	With Mask (absorp- tion through skin)	700 to 2000	Several minutes	Renders in- active or kills	

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Notes:

1. The effects of this gas are felt immediately. To get full effects, it is especially important that the gas act in heavy concentration for a short period of time. When the concentration is weak, the full effects cannot be expected, even though the gas acts for a long period of time.

2. The gas is not very irritating, and is colorless.

3. The liquid form of the gas is very volatile. It feels cold when it touches the skin.

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II. DATA ON VOMITING GAS CANDLES, AC FRANGIBLE GRENADE, AND FLAME THROWER USED AS CHEMICAL CYLINDER

NAME	WEIGHT (kg)	SIZE (cm)	TOXIC CHARGE	
			TYPE	WEIGHT(kg)
Experimental, Type 1 Vomiting Gas Candle	12.5	Height-27.0 Diam - 27.0	Mk I Vomiting Gas Agent (TN: AKAZAI)	4
Experimental, Type 99 Medium Vomiting Gas Candle	1.45	22.6 11.1	Same	0.45
Experimental, Type 100 Self-projecting Vomiting Gas Candle	1.02	20.0 5.4	Same	0.054
Type 97 Medium Vomiting Gas Candle	2	22.7 11.0	Same	0.5
Experimental, Type 98 Small Vomiting Gas Candle	0.27	17.5 5.5	Same	0.05
Experimental, Type 98 Self-projecting Vomiting Gas Candle	0.55	21.0 4.8	Same	0.05
AC (TN: Hydrocyanic Acid) Frangible Grenade	0.55	12.8 10.0	Mk I Blood & Nerve Poison Agent (TN: presumably hydrocyanic acid - CHAZAI)	0.2
Type 93 and Type 100 Small Flame Throwers (Used as Chemical Cylinder (TN: to emit hydrocyanic acid)*)	about 22		Same	7.7
Note: Pressure of 25 atmospheres is used for emission by the small flame thrower. For emission of the entire amount of liquid in the thrower, 4 liters (amount of discharging gas) are necessary.				

*(TN: Cf. CINCPAC-CINCPOL TRANSLATIONS NO. 3, 11 Nov 1944, Item #11,910)
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DATA ON VOMITING GAS CANDLES, AC FRANGIBLE GRENADE, AND FLAME THROWER
USED AS CHEMICAL CYLINDER (Cont'd.)

NAME	TIME OF EFFECTIVE GAS EMISSION (sec)	TIME FROM IGNITION TILL EFFECTIVE GAS EMISSION (TN: sec)	TIME OF SPORADIC GAS EMISSION (TN: sec)	RANGE OR USUAL DISTANCE PROJECTED (meters)	REMARKS
Experimental, Type 1 Vomiting Gas Candle	80	6	60		
Experimental, Type 99 Medium Vomiting Gas Candle	80	6	60		
Experimental, Type 100 Self-projecting Vomiting Gas Candle	40	6	60	250	
Type 97 Medium Vomiting Gas Candle	210	17	300		Production halted, but still many remaining.
Experimental, Type 98 Small Vomiting Gas Candle	60	6	30		
Experimental, Type 98 Self-projecting Vomiting Gas Candle	60	3	30	120	
AC (TN: Hydrocyanic Acid) Frangible Grenade				10; Max = 40	Entire weight with outer can - 1.5 kg
Type 93 and Type 100 Small Flame Thrower Used as Chemical Cylinder (TN: to emit hydrocyanic acid)	7			10; Max = 17	1. Fully equipped weight (with- out charge) - 45 kg 2. Range is for wind ve- locity under 2m

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III. GENERAL DATA ON PERSISTENCY OF POISON CHEMICAL AGENTS IN CONTAMINATED AREAS

LO- CA- TION	SEASON	AMOUNT OF POISON REMAINING		AVERAGE TEMP. (degrees Centi- grade)	REMARKS
		No. of hours till a 50% concentra- tion is reached.	No of hours till a 15% concentra- tion is reached.		
J P A R P O A P N E R	Spring (especially May)	7-20	16-34	about 15	
	Summer (especially August)	3-16	12-27	27	
	Fall (espec- ially beginning of Nov)	10-20	25-41	13	
	Winter (especially January)	16-24	60-70	5	
N M O A R N T C H H U R I A	Summer	17-22	32-38	25	
	Very cold periods	3 days - over 7 days	over 2 weeks - several months	25 (TH: presum- ably 25°)	
F O R M O S A	Very hot periods	3-7	10-19	32	

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Notes:

1. Persistence of poison gas in a contaminated area depends upon season, weather, size of liquid drops, time of spraying, and topography of the place.

2. This chart indicates conditions in which about 50 grams of mustard agent are spread over each square meter.

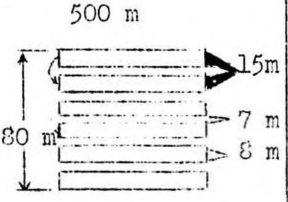
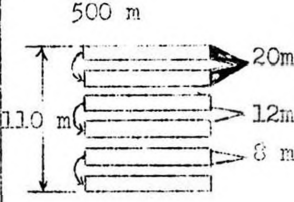
3. The statement "a 50% concentration of poison remaining" means that there is virtually no liquid poison left on plants and leaves in the contaminated area. Before such a condition is reached, it is probable that a person passing over the area would experience the effects of the liquid poison, but thereafter such a thing is improbable. The statement "a 15% concentration of poison remaining" means that there are only minute quantities of the liquid poison on the ground, the greater portion having seeped into the ground. As a result, it is not necessary to take special protective measures when merely crossing the area. However, when the body comes into close contact with the contaminated earth, as when in a prone position, light gas-protective clothing should be worn.

4. The figures for North MANCHURIA and FORMOSA are based on one experiment.

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IV. SPRAYING CAPACITY OF CONTAMINATING (TN: GAS SPRAYING) VEHICLE UNITS

(TN: m = meters; ha = hectares (2.471 acres))

INTERVAL BETWEEN CONTAMINATING VEHICLES		15m	20m		
INTERVAL BETWEEN ROWS (TN: "Row" means width of spray of 1 vehicle)		7m	12m		
NUMBER OF 100-METER ROWS		6	5		
AREA SPRAYED	Illustration of contaminated area (spraying in parallel lines)	width x depth (ha)	Illustration of contaminated area (spraying in parallel lines)	width x depth (ha)	
Unit	AMOUNT OF POISON CARRIED				
Platoon (3 squads)	Each vehicle gets gas containers (100 liters each) from the co ammo train for one spraying (12 containers for one platoon, 4 per vehicle)	500m x 80m 4.0 ha		500m x 110m 5.5 ha	

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SPRAYING CAPACITY OF CONTAMINATING (TN: GAS SPRAYING) VEHICLE UNITS
(Continued)

AREA TO BE SPRAYED		Illustration of contaminated area (spraying in parallel lines)	width x depth (ha)	Illustration of contaminated area (spraying in parallel lines)	width x depth (ha)
Unit	AMOUNT OF POISON GAS CARRIED				
	72 containers for 2 sprayings are carried by the co ammo train		1500m x 170m 25.5 ha		1500m x 230m 34.5 ha
Battalion (3 companies and ammo train)			4500m x 260m 117 ha		4500m x 350m 157.5 ha

(TN: The format of the table and the drawings are reproduced as in the original. There are inconsistencies in the numbers and in the drawings, but the ensemble has been translated for the information it contains.)

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V. TIME REQUIRED FOR SPRAYING POISON AGENT (TN: presumably mustard or the like)

Periods of	Temperate Regions	Other Regions	Remarks
Time	Using all of the poison carried with a company (TN: 72 containers of 100 liters each, according to the previous chart)	1. The times required for spraying in a very cold region are from 1½ to 2 times those of this chart. 3 hours are required for starting up; in addition, the rate of spraying in a place where there is a covering of 10 cm of snow is 3 kilometers per hour. Hence, it is necessary to estimate a spraying time of 3 times that of this chart.	1. This chart uses as rate of spraying, about 10 kilometers per hour.
	Daytime		
Preparation Time	1½ hours	Time required at night	
Loading Time	30 min (1 co 9 vehicles, from entry to exit)		
Spraying Time	30 min		
Time for Simple Decontamination	30 min (2 men)	about twice that for day.	
Total	3 hours		
		2. In very hot regions, during the day, personnel clad in complete gas-protective clothing can work almost continuously for 30 minutes.	

(TN: This table seems to be based on information contained in the previous chart on the spraying capacities of gas spraying units, and seems to indicate the time necessary for one gas-spraying company (three platoons of three squads each) with nine vehicles, to spray the contents of 72 poison agent containers of 100 liters each. It includes the item of simple decontamination by two men, which may mean the rough decontamination of the spraying equipment after use, thereby making the total three hours, the time necessary for one complete spraying operation with decontamination of equipment.)

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(End)

Item #12,114

SUBJECT: Japanese Aerial Ordnance and Equipment; dated February 1944.
Issued by Naval Air Hq.

SOURCE: Captured on SAIPAN.

EDITOR'S NOTE:

This document is a comprehensive summary of information on Japanese machine guns and ammunition, bombs and related equipment, and a wide variety of other paraphernalia more or less directly related to the conduct of air warfare. While much of this information has been translated before, there is a mass of new material and the document is being published with only two omissions.

The table on ammunition characteristics and coloring of shells should be studied in connection with CINCPAC-CINCPOA Item #11,939 J, which includes a table of infantry ammunition, and CINCPAC-CINCPOA Item #8306, which contains information on aircraft gun ammunition.

Attention is called to SENDEN, a plane appearing for the first time in any document, as far as is known. Comparison of the data found here indicates that SENDEN is probably a modification of JINRAI (LUKE). (Cf. CINCPAC-CINCPOA Item #11,939 A).

The sections dealing with bombs, arming mechanisms and fuzes add considerably to our knowledge of these subjects. Recent changes by the Japanese in types of bombs now being used, and the "new system" of bomb nomenclature are illustrated to some extent. Japanese Navy bombs for the most part follow a "Mark" system that designates the purpose for which the bomb is designed. As new needs were foreseen, new types of bombs were conceived and assigned new mark numbers. Thus, the bombs in this publication described as Mark 21 and Mark 23 are bombs developed for specialized use against airplanes, in the air and on the ground.

The manufacture of certain heretofore standard bombs, such as the No. 25 General Purpose Bomb model 2 and the No. 6 General Purpose Bomb Model 2 has been stopped.

Present trends in Japanese bomb design tend toward developing armor-piercing bombs to be used against capital ships, improving the design of anti-submarine bombs, designing an effective rocket-type bomb (Mark 6), increasing the size of bombs with respect to their destructive power, and finally, putting out a growing variety of more or less ingenious aerial burst bombs for use against planes.

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EDITOR'S NOTE: (Cont)

The material on gun-bomb sights in part corroborates information previously published in CINCPAC-CINCPOA Item #11,939 C and gives additional data particularly in regard to the various planes in which these sights are mounted. Bomb sights are not described in detail and as the material has already been published in the above-mentioned document, that section has been omitted. Data on aerial photographic equipment has also been omitted since it is identical with that contained in CINCPAC-CINCPOA Item #11,939 F, except that the Experimental Aerial Camera 70 cm is designated the Type 3 Aerial Camera 70 cm.

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February, 1944

EXPLANATORY MATERIAL ON MILITARY EQUIPMENT IN CUSTODY OF
THE OPERATIONS OFFICER (CLASS 2)

Naval Air Hq Section 3

Naval Air Hq Section 4

This material is compiled as a reference for the work of the Air Depot (TN previous translation "Air Arsenal"). Besides assisting in the understanding of the situation regarding the use of military equipment in current use, it attempts to point out the use of unfamiliar equipment now in storage which will be used in the future.

January, 1944

Naval Air Hq Personnel of the YAMANOUE Section. (TN: apparently a part of the Dept. III Section 2 of Naval Air Hq commanded by Cmdr YAMANOUE Shotaro. Cf. CINCPAC-CINCPOA Item #9078)

/I - Ordnance/

1. Machine Guns:

Type 92, 7.7 mm Flexible MG, Modification 1

Characteristics:

Muzzle velocity----745 meters/second

Rate of fire-----700 rounds/minute

Total weight-----8.2 kg

Overall length----967 mm

Caliber-----7.7 mm

Rifling-----Right, 4 lands

Magazine capacity--97 rounds

Summary:

1. The action during firing depends upon the effect of gas pressure.
2. In handling, you should be careful to take off the magazine and ascertain whether or not it is loaded.
3. In stripping and assembling you should use the stipulated tools.

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/I - Ordnance/ (Cont)

Type of operation:

Gas piston operated.

Method of charging and firing:

Manually fired.

Extent of usage:

It is mounted in various types of planes (Two-seaters or multi-seaters).

Type 1, 7.9 mm Flexible MG, Model 1:

Characteristics:

Muzzle velocity----785 meters/second

Rate of fire-----1000 rounds/minute

Total weight-----6.9 kg

Overall length-----1080 mm

Caliber-----7.9 mm

Rifling-----Right, 4 lands

Magazine capacity--75 rounds

Summary:

1. This is a light simply constructed gun, and since the recoiling parts move along the axis of the bore it vibrates very little and is very accurate.
2. The rate of fire and the muzzle velocity are comparatively high.
3. It is being used for the present as a flexible machine gun for small model planes until 13 mm class guns are supplied.

Type of operation:

Blowback type.

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Type 1, 7.9 mm Flexible MG, Model 1: (Cont)

Method of charging and firing:

Hand fired.

Extent of usage:

Research is underway at present.

Type 2, 13 mm Flexible MG, Model 1.

Characteristics:

Muzzle velocity-----750 meters/second

Rate of fire-----900 rounds/ minute

Total weight-----17.1 kg

Overall length-----1169 mm

Caliber-----13 mm

Rifling-----Right, 8 lands.

Summary:

1. This 13 mm hand-operated type is easy to handle and very accurate.
2. A straight-line movement is given to the barrel and the breech mechanism by recoil and gas pressure, a round is loaded and the recoiling parts are automatically returned by the elasticity of the driving spring.
3. Since it is belt fed, the number of rounds it can carry is large.

Type of operation:

Barrel recoil type.

Method of charging and firing:

Belt feed.

Hand firing.

Extent of usage:

It is mounted in two-seaters or multi-seaters.

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Type 99, 20 mm, Mark I, Flexible MG, Model 11, Modification 2:

Characteristics:

Muzzle velocity-----600 meters/second

Rate of fire-----535 rounds/minute

Total weight-----23.2 kg

Overall length-----1360 mm

Caliber-----20 mm

Rifling-----Right, 9 lands.

Magazine capacity---30 or 45.

Summary:

1. It is a peculiarity of this gun that while the moving parts are counter-recoiling under the force of the driving spring, the gun is fired just before the bolt is closed, and the force of the impact is greatly minimized by the interaction of the forward force from the driving spring and the powder-gas pressure developed at the time of firing.
2. After firing, you must inspect the chamber without fail.
3. Since the tension in the magazine is a major cause of jamming in this gun, it is necessary to be specially careful in handling and installing it.
4. More than other MG's, it is necessary to oil each part adequately.
5. Charging this gun in the air is a serious problem.

Type of operation:

Oerlikon type.

Method of charging and firing:

Magazine type.

Manually fired.

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Type 99, 20 mm, Mark I, Flexible MG, Model 11, Modification 2: (Cont)

Extent of Usage:

It is a hand-operated type flexible gun for multi-seated planes, and is used in the GINGA, the land attack plane, the Type 2 flying boat, Type ZERO seaplane, etc.

Type 97, 7.7 mm, Fixed MG, Model 3, Modification 2

Characteristics:

Muzzle velocity-----745 meters/second

Rate of fire-----860 rounds/minute

Total weight-----13.3 kg

Overall length-----1033 mm

Caliber-----7.7 mm

Rifling-----Left, 5 lands.

Summary:

1. This gun is reliable in operation.
2. If you are sure to inspect and adjust all parts, there will be almost no malfunctions.
3. No matter what the situation after firing, you must observe strictly the practice of extracting the rounds by operating the handle twice.

Type of operation:

Barrel recoil type.

Method of charging and firing:

Hand charged.

Firing through the propeller arc requires synchronizing gear.

Extent of usage:

It is installed in various types of fighters, carrier bombers, and Type ZERO observation plane.

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Type 3, 13 mm Fixed MG, Model 1.

Characteristics:

Muzzle velocity-----800 meters/second

Rate of fire-----800 rounds/minute

Total weight-----28 kg

Overall length-----1330 mm

Caliber-----13.2 mm

Rifling-----Left, 8 lands.

Summary:

1. The construction is simple and the operation is reliable. Its capabilities in the air are rather good, and it is possible to fire it with a load up to 6 kg (TN: may mean weight of unsupported part of ammunition belt). It is especially necessary to pay strict attention to the adjustment of the synchronizing gear. Although its rate of fire is great, it has the disadvantages of great weight and considerable erosion of the bore.

Type of operation:

Barrel recoil type.

Method of charging and firing:

Hydraulic charging.

Electrical firing.

Type 99, 20 mm, Mark I, Fixed MG, Model 2, Modification 1:

Characteristics:

Muzzle velocity-----600 meters/second

Rate of fire-----535 rounds/minute

Total weight-----23.3 kg

Overall length-----1360 mm

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Type 99, 20 mm, Mark I, Fixed MG, Model 2, Modification 1:

Characteristics: (Cont)

Caliber-----20 mm

Rifling-----Right, 9 lands

Magazine capacity--60, 100 rounds

Magazine weight----37 kg (Filled with 100 rounds)

Summary:

It is similar to the Type 99, 20 mm, Mark I, Flexible MG, Model 11, Modification 2.

Type of operation:

Oerlikon type.

Method of charging and firing: -----

Pneumatic charging

Pneumatic firing.

Extent of usage:

It is mounted in various types of fighters.

Type 99, 20 mm, Mark I, Fixed MG, Model 3.

Characteristics:

It is the same as Mark I, Fixed MG, Model 2, Modification 1.

Summary:

1. The pneumatic trigger operating housing is replaced by the Type 1 Electrical Trigger Operating Mechanism, Model 1.
2. Except for changing the pneumatic firing to electrical firing, the construction, operation, handling, and installation is exactly the same as Model 2, Modification 1.

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Type of operation: Oerlikon type.

Method of charging and firing:

Pneumatic charging.

Electrical firing.

Extent of usage:

It is mounted in various types of fighters.

Type 99, 20 mm, Mark II, Fixed MG, Model 3.

Characteristics:

Muzzle velocity-----750 meters/second

Rate of fire-----480 rounds/minute

Caliber-----20 mm

Rifling-----Right, 9 lands.

Overall length-----1890 mm

Total weight-----33.5 kg

Magazine capacity---100 rounds

Magazine weight-----39.3 kg (Filled with 100 rounds)

Summary:

1. This gun has the same mechanism as the Type 99, Mark I Fixed MG. Except for the increase in the destructive capacity there is no change in the construction.
2. Since the barrel and the receiver have been lengthened, you must be especially careful in mounting.
3. Since the magazine is loaded with 100 rounds and is correspondingly heavy, mounting it requires skill.

Type of operation:

Oerlikon type.

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Type 99, 20 mm, Mark II, Fixed MG, Model 3. (Cont)

Method of charging and firing:

Pneumatic charging
Electric firing

Extent of usage:

It is mounted in various types of fighters, and in GEKKO.

Type 99, 20 mm, Mark II, Fixed MG, Model 4:

Characteristics:

Muzzle velocity-----750 meters/second

Rate of fire-----500 rounds/minute

Total weight-----30 kg

Overall length-----1883 mm

Caliber-----20 mm

Rifling-----Right, 9 lands.

Feeding mechanism, total weight---4.019 kg

Breech block (TN: TAKYAKUSEN), total weight--4.925 kg

Summary:

1. When this MG is mounted correctly, it ejects the empty cases (TN: DAKAN) very well.
2. The number of rounds carried is large.
3. It can be mounted even on waiting planes, and can be charged after taking off.
4. There are no such defects as weakening (TN: HETARI) of the magazine tension.
5. There are many causes of malfunctioning of the feeding mechanism or else the links. (TN: SODANSHI 故障)
6. There are many cases of malfunctioning which result from carelessness in handling, installing, or repairing.

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Type 99, 20 mm, Mark II, Fixed MG, Model 4: (Cont)

Type of operation:

Oerlikon type.

Method of charging and firing:

Hydraulic charging.

Electrical firing.

Extent of usage:

It is mounted in various types of fighters and in night fighter power turrets.

Type 2, 30 mm, Fixed MG.

Characteristics:

Muzzle velocity-----710 meters/second

Rate of fire-----400 rounds/minute

Total weight-----50.9 kg

Overall length-----2095 mm

Caliber-----30 mm

Magazine weight, loaded----38.26 kg

Magazine capacity---42 rounds.

Summary:

1. Procedure in handling, as well as construction and operation, is largely the same as the Type 99, 20 mm, and the only changes are minor ones.
2. At present it is hand charged and electrically fired.
3. Since it is of the magazine type, the number of rounds carried is small; however, it is planned to modify it in the future to a belt feed type.

Type of operation:

Oerlikon type

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Type 2, 30 mm, Fixed MG. (Cont)

Method of charging and firing:

Pneumatic charging
Electrical firing.

Extent of usage:

It is mounted in various types of fighters and GINGA.
The manner in which these guns are mounted on the
various planes is shown in the annexed table #1.

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Annex #1

1. Ordnance on each plane

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
Kō Fighters						
Type "O" Carrier Based Fighter, Model 21 (ZEKE 21)	A6M2	20 (Mark I Model 3) x 2 7.7 (Fixed, Fuselage)x 2	100 x 2 450 x 2			Pneumatic
Same as above, Model 52 (ZEKE 52)	A6M5	20 (Mark II, Model 3) x 2 7.7 (Fixed, Fuselage)x 2	100 x 2 450 x 2	20 (Mark II, Model 4) x 2 13 (Type 3, Fixed, Fuse- lage) x 1 7.7 (Fixed, Fuselage)x 1	1302 (TN: 130x2?) 230 450	After Aug 1944, it is planned to change 7.7 mm (right gun) on 1200 planes to 13 mm. After Dec 1943, belts will grad- ually be supplied. After Oct 1944, belts will be supplied in all planes.
17 Exptl Carri- er-based Fight- er (REPPŪ) (SAM)	A6M1 (TN: should be A7M1 ?)	20 (Mark II, Model 4) x 2 13 (Type 3, Fuselage)x 2	120 x 2 300 x 2			Hydraulic charging.
18 Exptl Kō Fighter(JIMPŪ)	J6K1	20 (Mark II, Model 4)x 4	250 x 4			

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Annex #1 (Continued)

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
OTSU Fighters						
14 Exptl KYOKU Fighter, Modifi- cation (RAI- DEN) (JACK)	J2M2	20 (Mark I Model 3)x 2 7.7 (Fixed, Fuselage)x 2	100 x 2 550 x 2			Pneumatic charging.
Same as above, Modification 1 (RAIDEN Modifi- cation)	J2M3	20 (Mark I Model 4) x 2 20 (Mark II, Model 4) x 2	190 x 2 210 x 2	20 (Mark II, Model 4) x 4 13 (Type 3, Fuselage) x 2	200 x 4 300 x 2	Hydraulic charging
Mark I, KYOKU Fighter (SHI- DEN) (GEORGE)	N1K9J	20 (Mark I Model 3) x 4 7.7 (Fixed, Fuselage)x 2	100 x 4 500 x 2			Same
Mark I, KYOKU Fighter Modifi- cation (SHI- DEN Modifica- tion)	E1K2J	20 (Mark II, Model 4) x 4	290 x 4			
17 Exptl KYOKU Fighter (SEN- DEN)	N4M1	30 (17 Exptl) x 1 20 (Mark II, Model 4) x 2	100 200 x 2			
18 Exptl OTSU Fighter (TENRAI)	J5M1	30 (17 Exptl) x 1 20 (Mark II, Model 4) x 2	100 200 x 2	30 (17 Exptl) x 2 20 (Mark II, Model 4) x 2	100 x 1 (TN: should be x.2)	Exptl con- structed power tur- ret x 1.

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Annex #1 (Continued)

PLANE DESIGNATION	MODEL	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
	TYPE	GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
HEI Fighters						
Type 2 Land Recce (GEKKO) (IRVING)	J1M1	20 (Mark II, Model 3) x 4	100 x 4			
15 Exptl Land Bomber (KYOKKO) (FRANCES)	PL11	30 (Type 2 x 1 20 (Mark II, Model 4) x 4				
18 Exptl HEI Fighter (DENKO)	FLA1	30 (17 Exptl) x 1 20 (Mark II, Model 4) x 2 20 (Mark II, Model 4) x 2				Exptl con- structed power tur- ret x 1 (Dual mount)
Seaplane Fighters						
Type 2 Seaplane Fighter	A6M3N	20 (Mark I Model 3) x 2 7.7 (Fixed, Fuselage)x 2	60 x 2 500 x 2			
KYOFU Model 11 (REX)	E1K1	20 (Mark I, Model 3) x 2 7.7 (Fixed, Fuselage)x 2	60 x 2 500 x 2			
Carrier Based Bombers and Attack Planes						
Type 99 Carr- ier-based Bomber, Model 22 (VAL)	D3A2	7.7 (Fixed, Fuselage)x 2 7.7 (Flex- ible) x 1	450 x 2 96 x 6	7.7 (Fixed, Fuselage)x 2 13 (Type 2) x 1		
SUISEI Model 11 (JUDY 11)	D4Y1	7.7 (Fixed, Fuselage)x 2 7.7 (Flex- ible) x 1	600 x 2 96 x 6	7.7 (Fixed, Fuselage)x 2 13 (Type 2) x 1		

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Annex #1 (Continued)

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
Carrier Based Bombers and Attack Planes (Continued)						
TENZAN Model 11 (JILL)	B6N2	7.7 (Flex- ible) x 2	96 x 2	13 (Type 2) x 1 7.9 (Flex- ible) x 1		
16 Exptl Carr- ier-based Attack (RYUSEI) (GRACE)	B7AY	7.7 (Fixed) x 2 7.7 (Flex- ible) x 2	400 x 2 96 x 6	20 (Mark I, Model 4) x 2 13 (Type 2) x 1	100 x 2	
15 Exptl Land Bomber (GINGA) (FRANCES)	PLY1	20 (Mark I, Flexible)x 1 Upper 20 (Mark I, Flexible)x 1 Tail	30 x 8			
Land Bomber						
Type 1 Land Attack Model 12	G4M2	20 (Mark II, Model 3) x 1 Upper 20 (Mark II, Model 11) x 3 (Tail & sides)		20 (Mark II, Model 3) x 1 Upper 20 (Mark I) x 1 Tail		Type 1, Model 22 x 1
Same as above Model 22 (BETTY)	G4M3	13 (Type 3, Flexible)x 1 (Forward)		13 (Type 2) x 3 Forward, Fuselage		

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Annex #1 (Continued)

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
Land Attack						
16 Exptl Land Attack (TAIZAN)	G7M1	20 (Mark II, Model 4) x 2 (Upper)	600			18 Exptl 20 mm Dual mount upper x 1
		13 (Type 3, Flexible)x 2 (Tail)	600			
		13 (Type 2) x 2 (Forward)	400			18 Exptl 13 mm Dual mount for- ward x 1
		13 (Type 2) x 2 (Sides)	300 x 2			
18 Exptl Land Attack (RENZAN)	G8M1	20 (Mark II, Model 4) x 2 (Upper)	600			18 Exptl 20 mm Dual mount upper x 1
		20 (Mark II, Model 4) x 2 (Lower)	400			
		20 (Mark II, Model 4) x 2 (Tail)	600			18 Exptl 20 mm Dual mount lower x 1
		13 (Type 2) x 2 (Forward)	400			
		13 (Type 2) x 2 (Sides)	300 x 2			18 Exptl 13 mm Dual mount for- ward x 1
Special Attack						
17 Exptl Attack (SEIRAN)	H6A1	13 (Type 2) x 1	300			
Type 2 Carrier- based Bomber	D4Y1	7.7 (Fixed, Fuselage)x 2 7.7 (Flex- ible) x 1				

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annex #1 (Continued)

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
Recce and Patrol						
Type 2 Land Recce (IRVING)	J1N1	7.7 (Fixed) x 2 20 (Model 3) x 1 (Turret) 20 (Model 3) x 1	450 x 2 45 x 5 (Turret) 100			
17 Exptl Carr- ier-based Recce (SAIUN) (MYRT)	C6N1	7.9 (Flex- ible) x 1				
17 Exptl Land Recce (GYOUN)	R1Y1	13 (Type 2) x 1	400			Exptl con- struction suspended.
18 Exptl Land Recce (KEIUN)	R2Y1	0				
17 Exptl Patrol Plane (TCKAI)	Q1W1	7.7 (Flex- ible) x 1	76 x 3			
Seaplanes						
Type ZERO Ob- servation, Model 11 (PETE)	F1M2	7.7 (Fixed, Fuselage)x 2 7.7 (Flex- ible) x 1				
ZUIUN, Model 11 (PAUL)	E16A1	7.7 (Fixed Fuselage)x 2 7.7 (Flex- ible) x 1		20 (Mark I, Model 4) x 2 13 (Type 2) x 1		
Type ZERO, Sea- plane Recce, Model 11 (JAKE)	E13A1	7.7 (Flex- ible) x 1				
Type ZERO, Small Model Recce Sea- plane Model 11		7.7 (Flex- ible) x 1				

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Annex #1 (Continued)

PLANE DESIGNATION	MODEL TYPE	PRESENT EQUIPMENT		MODIFICATION PLANS		REMARKS
		GUN TYPE AND NUMBER	ROUNDS CARRIED	GUN TYPE AND NUMBER	ROUNDS CARRIED	
Seaplanes (Continued)						
SHIUN, Model 11 (NORM)	E15K1	7.7 (Flex- ible) x 1				
Type 2 Flying Boat, Model 12 (EN ILY)	H8K2	20 (Model 3) x 1 (Upper) 20 (Model 11) x 2 (Sides) 20 (Mark I, Model 4) x 1 (Tail)		Type 1, Model 21 x 1 Type 1, Model 31 x 1		
Same as above Model 22	H8K3	20 (Model 11) x 1 (Forward) 7.7 (Flex- ible) x 1		Type 1, Model 21 x 1 Type 1, Model 31 x 1		

2. Cartridges for various types of MG.

(1) Type 99, 20 mm, Mark II, Cartridge:

TYPE	COLOR DIS- TINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUZE	REMARKS
HE cartridge, Modification 2	Rust (2 white lines)	Pentolite (TN: TNT 50% petn 50%)	10.0	Rotor type	
Tracer cartridge, Modification 2	Red (3 white lines) (TN: should be 2)	Tracer composition	5.8	None	
Tracer HE cart- ridge, Modifi- cation 3	(Red) (3 white lines)	1. Tracer compo- sition 2. Pentolite	1. 4.4 2. 5.1	Rotor type	

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TYPE	COLOR DIS- TINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUSE	REMARKS
Incendiary HE cartridge Modifi- cation 2	Yellow (2 white lines)	1. Detonite* 2. TNT 3. Yellow phos- phorus	1. 1.0 2. 3.6 3. 2.6	Rotor type (With- out firing pin).	
Same as above. Modification 3	Yellow (3 white lines)	Same as above	Same as above	Rotor type	
Same as above. Modification 4	Yellow (1 wide white band)	TNT aluminum Yellow phosphorus	0.4 0.2 5.7	Rotor type	Counter- measures to pre- vent spon- taneous combustion have been taken.
armor-piercing HE cartridge	White	Detonite	4.0	None	
Practice cartridge	Black			None	

(2) Type 99, 20 mm, Mark I Cartridges:

HE cartridge, Modification 2	Rust, 2 white lines	Pentolite	10.0	Rotor type	
Tracer cartridge, Modification 3	Red, 2 white lines	Tracer composition	5.8	None	
Tracer HE cart- ridge, Modifi- cation 3	Red, 3 white lines	Tracer powder Pentolite	4.4 5.1	Rotor type	

*(TN: テート = シト, presumably nitro-cellulose and aluminum powder.)

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TYPE	COLOR DIS- TINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUZE	REMARKS
Incendiary HE cartridge Modifi- cation 2	Yellow (2 white lines)	1. Detonite* 2. TNT 3. Yellow phos- phorus	1. 1.0 2. 3.6 3. 2.6	Rotor type (with- out firing pin).	
Same as above. Modification 3	Yellow (3 white lines)	Same as above	Same as above	Rotor type	
Same as above. Modification 4	Yellow (1 wide white band)	TNT aluminum Yellow phosphorus	0.4 0.2 5.7	Rotor type	Counter- measures to pre- vent spon- taneous combustion have been taken.
Armor-piercing HE cartridge	White	Detonite	4.0	None	
Practice cartridge	Black			None	

(2) Type 99, 20 mm, Mark I Cartridges:

HE cartridge, Modification 2	Rust, 2 white lines	Pentolite	10.0	Rotor type	
Tracer cartridge, Modification 3	Red, 2 white lines	Tracer composition	5.8	None	
Tracer HE cart- ridge, Modifi- cation 3	Red, 3 white lines	Tracer powder Pentolite	4.4 5.1	Rotor type	

*(TN: テント = シト, presumably nitro-cellulose and aluminum powder.)

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TYPE	COLOR DISTINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUSE	REMARKS
Incendiary HE cartridge, Modification 2	Yellow, 2 white lines	1. Detonite 2. TNT 3. Yellow phosphorus	1.0 3.6 2.6	Without firing pin.	
Same as above. Modification 3	Yellow, 3 white lines	TNT Yellow phosphorus Detonite	4.0 2.6 1.0	Rotor type	
Same as above. Modification 4	Yellow, 1 large white band	TNT aluminum Yellow phosphorus	0.4 0.2 5.7	Rotor type	
Armor-piercing HE cartridge	White	Detonite	4.0	None	
Practice cartridge	Black			None	

(3) Type 3, 13 mm, MG Cartridges:

Ball cartridge	Black, painted in rings			None	
Tracer cartridge	Red, painted in rings	Tracer composition	2.0	None	Tracer color - yellow
Armor-piercing cartridge	White, painted in rings			None	
Incendiary cartridge, Model 2	Purple	#1 Incendiary mixture (Cyclonite, PETN) #2 Incendiary mixture (Cyclonite, aluminum)	1.0 1.3	None	

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(4) Type 2, 13 mm MG Cartridges:

TYPE	COLOR DIS-TINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUSE	REMARKS
Practice cartridge	Black		(TN: illegible)	None	
Tracer cartridge	Red	Tracer composition	0.6	None	Tracer color - yellow
Tracer armor-piercing cartridge	White	Tracer composition	1.0	None	
HE cartridge	Rust color	Pentolite mixture	1.7	Per-cussion fuse	
Incendiary ball cartridge	Yellow	Incendiary mixture (yellow phosphorus)	1.2	Without firing pin	

(5) Type 1, 7.9 mm MG Cartridges:

Ball cartridge, Model 1	Black, painted in rings			None	
Tracer cartridge, Model 1	Red, painted in rings	Tracer composition	0.6	None	
Armor-piercing cartridge, Model 1	White, painted in rings			None	
Incendiary cartridge, Model 1	Green, painted in rings	Incendiary mixture (yellow phosphorus)	0.65	None	

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TYPE	COLOR DIS- TINCTIONS	PROJECTILE BUSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUSE	REMARKS
Incendiary cart- ridge, Model 2	Purple, painted in rings	#1 Incendiary mix- ture (Cyclonite, PETN) #2 Incendiary mix- ture (Cyclonite, Aluminum)	0.26 0.70	None	

(6) 7.7 mm MG Cartridges:

Ball cartridge	Black, painted in rings			None	
Tracer cartridge	Red, pain- ted in rings	Tracer composition	0.98	None	
armor-piercing cartridge	White, painted in rings			None	
Incendiary cart- ridge, Model 1	Green, painted in rings	Incendiary mixture (yellow phosphorus)	0.61	None	
Same as above. Model 2	Purple, painted in rings	#1 Incendiary mix- ture (Cyclonite, PETN) #2 Incendiary mix- ture (Cyclonite, Aluminum)	0.24 0.26	None	

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(7) Type 2, 30 mm MG Cartridge:

TYPE	COLOR DIS- TINCTIONS	PROJECTILE BURSTING CHARGE OR FILLER	AMOUNT OF POWDER (GRAMS)	TYPE OF FUSE	REMARKS
Practice cartridge	Black			None	
Tracer cartridge	Projectile body, black Nose, red	Tracer powder	5.2	None	Tracer color - yellow
Tracer HE cartridge	Red	Bursting charge (Pentolite) Tracer powder	21.0 5.2	Rotor type	
HE cartridge	Rust color	Pentolite	29.0	Rotor type	
Incendiary HE cartridge	Yellow	Bursting charge (Pentolite) Incendiary powder (yellow phosphorus)	2.2 20.0	Rotor type	
Armor-piercing HE cartridge	White	Bursting charge (Detonite)	11.6	None	

3. (TN: Illegible) Power Turrets

DESIGNATION			TYPE 1, LARGE MODEL POWER TURRET		SAME	
			MODEL 22	MODEL 21	MODEL 31	
Planes in which it is in-			Type 1, Land Attack, Model 12		Type 2 Flying Boat	
Location in plane					Center	Tail
Form of turret			Direct drive			
Form of drive	Form of power		Electrically developed oil pressure.			
	Oil Pump	A box	HARUSHIYŌ 1 (TN: possibly a trade name)			
		B box	HARUSHIYŌ 1			

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DESIGNATION		TYPE 1, LARGE MODEL POWER TURFET		SAME
		MODEL 22	MODEL 21	MODEL 31
Firing mechanism		Cable		
Fire cutoff system		Mechanical type cam		
Charging mechanism		Pneumatic pump		Cable
Operating mechanism		Control stick type		
Sights		O.P.L. attached (TN: According to POW, these letters O.P.L. are the initials of the trade name of a GERMAN MG sight whose principle is used extensively in all new Jap sights. according to POW O.P.L. refers to Type 98 gun-bomb sight.) Sights correct for own speed.		
Guns mounted	MG	Mark I Flexible Model 4 (Mark II Fixed, Model 3) x 1		
	Magazine			
Weight	Base	134		135
	Entire installation	164		164
Remarks		Pneumatically controlled type.		

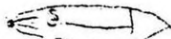
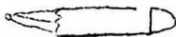
4. Miscellaneous

Ordnance related to firing /MGs/			
NAME OF EQUIPMENT	SUMMARY	USE	REMARKS
Remaining round indicator	Used for 7.7 mm and 20 mm	Indicates the number of rounds remaining	Installed on planes mounting fixed MGs.
Extracting mechanism	Can be mounted on 20 mm magazine	Extracts the projectiles during charging.	

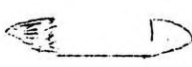
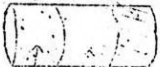
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NAME OF EQUIPMENT	SUMMARY	USE	REMARKS
Type 1 electric fire control equipment	Actuates the trigger operating mechanism by means of an electromagnet	Used for controlling the fire of 20 mm fixed MG	Mounted on planes which mount 20 mm fixed MG. Model 1 used for 2 guns. Model 2 used for 4 guns.
Hydraulic charging equipment Model 1 Model 2 Model 3	Charges gun by oil pressure	Used with Type 99, 20 mm Fixed MG	Model 1 - used for Mark I MG belt. Model 2 - used for Mark I MG magazine. Model 3 - used for Mark II MG belt.

NAME OF EQUIPMENT	FORM	OVERALL LENGTH	TYPES OF TOWING PLANES	PRINCIPAL FABRIC OF SLEEVE	SPEED OF TOWING PLANES	SHAPE
Target sleeve, Model 1, used for firing from planes. (1*)	Stream-line form	6 m	Various types	Ramie linen wing fabric	130 knots	
Same, Model 1, Modification 1 (2*)	ditto	ditto	ditto	ditto	ditto	
Same, Model 2 (3*)	Kite form	5 m	Fighters	ditto	120-185 kts	
Same, Model 3	Stream-line form	3.600 m	ditto	ditto	ditto	
Same, Model 3, Modification 1	ditto	ditto	ditto	Silk fabric used for target sleeve	ditto	

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NAME OF EQUIPMENT	FORM	OVERALL LENGTH	TYPES OF TOWING PLANES	PRINCIPAL FABRIC OF SLEEVE	SPEED OF TOWING PLANES	SHAPE
Target sleeve, Model 3, Special, used for firing from planes. (4*)	Stream-line form	3.600 m	Fighters	Ramie linen wing fabric	120-185 kts	
Target sleeve, Model 1, used for AA firing. (5*)	Flat form	4. m	Used with large model planes	Line mosquito netting case	120 knots	(TN: Illegible may be red)  Red White
Target sleeve, Model 2, ditto	Stream-line form	10 m	ditto	Ramie linen wing fabric	100-120 kts	(TN: Illegible may be orange)  Orange Black
Type 1 target plane, Model 11 (6*)	"Glider" target which can be radio controlled.					
Remarks:						
(1*) Made of cotton.						
(2*) Drawstring (TN: SHIBORI) attached to towing mouth.						
(3*) Is not now used as a hanging target.						
(4*) Drawstring (TN: SHIBORI) attached to towing mouth.						
(5*) Not used at present.						
(6*) It is only possible to mount it on the Type 94 Recce Seaplane. On others it will be necessary to install and test it.						

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5. Gun-bomb sights:

NAME OF EQUIPMENT	CHARACTERISTICS					TYPE OF PLANES ON WHICH MOUNTED	REMARKS
	MAGNIFYING POWER	FORM OF SCALE	EYE-POINT /FIELD OF VIEW/	FORM OF SIGHTING	WEIGHT		
Type 95 gun-bomb sight	1.0		74 mm 110° (TN: sic 20°)	Direct sighting	2.7 kg	Recce planes. Type 99 carrier-based bomber	
Type 98 gun-bomb sight Model 1	1.0		335 mm 7°40'	ditto		Various fighters. ZUIUN Model 11	
Ditto, Model 2	1.0		115 mm 20° 9'	ditto		Carrier-based bombers	Construction stopped upon the appearance of Type 2.
Type 99 gun-bomb sight	1.0		74 mm 20°	ditto	2.7 kg	Used in SUISEI	
Type 2, Mark I gun-bomb sight Model 1	1.0		74 mm 20°	ditto	12.9 kg	Used in SUISEI	
Type 3, Mark I gun-bomb sight Model 1	1.0		115 mm 14° 56'	ditto	13.9 kg	Used in GINGA	

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NAME OF EQUIPMENT	CHARACTERISTICS					TYPE OF PLANES ON WHICH MOUNTED	REMARKS
	MAGNIFYING POWER	FORM OF SCALE	EYE-POINT /FIELD OF-VIEW/	FORM OF SIGHTING	WEIGHT		
Type 17 gun-bomb sight	Optical-ring sight (TN: #). 1.0		180 mm 70°	Direct sighting	1.6 kg	Various fighters	
Used for forward guns of 15 Exptl Land Bomber (gun-bomb sights)	ditto 1.0		116 mm 40° 20'	ditto	1.0 kg	Planned to be used in Y20 (TN: GINGA)	
German type small model gun-bomb sight (E)	ditto 1.0		140 mm 70° 20'	ditto	0.8 kg	Used in GEKKO Used in the 18 Exptl HEI fighter	
18 Exptl gun-bomb sight Model 1			100 mm	Syn-chronous type	12 kg	Planned for use in NAO (TN: RPNZAN)	Used for top
Same, Model 2			100 mm	ditto	ditto	ditto	Used for lower
Same, Model 3			60 mm 120°	Direct sighting	0.9 kg	ditto	Used for forward

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II Bombing Equipment

1. Bombs

BOMB TYPES	CHARACTER- ISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
General Purpose					
No 80 G.P. bomb Model 1 Modification 2 Model 1 Modification 3 Model 1 Modification 4	807.5 Will pene- trate 70 mm of steel plate	Type 97 Mark II Nose Model 1 Ditto Model 1 Modifica- tion 1	Type 15 Tail Model 1 Modifica- tion 2 Type 15 Tail Model 1 Modifica- tion 3		Modifica- tion 2: picric Modifica- tion 3: Type 91 explosive powder Modifica- tion 4: Type 98 explosive powder
No 50 G.P. Model 2 (Modification 1)	507 After pene- trating 50 mm to 70 mm into armor plate it will detonate	Same as above	Same as above		Modifica- tion 1: Type 98 explosive powder
Type 2 No 50 G.P. Model 1	Will penetrate 80 mm of armor plate	Type 2 No 50 G.P. nose	Type 2 No 50 G.P. tail		
No 25 G.P. Model 2	257 Will pene- trate 50 mm armor plate and detonate	Type 97 Mark II Nose Model 2 Type 97 Mark II Nose Model 2, Modifi- cation 1 Type 1 Nose Model 2, Modifi- cation 1	Type 15 tail arm- ing mech- anism Model 2 Modifica- tion 1 Type 15 tail arm- ing mech- anism Model 2 Modifi- cation 2	Type 99 G.P. Bomb Fuze (A) (C)	Limited to /amount in/ stor- age. Manu- facture stopped.

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BOMB TYPES	CHARACTERISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
No 25 G.P. Model 2 (Con.)		Type 0 Nose Model 2 Modification 2			
Type 99 No 25 G.P. Model 1	251.1 Will penetrate 50 mm armor plate	Type 97 Mark II nose Model 2 Type 97 Mark II nose Model 2 Modification 1 Type 1 nose Model 2 Modification 1 Type 0 nose Model 2 Modification 2	Type 99 No 25 G.P. tail arming mechanism		
No 6 G.P. Model 2	63.3 Same as above	Same as above			Limited to /amount in/ storage. Manufacture stopped.
Type 99 No 6 G.P. Model 1	62.8 Same as above	Same as above			
Land Bombs					
No 80 Land (Modification 1)	805 Will penetrate 500 m of concrete	Type 97 Mark II nose Model 1 Type 97 Mark II nose Model 1 Modification 1	Type 15 tail arming mechanism Model 1 Modification 2 Type 15 tail arming mechanism Model 1 Modification 3		Modification 1: Type 98 explosive powder

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BOMB TYPES	CHARACTERISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Type 98 No 25 Land (Modification 1)	242.2 Will penetrate 400 mm of concrete	Type 97 Mark II nose arming mechanism Model 2 Modification 1 Type 1 nose arming mechanism Model 2 Modification 1 Type 0 nose arming mechanism Model 2 Modification 1	Type 15 tail Model 2 Modification 1 Type 15 tail Model 2 Modification 2	Type 96 bomb fuze Type 97 land bomb fuze (A) (B) Type 92 bomb fuze (Modification 2) (Modification 3) (Modification 4)	Modification 1: Type 98 explosive powder
No 25 Land	262 Will penetrate 200 mm of concrete	Same as above	Same as above	Same as above	Limited to /amount in/ storage. Manufacture stopped.
Type 97 No 6 Land (Modification 1)	60.4 Will penetrate 200 mm of concrete	Same as above		Same as above	Modification 1: Type 98 explosive powder
No 6 Land	63.5	Same as above		Same as above	Limited to /amount in/ storage. Manufacture stopped.

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BOAB TYPES	CHARACTER- ISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Armor Piercing (Mark V)					
Type 3 No 150 Mark V	1498.6 Will pene- trate protec- tive armor plate		Type 3 No 150 Mark V tail arming mechanism	Type O Mark V bomb fuze	In process of exptl manufacture
Type 2 No 80 Mark V	811.2 Will pene- trate 150 mm armor plate		Type 2 No 80 Mark V tail arm- ing mech- anism	Same as above	Same as above
Type 99 No 80 Mark V	796.8 Will pene- trate 200 mm armor plate		Type 99 No 80 Mark V tail arm- ing mech- anism	Same as above	Limited to /amount in/ storage.
Type 3 No 25 Mark IV	295.4 Will pene- trate 125 mm armor plate		Type 3 No 25 G.P. tail arm- ing mech- anism	Same as above	
Anti-submarine					
Type 1 No 25 Mark II	262.8	Type 97 Mark II nose Model 2 Type 97 Mark II nose Model 2 Modifi- cation 1 Type 1 nose arming mechanism Model 2 Model 2 Modifica- tion 1 Type O nose arming mechanism	Type 15 tail arm- ing mech- anism Model 2 Modifica- tion 2	Type 15 bomb fuze Type 1 Mark II bomb fuze (a)	

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BOMB TYPES	CHARACTER- ISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Type 99 No 6 Mark II	64.5	Type 97 Mark II nose Model 2 Type 97 Mark II nose Model 2 Modifi- cation 1 Type 1 nose arming mechanism Model 2 Modifica- tion 1 Type 0 nose arming mechanism		Type 15 bomb fuze Type 1 Mark II bomb fuze (B)	
Incendiary (Mark VI)					
Type 98 No 7 Mark VI Model 1	Total weight: 71.9. Will penetrate 200 mm of concrete.	Same as above. Type 0 nose arm- ing mech- anism Model 2 Modifica- tion 1		Type 98 Mark VI bomb fuze	Filled with 178 kg of electron (TN: ENKUTO RO) incen- diary com- pound
Type 98 No 7 Mark VI Model 2	Total weight: 66. Will penetrate ord- inary civilian dwellings	Same as above		Same as above Model 2	Filled with 9.78 kg of solid oil incendiary compound
Type 1 No 7 Mark VI Model 3	Total weight: 67.15	Same as above		Type 92 bomb fuze Modifica- tion 2 (Modifica- tion 3) (Modifica- tion 4) Type 96 bomb fuze	Filled with 30 kg of charcoal- thermite incendiary compound

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BOMB TYPES	CHARACTERISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Airfield Neutralization					
Type 2 No 6 Mark XXI Model 2	Total weight: 56.5	Type 3 igniting device Model 1 (Used on container)		Type 2 small model bomb fuze Model 1 (Used in clusters)	40 clusters weighing about 5 kg each are housed in one con- tainer.
Type 3 No 6 Mark XXIII	Total weight: 62.5 Main charge: 256 Will pene- trate 200 mm of concrete	Type 99 Special nose arm- ing mech- anism Model 1 Model 2		Type 92 bomb fuze Modifica- tion 2 (Modifica- tion 3) (Modifica- tion 4)	Type 97 No 6 land has a resistance plate (KOKO HAN) attached
Type 2 No 6 land Model 5	Total weight: 56.5	Type 2 small model nose arm- ing mech- anism Model 1 (For cluster use)		Type 2 small model bomb fuze Model 1 (Used in clusters)	5 clusters weighing about 10 kg each are housed in the container
Type 99 No 3 Mark III	Weight: 34.8 Main charge: 1.5	Type 90 nose prim- ing mech- anism Model 2 Type 2 nose prim- ing mech- anism Model 2	Type 99 Mark III arming mechanism Model 2	Type 92 fuze Modif- ication 2 Modifica- tion 3 Modifica- tion 4 (Note) Type 99 Mark III bomb fuze (Tail)	Not quite 180 yellow phosphorus incendiary pellets

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BOMB TYPES	CHARACTER- ISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Type 2 No 25 Mark III	Total weight: 24.5	Type 97 Mark II nose Model 2 Type 97 Mark II nose Model 2 Modifi- cation 1 Type 1 nose arm- ing mech- anism Model 2 Modifica- tion 1 Type 0 nose arm- ing mech- anism Model 2 Modifica- tion 1	Type 2 Mark III arming mechanism Model 2	Type 92 fuze Modifica- tion 2 Modifica- tion 3 Modifica- tion 4 (Nose) Type 99 Mark III bomb fuze (Tail)	Not quite 800 therm- ite incen- diary pellets
Mark I (Chemical Ordnance)					
No 6 Mark I Land	Total weight: 68.5	Type 97 Mark II nose Model 2 Type 97 Mark II nose Model 2 Modifica- tion 1		Type 96 bomb fuze	Filled with 17.0 kg of Mark III special chemical A
	Amount of burster charge: 2.3	Type 1 nose Model 2 Modifi- cation 1 Type 0 nose Model 2 Modifica- tion 1		Type 92 bomb fuze Modifica- tion 2 (Modifica- tion 3) (Modifica- tion 4)	

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BOMB TYPES	CHARACTER- ISTICS	ARMING MECHANISMS		FUZE	NOTES
		NOSE	TAIL		
Type 1 No 6 Mark I Land Model 1	Total weight: 63.2 Burster charge: 5.9 Will pene- trate 200 mm of concrete	Same as above		Practice bomb fuze (Nose) Type 99 Mark III bomb fuze (Tail)	Filled with 6.7 kg of Mark II special chemical
Practice Bombs					
30 kg practice bomb Model 1	Filled with concrete smoke compound: titanium tetrachloride Used in high altitude practice Uses a Type 97 priming mechanism In general use				
Type 99 No 3 practice bomb	Uses glass materials	Used for hits on target ship	Used in high alti- tude practice	Used in training on target ship	At present not manu- factured for targets
Type 99 No 1 practice bomb	10 kg, same as above			Same as above	
1 kg practice bomb Modification 3	Uses red phosphorus	Used for training	In general use		

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2. Fuzes:

FUSE TYPES	DELAY (SECONDS)	NOTES
Used with G.P. Bombs (Common)		
Type 99 G.P. bomb fuze (A)	0.03	Used in all types of general purpose bombs
Type 99 G.P. bomb fuze (C)	.02	Same as above
Used with Bombs (Common)		
Type 97 land bomb fuze (A)	0.03	Used in all types of land bombs
Type 97 land bomb fuze (B)	.01	Same as above
All Types of Bombs (Common)		
Type 96 bomb fuze	0.	Used in all types of bombs
Type 92 bomb fuze Modification 2 Modification 3 Modification 4	0.	Modification 2: (made of brass) Modification 3: (made of duralumin) Modification 4: (made of steel products)
Used with Mark II Bombs		
Type I Mark II bomb fuze (A)	3.5	NOTE: Used against submarines Should types that require adjustment, such as the Type 15, be set slightly incorrectly, they will misfire or detonate instantaneously.
Type 1 Mark II bomb fuze (A)	10.0	
Type 15 bomb fuze	0.-1.5	
Used with Mark III Bombs		
Type 99 Mark III bomb fuze	0.	Used with Type 99 Mark III bomb
Used with Mark VI Bombs		
Type 98 Mark VI bomb fuze	.40	Used with Type 98 No 7 Mark VI bomb
Type 98 Mark VI bomb fuze Model 2	0.03	Used with Type 98 No 7 Mark VI bomb Model 2

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FUSE TYPES	DELAY (SECONDS)	NOTES
Used with Mark V Bombs		
Type 0 Mark V bomb fuze	0.2	Used with Mark V bombs
Type 2 small model bomb fuze, Model 1	0.	Used with Type 2 No 6 Mark XXI and Types 3 No 6 Land Model 5.

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4. Bombing Equipment /Summary/:

Annex #2

Bombing Equipment in Various Planes			
DESIGNATION OF AIRPLANE	BOMBS, OR TORPEDOES	NUMBER OF RELEASE MECHANISMS	DESIGNATION OF RELEASE MECHANISM
Type O Carrier Fighter a6N2(3) (ZEKE)	2xNo 3 2xNo 6	2xSmall Model	Small model bomb release mechanism, Modification 3 Used on Fighters
14 Exptl KYOKU Fighter J2M1(2) (JACK)	Same as above	Same as above	Special type small model bomb release mechanism (percussion cap type)
Mark I KYOKU Fighter N1K1-J (GEORGE)	Same as above	Same as above	Special small model bomb release mechanism (Inside the wing type)
Type 3 Seaplane Fighter	Same as above	Same as above	Same as Type O Carrier Fighter
15 Exptl Seaplane Fighter N1K1	Same as above	Same as above	Same as Mark I KYOKU Fighter /TN: N1K1-J (GEORGE)/
Type 2 Carrier Bomber	1xNo 50 3xNo 25 2xNo 6 2xNo 6	3xMedium Model 2xSmall Model	1 set medium model (No 25 fuselage guide reel (TN: 誘導木 YUDOWAKU) 2 sets x medium model release mechanisms (Type 97 medium model suspension hook) Type 97 small model bomb release mechanism modification 2 (Percussion cap type)

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annex #2 (Continued)

DESIGNATION OF AIRPLANE	WHERE LOCATED	RELEASE METHOD	PART OF AIR FRAME OR SEPARATE	RELEASE CONTROL APPARATUS	ELECTRIC RELEASE KEY
Type 0 Carrier Fighter A6M2(3) (ZEKE)	1 set under right and left wings each	Manual type	Separate		
14 Exptl KYOKU Fighter J2M1(2) (JACK)	Same as above	Electric type	Attached to the airframe	Type 97 Dual Release (= 277) 5X	Type 0 Electric Release Key (attached to airframe)
Mark I KYOKU Fighter N1K1-J (GEORGE)	Same as above	Manual type	Same as above		
Type 3 Seaplane Fighter	Same as above	Same as above	Separate		
15 Exptl Seaplane Fighter N1K1	Same as above	Same as above	Attached to the airframe		
Type 2 Carrier Bomber	Under the right and left wings and on the fuselage	Electric type	Only the suspension hooks are separate	Type 97 Dual Release	Type 0 Electric Release Key (attached to fuselage)

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Annex #2 (Continued)

DESIGNATION OF AIRPLANE	BOMBS, OR TORPEDOES	NUMBER OF RELEASE MECHANISM	DESIGNATION OF RELEASE MECHANISM
Type 2 Carrier Recce			
14 Exptl Carrier Attack B6N1 (JILL)	1x91 Torpedo 1xNo 80 1xNo 50	1xLarge model	1xType 97 large model bomb locking hook (松糸帝金勾) Modification 1
	2xNo 25	1xMedium model	2xType 97 medium model bomb suspension hook
	6xNo 6	1xSmall model	6xType 97 small model bomb release mechanism Modification 2
16 Exptl Carrier Attack B7A1 (GRACE)	1xTorpedo 1xNo 80 1xNo 50	1xLarge model	Type 97 large model bomb locking hook Modification 1 guide reel. The reel is equipped with a suspension hook.
	2xNo 25	2xMedium model	
	6xNo 6	6xSmall model	Type 0 small model bomb suspension hook Type 97 small model bomb release mechanism Modification 2
15 Exptl Land Bomber P1Y1 (FRANCE)	1x91 Torpedo 1xNo 80	2xLarge model	Type of cable drum which is equipped with suspension hooks
	2xNo 50	2xSmall model	Small model bomb release mechanism Modification 2
	2xNo 25 2xNo 6		

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annex #2 (Continued)

DESIGNATION OF AIRPLANE	WHERE LOCATED	RELEASE METHOD	PART OF AIR FRAME OR SEPARATE	RELEASE CONTROL APPARATUS	ELECTRIC RELEASE KEY
Type 2 Carrier Recce (Continued)					
14 Exptl Carrier Attack B6N1 (JILL)	Under the fuselage	Elec- tric type	Separate	Type 0 Releas- ing 6	Type 0 Electric Release Key
	2 under the fuselage lengthwise				
	2 rows laterally, 3 lengthwise; under fuselage				
16 Exptl Carrier Attack B7A1 (GRACE)	Under the fuselage	Elec- tric type	Separate	Type 0 Releas- ing 6	Type 0 Release
	2 lengthwise under the fuselage		Attached to airframe		
	2 lengthwise under the fuselage. 2 under the left and right wings		Separate		
15 Exptl Land Bomber PIY1 (FRANCES)	In the bomb-bay under the fuselage: 2 lengthwise	Elec- tric type	Attached to airframe	Type 0 Releas- ing 6	Type 0 Release
	Outside bombbay 2 laterally		Separate		

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Annex #1 (Continued)

DESIGNATION OF AIRPLANE	BOMBS, OR TORPEDOES	NUMBER OF RELEASE MECHANISM	DESIGNATION OF RELEASE MECHANISM
Type 97 Carrier Attack B5N2 (KATE)	1x91 Torpedo 1xNo 80	1xLarge model	
	2xNo 25 6xNo 6	2xMedium model 6xSmall model	Small model bomb release mechanism Model 1 Modification 4
99 Carrier Bomber Model 22 D3A2 (VAL)	1xNo 25	1xMedium model	Guide reel attached to a suspension /hook/
	4xNo 6	4xSmall model	Small model bomb release mechanism used on fighters Modification 3
14 Exptl Two-seater Recco Seaplane E16A1 (PAUL)	1xNo 25	1xMedium model	Guide reel attached to a suspension /hook/
	3xNo 6	2xSmall model	Small model bomb release mechanism used on fighters Modification 3
Type 0 Observation Plane F1M2 (PETE)	2xNo 6	2xSmall model	Same as above
Type 0 Small Model Recco Seaplane Model 11 E4Y1 (GLEN)	2xNo 6	2xSmall model	Same as above

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CINCPAC-CINCPAC TRANSLATIONS

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Annex #2 (Continued)

DESIGNATION OF AIRPLANE	WHERE LOCATED	RELEASE METHOD	PART OF AIR FRAME OR SEPARATE	RELEASE CONTROL APPARATUS	ELECTRIC RELEASE KEY
Type 97 Carrier Attack B5N2 (KATE)	Under the fuselage	Manual type			
	Under the fuselage; under the wing. Under the fuselage				
99 Carrier Bomber Model 22 D3A2 (VAL)	Under the fuselage	Same as above	Attached to the fuselage		
	2 each, below the right and left wings		Separate		
14 Exptl Two-seater Recce Seaplane ElcAl (PAUL)	Under the fuselage	Same as above	Attached to the fuselage		
	1 each, below the right and left wings		Separate		
Type O Observation Plane F1M2 (PETE)	Same as above	Same as above	Same as above		
Type O Small Model Recce Seaplane Model 11 E4Y1 (GLEN)	1 below the right and left wings	Same as above	Same as above		

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CINCPAC-CINCPAC TRANSLATIONS

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Annex #2 (Continued)

DESIGNATION OF AIRPLANE	BOBS, OR TORPEDOES	NUMBER OF RELEASE MECHANISM	DESIGNATION OF RELEASE MECHANISM
Type 1 Land attack Model 11 GIAN2(3) (BETTY)	1x91 Tor- pedo 1xNo 80	1xLarge model	Type 97 large model bomb locking /hook/ Modification 1
	1xNo 50 1xNo 25	2xMedium model	Type 1 medium model bomb release mechanism (2 attached to one reel)
	6xNo 6	2xSmall model	Type 1 small model bomb release mechanism (6 attached to one reel)
Type 2 Flying Boat H8K2(3) (EMILY)	8xNo 25	2xMedium model	Type 97 medium model bomb suspension hook (4 to a reel)
	16xNo 6	2xSmall model	Type 99 small model bomb suspension hook (1 to a reel)

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CINCPAC-CINCPAA TRANSLATION

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Annex #2 (Continued)

DESIGNATION OF AIRPLANE	WHERE LOCATED	RELEASE METHOD	PART OF AIR FRAME OR SEPARATE	RELEASE CONTROL APPARATUS	ELECTRIC RELEASE KEY
Type 1 Land Attack Model 11 G14M2(3) (BETTY)	Under the fuselage	Electric type	Separate	Release control apparatus Releasing 12 (Used on Type 1 land attack)	Type 97 Electric Key Release (Used on Type 1 land attack)
	Same as above				
Type 2 Flying Boat H8K2(3) (EMILY)	2 under the wings	Electric type	Separate	Release control apparatus Releasing 16 (Used on Type 2 flying boat)	Type 97 Electric Release Key
	Same as above				

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5. Bomb Trucks:

NAME OF ITEM	CHARACTERISTICS	USE	NOTES
Type 15 Medium Bomb Truck Modification 2	Can load No 25 bombs on the following types of planes: 99 Carrier Bomber 97 Carrier Attack TENZAN Model 11 ZUIUN Model 11	Used in loading and transporting bombs either on carriers or on land	Used on carriers and on land
Type 15 Medium Bomb Truck Modification 3	Can load No 25 bombs on the following types of planes: 99 Carrier Bomber 97 Carrier Attack TENZAN Model 11 ZUIUN Model 11 Type 2 Land Recce Type 2 Carrier Recce	Same as above	Same as above
Type 15 Medium Bomb Truck Modification 3 (Special)	Same as above	Same as above	Same as above
Type 99 Medium Bomb Truck	Can load No 25 bombs on the following types of planes: 99 Carrier Bomber 97 Carrier Attack Type 1 Land Attack TENZAN Model 11 ZUIUN Model 11 96 Land Attack Type 2 Land Recce	Used in loading and transporting bombs on land	Used on land
Type 2 Bomb Truck, for use in Warehouses Model 10	They are used for No 25, No 50 and No 80 bombs, and by connecting two of them together are used for torpedoes.	Used in bomb warehouses with bomb hoisting tube (TN: 揚火器 吊環機 YOBAKU DANTO. Probably hydraulic hoist.)	At present used on carriers. As one truck weighs only 30 kg, they can easily be operated by manpower.

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NAME OF ITEM	CHARACTERISTICS	USE	NOTES
Type 1 Combination Bomb and Torpedo Truck	Auto 25 Nos 50 and 60, and torpedo, one each.	Used chiefly on carriers	In process of experimental manufacture.
Combination Bomb and Torpedo Truck Modification 2 Special	Manual type. Weights 550 kg	Used for loading and transporting bombs and torpedoes.	Used with 97 Carrier Attack and 96 Land Attack. Can be used with planes that require crane type loading. (Type 1 式)
Type 0 Combination Bomb and Torpedo Truck	Manual type. Weights 915 kg	Same as above	Used with Type 1 Land Attack. Can be used with planes that require crane type loading.
Combination Bomb and Torpedo Truck Modification 3	Manual type. Weights 550 kg	Same as above	Used with TENKAN and Type 1 Land Attack. (Type 0 Substitute) Can be used with planes that require crane type loading.

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III Optical Equipment.

NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS	PURPOSE	EXTENT OF USE	REMARKS
Type 91 Airplane Observation Telescope, Modification 5	Weight: 16.8 kg. Altitude range which can be used is 500 to 5000 m. Magnifying power 2 x. Counter-measures against vibration were taken in its construction.	Observation	Mounted on Type O observation plane	Construction is suspended for the present
Ditto, Modification 6	The same as above except that power is increased to 4 x.	Ditto	Ditto	Ditto
Type 94 Airplane Reconnaissance Telescope	Weight: 14.7 kg. Altitude range which can be used is 300 to 5000 m. Range which can be used is 6000 to 40,000 m. Power is 2 x to 8 x.	Observation of battle	Used on reconnaissance planes	Ditto
Ditto, Modification 1	It is the same as above except that it is made so that it can be used at night.	Ditto	Ditto	Ditto

(TN: The section on drift meters and other navigation instruments has been deleted. This data has already been published in CINCPAC-CINCPAC Item #11,939 C.)

(TN: Data on cameras has been omitted since it is identical with that in CINCPAC-CINCPAC Item #11,939 F except that the Experimental Aerial Camera 70 cm is called Type 3 Aerial Camera 70 cm.)

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V. Pyrotechnic and Signalling Equipment.

NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS		EXTENT OF USAGE	REMARKS
Signal shells for use in Very Pistol, Model 1	Three types: white, black and yellow	Overall length 9.5 mm. Time of combustion: more than 7 seconds.	For signal use	For use in all types of planes
Ditto	Three types: white, blue and red	Weight: 50 kg Diameter: 31 mm		Ditto
Type 90 Parachute Flare Model 1	Three kinds: blue, red, white. Overall length: 261 mm. Diameter: 57 mm. Weight: 1 kg. Combustion time: 2 minutes.		For signal use	Ditto
Smoke Bomb Modification 4	Two types: yellow smoke and black smoke. Overall length: 426 mm. Diameter: 150 mm. Weight: 2.3 kg. Duration of combustion: black, 2.5 minutes; yellow, 3.0 minutes.		For daytime use in indicating the location of a sub.	Ditto
Type 94 Target Course Marker Light Model 2	Overall length: 245 mm. Diameter: 62 mm. Weight 426 gms. Duration of combustion: 6 minutes. Intensity: 85 candlepower.		For night use in attacking enemy ships to indicate the position of the target.	Ditto
Type 0 Target Course Marker Light Model 1	Overall length: 350 mm. Diameter: 73. Weight: 900 grams. Duration of combustion: about 3 minutes. Intensity: 40 candlepower.		Used for marking the target course at night	Ditto
Type 0 Target Course Marker Bomb, Model 1	Length: 315 mm. Diameter: 75 mm. Weight: 1.7 kg. Aluminum powder weight: 370 grams.		Used for target course marking by day	Ditto
Ditto, Model 2	Overall length: 560 mm. Diameter: 130 mm. Weight: 8.2 kg. Aluminum powder: 2 kg.		Same as above. For high altitude use.	Ditto

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NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS	EXTENT OF USAGE	REMARKS
Type O Parachute Signal Flare Model 1	Five kinds: white, red; white, white, white; white, blue; white, blue; and white, red stars. (TN: sic) Overall length: 287 mm. Diameter: 51 mm. Weight: about 0.7 kg.	For recognition of friendly planes and for signalling.	Used in all types of planes
Type O Parachute Flare Model 1	Length: 1,127 mm. Diameter: 168 mm. Weight: 37 kg. Duration of combustion: 3 minutes, 40 seconds. Intensity: 1,000,000 candlepower.	For illuminating night torpedo attacks	Ditto
Ditto, Model 2	Length: 1027 mm. Diameter: 168 mm. Weight: 35 kg. Duration of combustion: 3 minutes. Intensity: 1,000,000 candlepower.	Same as above and for illuminating ground installations	Ditto
Arming Mechanism for use with the Type O Parachute Flare	Fuze for use in the above described star shell: One is installed in the nose,		Ditto
Type 2 Parachute Flare, Small Model	Overall length: 705 mm. Diameter: 90 mm. Weight: 8 kg. Duration of combustion: more than three minutes. Intensity: 300,000 candlepower.	For illumination of night bombing attacks	Carried in all kinds of planes
Type 96 Float Light	Overall length: 414 mm. Diameter: 130 mm. Weight: 2.7 kg. Duration of combustion: 2 minutes, 20 seconds. Intensity: 30,000 candlepower.	For night landings on the sea	Ditto
Type 94 Target Course Light	Overall length: 300 mm. Diameter: 71 mm. Weight: 0.7 kg. Duration of combustion: more than 20 minutes. Intensity: 140 candlepower.	For use in marking the target course at night	Ditto

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NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS					EXTENT OF USAGE	REMARKS
Type 1 Parachute Signal Model 2	Three types: white, blue, red. Overall length: 400 mm. Diameter: 51.5 mm. Weight about 1.3 kg. Duration of combustion: white, 1 minute 40 seconds; Red, 2 minutes 20 seconds; Blue, 1 minute 40 seconds. Intensity: White, 56,000 candlepower; Red, 17,000 candlepower; Blue, 13,000 candlepower.					For recognition of friendly planes and for signalling	Carried in all kinds of planes
Signal Smoke Candle	Three types White			Red	Blue	Used to indicate wind direction to the plane and for signalling to the plane	For ground use
	Overall length	Large	211.9 mm	118 mm			
		Small	72.1 mm				
	Weight	Large	1.4 kg	0.48 kg	0.25 kg		
		Small	0.4 kg				
	Diameter: 54.2 mm for all. Duration of combustion about 2 minutes.						
Type 1 Signal Smoke Candle, Model 1	Four types: white, red, blue, and yellow. Overall length: 256 mm. Diameter: 54 mm.					Ditto	Ditto
		Weight	Duration of combustion				
	White	1.5 kg	2 min, 20 sec				
	Blue	0.7 kg	3 min, 50 sec				
	Red	0.5 kg	3 min, 40 sec				
	Yellow	1.3 kg	3 min, 40 sec				
Parachute Flare, Model 2, Modification 1	Overall length: 640 mm. Diameter: 79 mm. Weight: 4.7 kg. Duration of combustion: 1 min, 30 sec.					For signal and illumination use	Carried in all types of planes
Smoke Cylinder	A smoke bomb which can be fitted in the small model bomb release gear. Duration of smoke generation more than 25 minutes. Range of visibility: 50,000 m. Dropping altitude: from 200 m to 1,000 m.					For leading of friendly planes and for signal use	Used principally in recon planes

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NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS	EXTENT OF USAGE	REMARKS
Type 1 Parachute Flare Model 1	Overall length: 575 mm. Diameter: 160 mm. Weight: 6.15 kg. Delay: 32 sec. Duration of combustion: 2 min. Intensity: 270,000 candlepower.	To illuminate night bombing attacks	Carried in all types of planes
Type 1 Parachute Flare Model 1 Modification 1	Overall length: 575 mm. Diameter: 160 mm. Weight: 6.3 kg. Delay: 40 sec. Duration of combustion: 3 min. Intensity: 200,000 candlepower.	For night landing on water	
Type 0 Floating Carbide Flare (TN: HAKKOKI). This seems to be similar to a "New Type Japanese Floating Carbide Flare" which has been captured and studied.	Overall length: 490 mm. Diameter: 99 mm. Weight: 2 kg. Duration of combustion: more than 1 hour. Intensity: 200 candlepower.	To show targets on the surface of the sea during night picket duty.	
1 kg Smoke Candle Model 2	Weight: from 770 to 1,021 grams. Duration of smoke generation: from 2 min, 30 sec to 4 min, 30 sec.	For signal use	Used on the ground
Smoke Cylinder	Overall length: 1312 mm. Diameter: 307 mm. Weight: 43 kg. Duration of smoke generation more than 25 minutes.	To indicate the position of enemy subs	Carried in all types of planes
(Signal Equipment)			
Portable Electric Signal Light Model 1	Weight: 890 grams. Electric bulb "B1" (TN: ㄟ) type with shutter (TN: JIKAKU) 50 candlepower.	For signal use	Carried in all types of planes

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NAME OF EQUIPMENT	SUMMARY OF CHARACTERISTICS	EXTENT OF USAGE	REMARKS
Very Pistol for Airplane Use Model 1	Double-barrelled. Weight: 1.305 kg. Overall length: 175 mm.	For signal use in airplanes	Carried in all types of planes. Modification 1 is a model of simpler construction.
Ditto. For Airplane Use, Model 1, Modification 1			
(Chemical Equipment)			
Type 99 Smoke Screen Generator	Weight: 700 kg. Smoke compound 400 kg. Ejection port, 12 mm and 24 mm	For generating smoke screens	In current use generally

VI. Equipment Carried Aboard Planes.

NAME OF EQUIPMENT	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Airplane anchor Model 2	Weight of Anchor, 12.5 kg	Carried on sea-planes for emergency use at time of forced landing	For use in small model planes	
Ditto, Model 3	Weight of Anchor, 22 kg			
Ditto, Model 4	Weight of Anchor, 43 kg		For use in flying boats	
Life-rafts, equipped	Buoyancy: 320 kg. 3 man capacity. Weight: 10 kg.	For saving the lives of personnel of ship-based planes at time of forced landings.	At present the chief ones in use	
Ditto, 5 Man Capacity	Buoyancy: 1070 kg Weight: 21.5 kg			
Towing Equipment for Sleeve Targets (For Airplane Gunnery Use)	a device for stowing the towing rope in the storing tube	For anti-aircraft gunnery use	In current use	

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NAME OF EQUIPMENT	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Towing Equipment for Sleeve Targets (For Airplane Gunnery Use) Model 2	Two aluminum tubes which can hold about 1300 m of hemp rope. It is equipped with a disengaging switch.	To tow an anti-aircraft gunnery target	Used for medium attack planes	Almost never used

VII. Base Equipment

NAME OF EQUIPMENT	CHARACTERISTICS						
	ANCHOR	SINKER	CHAIN	BUOY BUOYANCY	BUOY RESERVE BUOYANCY	MOORING ROPE	WATER DEPTH
Airplane Mooring Gear Model 2	50 kg	50 kg	8 mm 10 m x 4	50 kg	25 kg	12 mm 7 m x 1	30 m or less
Ditto, Model 3	100 kg	100 kg	12 mm 10 m x 5	220 kg	50 kg	16 mm 7 m x 1	Ditto
Ditto, Model 4	300 kg	250 kg	16 mm 10 m x 5	220 kg	50 kg	20 mm 7 m x 1	40 m or less
Ditto, Model 5, Modification 1	500 kg	400 kg	22 mm 10 m x 5	500 kg	350 kg	22 mm 15 m x 1	
NAME OF EQUIPMENT	PURPOSE	EXTENT OF USAGE		REMARKS			
Airplane Mooring Gear Model 2	Used in mooring seaplanes	Used for sea fighters and 2 or 3 seater recce seaplane		Number extant limited			
Ditto, Model 3		Used for small (flying) boats					
Ditto, Model 4		Used for Type 97 and 99 flying boats		Number extant limited			
Ditto, Model 5 Modification 1		Used for large flying boats		In process of construction			

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NAME OF EQUIPMENT	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Landing Area Marker Light Model 2	This model is made as a substitute for the neon type light.		In current use	
Cargo Lighter (TN: UMPAN FUSHU) Model 6	Weight 153 kg. Complement 6 men. Collapsible type. Length 4 m.	To transport men and military equipment	Principally used by transports (TN: TOSAI-KAN)	
Bomb Barge (Together with accessories) (TN: SENGAI TOMO)	Safe cargo capacity 1000 kg. Complement 15 men. 10 horsepower.	To transport personnel, torpedoes and large bombs.	Principally used by flying boat forces.	
Ditto, Model 2	Safe cargo capacity 300 kg. Complement 10 men. 8 horsepower.	To transport personnel and small and medium bombs.	Principally used by seaplane forces.	
Type 3 Night Landing Light, Model 21 Ditto, Model 22	Marker light 100 volt 5 candlepower bulb. Guide light blue 100 volt 20 candlepower bulb. Guide light red 100 volt 15 candlepower bulb. Good for 8 hours continuous operation.	To direct night landings	Supplied principally to actual fighting forces	The Model 22 is the Model 21 with a light shield to cut out the stray light from the firing
Type 3 Landing Direction Light Model 51	Power source: 240V/50W/50A Engine (TN: 1.5 HP) in daylight Generator 24 volt 100 watt 1000 rpm Range of visibility: 1000 m. Weight 200 kg.	To direct pilots in daylight Operates on 240 volt AC Range of visibility: 1000 m.		It will be possible to supply these from Mar 1944 on.
Seaplane Landing Area Marker Light Modification 1	Electric bulb type. 100 candlepower. Weight 20 kg.	For use in seaplane landings at night	Used by seaplane	

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NAME OF EQUIPMENT	CHARACTERISTICS	PURPOSES	EXTENT OF USAGE	REMARKS
Seaplane Landing Direction Light Model 10	Floating type made up of a front sight light (TN: SHOSEITO) and a rear sight light (TN: SHOMONTO)	Used in landing seaplanes	Used by seaplane units	
Portable Submersible Electric Light (TN: KEITAI SUICHU FENTO)	2 volt. Intensity is sufficient to be visible at about 5000 m. Good for about 24 hours continuous service.	Used to show the landing place at times of forced landings at sea.	In current use	
Equipment for Landing	As in Annex #3			

annex #3

Equipment for Carrier Landings -

ITEM NAME	QUOTA PER SHIP	MATERIEL IN EACH UNIT
Rope Hoist (TN: AGEOKI SOCHI) Landing Arresting Gear Model 6	6 sets	Arresting gear 1. Rope hoists right and left each 1 (These have from one to four ropes). Air reservoirs Model 2 Modification 1 (One or two are carried on each ship and serve dual function with this arresting gear)
Air Technical Arsenal Type Arresting Gear Model 4	2 sets	Brake cylinders right and left each 1; supports right and left 1 each; transverse ropes 1 set; air reservoirs, Model 2, Modification 1 250 liters volume, 300 kg/cm ² pressure, (1 on each ship) Small air reservoir 1. Control panel 1.
Carrier Landing Floodlight, Model 3, Modification 1	16 to 24 sets	With shades that may be raised and lowered. 1000 watt, 200 or 100 volts.

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Annex #3 (Continued)

ITEM NAME	QUOTA PER SHIP	MATERIEL IN EACH UNIT
Carrier Landing Direction Lights, Model 3, Modification 1	12 sets	Each set is made up of four blue and 2 red lights. "B1" (TN: 4) type 500 watt vibration proof model 220 volt or 100 volt.
Junction Box for use with the above	1	Equipped with 1 set for each group of six direction lights.
Connection Plugs and Sockets for the above	2 sets	1 set for each set of direction lights.
Landing Orders Signal Light	2	Self contained unit. "B1" (TN: 4) type 100 watt, 220 or 100 volt.
Wind Velocity Signal Light	1 set	Three blue, one red; Type 1 100 watt; 220 or 100 volt.
Stern Marker Light	5 sets	60 watt, 220 or 100 volt.
Deck Light, Square Model		60 watt, 220 or 100 volt.
Ditto, Round Model		Type 1, 40 watt. For marking the edge of the ship.
Bridge Marker Light	1 set	"B1" (TN: 4) type, 5 candlepower tubular shape bulb, 220 or 100 volt.
Deck Condition Signal Light	3	If it is on a 220 volt ship, use a 50 volt A.C. generator. Neon lights 3. 1 transformer for each light.
Obstruction Marker Lights, Model 2	1 set	8 are used on the mast and four on the stern. "E" (TN: 1) type 60 watt gas-filled holophotal (TN: daylight) moisture-proof bulb.
Junction Box for these miscellaneous marker lights	2	(On each ship one is used in the bow and one in the stern.)
Carrier Recognition and Signal Lights		These are being experimentally manufactured.

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VIII. Catapults.

NAME OF EQUIPMENT	CHARACTERISTICS	SHIPS INSTALLED ON	REMARKS
KURE Type, Mark 1 Catapult, Model 4	Fixed, air propelled type capable of catapulting a 1.600 ton plane	Used on submarines	
KURE Type, Mark 2 Catapult, Model 5	Gunpowder type with a sliding type launching cradle capable of catapulting a 4.000 ton plane	For battleship and cruiser use.	
Type 2, Mark 1 Catapult, Model 10	Air propelled type with rolling launching cradle capable of launching a plane of up to 6.000 tons.	OYODO	
Type 1, Mark 2 Catapult, Model 11	Gunpowder type with rolling launching cradle capable of launching a plane of up to 6.000 tons.	ISE, HYUGA	Can launch both carrier planes and seaplanes.
Type 3, Mark 2 Catapult, Model 30	a model which is an improvement over KURE Type, Mark 2, Model 5. It has a rolling type launching cradle.		Being experimentally manufactured
Special S Catapult	Air propelled. Can launch up to a 5.000 ton plane	For submarine use	Ditto

IX. Training Devices.

NAME OF ITEM	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Instrument Flying Training Device Model 2	Used for instrument flying training on the ground and for testing piloting ability.	To teach instrument flying on the ground	In use in training air groups	Not equipped with radio
Mobile Gunnery Training Device Modification 1	Used to teach deflection shooting on the ground. (Firing distance 15 m). It gives an understanding of the method of making suitable speed corrections.	Used to teach deflection gunnery corrections on the ground.	Ditto	

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NAME OF ITEM	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Mobile Gunnery Training Device Modification 2	The model airplanes which are used for deflection (targets) are made in the form of American-made planes.	Used to teach deflection gunnery correction on the ground.	In use in training air groups	
Drift Indicating Training Device	A bird's eye view revolves giving an actual impression of an altitude of from 0 to 700 m. It can give a V_a (plane speed) of 70 to 200 knots and a drift angle of 15° right and left.	Used in elementary drift measurement on the ground.	Ditto	
Ditto, Modification 1	Same as above but you can use the binocular telescope type drift indicator.		In use at the OI and SUZUKA Air Groups	
Training Device for Moving, Intermittently Visible Target Gunnery, Modification 2	Fixed target for instruction in aiming and firing at a changing target on the ground. Firing distance 25 m.	To give elementary instruction on the ground in aiming and firing at a changing target	In use by training air groups	
Type O Bombing Training Device	Capable of giving instruction to several persons at the same time.	Ground training in bombing	Installed at OI Air Group	Unless its operation is good it is not suitable for training

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NAME OF ITEM	CHARACTERISTICS	PURPOSE	EXTENT OF USAGE	REMARKS
Type 99, Bombing Training Device, Modification 3	To give instruction to bombardiers in aiming and dropping bombs (Level bombing). About 2 m per minute advance; Target moves forward at about 5 to 10 mm per second.	For instruction in bombing moving targets on the ground	In use by training air groups	
Ditto, Modification 5	Same as the above but equipped with a "TUNGAR" rectifier		Ditto	In the future Modification 5 will be used exclusively.
Synchronized Firing Training Device	To give instruction on the ground in synchronized firing, (electric motor type) together with testing the synchronizing gear.	Used to give instruction in the operation of the synchronized firing gear	Ditto	
Ship Models	A Model: battleships, carriers, cruisers, destroyers of the US Navy. B Model: same for the English Navy. C Model: battleships, carriers, cruisers of the Japanese Navy 1/500 scale	Used in war game instruction	Used by air groups and on carriers	Special A, Special B & Special C are the same except that certain details are different. (TN: Probably refers to a special set of models not mentioned in this table)
Landing Training Device	It simulates the conditions of landing by means of a fuselage which slides along an overhead wire.	Used in elementary training	Installed at pilot training air groups	

(End)

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Item #13,238

SUBJECT: Combined Naval Air Groups (extracts from Administrative Orders Manual (Vols. I, II, III) and Administrative Orders for 1942, 1943 and 1944).

SOURCE: Captured on SAIPAN.

EDITOR'S NOTE:

This document contains information on the organization of Combined Naval Air Groups. As early as 1938 the Japanese official Administrative Orders (NAITUEI) provided for Combined Naval Air Groups. Each of these consisted of several Training Air Groups and a headquarters which was allotted a separate headquarters complement. It is believed that there was no overall command centralizing the activities of the various Combined Naval Air Group headquarters, but that each reported separately to the Minister of the Navy on matters of training. Apparently, Air Groups which conducted similar types of training were combined. Available Administrative Orders indicate that the grouping as of 1 November 1942 was as follows:

11th Combined Air Group: Headquarters and KASUMI GA URA, TSUKUBA, HYAKUNI GA HARA, YATANE, NAGOYA, KASHIMA, KITaura, OTSU, TSUCHIURA, and MIE Air Groups.

12th Combined Air Group: Headquarters and TOKUSHIMA, HAKATA, USA, OMURA and KOMATSUNIMA Air Groups.

13th Combined Air Group: Headquarters and OI and SUZUKA Air Groups.

14th Combined Air Group: Headquarters and TAKAO and SHI CHIKU Air Groups.

18th Combined Air Group: Headquarters and OPPAMA and SUNOSAKI Air Groups.

However, it may be presumed that there are several other Combined Naval Air Groups. There are, for example, a number of Training Air Groups which are known to exist, but which are not included in the listing above. More concrete evidence exists in Administrative Order #1761 (1943) and two revisions thereof which provide for temporary increases of personnel in the 19th Combined Naval Air Group. Moreover, a T/O of the YOKOSUKA Naval District Security Force (CINCPAC-CINCPAC Item #2579, to be published shortly) places the MIE and TSUCHIURA Security Units under the command of the 19th Combined Naval Air Group, which may indicate that the 19th now includes the MIE and TSUCHIURA Training Air Groups.

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EDITOR'S NOTE: (Cont)

In 1943 a series of orders altered the status of the Combined Naval Air Groups. First, the administrative assignments of the Combined Air Groups to the various Naval Districts were cancelled, and a simultaneous order created a Combined Naval Air Training Command (KAIGUN RENSEI RENGOKU KOKUSOTAI) comprising all of the Combined Air Groups. A later order abolished the organization of the Combined Air Groups. Still later, an order provided that the Combined Air Groups should be organized in accordance with "war-time organization". (TN: SENJI HENSEI. A free translation of this term, "on a war-time basis" has been used in CINCPAC-CINCPAC SPECIAL TRANSLATION #2, published 20 Nov. 1944. The term evidently has a special significance which is not clear at present.) From these orders, it is concluded that the combined Naval Air Training Command centralized the authority of the Combined Air Groups, but that the latter continue to exist, in modified form, as sub-commands.

The frequency with which changes have been made in the overall training organization of the Japanese Naval Air Force undoubtedly has some relation to the well-known difficulties which have beset the Japanese aviation training program.

Translation of the Administrative Orders concerned follow. They are arranged in chronological order, by date of original issue. It should be noted, however, that several of the orders, including all those with dates earlier than 1942, incorporate later revisions.

For a summary of Japanese Naval Air Training see CINCPAC-CINCPAC Weekly Intelligence, Vol. I, #14, pp. 13-16 (13 Oct 1944). Related information on Japanese Naval Air Groups is contained in CINCPAC-CINCPAC SPECIAL TRANSLATION #20, Vols. I, II, III (23 Dec 1944).

Item #13,238, page 3

AdminOrd #161 (1916)

SPECIALISTS ASSIGNMENT TABLE (#3 - 2)
(as revised by Administrative Order #101, 31 January 1943)

For Combined Naval Air Group Hq

	<u>Advanced</u>	<u>Ordinary</u>
Signalman	1	0
Radioman	1	0
Aviation Ordnanceman	1	0
Aviation Machinists	1	0
Accountants	3	0
Specialists (Code)		0

Note:

In addition to the complement as given in this table, 2 Advanced Accountants may be added to the complement for the 11th Combined Naval Air Group Hq.

(Administrative Orders Manual, Vol I, p. 430-4)

Item #13,238, page 4

AdminOrd #161 (1916)

SPECIALISTS ASSIGNMENT TABLE #3-2-2

(as revised by Administrative Order #71, 27 January 1943)

For Combined Naval Air Training Command Hq

		Special	Adv	Ordinary
Gunner		0	0	0
Firecontrolman			0	0
	Torpedo		0	0
Torpedoman	Mine		0	0
	Aerial Torpedo		0	0
Deck Specialist	Quartermaster		0	0
	Damage Controlman		0	0
Signalman			2	0
Radioman			2	2
Flight Specialists	Pilot			
	Reconnaissance		1	
Aviation Ordnanceman			2	1
Aviation Machinist			2	3
Machinist	Fireman		0	0
	Watertender		0	0
Motor Machinist			0	0
Electrician			0	0
	Metalsmith		0	
	Mechanic		0	
	Finisher		0	
Artificer	Shipfitter		0	
	Welder		0	
	Molder		0	
	Carpenter		0	
Accountant			4	2
Line Branch Specialist			2	

Note:

The Aviation Ordnancemen will be MG and Bomb Specialists.

(Administrative Orders Manual, Vol I, p.43C-4)

Item #13,238, page 5.

AdminOrd #1812 (1938)

15 December 1938

Administrative Assignments for Combined Naval Air Groups

Latest revision: AdminOrd #2002 (1942)

The administrative assignment of Combined Naval Air Groups, in addition to provisions made elsewhere, will be established as follows:

Administrative Assignments	Combined Naval Air Groups
YOKOSUKA Naval District	11th Combined Naval Air Group
	13th Combined Naval Air Group
	18th Combined Naval Air Group
KURE Naval District	12th Combined Naval Air Group
BAKŌ Guard District	14th Combined Naval Air Group

~~CONFIDENTIAL~~

CINCPAC-CINCPOA TRANSLATIONS

~~CONFIDENTIAL~~

Item #13,238, page 6.

AdminOrd #555 (1942)

1 Apr 1942

Organization of Combined Naval Air Groups will be revised as follows:

ORGANIZATION OF COMBINED NAVAL AIR GROUPS	
Name	Air Group Names
12th Combined Naval Air Group	KASUMIGAURA Naval Air Group
	TSUKUBA Naval Air Group
	YATABE Naval Air Group
	HYAKURIGAHARA Naval Air Group
	NAGOYA Naval Air Group
	KASHIMA Naval Air Group
	KITAURA Naval Air Group
	OTSU Naval Air Group
12th Combined Naval Air Group	TSUCHIURA Naval Air Group
	ŌITA Naval Air Group
	USA Naval Air Group
	HAKATA Naval Air Group
	ŌHURA Naval Air Group
13th Combined Naval Air Group	TOKUSHIMA Naval Air Group
	ŌI Naval Air Group
	SUZUKA Naval Air Group

(Cf. Administrative Orders Manual, Vol. I, page 74)SHIMADA Shigetaro
Minister of the Navy

No. 16, page 94.

~~CONFIDENTIAL~~

CINCPAC-CINCPOA TRANSLATIONS

~~CONFIDENTIAL~~

Item #13,238, page 7.

AdminOrd #647 (1942)

10 Apr 1942

The organization of Combined Naval Air Groups will be amended as follows:

In the paragraph on the 12th Combined Naval Air Group, after "TOKUSHIMA Naval Air Group" add "KOMATSUJIMA Naval Air Group."

SHIMADA, Shigetaro
Minister of the Navy

(cf. AdminOrd #555 (1942))

Item #13,238, page 8.

AdminOrd #1422 (1942)

1 Aug 1942

The organization of Combined Naval Air Groups will be amended as follows:

In the paragraph on the 11th Combined Naval Air Group, after "TSU-CHIURA Naval Air Group" add "MIE Naval Air Group."

SHIMADA Shigetaro
Minister of the Navy

(cf. Administrative Orders Manual, Vol. I, page 74)

Item #13,238, page 9.

AdminOrd #2030 (1942)

1 Nov 1942

The organization of Combined Naval Air Groups will be amended as follows:

Add the following after the paragraph on the 13th Combined Naval Air Group:

14th Combined Naval Air Group	TAKAO Naval Air Group SHINCHIKU Naval Air Group
18th Combined Naval Air Group	SAGAMINO Naval Air Group OPPAMA Naval Air Group

SHIMADA Shigetaro
Minister of the Navy

(cf. Administrative Orders Manual, Vol. 1, page 74)

Item #13,238, page 11.

AdminOrd #70 (1943)

Table #26 (Continued)

	Total
Officers	8
	(1 w.a.d.)
Special Duty Officers	2
Petty Officers	8
Junior Civil Officials	2
Non-rated Men	7

- NOTES: 1. Secretary will be additional duty for a Staff Officer.
2. Officers, Senior Civil Officials, and Junior Civil Officials may be attached to Headquarters in addition to those given in this table.
3. In addition to the personnel specified in this table, 2 Petty Officers (Supply) and 3 Petty Officers (Maintenance) may be attached to Headquarters.

Item #13,238, page 12.

AdminOrd #70 (1943)

Table #26-2

Complement Order for Combined Naval Air Training Command Headquarters

Commander	Vice Adm	1
Chief of Staff	Rear Adm or Capt	1
	Capt or Comdr	1
Staff Officers	Comdr or Lt Comdr	3
	Lt Comdr or Lt	2
	Commander, Lt Comdr	1
Secretary	Lt Comdr or Lt	1
		(w.a.d.)
Engineering Officer	Capt	1
Medical Officer	Capt (MC)	1
Supply Officer	Capt (SC)	1
Attached	Lt (jg) or Ens (Flight), (Maintenance)	2
	Lt (jg) or Ens (Supply)	1
Attached	Senior Technician	1
		(w.a.d.)
Warrant Officer		1
Petty Officers		6
Petty Officers (Flight)		1
Petty Officers (Maintenance)		4
Petty Officers (Medical)		1
Petty Officers (Supply)		5
Clerk		3
Non-rated Men		2
Non-rated Men (Maintenance)		20
Non-rated Men (Supply)		3

Totals:

Officers	13
	(lv.a.d.)
Special Duty Officers	3
Senior Civil Officials	1
	(w.a.d.)
Warrant Officers	1
Petty Officers	17
Junior Civil Officials	3
Non-rated Men	25

- NOTES: 1. A Staff Officer will have additional duty as Secretary; the post of Senior Technician will be additional duty for a Senior Technician attached to the TSUCHIURA Naval Air Group.
2. Officers, Senior Civil Officials, and Junior Civil Officials in addition to those given in the table may be attached to the Headquarters.

Item #13,238, page 13.

AdminOrd #70 (1943)

Table #26-2 (Continued)

NOTES:

3. The non-rated men (Maintenance) may be replaced by non-rated men (Engineering).

* * * * *

AdminOrd #138 (1943)

1 Feb 1943

The Combined Naval Air Training Command is hereby organized comprising all of the Combined Naval Training Air Groups.

SHIMADA Shigetaro
Minister of the Navy

Item #13,238, page 14.

AdminOrd #140 (1943)

1 February 1943

The administrative assignment of Combined Naval Air Groups is hereby abolished.

SHIMADA Shigetaro
Minister of the Navy

(cf. AdminOrd #1812 (1938), Administrative Orders Manual, Vol. I, p. 30-37)

* * * * *

AdminOrd #118 (1944)

15 Jan 1944

The Combined Naval Air Group Organization is hereby abolished.

SHIMADA Shigetaro
Minister of the Navy

(cf. Administrative Orders Manual, vol. I, page 74)

* * * * *

Addition to AdminOrd #118 (1944)

(TN: This note, undated, appeared following AdminOrd #327 (1944), 15 Feb 1944)

Under this order, for the present, organization of the Combined Naval Air Groups will be governed by war-time organization.

(TN: See introductory note for discussion of this term.)

(End)

Item #13,239

SUBJECT: Specially Established Air Base Units (extracts from Administrative Orders Manual (Vols. I, II, III) and Administrative Orders for 1942, 1943 and 1944).

SOURCE: Captured on SAIPAN.

EDITOR'S NOTE:

Although the information contained in the two Administrative Orders that make up this translation is sketchy, it is all the material at present available on Specially Established Air Base Units. Administrative Order #11 (1943) published in CINCPAC-CINCPOA SPECIAL TRANSLATION #20 (23 December 1944) indicates that such units may have had, at least temporarily, jurisdiction over groups of air bases.

Admin Ord #116 (1919)

16 April 1919

Latest Revision: Admin Ord #2363. (1942)

Converted Ships and Specially Established Forces Order. (TN: Only Art. 14-3, Specially Established Air Base Units, has been included in this translation.)

Article 14-3 SPECIALLY ESTABLISHED AIR BASE UNITS

Paragraph 61-4 Specially Established Air Base Units are located at air bases and are called either the Such-and-Such Air Base Unit (with the place of their location being prefixed to their names) or the 1st Air Base Unit, the 2nd Air Base Unit, etc.

Paragraph 61-5 Specially Established Air Base Units will administer matters relating to the air transport and to the custody and maintenance of the various installations and equipment of air bases.

Specially Established Air Base Units will assist in tasks relating to the various operations and the communications of the air forces using the bases at which they are located.

Paragraph 61-6 The following personnel are appointed to Specially Established Air Base Units and their duties are covered by the Naval Air Group Order:

Commander

Executive Officer

Operations Officer

Medical Officer

Supply Officer

BUNTAI Commanders

Attached to unit: Officers, Special Duty Officers, Warrant Officers, Petty Officers and Seamen.

In certain circumstances, a part of the foregoing personnel may be omitted, or, if necessary, civilian employees or other personnel may be attached to the unit.

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AdminOrd #845 (1943)

1 May 1943

Latest Revision: AdminOrd #2493 (25 November 1943)

Complement Table for Specially Established Air Base Units

		1st	41st	101st
Commander	Comdr, Capt	1	1	1
Secretary	Lt, Lt Comdr	1	1	1
Unit Officer	Lt Comdr, Comdr	1	1	1
Division Officers	Lts, Lt Comdrs	3	3	2
Medical Officer	Medical Corps Lt, Lt Comdr	1	1	1
Unit Officer	Medical Corps Junior Officer	1	1	1
Supply Officer	Suppl Corps Lt, Lt Comdr	1	1	1
Unit Officer	Supply Corps Junior Officer	1	1	1
Unit Officers	Ensign, Lt (jg) (Deck)	2	2	1
	Ensign, Lt (jg) (Flight)	1	1	
	Ensign, Lt (jg) (Maintenance)	2	2	1
	Ensign, Lt (jg) (Engineering)	2	1	
	Ensign, Lt (jg) (Medical)	1	1	1
	Ensign, Lt (jg) (Supply)	1	1	1
Warrant Officers		2	3	
"	" (Maintenance)	2	2	1
"	" (Engineering)	1	2	1
"	" (C and R)	2	1	
"	" (Supply)	2	2	

Item #13,239, page 4.

AdminOrd #845 (1943)

	1st	41st	101st
Petty Officers	26	32	14
" " (Flight)	3	3	
" " (Maintenance)	19	23	16
" " (Engineering)	13	19	5
" " (C and R)	6	6	3
" " (Medical)	4	3	2
" " (Supply)	8	8	6
Seamen	74	118	37
Non-rated men (Maintenance)	275	295	114
" " " (Engineering)	85	96	35
" " " (C and R)	7	7	5
" " " (Medical)	4	5	3
" " " (Supply)	22	30	17
TOTALS			
Officers	10	10	9
Special Duty Officers	9	8	4
Warrant Officers	9	10	2
Petty Officers	79	95	46
Non-rated men	467	551	211

Notes:

1. Line Division Officers may be replaced by Special Duty Lts.
2. Unit Ensigns and Lts (jg) (Engineering) and WO's (Engineering) may be replaced by Ensigns and Lts (jg) (C & R) and WO's (C & R).
3. The ratio of Line Branch Special Duty Officers, Warrant Officers, Petty Officers, and non-rated men may be varied as necessary within the limits of the total prescribed complement.

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AdminOrd #845 (1943)

4. Assignment of specialists ((Advanced) (Special) (Pilot) / (Ordinary) (Observer)):

	1st	41st	101st
Gunner	3/1	6/3	1/0
Firecontrolman	1/3	1/5	1/2
Deck Specialist	3/6	3/6	1/2
Signalman	4/7	4/8	1/3
Radioman	6/10	7/11	6/10
Cryptographer	2	2	3
Flight Specialist	2/1	2/1	0
Aviation Ordnanceman	(MG and Bomb) 3/1	3/1	1/3
	(Torpedo) 1/3	1/3	1/1
Aviation Machinist	11/21	14/23	11/23
Machinist	(Fireman) 1/2	1/2	0/1
	(Watertender) 1/2	1/2	0/1
Motor Machinist	3/6	4/7	1/1
Electrician	3/1	3/1	1/3
Artificers	(Metalsmiths) 3/1	3/1	2/2
	(Carpenters) 3/6	3/6	1/3
Accountant	2/5	2/5	2/3
Storekeeper	2/4	2/5	1/4

In the 1st and 41st Air Base Units one of the Aviation Machinists will serve as a flight engineer.

Supplementary order:

This order is effective as of 1 December 1943.

(End)

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PRELIMINARY POW INTERROGATION REPORT NO. 104EDITOR'S NOTE

This report on a sergeant in the military police contains complete information on this branch of the Army and on other order of battle subjects.

POW was trained for six months in investigative technique, law, and police procedure and then was sent to TRUK for duty as a counter-espionage investigator. While he was there a large underground air-raid shelter was being constructed on DUBLON I. to house the Army Headquarters Departments (see sketch in Appendix #1). Food supplies had been greatly reduced by the Allied blockade and air-raids, especially that of February 1944. By 1 June the troops were being fed spoiled rice.

Three sections of the report (sections 4, 5 and 6), contain considerable information on Army units and officers in KANAFUTO, HOKKAIDO and the Central PACIFIC as well as on the military police system. Appendix #2, consisting of a translation concerning military police, has been included to complete this detailed report on the subject.

PRELIMINARY POW INTERROGATION REPORT NO. 104

<u>NAME</u>	<u>RANK</u>	<u>SERIAL NUMBER</u>
MORIYA, Tadao 守屋 忠雄	Sergeant. (RIKU- GUN KEMPEI GUNSO)	None

<u>UNIT</u>	<u>DUTY PERFORMED</u>	<u>DATE AND PLACE OF CAPTURE</u>
3rd Gendarmery Section, South Seas Gendarmery (NANYO KEMPEITAI, DAI SAN KEMPEI BUNTAI)	Chief Special Investigator (TOKKO GAKARI)	23 July 1944 SAIPAN

Interrogator's Note:

Japanese technical terms appearing herein have been assigned equivalents as follows:

DAI SAN KEMPEI BUNTAI (第三憲兵分隊)	3rd Gendarmery Section
GYOSEI (行政)	Administration
HOJOJUTSU (捕縄術)	The art of tying up a prisoner
JUJUTSU (柔術)	Self-defense
KEMPEI SHIREIBU (憲兵司令部)	Gendarmery General Hq
KEMPŌ (憲法)	Organic law
KŌTŌ GAKARI (口頭掛)	Special Investigation (Oral) Sub-Section
KYŌSHUTAI (教導隊)	Training Unit
NANYŌ KEMPEITAI HONBU (南洋憲兵隊本部)	South Seas Gendarmery Hq

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Interrogator's Note:

SHIHO GAKARI
(司法掛)

Judicial Affairs Sub-Section

SHOHU GAKARI
(庶務掛)

General Affairs Sub-Section

TAIHOJUTSU
(逮捕術)

The art of making an arrest

TOIKO GAKARI
(特高掛)

Special Investigation Sub-Section

The reader is referred also to JICPOA AD #OB-51, a revision of which appears as the appendix to this report. Further reference is made to JICPOA AD #OB-68, entitled "Duty Regulations of the Army Judicial Police of the KWANTUNG Army (KANTOGUN RIKUGUN SHIHO KEISATSU SHITSUMU KOKORO)."

1. PREAMBLE

POW is 30 years old, single, and resided at 17 AZA-HIGASHI-NOPORO, EBETSU MACHI, SAPPORO-GUN, HOKKAIDO. He attended the HOKKAIDO Middle School, from which he was graduated in Mar 1937, and then entered the preparatory department (SEIMONBU) of the Law College of WASEDA University. He left school during the summer of 1938, however, to accept employment with a gold-mining concern in HOKKAIDO.

POW responded freely to all questions and appeared unconcerned about military security. (In many instances, for example, he actually volunteered information ordinarily difficult to obtain.) He is an excellent source of information concerning military police organization, practice, and ideology.

2. CHRONOLOGY

1941

1 Mar Inducted into MG Co, Depot Unit, 25th Inf Regt, at SAPPORO.

POW INT REPORT #104, page 3

2. CHRONOLOGY (cont'd)

1941 (cont'd)

- 1 Aug Unit name changed to HOKUBU 63 BUTAI.
- 15 Nov Sent to Gendarmerie School, NAKANO, TOKYO.

1942

- 1 June Left TOKYO for TOYOHARA, KARAFUTO. Had three-day leave enroute at RUMOI, HOKKAIDO.
- 2 June Arrived TOYOHARA Gendarmerie Section.
- 11 Dec Left TOYOHARA.
- 15 Dec Left YOKOSUKA aboard CA TAKAO.
- 19 Dec Arrived TRUK; assigned to 3rd Gendarmerie Section, South Seas Gendarmerie.

1944

- 1 May Ordered transferred to Hq, South Seas Gendarmerie, PALAU.
- 3 June Left TRUK by DOUGLAS Naval Transport Plane (RYOKAKKI); arrived SAIPAN after an eight-hour flight.
- 11 June Scheduled to depart for PALAU by four-engine Transport Seaplane, but plane failed to take off because of American attack.
- 13 June Fled to the hills.
- 23 June Captured.

3. DETAILS OF CAPTURE

POW, who had merely been enroute to a new post, had no duties on SAIPAN and fled to the mountains as soon as the American attack on 13 June 1944 commenced. On the

POW INT REPORT #104, page 4

3. DETAILS OF CAPTURE (cont'd)

morning of 23 June he made his way up the slope of a mountain, where he believed that he would be safe. He lay down to sleep, but American soldiers who had arrived in a jeep aroused him and took him prisoner.

4. ORGANIZATION

Gendarmery General Headquarters (KEMPEI SHIREIBU) Gendarmery Gen Hq in TOKYO is the general gendarmery hq for all units within the Empire. Gendarmery Gen Hq are also found in MANCHURIA and in North, Central and South CHINA.

NAKANO Gendarmery School (RIKUGUN KEMPEI GAKKO) As of June 1942. The NAKANO Gendarmery School, where POW received his basic training, is located at KAKOI-CHO, NAKANO-KU, TOKYO. Commanded by Maj Gen MIURA, Saburo (subsequently replaced and now Lt Gen), its peacetime capacity of 450 per annum had been doubled when the course was shortened from twelve to six months.

After completing basic training in one of the arms or services, Army recruits are permitted to volunteer for gendarmery training. Applications are submitted through regular channels to the Cmdr, thence to the Regtl Cmdr. Examinations are held at the Gendarmery (KEMPEITAI) of local jurisdiction. Written entrance tests are given in the Japanese language, arithmetic, geography, history, and composition, and are followed by an oral examination.

Of ten applicants from POW's Regt, two or three were accepted. These were sent by rail to the Gendarmery School in TOKYO. During the morning studies (GAKKA) were carried out; the afternoons were devoted to technique (JUKKA). Studies included special investigation (TOHO), administration of justice (SHIHO), organic law (KEMPO), administration (GYOSHI), geography, and history. Texts were also studied in connection with techniques such as swordsmanship (KENJUTSU), self-defense (JUJUTSU), the art of making an arrest (TAIHOJUTSU), the art of tying up a prisoner (HOJOJUTSU), and horsemanship.

POW INT REPORT #104, page 5

4. ORGANIZATION (cont'd)

The Gendarmerie School was composed of two companies. These were also referred to as Training Units (KYOSHUTAI), and were each divided into six sections (HAN) of from 30 to 40 men each. A Lt Col commanded each Training Unit.

KARAFUTO Gendarmerie (KARAFUTO KEMPEITAI) As of Dec 1942

Headquarters (KARAFUTO KEMPEITAI HOMBURU) KAMI-SHIKUKAI

CO Lt Col OGASAWARA, Giichi

SHIKUKA Gendarmerie Section (SHIKUKA KEMPEI BUNTAI)

CO Capt OKUDA, Shinichi

KETON Gendarmerie Detachment (KETON KEMPEI BUNKENTAI)

TOYOHARA Gendarmerie Section (Strength 15 or 16)

CO Capt OKUDA, Shinichi
Sec Ldr (HANCHO) M/Sgt (Now WO) ASAHI, Keizo
General Affairs (SHOMU) Sgt HAYASHI, 1 enlisted man
Police Affairs (KEIMU) Sgt NAKAYAMA, six or seven
enlisted men (including POW)
Special Investigation Sgt SUGAWARA, three enlisted
(TOKKO (KOTO) men
Judicial Affairs (SHIHO) Four or five enlisted men

ODOMARI Gendarmerie Detachment

OTANI Gendarmerie Detachment

NAOKA Gendarmerie Section

Sec Ldr WO TAKARAI

There were, as of Dec 1942, no Gendarmerie Sub-Stations (BUNCHUSHO) in KARAFUTO.

ASAHIGAWA Gendarmerie

RUMOI Gendarmerie Section Feb 1944

Sec Ldr Sgt, four or five enlisted men

POW INT REPORT #104, page 6

4. ORGANIZATION (cont'd)

South Seas Gendarmery (NANYŌ KEMPEITAI) As of June 1944

Headquarters (NANYŌ KEMPEITAI HONBU) PALAU

CO Lt Col KASUYA, Eisei
Adj 2nd Lt NAKAMURA

1st Gendarmery Section, South Seas Gendarmery (NANYŌ KEMPEITAI DAI ICHI KEMPEI BUNTAI) PALAU

CO Lt Col KASUYA, Eisei
Sec Ldr WO ---

2nd Gendarmery Section, South Seas Gendarmery SAIPAN

CO Maj KOIKE, Magoshige
(Killed by Naval Bombardment, June 1944)

3rd Gendarmery Section, South Seas Gendarmery TRUK (DUBLON)

CO Capt ICHIKAWA, Hisanori
(Killed 4 Apr 1944)
Sec Ldr WO HATTORI
General Affairs M/Sgt TAJIMA
Police Affairs Sgt KOBAYASHI
Special Investigation Sgt MORIYA, Tadao (POW)
2 Leading Privates
Judicial Affairs Sgt WATANABE
1 Corporal

4th Gendarmery Section, South Seas Gendarmery KWAJALEIN

(Destroyed in operation of February 1944.)

Special Investigation Sub-Section (TOKKŌ GAKARI) The Special Investigation Sub-Section of the 3rd Gendarmery Section at TRUK consists of three gendarmes who dress in mufti, mix with the populace, and busy themselves with "furtherance of the common good" as well as with counter-espionage. POW himself was, in part, engaged for more than a year in an investigation of the work and activities of a missionary named NORMAN (?), who spoke the vernacular and regularly held

POW INT REPORT #104, page 7

4. ORGANIZATION (cont'd)

meetings for the natives, thus coming under suspicion. Careful observation and lengthy investigation, however, failed to produce evidence of spy activity, and thus no charges were preferred. The suspect was never placed in custody.

Special investigators assemble and evaluate information received through reports from outlying points, from POW interrogations, etc., and radio their own reports to South Sea Gendarmery Headquarters, KOROR ISLAND, PALAU.

Gendarmery Section messages from TRUK are forwarded through naval communications facilities.

5. IDENTIFICATION OF OTHER UNITS

Northern District Army (HOKUBU GUN) The Headquarters (SHIREIBU) of the Northern District Army is at SAPPORO, HOKKAIDŌ. In Dec 1942 the Army was commanded by Lt Gen HAMANO.

7th Division

The 7th Division at ASAHIGAWA is under the command of Commanding General, Northern District Army.

<u>HOKUBU 1 BUTAI</u>	(N1)	ASAHIGAWA
<u>HOKUBU 2 BUTAI</u>	(N2)	ASAHIGAWA
<u>HOKUBU 3 BUTAI</u>	(N3)	ASAHIGAWA
<u>HOKUBU 4 BUTAI</u>	(N4)	ASAHIGAWA
<u>HOKUBU 5 BUTAI</u>	(N5)	ASAHIGAWA
<u>HOKUBU 6 BUTAI</u>	(N6)	ASAHIGAWA

HOKUBU 63 BUTAI (N63) SAPPORO

This home designation is that of the Depot Unit at SAPPORO. It was formed 1 Aug 1941, from the Depot Unit, 25th Inf Regt. Reorganization from a peace-time to a war-time footing took place at that time and was manifested by the disappearance of collar color-patches and numerical insignia.

POW INT REPORT #104, page 8

5. IDENTIFICATION OF OTHER UNITS (cont'd)

KARAFUTO Mixed Brigade (Home designation HOKUBU 42; N 42)

Headquarters
Former CG

KAMI-SHIKUKA, KARAFUTO
Lt Gen OIKAWA.

POW stated that this Brig has a strength equivalent to that of two ordinary divisions. The overstrength personnel of the Brig is carried as supernumerary (TEIIN-GAI). The former Cmdr was Lt Gen OIKAWA, who was at NOMON-HAN and who went to KAMI-SHIKUKA in June 1941. The name of the present CG is unknown to POW.

Certain AANG Cos (KOSHA KIKANJŪ CHŪTAI) are organic parts of the Inf Regts of the Brig, the number and identity of which POW did not know. The Brig also has a mounted Reconnaissance Unit, a Tank Unit, and a Signal Unit. Ind Units working with or under the Brig are:

Ind AA Arty Units
Ind Engr Units
Ind Air Units

AA Defense Units (BOKŪTAI) were, as of Dec 1942, reported to be located as follows:

EROMA	1 Plat
OTANI (OCHIAI)	1 Co
SHIKUKA	1 Co
TOYOHARA	1 Co

The TOYOHARA Unit was commanded by an unidentified 1st Lt, had a complement of about 200, and was armed with eight Type 92 HMGs (7.7 mm) which were emplaced on roofs. (Information as of Dec 1942.)

Depot Unit, 25th Inf Regt Mar 1941 POW was inducted 1 Mar 1941 and assigned to the MG of the Heavy Weapons Bn, Depot Unit, 25th Inf Regt, SAP ORO, HOKKAIDO.

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5. IDENTIFICATION OF OTHER UNITS (cont'd)

Headquarters

CO
Adjt

Col HASEGAWA, Ichirō
Lt Col -----

1st Bn

Three Rifle Cos

2nd Bn

Three Rifle Cos

3rd Bn

Two Heavy Weapons Cos

Bn CO
Bn Adjt

Capt SOMBYA, Gorō
1st Lt

MG Co

Twelve Training Sections (MAN)

25 - 30 men in each section

Two HMGs (Type 92, 7.7 mm) in each section.

Eight Pistols (Type 14 Year) in each section.

CO	1st Lt MIYOSHI, Ichirō
Asgd	1st Lt OKADA, ---
Asgd	2nd Lt TAKAHASHI
Asgd	2nd Lt -----
Asgd	2nd Lt -----
Asgd	WO TAIEDA

Regimental Gun Co

CO 1st Lt NERIKO
Regtl, Bn Anti-tank guns.

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5. IDENTIFICATION OF OTHER UNITS (cont'd)

ASAHIGAWA Army Forces

At ASAHIGAWA the Japanese Army has reconnaissance, arty, tank, engr, and signal units in addition to infantry. The term "cavalry unit" (KIHEITAI) has disappeared from Japanese Army terminology and has been replaced by "Reconnaissance Unit" (SOSAKUTAI).

Gendarmery

The KWANTUNG Army Gendarmery is separate from that of JAPAN proper, as are the Gendarmery of the Japanese forces in North, Central, and in South CHINA. Each of these four areas has its own Gendarmery School, that of SOUTH CHINA being commanded by Lt Gen MIURA, Saburo (June 1944).

RUMOI, HOKKAIDO

When POW last visited RUMOI (June 1942), a Gendarmery Section had recently been established there. Since then letters from his father have announced the stationing at RUMOI of a detachment of Army troops.

KASHIMA BUTAI (52nd Division)

The KASHIMA BUTAI, commanded by Lt Gen MUGIKURA, had its Hq on DUBLON Island, TRUK. The Division does not have its Infantry Group (HEIDAN) with it at TRUK.

Division Headquarters

Staff Dept (BAKURYŌ BU)
Adjts Dept (FUKKAN BU)
Adm Dept (KANRI BU)

Intendance Dept (KEIRI BU)
Ordnance Dept (HEIKI BU)
Medical Dept (GUNT BU)
Supply Dept (HOKYU BU)

DUBLON Island

Col TAJIMA
Lt Col YOSHIDA
Responsible for
JINEIGU (陣營員),
i.e., flags, paper,
buildings, horses, etc.

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5. IDENTIFICATION OF OTHER UNITS (cont'd)

u/i Inf Regt

DUBLON Island

CO an Inf Col

Armament:

Emplaced Fd Arty

75 mm Regtl Inf Guns

70 mm Bn Guns

6-shot Automatic Guns, Large Caliber, AP Ammo

AT Guns

81 mm Trench Mortars

Type 92 HMGs, 7.7 mm

LMGs

GDs

Type 99 Rifles, 7.7 mm

(There are a total of four Inf Regts at TRUK, the identity of which has not been established.)

One Tank Bn

DUBLON Island

Eight tanks seen; probably there are more.

Twin Mount AA MG Cos

Various Islands, Reefs

Equipped with twin mount AA MGs and SLs

Sea Transport Unit Hq

TEPPAN Island

4th Base Force (Naval)

DUBLON Island

Cmdr

Vice-Adm HARA

C of S

Vice-Adm HARA

Naval Hq

Naval Hq at TRUK is divided as follows. All departments are on DUBLON Island:

Dept (Unit) (BU (TAI)

Commander (CHō)

Transportation Dept (UNYU BU)

Capt AOKI

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5. IDENTIFICATION OF OTHER UNITS (cont'd)

Harbor Master's Dept (KŌMU BU)	Capt NAKAMURA
Civil Engr Dept (SHISETSU BU)	Capt HAGIWARA (deceased)
Communications Unit (TSUSHIN TAI)	Capt ISOBE
Guard Unit (KEIBI TAI)	-- --
Submarine Base (SENSUIKAN KICHI)	-- --
Const and Repair Dept (KŌSAKU BU)	-- --
Weather Unit (KISHŌ TAI)	Capt ISOBE

Civil Engineering Dept

The Civil Engr Dept has Units (TAI) on almost all of the various islands of the TRUK group. These Units formerly were known by the names of their respective commanders, but each now has its own number in the thousand series. Each Co (CHUTAI) is headed by a Civil Engr (GISHI) who is the commanding officer (TAICHO), and each is divided into Plats (SHOTAI) formerly known as Sections (HAN). The plat leader is an Asst Civil Engr (GITE).

Militarized Natives

As of June 1944

About 4,800 KANAKAs are found in the TRUK Group of islands. Some 800 native inhabitants of TRUK (both men and women) were sent to NAURU as members of a labor bn and are still there.

On UJIAN Island native soldiers (TŌMIN HLI) are given limited military training. Native women are used in light labor and in kitchens. All personnel are fed, clothed, and housed at government expense. Men receive, in addition, a stipend of ¥ 30.00 monthly, whereas women receive a daily wage of ¥ 1.00 per day.

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6. IDENTIFICATION OF PERSONALITIES

HAMANO, ----	Lt Gen	CG Northern Dist Army, SAPPORO, 1942
MIURA, Saburō	Lt Gen	Commandant, South CHINA Gendarmerie School, 1944
MUGIKURA, Shunzaburō	Lt Gen	CG KASHIWA BUTAI (52nd Div), DUBLON Island, TRUK, 1944
OIKAWA, -----	Lt Gen	Formerly CG HOKUBU 42 BUTAI (KARAFUTO Inf Mixed Brig), KAMI- SHIKUKA, KARAFUTO
HASEGAWA, Ichirō	Col	CO Depot Unit, 25th Inf Regt, SAPPORO, Mar 1941; CO HOKUBU 63 BUTAI, SAPPORO, 1 Aug 1941
TAJIMA, Kazuichi (AL has TASHIMA)	Col	C of S KASHIWA BUTAI, DUBLON Island, TRUK, 1944
KASUYA, Eisei	Lt Col	CO South Seas Gendarm- ery Hq, PALAU. Also CO 1st Gendarmerie Section, South Seas Gendarmerie, PALAU, June 1944
OGASAWARA, Giichi	Lt Col	CO KARAFUTO Gendarmerie Hq, KAMI-SHIKUKA, June 1944
YOSHIDA, ----	Lt Col	Adjts Dept 52nd Div, DUBLON Island, June 1944

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8. ARMAMENT AND EQUIPMENT

When they are accepted by the Gendarmerie as Leading Privates, gendarmes are given a pistol and a sword. The pistol (Type 14 year) is an automatic with an eight-round clip. The holster provides for the carrying of the loaded pistol, a spare clip of eight rounds and a paper carton of sixteen rounds. 7.7 mm ball ammo is used.

The military sword (Type 95) is worn when the gendarme is in uniform.

9. ENEMY METHODS AND TRAINING

For Gendarmerie Training and Operations see Section four (ORGANIZATION).

11. DEFENSES

TRUK The sketch (see Appendix 1) is a tracing of POW's drawing of a mammoth air-raid shelter on DUBLON Island which, in June 1944, was approximately one-third completed. All important Army Depts are, presumably, now housed in this air-raid shelter, which has been tunneled into the mountain side.

12. ENEMY SUPPLIES AND INDUSTRIES

The blockade has limited the supplies received by the TRUK Naval Stores Department, which issues food, clothing, and ammo three times each month. Moreover, the Feb 1944 aerial bombardment started fires which destroyed half the stores, and by 1 June 1944 the forces on TRUK were being fed spoiled rice.

15. WASTAGE AND CASUALTIES

Of the approximately 40 vessels there, 32 (each of 3,000 tons or more) were sunk in the allied air strike on TRUK, 16 and 17 February 1944. Three DDs and many requisitioned ships, including the ATLANTIC MARU, the NIPPON MARU, and the RIO DE JANEIRO MARU, were lost by the Japanese.

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17. MILITARY AND NAVAL BASES

KARAFUTO The Japanese half of this island is a fog-shrouded, tundra-covered, frozen waste during most of the year, and only the harbors of MAOKA and ODOMARI are useful. TOYOHARA SHICHO and MAOKA SHICHO are frozen in winter but ODOMARI SHICHO and TOYOSAKAI SHICHO never freeze. TOYOHARA has a radio broadcasting station.

There are no naval forces in KARAFUTO, and the protection of the island is the responsibility of the CG, KARAFUTO Ind Mixed Brig, whose hqs are at KAMI-SHIYUKA. The only naval unit is one of approximately 20 men under a Lt Cmdr who is on duty at the office of the Anchorage Hq at ODOMARI.

RUMOI, RUMOI SHICHO, HOKKAIDO RUMOI is an open port and has a customs house. The roadstead accommodates ships up to 4,000 tons, and the port is about half the size of OTARU. Its exports are lumber, coal, and marine products (principally cuttle fish, herring, horse-mackerel (AKIAJI), and seaweed (KOMBU)). The mine whose output is greatest is the bituminous coal producer at OWADA. All mines are now operated by the government (KANRI KOJO).

18. MEDICAL

At TRUK dengue fever is prevalent and tuberculosis is common, even among military and naval personnel. TRUK hospitals are well equipped, and medical stores are plentiful. The Army has only male nurses, but the Navy has female as well as male nurses. About 40 women, ages 18 to 24, were housed in Naval Nurses' Dormitory, TRUK, until Nov 1943.

20. SPECIAL INTELLIGENCE

American Prisoners from Submarine During Dec 1943 an American SS was hit by a Japanese aerial bomb and forced to the surface. The vessel ran onto a reef, and her crew of 45 or 46 men were taken prisoner.

The American POWs were questioned by the authorities

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20. SPECIAL INTELLIGENCE (cont'd)

of the Naval Guard Force (KEIBITAI), although responsibility for their custody and care belongs to the Army. The Gendarmery receives reports, but it does not participate in POW investigation.

A Japanese CV, probably the SHOKAKU, left TRUK for JAPAN Proper late in Dec 1943 with the POWs aboard. The carrier was torpedoed enroute but did not sink. The fate of the POWs is unknown.

21. MISCELLANEOUS

Mail Address

POW's mail address at TRUK was:

MORIYA, Tadao U 50 U 00 (KEN)
C/O YOKOSUKA Post Office

TOHO KAIKO KABUSHIKI KAISHA POW worked for two years for the TOHO KAIKO KABUSHIKI KAISHA, a Gold-Mining Concern at KAMI-
IKUTA-MURA, MOIBETSU-GUN, KITANI-NO-KUNI, HOKKAIDO. The firm has, at KAMI-IKUTA-MURA, an office (JIMUSHO), a gold-silver-copper mine (KIN GIN DO KO), a refinery (SEIREN JO), and an analysis works (BUNSEKI JO).

About a thousand employees, both male and female, are, with their families, cared for by the company. These people live in company dormitories and are fed by the Co. Women miners are paid from one to one and one-half yen per day, surface workers getting but one yen (¥ 1.00). Male miners receive two yen (¥ 2.00) daily.

The gold is assayed and sent to TOKYO. All sales are to the TOHO SAIKAI KO KABUSHIKI KAISHA, MARUNOUCHI-NICHOME, KOJIMACHI-KU, TOKYO TO.

Although theoretically the mine produces silver and copper as well as gold, the two less precious metals are not produced in paying quantities and so are generally discarded with waste material.

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21. MISCELLANEOUS (cont'd)

Addresses of Army Units in KARAFUTO All Army Units in KARAFUTO (except the Gendarmery Units) receive their mail at Post Office Box numbers. Since the outbreak of war, PO Box numbers have been assigned to all principal Army Units. Sub Units at various stations are addressed at sub numbers, usually with syllabic (I-RO-HA) designations, e.g., I of PO Box No 400, KAMI-SHIKUMA, KARAFUTO.

TRUK The population of TRUK in June 1944 is estimated as follows:

Trukese	4,000
Japanese Army	20,000
Japanese Navy	
Naval personnel	10,000
Civilian employees	<u>10,000</u>
	44,000

All local Japanese residents (CHIHŌJIN) and all female (Japanese) civilian employees (formerly employed in offices) were evacuated from TRUK between Nov 1943 and Apr 1944. The only women of Japanese nationality now at TRUK are prostitutes whose continued physical presence has been adjudged essential to the war effort.

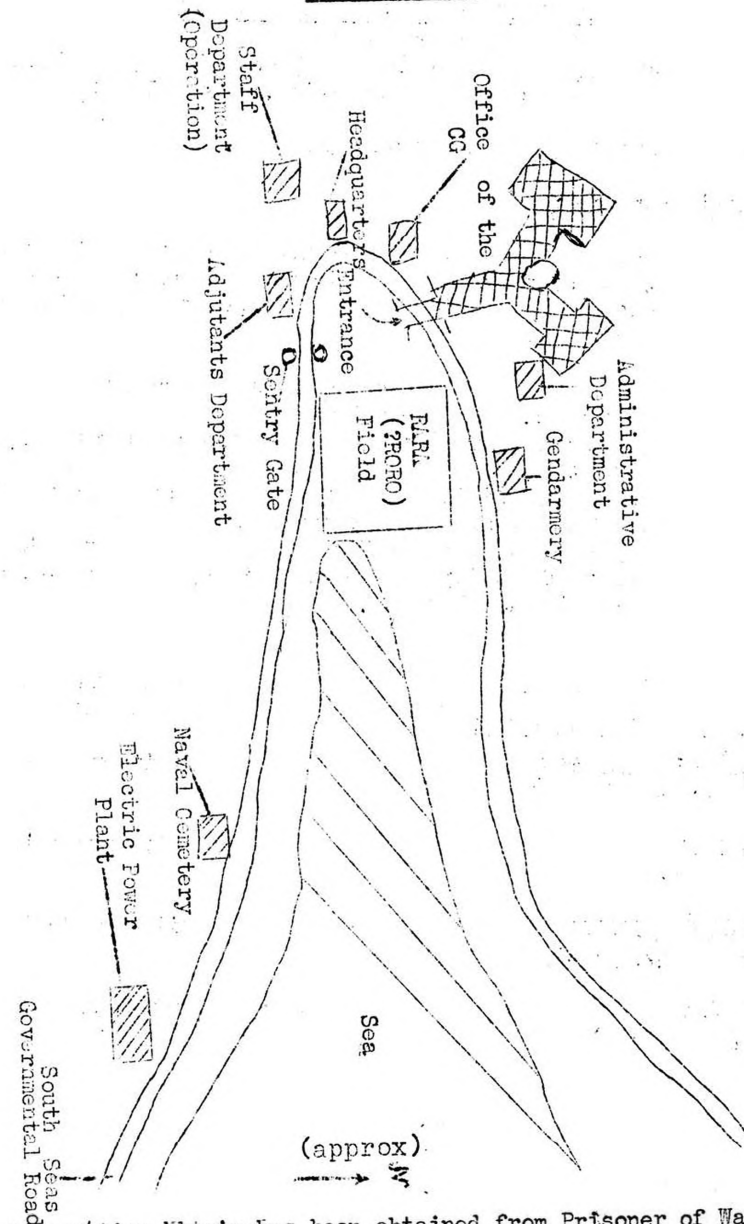
Civilian Employees (GUNZOKU) Civilian employees are of two sorts, the forced (CHOYO) and the volunteer (SHIGAN) laborer (more or less skilled). In the field both sorts are used as one group, and their fixed terms of service appear readily extensible in accordance with "military necessity."

The Army (Navy) authority of competent jurisdiction sends to the War (Navy) Ministry requests for civilian employees. Upon approval these requests become drafts of forced labor and are transmitted through the authority of local jurisdiction (SHI CHO SON CHO, KEISATSUSHO, and/or SHORUGYO SHOKAISHO) to the head of the household (KOSHU), and thence to the individual. Where forced labor is not locally acceptable, civilian employees are recruited (BOSHU), although the local authorities grant applicants permission to volunteer until quotas are filled.

---The information contained herein has been obtained from Prisoner of War sources and must be judged accordingly---

APPENDIX 1
TRUK AIR-RAID SHELTER

DUBLON ISLAND



--The information herein has been obtained from Prisoner of War sources and must be judged accordingly--

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APPENDIX-2TRANSLATION OF JAPANESE DOCUMENT

Source: Japanese Encyclopedia DAI HYAKKA JITEN, VOL VIII
(7th Reprint, 1st Edition, 5 May, 1935).

Subject: The Japanese Gendarmery (KEMPEI).

Translator's Foreword:

This translation has been prepared for use in connection with the report of an interrogation of a Prisoner of War who was, until June 1944, a Sergeant in the Gendarmery Section at TRUK.

The following Japanese terms have been herein rendered as indicated. Contra-distinguished from renderings appearing in Japanese Order of Battle Dictionary (Volume I, 10 September 1944), those herein employed are used because of the Military definition of Military Police in contrast with that of Gendarmery. Moreover English-language publications appearing in the Far East during the last two decades have uniformly employed like renderings. (See also Argall, "My Life with the Enemy").

CHŌSEN KEMPEI TAI SHIREIKAN
(朝鮮憲兵隊司令官)

Commanding General Korean
Gendarmery

GUNJI GYŌSEI KEISATSU
(軍事行政警察)

Military Administrative
Police

GUNJI KEISATSU
(軍事警察)

Military Police

GUNJI SHIHŌ KEISATSU
(軍事司法警察)

Military Judicial Police

HOJO KEMPEI
(補助憲兵)

Auxiliary Gendarmes

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KEMPEI (憲兵)	Gendarmerie
KEMPEI BUNTAI (憲兵分隊)	Gendarmerie Section
KEMPEI SHIREI BU (憲兵司令部)	Gendarmerie General Headquarters
KEMPEI SHIREIKAN (憲兵司令官)	Commanding General, Imperial Japanese Gendarmerie
KEMPEITAI (憲兵隊)	Gendarmerie (Unit)
KEMPEITAI BUNCHUSHO (憲兵隊分駐所)	Gendarmerie Sub Station
KEMPEITAI BUNKENTAI (憲兵隊分遣隊)	Gendarmerie Detachment
KEMPEITAI HONBU (憲兵隊本部)	Gendarmerie Headquarters
NANYO KEMPEITAI (南洋憲兵隊)	South Seas Gendarmerie
NANYO KEMPEITAI DAI ICHI KEMPEI BUNTAI (南洋憲兵隊第一憲兵分隊)	1st Gendarmerie Section, South Seas Gendarmerie
RIKUGUN KEMPEI (陸軍憲兵)	Gendarmerie
RIKUGUN KEMPEI GAKKO (陸軍憲兵學校)	Gendarmerie School
TOKKO GAKARI (特高掛)	Special Investigation Sub Section

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Gendarmery (KEMPEI)

A Branch of Service of the Army

The Gendarmery (KEMPEI) lies within the jurisdiction of the War Minister, and is charged principally with the supervision of the Military Police (GUNJI KEISATSU). It controls both administrative and judicial police,

Military Police (GUNJI KEISATSU)

In order directly to obviate dangers which confront the Imperial Forces, and indirectly to aid in the healthful development of the Army and the Navy, the Gendarmery is vested with the right to exercise the Nation's authority over military personnel and the general public alike, and is divided into Military Administrative and Military Judicial Police.

Having as its objective the furtherance of the administration of military affairs and the implementing of the authority of the Commander-in-Chief, the Military Administrative Police have an exceedingly wide jurisdiction, possessing authority to enforce the laws governing the protection of military secrets, fortified zones, naval stations, minor naval stations, conscription, military service, the call up of reservists (SHOSHU), the requisitioning of supplies (CHOMATSU), the enforcement of martial law (KAIGEN), etc., as well as authority to supervise military discipline and public morals and to maintain order on the battlefield. The Military Judicial Police exercise the power of investigating criminal cases involving military personnel or militarized civilians, collect evidence, and issue warrants.

The Commanding General, Imperial Japanese Gendarmery (KEMPEI SAIBUIKAN)

The Commanding General controls the various Gendarmery Units (BUTAI) and presides over the business of Gendarmery General Headquarters which are located in TOKYO.

Gendarmery (KEMPEITAI)

There are five Gendarmery (KEMPEITAI) in KOREA and these are controlled by the Commanding General, Korean Gendarmery (CHOSUN KEMPEITAI SHIBUIKAN) who is subordinate to the Commanding General, Imperial Japanese Gendarmery. In JAPAN proper, allocation of Gendarmery

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Gendarmerie (KEMPEITAI) (cont'd)

usually follows the regular Divisional Districts, with one Gendarmerie to each Divisional District, there being a total of fifteen. In addition there is a Gendarmerie in FORMOSA and one in KWANTUNG Leased Territory. Each Gendarmerie is divided into a Headquarters (HOMBU) and Sections (BUNTAI). Headquarters is generally located where there is a Division or an Army Headquarters. Sections are stationed at important points within a District.

Auxiliary Gendarmes (HOJO KEMPEI)

Men from the several branches of Service other than the Gendarmerie are appointed by the War Minister, Army Commander, or Divisional Commander, as auxiliary gendarmes and are assigned to the command of the Commanding General, Imperial Japanese Gendarmerie, Commanding General, Korean Gendarmerie, Commanders of Gendarmerie Units (KEMPEITAI CHO), or Commanders of Gendarmerie Sections. Auxiliary gendarmes assist in the performance of the duties of the Gendarmerie and wear the uniform of the men of their own branch with a brassard on the left arm (white with Gendarme printed on the brassard in red).

(END)