TECHNICAL AIR INTELLIGENCE CENTER

SUMMARY #23

Japanese Trainer Aircraft

Issued by the Division of Naval Intelligence
By
Combined Personnel of United States and British Services
for the Use of Allied Forces

TECHNICAL AIR INTELLIGENCE CENTER

NAVAL AIR STATION ANACOSTIA D C

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JAPANESE TRAINER AIRCRAFT

ISSUED BY THE DIVISION OF NAVAL INTELLIGENCE
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TECHNICAL AIR INTELLIGENCE CENTER
NAVAL AIR STATION
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JAPANESE TRAINER AIRCRAFT

INDEX OF AIRCRAFT SUMMARIZED

ARMY TRAINERS

NAVY TRAINERS

JAPANESE TRAINER AIRCRAFT

Code-Naming of Trainers

The need for recognition information on Japanese Trainers is increasing as the Allies approach Japanese home areas, and current operations over and near the mainland demonstrate the necessity of photographically distinguishing between operational aircraft and trainers.

To clarify the status of Trainers, code names are being assigned those most frequently sighted. The list will be expanded as the necessity arises. To avoid confusion with the operational list of Japanese aircraft, the names of "TREES" will be applied to all coded trainers, i.e. Hickory, Spruce, etc. In cases where an obsolete or an obsolescent combat type is now used as a trainer the previously adopted code name will still apply. i.e. ANN Trainer, MARY Trainer, OSCAR 2 Trainer, etc. Only aircraft specifically designed as trainers will be coded under this new system.

Existing information is far from complete; as additional factual and descriptive material is received, the present limited data will be revised and amplified. Silhouettes and drawings are shown in cases where coverage is available.

List of Coded Trainers

The following trainers have been identified in sufficient numbers on various airdromes to warrant their being coded.

	Code Names
Type 95 Model 1 Trainer (Ki 9)	Spruce
Type 1 Advance Trainer - Army - (Ki 54)	Hickory
Bücker Jungmann Type Trainer - Army - (Ki 86)	Cypress

All aircraft are listed in chronological sequence by type numbers; the Army by "Ki" numbers and the Navy by Model/Type symbols.

Designed Trainers vs Combat Trainers

Many Japanese trainers are earlier versions of currently operational models. Since it would be virtually impossible to distinguish between a combat type and a trainer, it is felt that any airplane in this category should be (for offensive missions and photo-interpretation work) considered as a combat type. For assistance in visual recognition, it may be assumed that any aircraft painted solid red is most probably a trainer.

Japanese Trainer Policy

The preponderance of Japanese trainers are former first line aircraft that have become obsolescent or totally obsolete. Of the 22 Army types listed in this Summary, 10 are obsolete or obsolescent operational types, 2, the Type 99 "Ki 55" and the Type 2 "Ki 79", are conversions from IDA and NATE respectively and little is known about the R-5, Ki 24, Ki 25 and Ki 26. The Navy list includes 28 types of which 10 are obsolete or obsolescent operational types. Twelve others, (the first 6 listed on page 13, K4Y1 on page 14, K6K1 and K7M1 on page 15, K9W1 and K10W1, K11W1 and K11W2 on page 16) are as yet undefined aircraft.

ARMY TRAINERS

Type 94 Reconnaissance (Ki 4)

Two-place biplane of unequal span with curved trailing edges; built by Nakajima and powered by a Ha 8 (Type 94 550 h.p.) 9-cylinder radial engine manufactured by Nakajima. Figure 1.

Dimensions:		
	Span	39' 6"
	Length	26' 2"

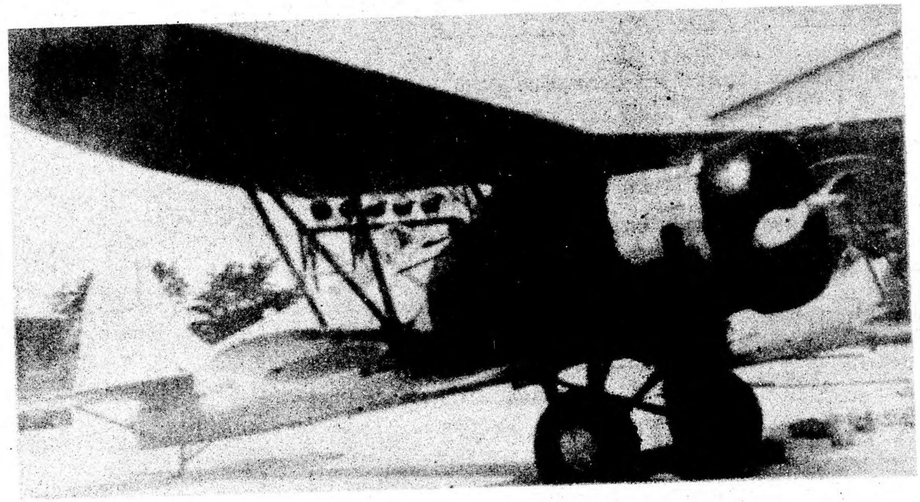


Fig. 1

Type 95 Model 2 (Ki 6)

Built by Nakajima and powered by a Ha 8 (Type 94 550 h.p.) 9-cylinder radial engine manufactured by Nakajima.

Type 95 Model 1 (Ki 9)

Code name "SPRUCE"

Two-place biplane of unequal span with straight leading and trailing edges to rounded wing tips; built by Tachikawa and powered by a Ha 13 (Type 95 350 h.p.) 9-cylinder radial engine manufactured by Hitachi and enclosed by a speed ring cowl. Figures 2 and 3.

Dimensions:		
	Span	32' 9½"
	Length	26' 3"

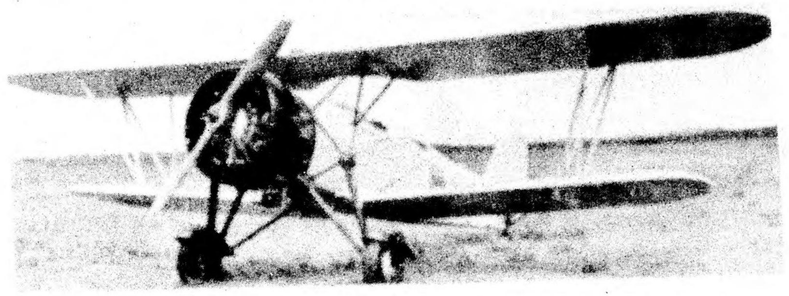


Fig. 2

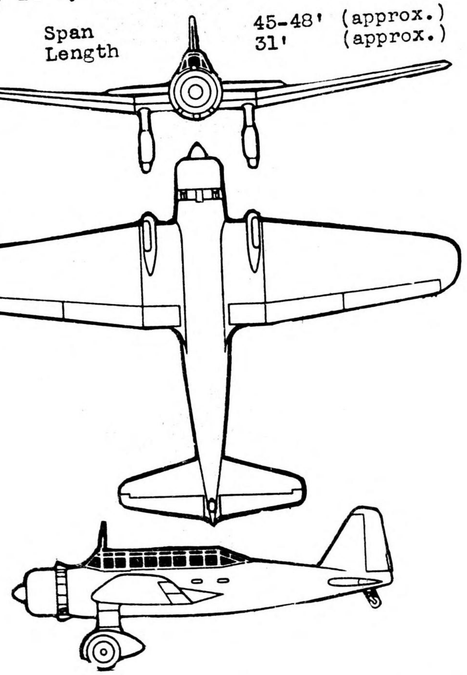
Type 97 ANN (Ki 30)

A single engine aircraft of approximately 45-48' span has been sighted recently by reconnaissance flights over Japan.

It is believed that this airplane might possibly be ANN and although the Ki number sequence of this Summary is disrupted the following information on ANN is included herein.

ANN is a two place, low-wing monoplane built by Mitsubishi and powered by a Ha 5 (Type 97 850 h.p.) 14-cylinder, radial engine manufactured by Nakajima

Dimensions		
	Span	45-48' (approx.)
	Length	31' (approx.)



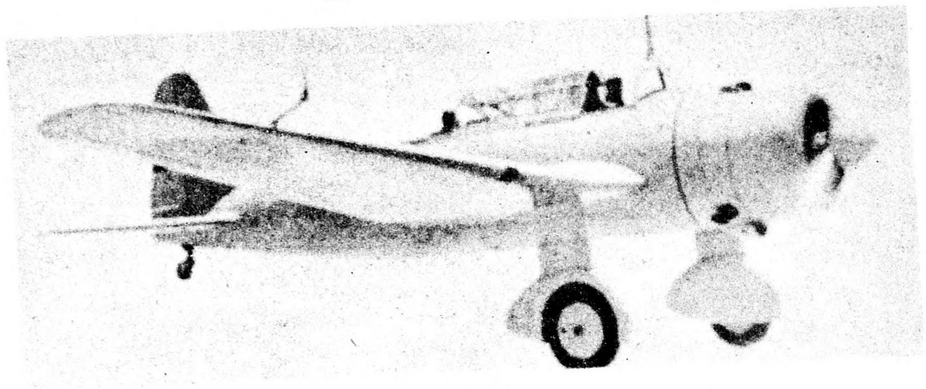


Fig. 9

Type 98 IDA (Ki 36)

Two-place low-wing monoplane with prominently swept back leading edge and straight trailing edge to rounded tips; built by Kawasaki and Tachikawa and powered by a Ha 13A (Type 98 450 h.p.) 9-cylinder radial engine manufactured by Hitachi. Figure

Dimensions:		
	Span	39' (approx.)
	Length	27' (approx.)

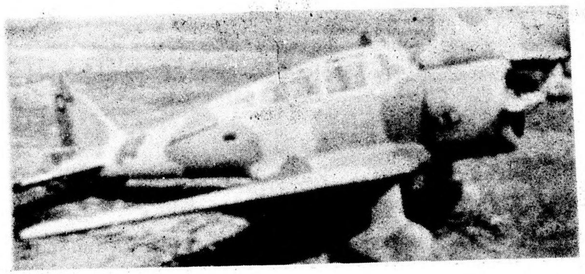


Fig. 10

Type 1 OSCAR (Ki 43)

Single-place low-wing monoplane; built by Nakajima and powered by a Ha 25 (Type 99 950 h.p.) 14-cylinder radial engine manufactured by Nakajima. Figure 10.

Dimensions:		
	Span	37' 6"
	Length	29'

Fig. 11

Type 100 DINAH (Ki 46)

Two-place, low-wing monoplane, built by Mitsubishi and powered by two Ha 26 Model 2 (Type 99 900 h.p.) 14-cylinder radial engines manufactured by Mitsubishi. Figure 11.

Dimensions:		
	Span	48' 4"
	Length	36' 3"

Fig. 12

Type 99 LILY (Ki 48)

Multi-place mid-wing monoplane; built by Kawasaki and powered by two Ha 25 (Type 99 950 h.p.) 14-cylinder radial engines manufactured by Nakajima. Figure 12.

Dimensions: Span 57' 4"
Length 42' 1½"

Fig. 13

Type 99 SONIA (Ki 51)

Two-place low-wing monoplane; built by Mitsubishi and powered by a Ha 26 Model 2 (Type 99 900 h.p.) 14-cylinder radial engine manufactured by Mitsubishi. Figure 13.

Dimensions: Span 39' 10"
Length 30' 2"

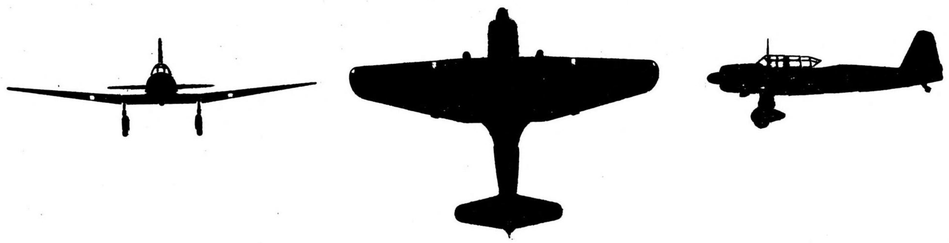


Fig. 14

Type 1 Advance Trainer (Ki 54) Code name "HICKORY"

Multiplace low-wing monoplane; built by Tachikawa and powered by two Ha 13A (Type 98 450 h.p.) 9-cylinder radial engines manufactured by Hitachi. Figures 14 and 15.

Dimensions: Span 59' 10"
Length 41' 0" (approx.)

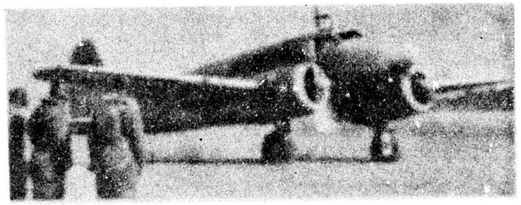


Fig. 15

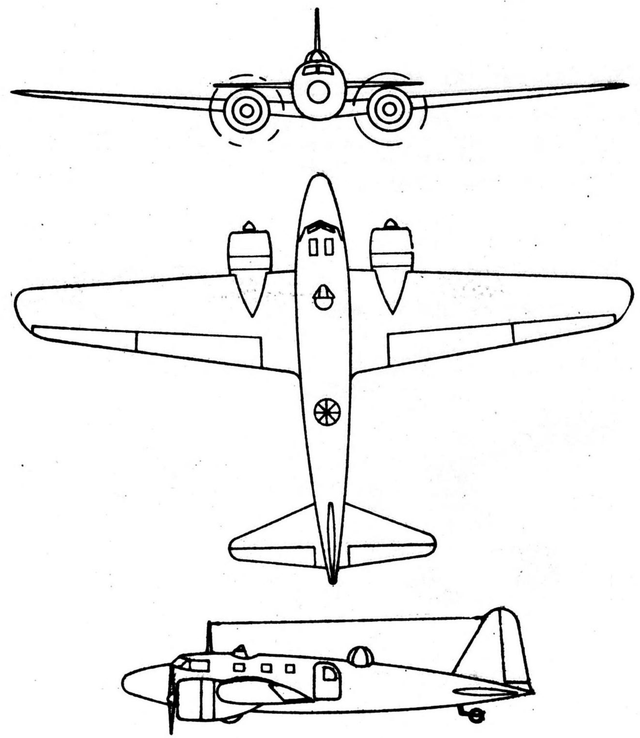


Fig. 16

Type 99 Advance Trainer (Ki 55)

Probably has the same dimensions as IDA (Ki 36) and recognitionally is similar; only difference is elimination of usual IDA antenna rod. Built by Tachikawa and Kawasaki and powered by a Ha 13A (Type 98 450 h.p.) 9-cylinder radial engine manufactured by Hitachi. Figure

Dimensions: Span 39' (approx.)
Length 27' (approx.)

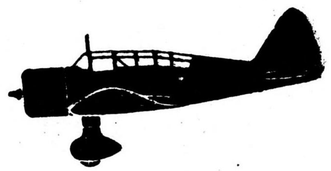


Fig. 17

Type 2 Advance Trainer (Ki 79)

Single-place low-wing monoplane, built by Rikugan K K and powered by a Ha 13A (Type 98 450 h.p.) 9-cylinder radial engine manufactured by Hitachi.

This trainer is a modified version of NATE with slightly increased length and span with squared wing tips.

Dimensions: Span 37' 1"
Length 25' 8"

Bucker Jungmann Type Trainer (Ki 86) Code name "CYPRESS"

Two-place biplane of even span, originally built by Germany; Japanese version powered by Ha 47 110 h.p. 4-cylinder inverted inline air-cooled engine manufactured by Hitachi. The German Hirth HM 504 4-cylinder inline air-cooled engine of 100 h.p. may also be installed. Figure 17.

Dimensions:		
	Span	24' 3"
	Length	21' 8"

Fig. 18

LITTLE OR NO INFORMATION IS AT HAND ON THE FOLLOWING:

R-5 Biplane Trainer

Two-place biplane of uneven span; built by Tachikawa and powered by a 130 h.p. 4-cylinder inverted inline engine. This trainer is almost identical to the De Havilland Gypsy Moth. Figure 18.

Dimensions:		
	Span	31' 4"
	Length	23' 3"

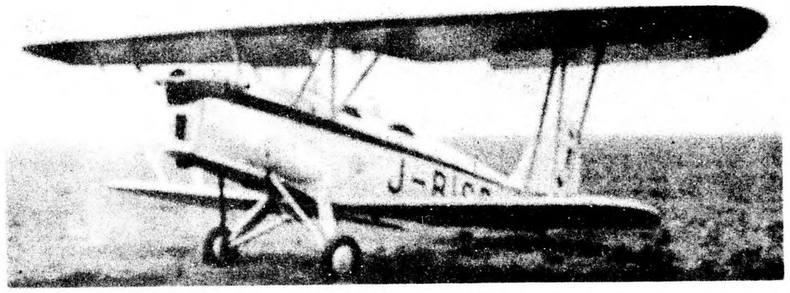


Fig. 19

Ki 24 Trainer

Ki 25 Trainer - Possibly a single-seat Trainer Glider.

Ki 26 Two-place Trainer

NAVY TRAINERS

Type 2 CLAUDE Trainer (A5M4-K)

This airplane is probably CLAUDE which has been rebuilt to serve as a trainer. Built by Mitsubishi and powered by a Kotobuki 41, about 650 h.p. 9-cylinder radial air-cooled engine. Figure 19.

Dimensions:		
	Span	36' 1"
	Length	24' 7"

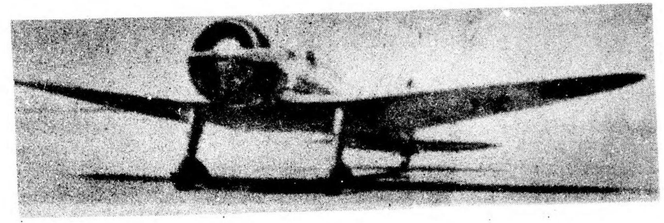


Fig. 20

Type 0 ZEKE 21 (A6M2-K)

Single-place low-wing monoplane built by Mitsubishi and powered by Nakajima Sakae 12, 14-cylinder twin-row radial air-cooled engine, developing 925 h.p. at take-off. Figure 20.

Dimensions:		
	Span	39' 6"
	Length	29' 5"

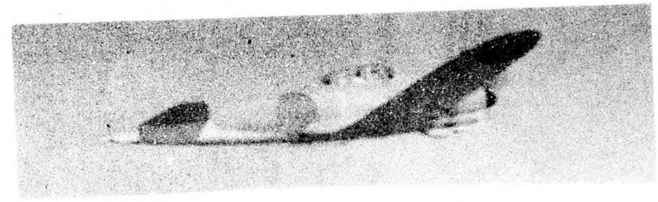


Fig. 21

Type 0 RUFE (A6M2-N)

Single-place central float low-wing monoplane; built by Nakajima and powered with a Nakajima Sakae 12, 14-cylinder radial engine developing 925 h.p. at take-off. Figure 21.

Dimensions:		
	Span	39' 4"
	Length	33' 10"

Fig. 22

Type 97 KATE (B5N1-K)

Three-place low-wing monoplane built by Nakajima and powered by Nakajima Sakae 11 14-cylinder twin-row radial air-cooled engine developing 980 h.p. at take-off. Figure 22.

Dimensions:		
	Span	50' 10"
	Length	34' 3"

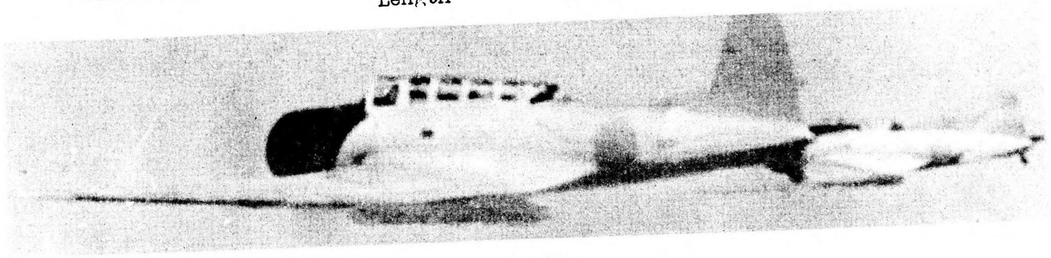


Fig. 23

Type 96 SUSIE (D1A2-K)

Two-place biplane of even span; built by Aichi and powered by a Hikan Model 2 (earlier series) 9-cylinder 750 h.p. radial engine. Figure 23.

Dimensions:		
	Span	37' 6"
	Length	30' 10"

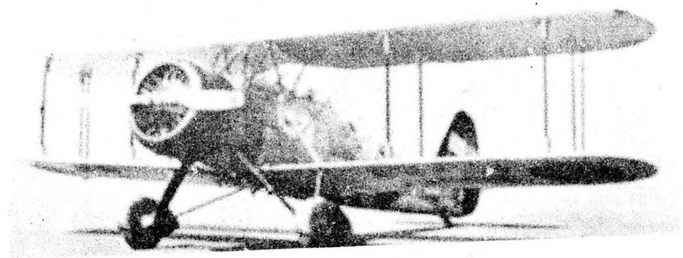


Fig. 24

Type 99 VAL (D3A2-K)

Two-place low-wing monoplane fixed undercarriage, built by Aichi and powered by Mitsubishi Kinsei 54, 14-cylinder (1060 h.p.) twin-row radial air-cooled engine. Still operational but being converted to trainer. Figure 24.

Dimensions:		
	Span	47' 6"
	Length	35' 4"

Fig. 25

Type 95 DAVE (E8N1)

Two-place central float biplane of unequal span with swept back upper wing and straight lower wing with rounded tips; built by Nakajima and powered by a Kotobuki Model 2, 9-cylinder radial air-cooled engine of 625 h.p. at 4,750 feet. Figure 25.

Dimensions:		
	Span	36' 2"
	Length	27' 11"

Fig. 26

Type 0 JAKE (E13A1-K)

Two-place twin float low-wing monoplane with straight leading edge and eliptical trailing edge; built by Aichi and powered by Mitsubishi Kinsei 43 14-cylinder radial air-cooled engine developing 1045 h.p. at sea level. Figure 26.

Dimensions:		
	Span	46' 9"
	Length	37' 3"

Fig. 27

Type 96 NELL (G3M1-K)

Multi place mid-wing monoplane, twin fin and rudder; built by Mitsubishi and latest version powered by two Mitsubishi Kinsei 14-cylinder twin-row radial air-cooled engines of 1280 h.p. at take-off. Figure 27.

Dimensions:		
	Span	82' 0"
	Length	54' 0"

Fig. 28

Type 1 Large Land Trainer (G6M1-K)

Probably similar to BETTY in dimensions and probably powered by two Kasei 11, 14-cylinder radial engines.

Type 2 Trainer Flying Boat Model 11 (H9A1)

Manufactured by Aichi and powered by Kotobuki Model 42 engines.

North American Intermediate Trainer (KXA1 and KXA2)

This airplane is most probably the NA-16-4 more commonly referred to in the United States as the North American BT-9. The BT-9 is a two-place low-wing monoplane, powered by a Wright Whirlwind R-975-E3, radial engine.

Code Name CYPRESS

Jungmann Trainer (KXB1)

Bücker Bu 131 Jungmann Trainer powered by a Hirth HM 504, 100 h.p. 4-cylinder inverted, inline, air-cooled engine. Original German model of the Ki 86, depicted as Figure 17 in the Army Trainer section.

Caudron Trainer (KXC1)

This airplane is most probably the Caudron C 600 "Aiglon" a two-seated, low-wing monoplane with fixed, faired undercarriage, powered by a 100 or 140 h.p. 4-cylinder, inverted inline air-cooled, Renault "Bengali" engine.

Dimensions:	Span	37' 4"
	Length	24' 11"

KXH1

No data, but probably originated from a German trainer made by Heinkel.

"Type 3" Mk. 11 Land Basic Trainer (K2Y1, K2Y2) (Probably Type 88)

Two-place biplane of even span with straight leading and trailing edges to rounded tips; built by Air Technical Arsenal at Yokosuka and powered by a Kamikaze Model 2, Type 95, 150 h.p. 7-cylinder radial engine. Figure 28.

Dimensions:-	Span	36' 0"
	Length	28' 5"

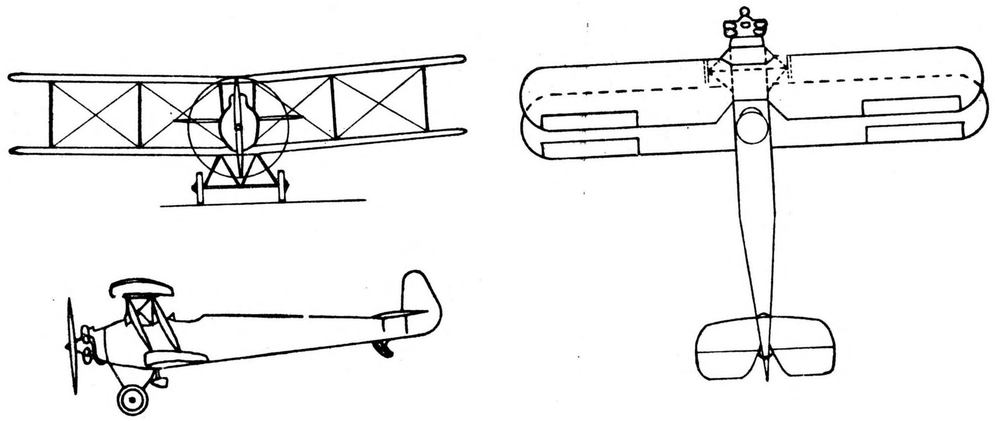


Fig. 29

Type 90 Seaplane Basic Trainer (K3M2) and Type 90 Land Utility (K3M3)

Two-place biplane of equal staggered spans and twin floats; straight leading and trailing edges to rounded wing tips. Built by Mitsubishi and probably powered by Kotobuki 9-cylinder radial air-cooled engine. Figure 29. K3M3 is the same aircraft equipped with wheels instead of floats.

Dimensions:	Span	33' 2"
	Length	29' 8"

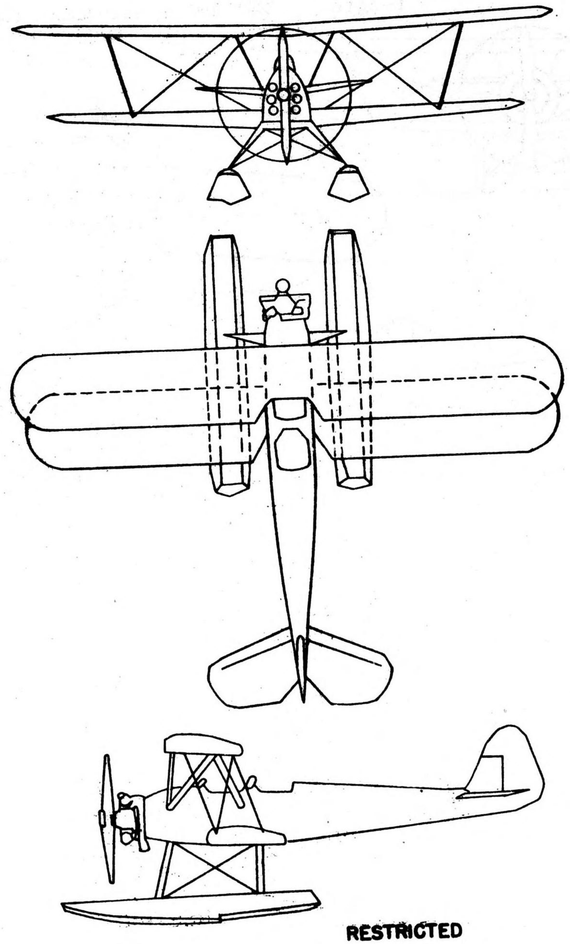


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Fig. 30

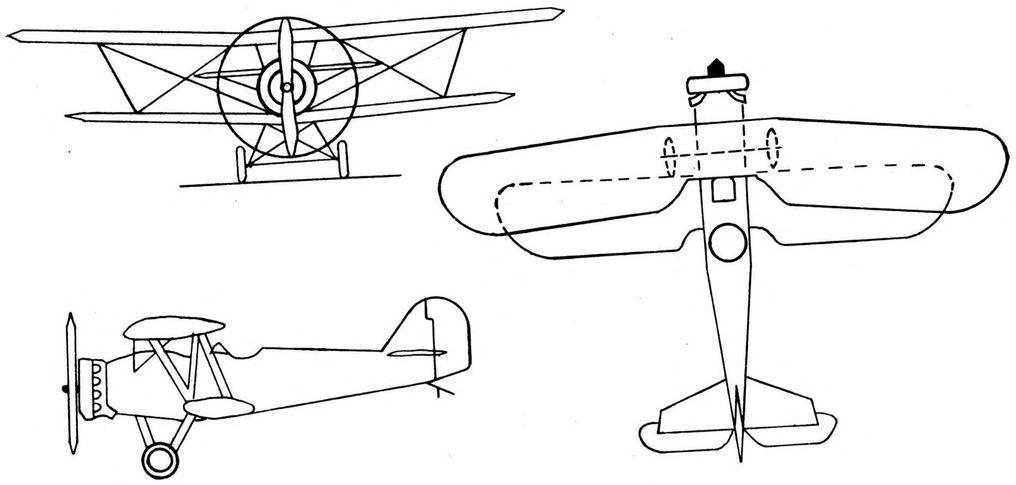
Type 90 Seaplane Primary Trainer (K4Y1)

Manufactured by Air Technical Arsenal at Yokosuka and powered by a Kamikaze Model 2, (Type 95, 150 h.p.) 7-cylinder radial engine.

Type 93 Land Intermediate Trainer (K5Y1 and K5Y2)

Two-place biplane of unequal span with sweep-back on upper wing; built by Air Technical Arsenal at Yokosuka, powered by Amakaze 11, 9-cylinder radial air-cooled engine of 355 h.p. Figure 30. K5Y2 is the same airplane equipped with floats.

Dimensions:			
	K5Y1	Span	36' 1"
		Length	26' 5"
	K5Y2	Span	36' 1"
		Length	28' 10" (including float)



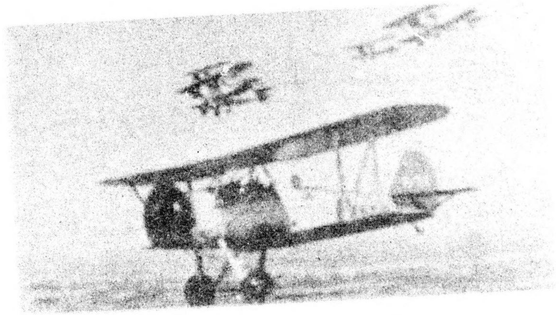


Fig. 31

11 Experimental Seaplane Intermediate Trainer (K6K1)

No data, may have symbols K6W1.

11 Experimental Operational Trainer (K7M1)

No data, manufactured by Mitsubishi.

Type 0 Mk 1 Seaplane Basic Trainer (K8K1, K8P1, K8W1)

Similar to Type 90 but with ring cowl and braced horizontal stabilizer. Built by Kawanishi and Watanabe and probably powered by 7-cylinder radial Kamikaze Model 2 engine.

Dimensions:		
	Span	31' 2"
	Length	28' 11"

Type 2 Land Primary Trainer, 14 Experimental Trainer Model 11 (K9W1 and K10W1)

Manufactured by Watanabe, the former had a Hatsukaze Model 2, inverted 4-cylinder inline engine which apparently was modified to the Kotobuki Model 2, 9-cylinder radial in the latter version K10W1 which is also known as the Type 2 Land Intermediate Trainer Model 11.

Shiragiku Model 11 14 Experimental Land Utility Trainer (K11W1), and

Shiragiku Model 21 15 Experimental Operational Trainer (K11W2)

Mid-wing monoplane built by Watanabe. Modified from the Shiragiku Model 11 (K11W1), the Model 21 carries 4 men for observation training. Powered by an Amakaze, 9-cylinder radial engine.

Type 90 Mark 11 LandAdvanced Service Trainer

Multi-place high-wing monoplane similar to old German Fokker "Universal" commercial airplane. Leading edge and trailing edge of wing are straight to rounded tips, sharp straight cut-away on leading and trailing edges to extremely small root chord. Probably powered by a Kotobuki 9-cylinder radial engine.

Dimensions:		
	Span	51' 10"
	Length	31' 4"

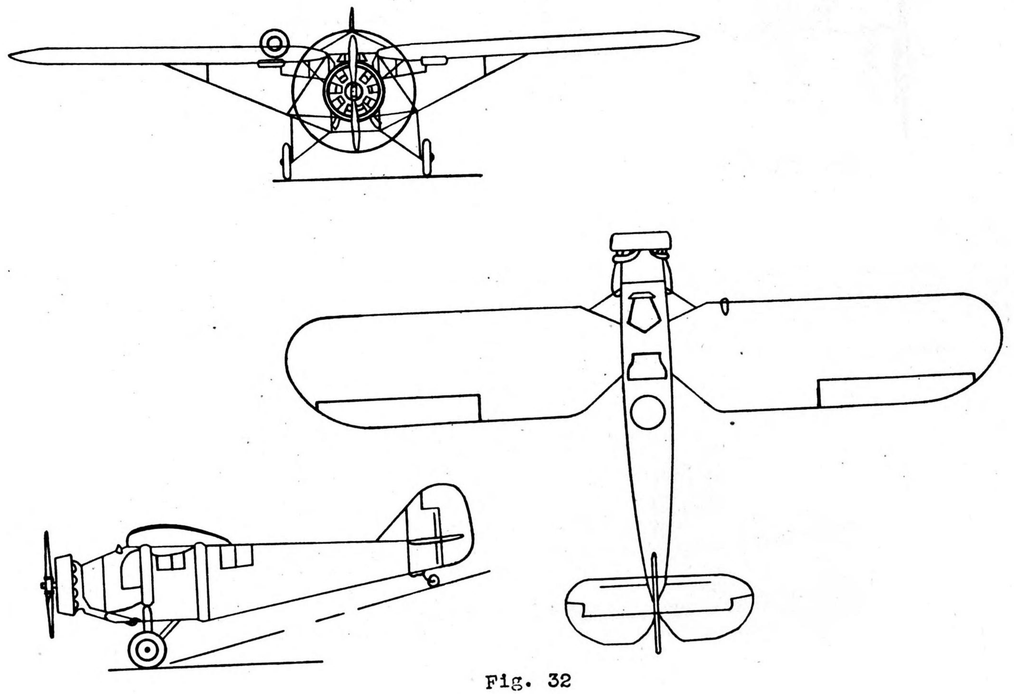


Fig. 32

Type 90 Carrier Trainer Fighter

Two-place biplane, staggered unequal spans; probably powered by Kotobuki 9-cylinder radial engine. Figure 32.

Dimensions: Span 30' 9"
Length 20' 10"

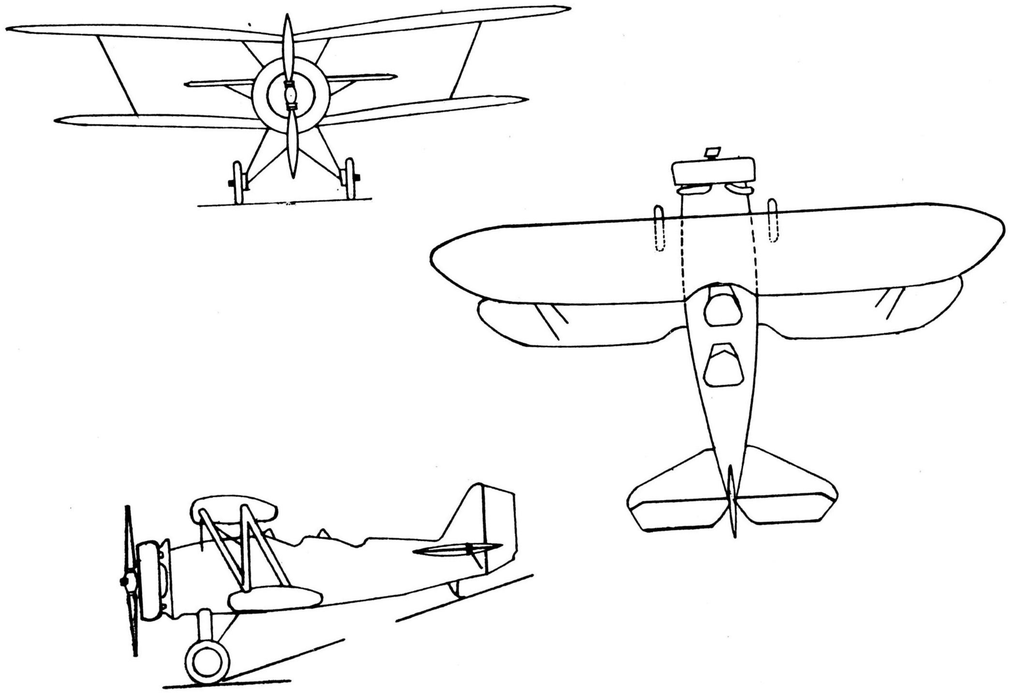


Fig. 33

Type 96 JEAN

Three-place biplane with faired undercarriage; built by Nakajima and powered by a Kotobuki Model 2 or 3, 9-cylinder radial air-cooled engine of 600 h.p. at take-off. Figure 33.

Dimensions: Span 49' 0"
Length 33' 0"

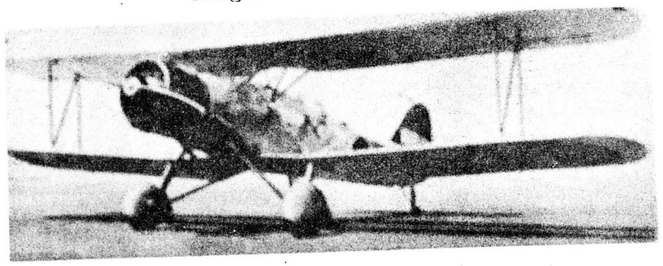


Fig. 34