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FM 30-38

WAR DEPARTMENT

BASIC FIELD MANUAL

# MILITARY INTELLIGENCE

## IDENTIFICATION OF JAPANESE AIRCRAFT

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FM 30-38

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# MILITARY INTELLIGENCE

## IDENTIFICATION OF JAPANESE AIRCRAFT

PREPARED UNDER THE DIRECTION OF THE CHIEF OF STAFF



ENGINEER REPRODUCTION PLANT
THE ARMY WAR COLLEGE
WASHINGTON, D. C.

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

[redacted]

WAR DEPARTMENT,

Washington, March 10, 1941.

FM 30-38, Military Intelligence, Identification of Japanese aircraft, is published for the information and guidance of all concerned.

(AG 062.11 (2-27-41).)

By order of the Secretary of War:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

[redacted] FM 30-38

BASIC FIELD MANUAL

Military Intelligence

# IDENTIFICATION OF JAPANESE AIRCRAFT

(This pamphlet supersedes FM 30-38, June 25, 1940.)

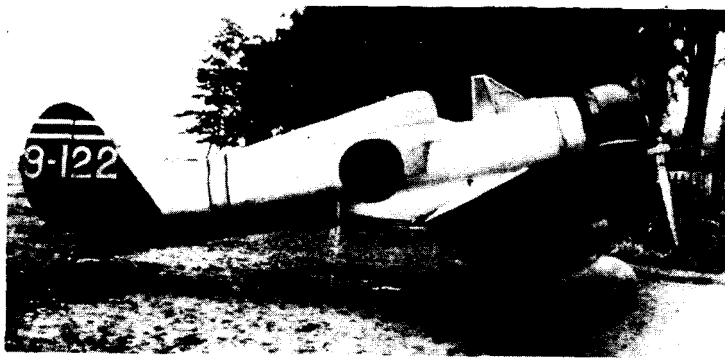
The following illustrations with explanatory data relative to Japanese aircraft are published for limited distribution. They will be used for instruction of officers and men in appearance and general characteristics of Japanese aircraft and will be safeguarded as prescribed in AR 380-5.

The Japanese airplane markings are as shown below:



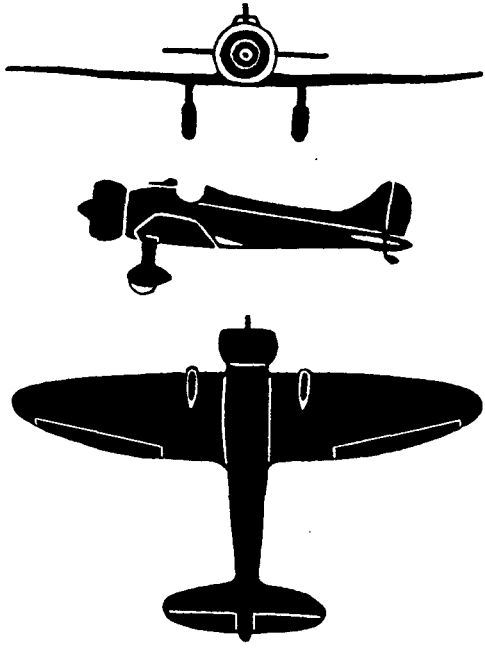

WING TAIL

# MILITARY AND NAVAL AIRCRAFT




Fighter 96

| | |
|---|---|
| Description: | Slightly swept-back dihedral round tip, low wing monoplane. Fixed landing gear. Single seat. |
| Crew: | Single seat. |
| Armament: | Four 7.7-mm machine guns; some firing through air screw. |
| Ammunition: | 500 rounds per gun. |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, Mitsubishi, 730 horsepower, Kinsei, air-cooled. |
| Maximum speed: | 240 miles per hour at 7,000 feet. |
| Rate of climb: | 5,000 feet in 6 minutes. |
| Service ceiling: | Critical altitude, 13,000 feet. |
| Maximum range: | 312 miles with military load. |
| Remarks: | Good climbing ability, small turning circle but *fragile.* 96 1 Kotobuki, 9-cylinder; 96 2A Hikari; 96 2B Jupiter 6-cylinder, air-cooled motors are those reported used. This appears to be a more recent model of the 96 fighter. |

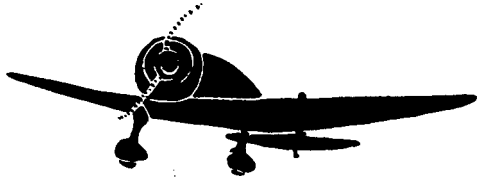


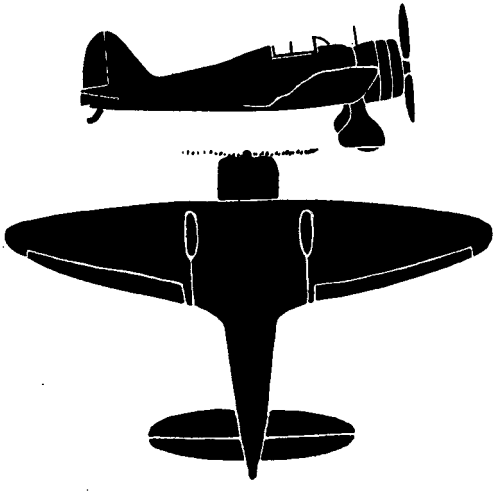


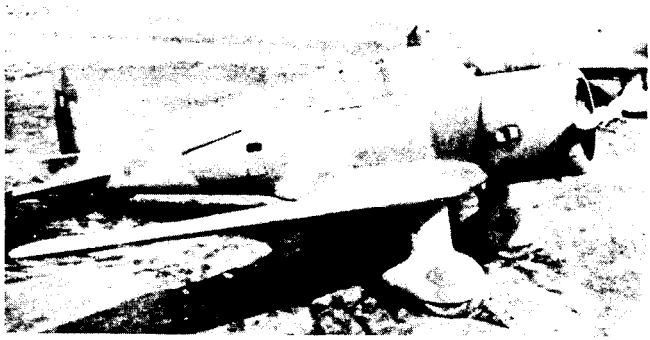
Fighter 97 Nakajima

| | |
|---|---|
| Description: | Swept-back tapered, round tip, cantilever, low wing, blunt nose monoplane. Monocoque construction in rear of cockpit. Streamlined, divided, single strut, nonretractable landing gear. |
| Crew: | Single seat. |
| Armament: | Three machine guns firing forward (Two of these in wings). |
| Ammunition: | 500 rounds per gun. |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, Nakajima, 750 horsepower, Hikari, air-cooled motor. |
| Maximum speed: | 280 miles per hour, critical altitude. 240 miles per hour, sea level. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | 389 miles. |
| Remarks: | Slightly larger than 96 Nakajima Fighter. Some models fitted with retractable landing gear. |

Fighter.
97
Nakajima



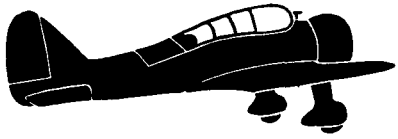




Fighter 98 Seversky
(Also called Navy model 12)

| | |
|---|---|
| Description: | Nonretractable and retractable landing gear. |
| Crew: | Two seat. |
| Armament: | Two 7.7-mm wing machine guns (or 20-mm wing cannon); one flexible observers' machine gun and one machine gun firing through air screw; or two 7.7-mm fixed guns. |
| Ammunition: | |
| Bomb load: | 500 pounds (reduces range slightly). |
| Radio: | |
| Armor: | |
| Motors: | Believed to be twin row, air-cooled, radial engines. |
| Maximum speed: | 280 miles per hour. |
| Rate of climb: | Estimated at 3,500 feet in 1 minute. |
| Service ceiling: | |
| Maximum range: | 13 hours at 200 miles per hour. |
| Remarks: | Airplanes are equipped with nonretractable and retractable landing gears. Appears to be a copy of a Seversky Fighter. |

Fighter 98 Seversky
(Also called Navy model 12)

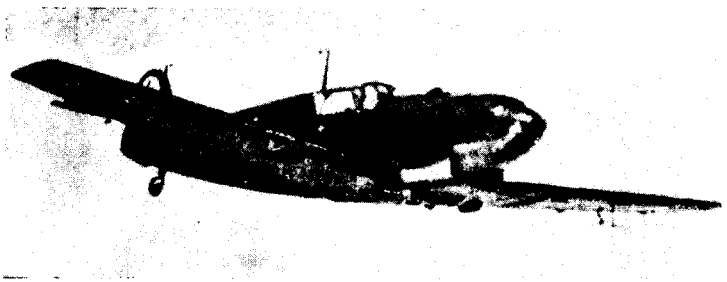


Fighter 100
(Also called Zero type)

| | |
|---|---|
| Description: | Monoplane with hooded cockpit and retractable landing gear. |
| Crew: | Single seat. |
| Armament: | Two 20-mm cannon wing guns; two fixed machine guns. |
| Ammunition: | |
| Bomb load: | |
| Radio: | Radio telephone. |
| Armor: | |
| Motors: | Single, 14-cylinder, twin row, radial air-cooled engine. |
| Maximum speed: | 344 miles per hour (307 knots). 300 miles per hour (268 knots), cruising speed. |
| Rate of climb: | Fast. |
| Service ceiling: | Maximum ceiling, 10,000 meters or 6.2 miles. |
| Maximum range: | 6 to 8 hours endurance with use of belly tank. 150 gallons auxiliary. Total gasoline capacity, 1,200 liters or 324 gallons. |
| Remarks: | Employs dive tactics but avoids use of acrobatics. Can operate from carrier. |

Fighter 100
(Also called Zero type)

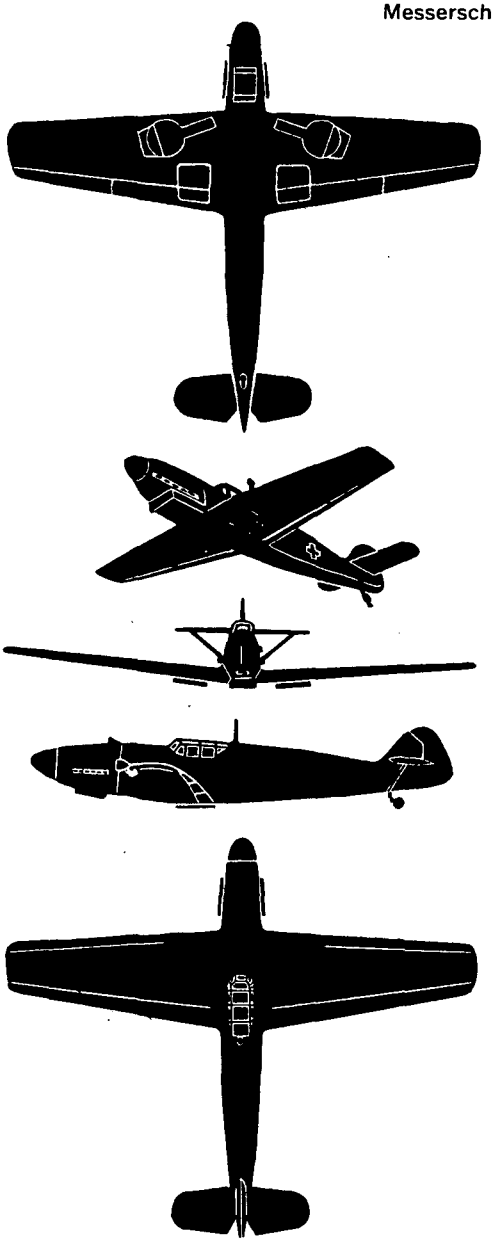
JAPANESE
Army



Fighter BFW
Messerschmitt 109

| | |
|---|---|
| Description: | Tapered, square tip, low wing monoplane. All metal, single motor, pointed nose, enclosed cockpit and retractable landing gear. |
| Crew: | One. |
| Armament: | Two machine guns, fixed fuselage, and two 20-mm cannon, fixed wing. |
| Ammunition: | 2,000 rounds machine-gun; 120 rounds 20-mm. |
| Bomb load: | |
| Radio: | VL |
| Armor: | |
| Motors: | 1,100 horsepower, 601A, liquid-cooled. |
| Maximum speed: | 354 miles per hour. |
| Rate of climb: | To 13,120 feet in 3.8 minutes. |
| Service ceiling: | 36,080 feet. |
| Maximum range: | 620 miles at 298 m.p.h. |
| Remarks: | |

Fighter B. F. W.
Messerschmitt 109



1940 Mitsubishi Fighter
(Type designation of aircraft)

| | |
|---|---|
| Description: | Low wing, cantilever monoplane with retractable tricycle undercarriage. |
| Crew: | One. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Two 1,000 horsepower, Mitsubishi, Kinsei, air-cooled or two BMW 750 horsepower, water-cooled engines located in tandem, one forward and one in rear of cockpit, three-bladed propeller. |
| Maximum speed: | 350 miles per hour, critical altitude. |
| Rate of climb: | 26,000 feet, 15 minutes.<br>3,000 feet, 1.5 minutes. |
| Service ceiling: | 31,000 feet. |
| Maximum range: | |
| Remarks: | Range 500 miles at cruising speed. One unit all metal structure of two dural spars, dural ribs, and smooth dural stressed tube structure covered with detachable dural and aluminum panels. Flaps mounted between ailerons and tail booms and fuselage. |

Fighter
1940
Mitsubishi

Fighter
(1941 Program)
Mitsubishi

| | |
|---|---|
| Description: | |
| Crew: | |
| Armament: | 2-20 mm. cannon firing from wings, 2 mgs. firing thru propeller. |
| Ammunition: | |
| Bomb load: | 550 pounds. |
| Radio: | |
| Armor: | |
| Motors: | |
| Maximum speed: | Minimum: 375 mi. per hr. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: (Cruising range): | 1,250 to 1,562 mi. |
| Remarks: | |

Fighter
(1941 Program)
*Mitsubishi*

Fighter
(1941 Program)
Kawasaki
(Still undergoing tests)

Description:

Crew:
Armament:

Ammunition:
Bomb load:
Radio:
Armor:
Motors: Mitsubishi air-cooled 1050-1350 hp.

Maximum speed: 375 miles per hour.

Rate of climb:
Service ceiling:

Maximum range:

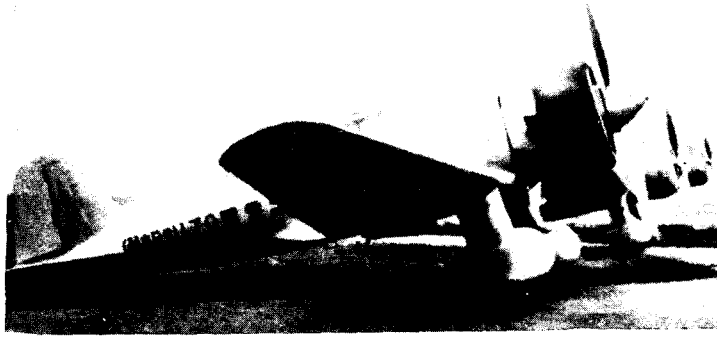
Remarks:

Fighter
(1941 Program)
Kawasaki
(Still undergoing tests)

Fighter
(1941 Program)
Nakajima

| | |
|---|---|
| Description: | |
| Crew: | |
| Armament: | 2-20 mm. cannon wing guns and 4 mgs. |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Mitsubishi 1,050 to 1,350 hp. at 13,000 feet. |
| Maximum speed: | 387 mi. per nour. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | |
| Remarks: | |

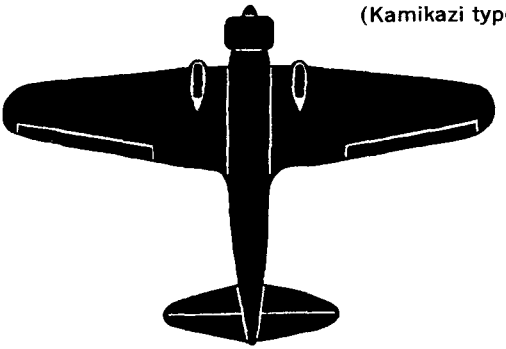
Fighter
(1941 Program)
Nakajima

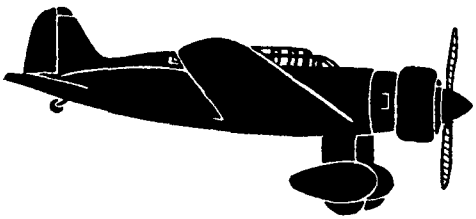


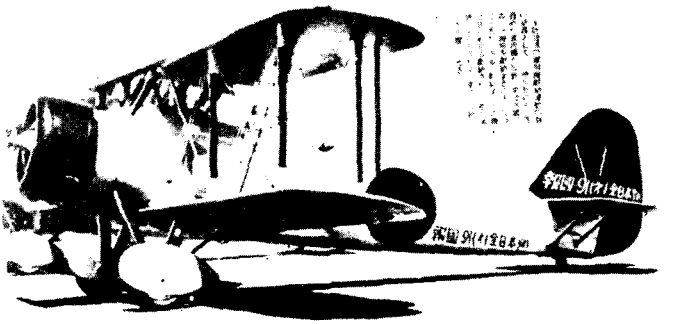
Observation and Light Bomber 97
(Kamikazi type)

| | |
|---|---|
| Description: | Slightly dihedral swept-back, round tip, cantilever, low wing monoplane. Fixed and streamlined landing gear. |
| Crew: | Two seat. |
| Armament: | Three machine guns. |
| Ammunition: | |
| Bomb load: | 300 kilograms or 661.3 pounds. |
| Radio: | |
| Armor: | |
| Motors: | Single Nakajima, 600 horsepower, Kotobuki; or Mitsubishi A-14. |
| Maximum speed: | 350 kilometers or 217.4 m.p.h. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling 8,000 meters or 8,748.8 yards. |
| Maximum range: | Kotobuki engine, 6 hours at 180 m.p.h. Mitsubishi engine A-14, 7 hours at 200 m.p.h. |
| Remarks: | It is reliably reported that this airplane also uses twin Darai 350 horsepower Diesel motors. |

Observation & Light Bomber
97
(Kamikazi type)



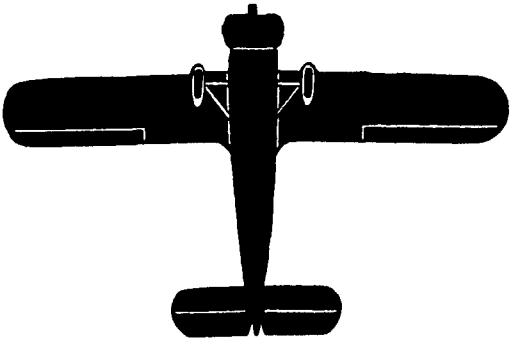


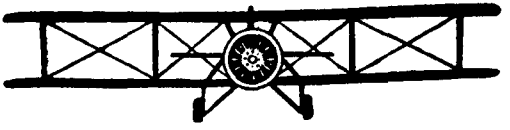


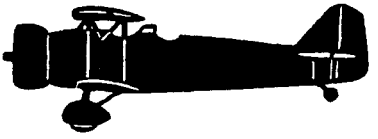
Dive Bomber 96

| | |
|---|---|
| Description: | Straight wing, rounded tip conventional type, blunt nose biplane with inter-wing bracing. Fixed landing gear with wheel fairings. Also has arresting gear and probably floating gear. |
| Crew: | Three place (2 seat). |
| Armament: | Two fixed and one flexible 7.7-mm machine guns. |
| Ammunition: | 500 rounds per fixed, 700 rounds per flexible machine gun. |
| Bomb load: | Maximum 1,100 pounds. Carries bombs or torpedo. |
| Radio: | CW telegraph. |
| Armor: | |
| Motors: | Single Hikari (Nakajima), 9-cylinder, radial air-cooled motor. BWM 12-cylinder, 700 horsepower also used. |
| Maximum speed: | 174 m.p.h.; 241 m.p.h. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | Radius of action, 250 miles. |
| Remarks: | |

Dive Bomber
96



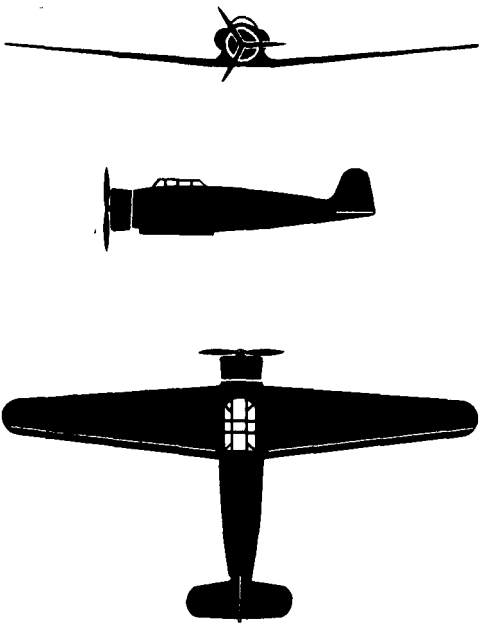




Dive Bomber 97
(Also called Deck Type Reconnaissance)

| | |
|---|---|
| Description: | Wing flared at fuselage, cantilever, low wing monoplane with retractable under carriage. Retractable landing gear, single strut, also shock absorbent legs. Copy Douglas TBD-1. |
| Crew: | Three (pilot, second pilot, and radioman). |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, air-cooled, radial motor., |
| Maximum speed: | 200 m.p.h., sea level. 150 m.p.h. cruising speed. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | |
| Remarks: | 97-VIB. Light dive bomber. Has an approximate wing span of 45 feet. Length over all is approximately 26 feet. |

**Dive Bomber**
**97**
**(Also called Deck**
**Type Reconnaissance)**



Dive Bomber (1941 Program)
Nakajima

Description:

Crew: Two seater.
Armament:

Ammunition:
Bomb load:
Radio:
Armor:
Motors: Nakajima 850-950 hp.

Maximum speed:
Rate of climb:
Service ceiling:
Maximum range:
Remarks:

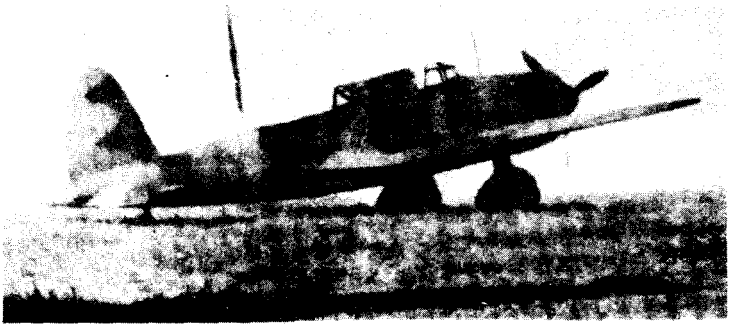
Lt. Bomber (Ground Atk)
(1941 Program) Nakajima

Description:

Crew: Two seater - Potez 63 type.
Armament:
Ammunition:
Bomb load:
Radio:
Armor:
Motors: Twin engine - air-cooled Igo 500 - 600 hp.

Maximum speed: 362 mi. per hr. at 15,000 feet.
Rate of climb:

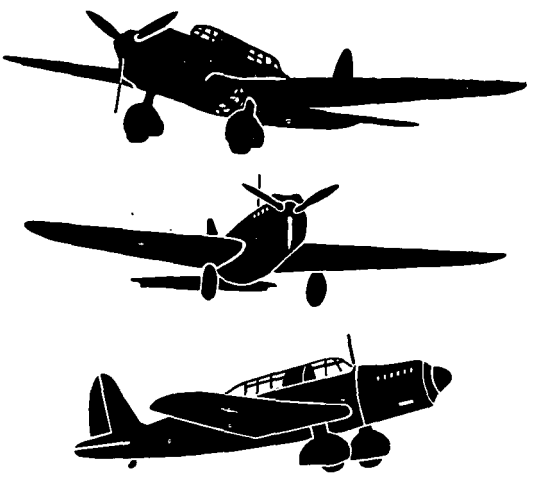
Service ceiling:
Maximum range:
Remarks:



Light Bomber 97

| | |
|---|---|
| Description: | Low wing monoplane. Fixed and streamlined landing gear. |
| Crew: | Two seat. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, BMW IV, 12-cylinder, water-cooled engine. |
| Maximum speed: | 280 m.p.h. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | |
| Remarks: | A model of this type is reported with retractable landing gear, split flaps, arresting and flotation gears. |

Light Bomber
97

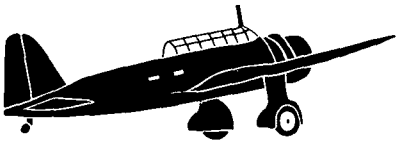




Light Bomber 98

| | |
|---|---|
| Description: | Round tip, midwing monoplane. Fixed and streamlined landing gear. |
| Crew: | Two. |
| Armament: | Machine guns and bombs. |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Twin row, radial air-cooled. Probably Hikari. Radial engine. |
| Maximum speed: | |
| Rate of climb: | |
| Service ceiling: | 5,468 yards. |
| Maximum range: | |
| Remarks: | Same as Type 97 except it has a radial engine. |





Light Bomber 99

| | |
|---|---|
| Description: | Conventional type low wing monoplane with hooded cockpit and nonretractable landing gear. |
| Crew: | Two place. |
| Armament: | Two fixed and one flexible 7.7-mm machine gun. |
| Ammunition: | |
| Bomb load: | 620 kilograms or 1,364 pounds of bombs or one 60-kilogram or 137-pound bomb under each wing and 500 kilogram or 1,100 pounds of bombs under fuselage. |
| Radio: | Type unknown. |
| Armor: | |
| Motors: | Single, 14-cylinder, twin row, 900 to 950 horsepower, radial air-cooled engine. |
| Maximum speed: | 256 m.p.h. (222 knots). |
| Rate of climb: | Fair. |
| Service ceiling: | Maximum ceiling, 8,000 meters or 4.6 miles. |
| Maximum range: | Endurance, 6 hours. |
| Remarks: | Flotation gear when operating from carrier. |

Medium Bomber 98
(Mitsubishi 104)

| | |
|---|---|
| Description: | Low wing monoplane. |
| Crew: | Two to three. |
| Armament: | Two 20-mm cannon firing forward; 2 dorsal machine guns. |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, Mitsubishi, 900 horsepower, air-cooled. |
| Maximum speed: | 299 m.p.h. critical altitude.<br>277 m.p.h. sea level. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | |
| Remarks: | |

Medium Bomber
98
(Mitsubishi 104)

Type O or 40, Medium Bomber
Mitsubishi

Description:
Crew:
Armament:
Ammunition:
Bomb load:
Radio:
Armor:
Motors:

Maximum speed: 312-319 mi. per hr. at 13,000 feet.
Rate of climb:
Service ceiling:
Maximum range:
(Cruising range): 1,562 miles.
Remarks:

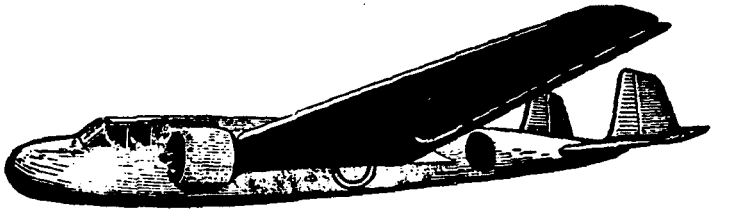
Type O or 40, Medium Bomber
Mitsubishi

1941 Medium Bomber (New) Mitsubishi

Description:
Crew:
Armament:
Ammunition:
Bomb load:
Radio:
Armor:
Motors:

Maximum speed: 337-350 mi. per hour at 16,000 feet.
Rate of climb:
Service ceiling:
Maximum range: 1,500 to 2,000 miles.

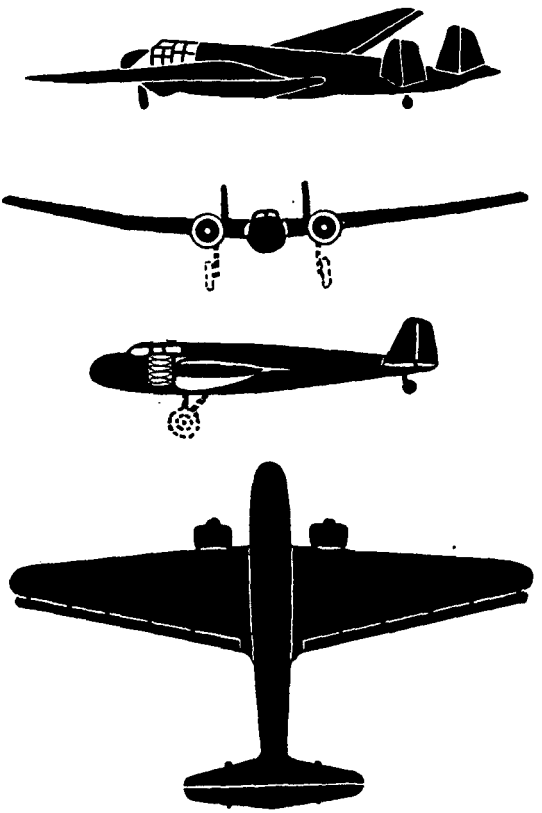
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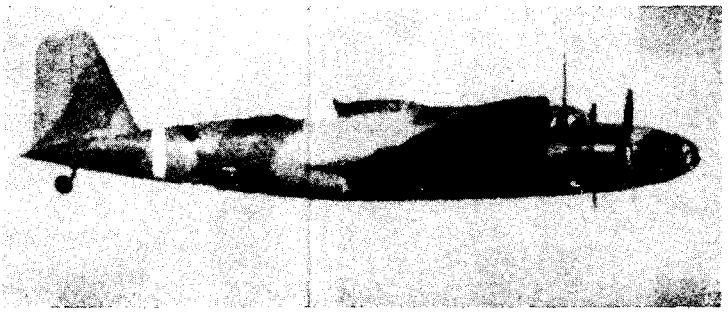


Heavy Bomber 96

| | |
|---|---|
| Description: | Considerably swept-back tapered tip, cantilever, monoplane. Twin rudder tail section. Similar to Junkers Ju 86. Landing gear is retractable into engine nacelle leaving lower half of wheels protruding. |
| Crew: | Seven men. |
| Armament: | Five 7.7-mm flexible machine guns in four turrets; twin mounts in rear; single mount in nose above center and tunnel gun in rear of pilot. 20-mm cannon reported used. |
| Ammunition: | 300 to 700 rounds per gun. |
| Bomb load: | 2,200 pounds. |
| Radio: | Directional radio, radio telephone, blind flying instruments. |
| Armor: | |
| Motors: | Twin, Mitsubishi, Minsei, 800 horse-power, 14-cylinder, radial air-cooled engines. Total horse power 1,600. |
| Maximum speed: | 217 to 266 m.p.h. at sea level. |
| Rate of climb: | |
| Service ceiling: | 22,600 feet. |
| Maximum range: | 750 miles radius of action; endurance, 10 to 12 hours; 725 miles with maximum load. |
| Remarks: | |

Heavy Bomber
96

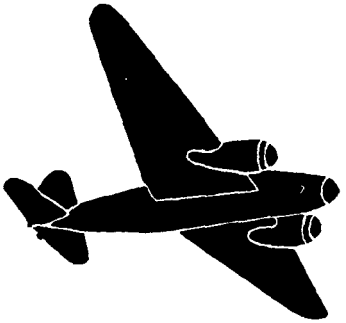


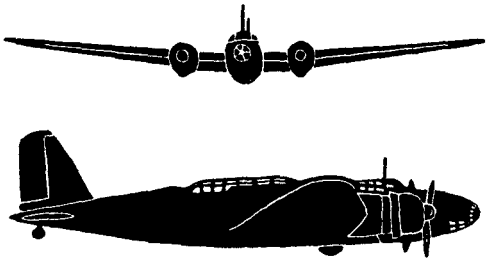


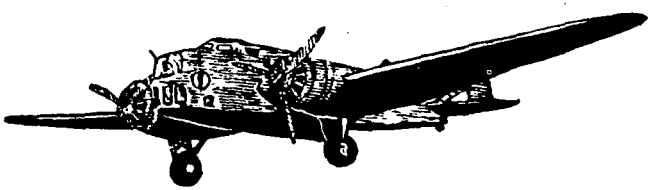
**Heavy Bomber 97**
**(Modified)**

| | |
|---|---|
| Description: | Slightly swept-back, round tip, low wing, cantilever, monoplane. Alloy monocoque smooth skin. Flush riveting construction. Retractable landing gear into wing. |
| Crew: | Seven men. |
| Armament: | Four flexible 7.7-mm machine guns (one in nose, one in forward turret, one in after turret, one in lower fuselage trap door). Some machine guns are replaced by 20-mm Oerlikon cannon. |
| Ammunition: | 300 to 700 rounds per gun. |
| Bomb load: | 3,000 pounds. |
| Radio: | |
| Armor: | Armored seats. |
| Motors: | Twin Mitsubishi, Kinsei, 900 horsepower, 14-cylinder, twin row, air-cooled engines. Total horsepower, 1,800. Also uses Mitsubishi Jaguar 1,000 horsepower, 14-cylinder, two-row radial, air-cooled motor. Also BMW IV water-cooled engine. |
| Maximum speed: | 230 m.p.h., critical altitude. 150 m.p.h., cruising speed. |
| Rate of climb: | 1,000 meters in 2.11 minutes. |
| Service ceiling: | |
| Maximum range: | Endurance 12 hours at 150 m.p.h. |
| Remarks: | Self-sealing gas tanks. Also oxygen tanks. |

Heavy Bomber
97
(Modified)



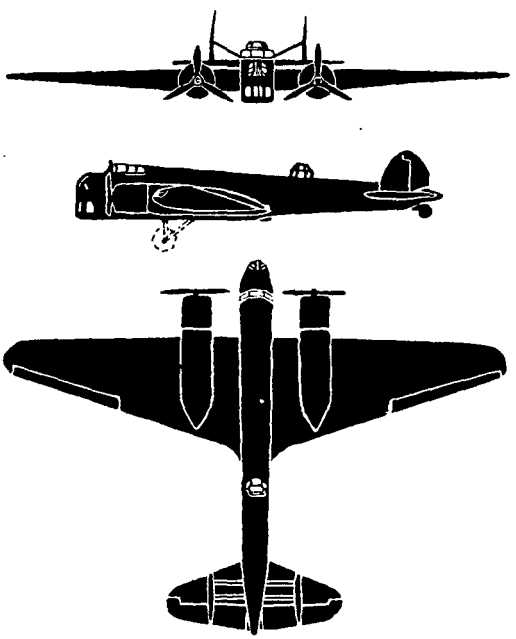


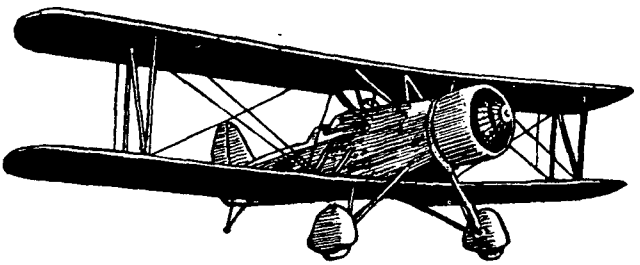


Heavy Bomber 98
(Fiat B.R. 20, 1937)
(Also called "Mikado")

| | |
|---|---|
| Description: | Low wing, cantilever, metal monoplane. Full retractable landing gear and wing flaps. |
| Crew: | Seven. |
| Armament: | Three flexible 12.7-mm Breda and 7.7-mm Safat machine guns forward (one in nose, one dorsal, and one belly gun). |
| Ammunition: | Breda, 700 rounds. Safat, 900 rounds. |
| Bomb load: | 3,000 kilograms or 6,613.8 pounds. |
| Radio: | One, type unknown. |
| Armor: | |
| Motors: | Twin, Fiat, 1,000 horsepower, 18-cylinder, 4–80 RC 41 Star Model, air-cooled motors; total horsepower, 2,000. |
| Maximum speed: | 252 m.p.h., sea level. 281 m.p.h., critical altitude. Cruising speed, 235 m.p.h. at 13,400 feet. |
| Rate of climb: | 2,000 meters in 6 minutes and 3 seconds. 5,000 meters in 18 minutes. |
| Service ceiling: | Maximum ceiling, 9,000 meters. |
| Maximum range: | 2,200 pound load, 2,400 miles. Medium load, 1,553 miles. |
| Remarks: | |

Heavy Bomber 98
(Fiat B.R. 20, 1937)
(Also called "Mikado")

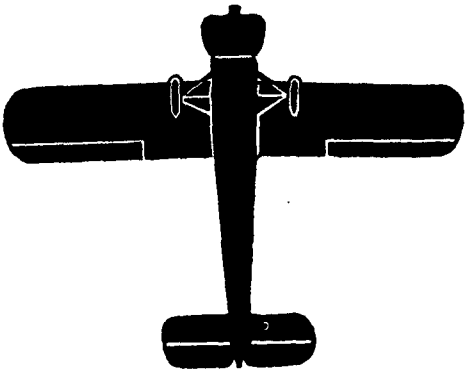


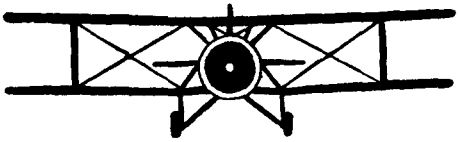


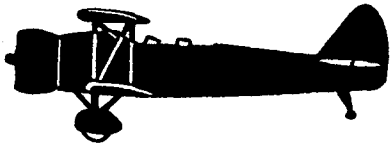
Torpedo Bomber 96

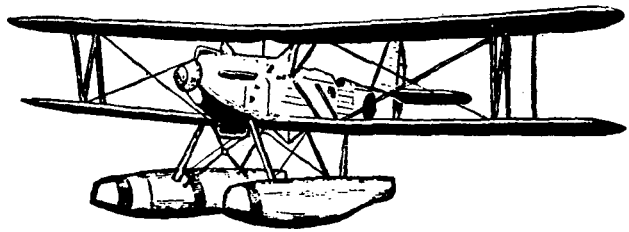
| | |
|---|---|
| Description: | Biplane, nonretractable, streamlined. |
| Crew: | Three seater. |
| Armament: | Five machine guns. |
| Ammunition: | |
| Bomb load: | 1,500-pound torpedo or bombs. |
| Radio: | |
| Armor: | |
| Motors: | Single, Hikari, 600 horsepower, air-cooled engine for light bomber. Probably 800 horsepower, air-cooled engine for torpedo bomber. |
| Maximum speed: | 300 kilometers or 186.4 miles per hour. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 7,600 meters. |
| Maximum range: | Five hours at 140 miles per hour with load. |
| Remarks: | |

Torpedo Bomber
96





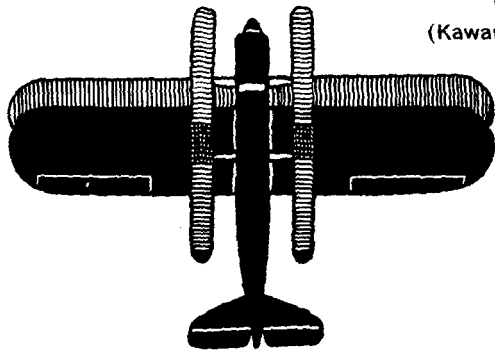


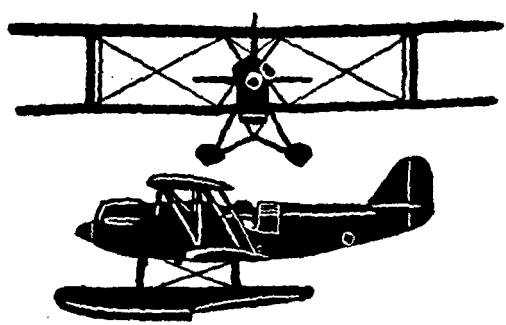


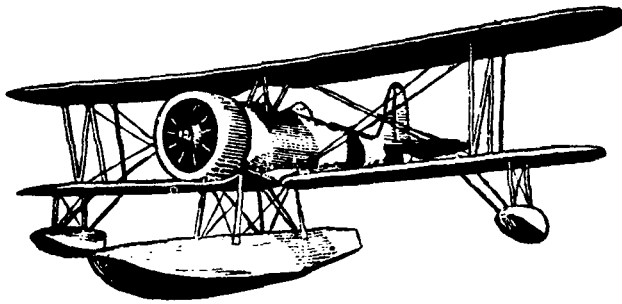
Torpedo Bomber 97
(Kawanishi 94)

| | |
|---|---|
| Description: | Straight wing, rounded tip, slightly dihedral biplane. Twin floats. |
| Crew: | Two or three. |
| Armament: | One fixed forward, and one flexible dorsal machine gun. |
| Ammunition: | 500 rounds per fixed gun. 700 rounds per flexible mounted gun. |
| Bomb load: | Largest bomb, 500 pounds. |
| Radio: | CW telegraph. |
| Armor: | |
| Motors: | Single, Kawanishi, 650 horsepower, Hironai, 12-cylinder, W-type, water-cooled engine. Also Mitsubishi Junkers, V-type, water-cooled. 800 horsepower. |
| Maximum speed: | |
| Rate of climb: | |
| Service ceiling: | 25,800 feet. |
| Maximum range: | 617 miles. |
| Remarks: | Seems to be the same as the Kawanishi Scout Observation with probable modifications. 94/2 Scout Observation has a single radial engine. |

Torpedo Bomber
97
(Kawanishi 94)



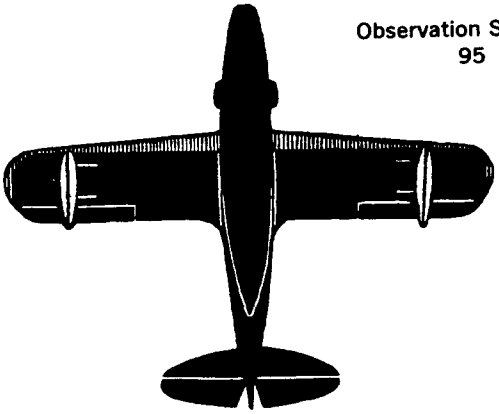


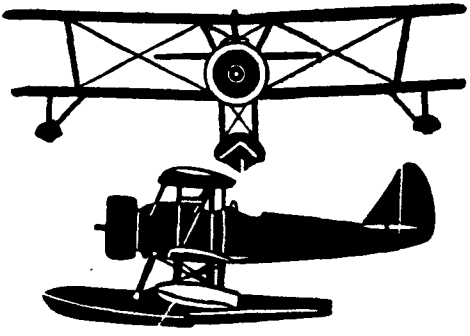


Observation Seaplane 95

| | |
|---|---|
| Description: | Rounded tip, straight wing biplane with pick-up fittings. Convertible to land plane. One large center and two small wing floats. |
| Crew: | Two seat. |
| Armament: | One fixed and one flexible machine gun. |
| Ammunition: | 500 rounds for fixed, and 700 rounds for flexible mounted machine gun. |
| Bomb load: | 198 to 529 pounds. |
| Radio: | |
| Armor: | |
| Motors: | Single, Nakajima, Kotobuki, 650 horsepower, radial air-cooled motor. |
| Maximum speed: | 168 m.p.h. (270 kilometers). |
| Rate of climb: | |
| Service ceiling: | 7,500 meters or 8,202 yards maximum ceiling. |
| Maximum range: | Endurance, 6.5 hours. |
| Remarks: | Also reported as 94-2 Reconnaissance Float Plane. |

Observation Seaplane
95





## Seaplane 96
## (Nakajima 93)

| | |
|---|---|
| Description: | Midwing monoplane; twin floats. |
| Crew: | Two. |
| Armament: | Two machine guns firing forward, two dorsal flexible guns. |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Single, Nakajima, 750 horsepower, air-cooled motor. |
| Maximum speed: | 220 m.p.h. critical altitude.<br>207 m.p.h. sea level. |
| Rate of climb: | |
| Service ceiling: | 25,700 feet. |
| Maximum range: | Radius 475 miles. |
| Remarks: | |

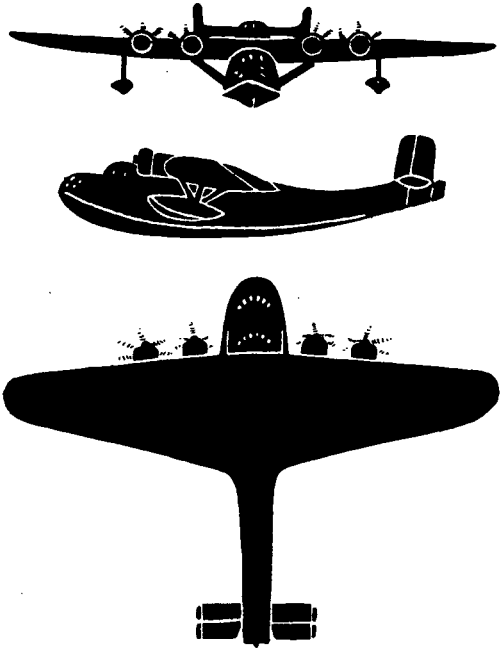
Flying Boat 96

| | |
|---|---|
| Description: | Biplane. |
| Crew: | Six. |
| Armament: | Four machine guns; one 37-mm Hotchkiss cannon. |
| Ammunition: | |
| Bomb load: | 1,980. |
| Radio: | |
| Armor: | |
| Motors: | Triple, Mitsubishi, 825 horsepower, air-cooled engine. Total horsepower, 2,475. |
| Maximum speed: | 159 m.p.h. critical altitude. 135 m.p.h., sea level. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | 1,475 miles. |
| Remarks: | |

Flying Boat 97
(Copy of Sikorsky 5-42)

| | |
|---|---|
| Description: | Swept-back, rounded tip, high wing monoplane, twin rudders. Center float with two small wing floats. |
| Crew: | |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Four air-cooled motors mounted in wings. |
| Maximum speed: | Cruising speed, 180 m.p.h. |
| Rate of climb: | |
| Service ceiling: | |
| Maximum range: | |
| Remarks: | |

**Flying Boat**
**97**
**(Copy of Sikorsky 5-42)**



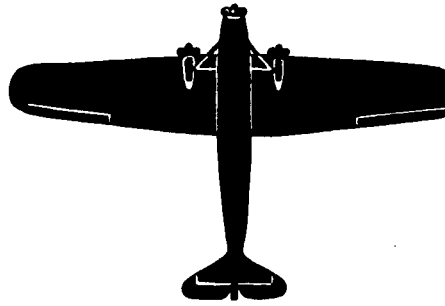
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# COMMERCIAL AIRCRAFT



Fokker Transport

| | |
|---|---|
| Description: | High wing monoplane. |
| Crew: | Two. Passengers, eight. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Triple 750 horsepower, air-cooled motors. Total horsepower, 2,250. |
| Maximum speed: | 190 kilometers or 118 miles per hour. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 4,500 meters. |
| Maximum range: | Endurance, 6 hours. |
| Remarks: | |



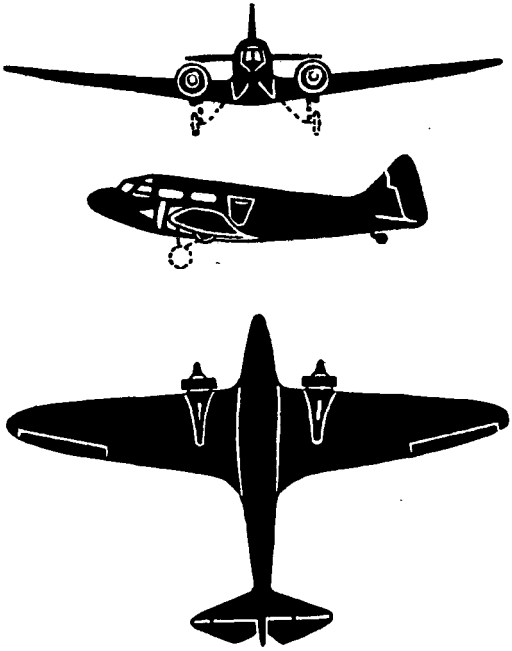


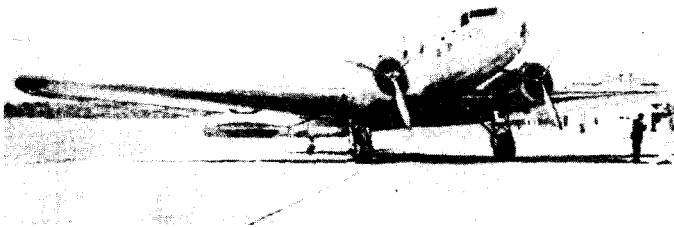




Airspeed Envoy Transport

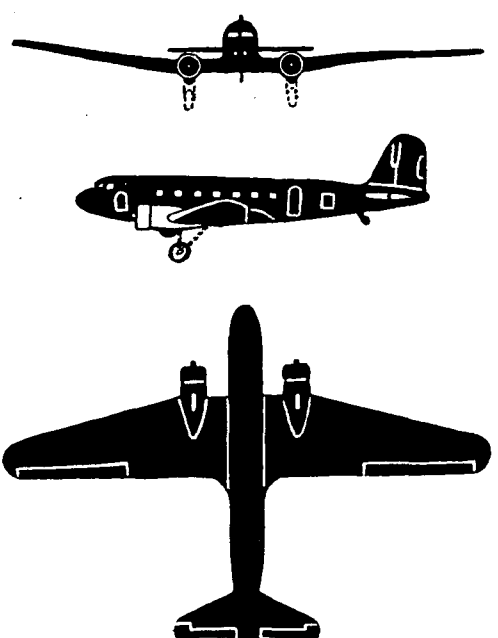
| | |
|---|---|
| Description: | Low wing monoplane. |
| Crew: | One. Passengers, five. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Twin 480 horsepower, air-cooled motor. Total horsepower, 960. |
| Maximum speed: | 280 kilometers or 173.9 miles per hour. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 5,020 meters. |
| Maximum range: | Endurance, 4 hours. |
| Remarks: | |

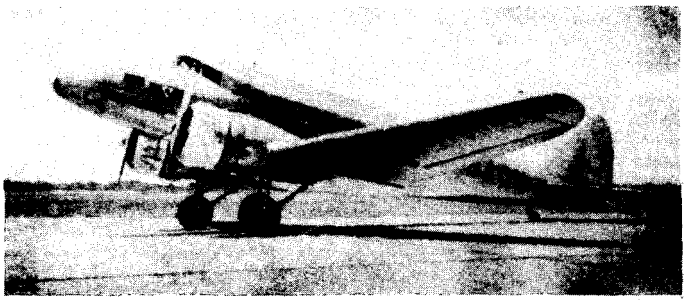




Douglas DC-2 Transport.

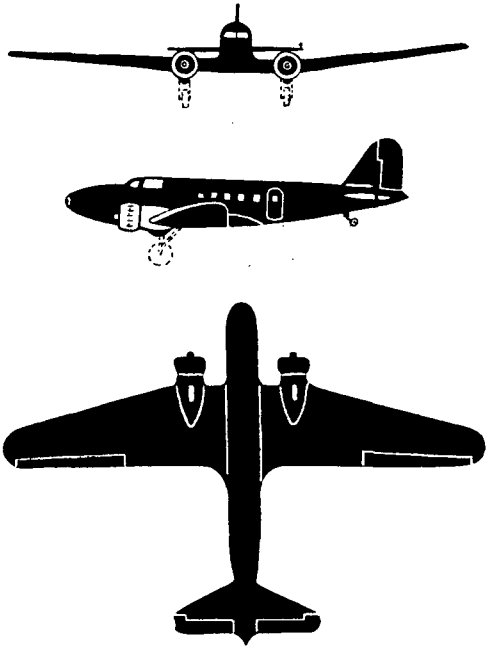
| | |
|---|---|
| Description: | Swept-back, round tip, low wing monoplane. |
| Crew: | Three. Passengers, fourteen. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Twin air-cooled motors. |
| Maximum speed: | 343 kilometers or 213.1 miles per hour. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 7,200 meters. |
| Maximum range: | Endurance, 6 to 7 hours. |
| Remarks: | |





Nakajima A. T. Transport

| | |
|---|---|
| Description: | Swept-back, round tip, low wing monoplane. |
| Crew: | Two. Passengers, eight. |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | Twin air-cooled, 900 horsepower motors. |
| Maximum speed: | 370 kilometers or 229.9 miles per hour. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 9,000 meters. |
| Maximum range: | |
| Remarks: | |



"Lockheed 14" Transport

| | |
|---|---|
| Description: | Swept-back, tapered wing, middle wing monoplane. |
| Crew: | Four. Passengers, ten |
| Armament: | |
| Ammunition: | |
| Bomb load: | |
| Radio: | |
| Armor: | |
| Motors: | |
| Maximum speed: | 426 kilometers or 264.7 m.p.h. |
| Rate of climb: | |
| Service ceiling: | Maximum ceiling, 8,000 meters. |
| Maximum range: | Endurance, 7 to 9 hours. |
| Remarks: | |

"Lockheed 14"
Transport



