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FM 30-30

WAR DEPARTMENT

BASIC FIELD MANUAL

MILITARY INTELLIGENCE
IDENTIFICATION OF U. S. GOVERNMENT AIRCRAFT

February 21, 1942

FM 30-30

BASIC FIELD MANUAL

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MILITARY INTELLIGENCE

IDENTIFICATION OF U. S. GOVERNMENT AIRCRAFT

Prepared under direction of the
Chief of Staff

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BASIC FIELD MANUAL

MILITARY INTELLIGENCE

IDENTIFICATION OF U. S. GOVERNMENT AIRCRAFT

(This manual supersedes FM 30–30, September 18, 1940, including C 1, January 1, 1941.)

SECTION I

GENERAL

■ 1. PURPOSE.—The purpose of this manual is to serve as a guide in the identification of United States Government aircraft.

■ 2. NECESSITY.—Quick and accurate identification of both hostile and friendly aircraft is of vital importance in modern war. A good working knowledge of the subject is required of all ranks. Especial skill is essential to proper performance of their missions for—

Army Air Force units.
Antiaircraft artillery units.
Air scouts of all units.
Elements of all units concerned with antiaircraft defense missions.
Personnel of aircraft warning services.

■ 3. TRAINING.—The rapid movements and different angles of presentation assumed by aircraft in flight make positive identification an extremely difficult task for any but thoroughly trained observers. Effective training can be accomplished only by the employment of a definite and logical system of identification methods.

■ 4. METHODS OF IDENTIFICATION.—*a*. Observers must be able to detect quickly and analyze rapidly every possible indication of the identity of aircraft, whether observed singly or in groups.

b. These indications may be grouped in three general classes:

(1) Characteristic visible features of individual aircraft; generally, indicative of the type and when noted in sufficient detail, of the particular model.

(2) Characteristic methods of operation and maneuver; indicative of types of military airplanes.

(3) Characteristic sounds, chiefly engine and propeller noises; generally indicative only as to type, although in some cases highly trained and experienced observers are able to make more specific identifications on the basis of sound alone. During darkness and other periods of low visibility, sound will usually be the only indication of identity.

c. In general, identification will be accomplished by noting and combining indications under all three classes. In order that all possible indications may be quickly noted and evaluated, the observer must be trained to know what characteristic indications are most likely to be detected under conditions existing at the moment of observation.

■ 5. USE OF FIELD GLASSES.—Field glasses or other similar medium-power glasses are of great value in distinguishing the characteristic visible features of aircraft. All air scouts, observers, and others whose duties are primarily concerned with aircraft identification should be equipped with field glasses and required to use them habitually in observation of aircraft.

■ 6. CLASSIFICATION OF AIRCRAFT.—Aircraft are generally classified as lighter-than-air and heavier-than-air.

a. Lighter-than-air aircraft consist of observation balloons and airships. Their identification is so obvious and their use so limited that no further details are necessary.

b. Heavier-than-air aircraft include seaplanes, landplanes, or combinations of both, the latter being referred to as amphibian. Landplanes are airplanes designed to rise from and alight on the land or to operate from specially built naval craft called "aircraft carriers." Seaplanes are airplanes equipped with pontons or other forms of flotation in place of landing wheels, and are designed to rise from and alight on water only. They are used generally by the Navy. Flying boats are a type of seaplane whose main body or hull provides flotation. Amphibian airplanes are equipped with a boat-shaped body or floats and retractable wheels. This type is used by both the Army and the Navy. Autogiros and

helicopters are special types of heavier-than-air aircraft in which rotating vanes instead of wings are the principal airfoils.

■ 7. TYPES OF UNITED STATES GOVERNMENT AIRPLANES.—*a. Combat types, Army.*—The principal combat types in the Army are—

(1) *Pursuit.*—These airplanes are designed to engage in air fighting. They are characterized by high speed, high rate of climb, and great maneuverability. They normally operate in squadron formation. Pursuit airplanes include the following types:

(*a*) The *interceptor* is usually a single-seater with one or two powerful engines. Interceptors are very fast and maneuverable and can climb almost vertically.

(*b*) The *single-place fighter* is a more conventional type of pursuit plane with short span and length and is highly maneuverable. It is used for escort and patrol in addition to ordinary pursuit missions.

(c) The *multiplace fighter* is larger, heavier, and usually bimotored. It is used for escort and patrol duty near important objectives and against ground-troop concentrations. It is highly maneuverable.

(2) *Bombardment.*—Bombardment airplanes are classified as heavy, medium, and light.

(*a*) *Heavy and medium* bombardment airplanes are designed to carry heavy bomb loads to great distances for attack of material objectives, and also to conduct long-range strategic reconnaissance over land and sea. They are large airplanes, having two or more engines, the medium type generally using two engines and the heavy type four engines. Bombardment airplanes usually operate in formation when on bombing missions and singly when on reconnaissance missions. Because of its large size, this type is less maneuverable than smaller combat types.

(*b*) *Light* bombardment airplanes (formerly designated as attack) are designed to attack material objectives of light construction, routes of communication and supply, airdromes, troop movements, and concentrations of troops in the open or under light shelter. Light bombardment airplanes are medium-sized airplanes with one or two engines. They have considerable maneuverability and normally operate in forma-

tions at low and medium altitudes. In this category are also included dive-bombing airplanes. As the name implies, dive-bombing tactics are characterized by long, steep dives by single airplanes on a target. They have considerable maneuverability and normally operate in formation at medium and high altitudes in proceeding to and returning from the target areas. Light bombardment is the striking element of combat aviation which operates in direct support of ground forces. Identification of this type of aircraft is therefore especially important to ground troops.

(3) *Reconnaissance and observation.*—Long-range reconnaissance missions are normally performed by airplanes of the bombardment type.

(*a*) Corps and division *reconnaissance* airplanes are medium-sized, moderate-speed, single-engine airplanes, or medium-sized, high-speed, twin-engine airplanes. They normally operate singly and at varying altitudes from low to high. Their normal fields of operation are beyond the hostile lines.

(*b*) *Observation* airplanes are medium-sized, single-engine, two-place airplanes. They are characterized by ability to fly at very slow speeds and to take off and land within small areas. They normally operate singly, at medium and low altitudes, within our own lines to perform fire-adjustment missions for artillery, maintain contact with our own front lines and marching columns, and carry on other command, liaison, and courier missions. It is especially important that ground troops be able readily to identify airplanes of this type.

b. Types other than combat, Army.—The principal types of airplanes other than combat employed by the Army are transport and training airplanes.

(1) *Transport* airplanes are large, two-engine aircraft generally similar in size and appearance to medium bombers. They are employed for rapid transport of personnel and supplies.

(2) *Training type* airplanes are divided into three classes: primary, basic, and advance, for training flying personnel. These airplanes are seen in large numbers only in the zone of the interior and in the vicinity of training centers.

(*a*) The *primary trainer* is generally a light, low-powered single-engine, two-place biplane or monoplane airplane with

open cockpit and fixed landing gear. It is specially designed for primary instruction of student pilots.

(*b*) The *basic trainer* is usually a medium or high-powered single-engine, two-place monoplane airplane with enclosed cockpit and retractable landing gear. It is designed for transitional instruction from primary to larger size airplanes and is also used for incidental flying.

(c) The *advance trainer* is usually a medium or high-powered single- or twin-engine, low-wing monoplane airplane with closed cabin and retractable landing gear. It is equipped with navigational instruments, armament, and radio for training advance student pilots in navigation, bombardment, and combat flying.

(3) The Army also employs certain miscellaneous special purpose types of airplanes. These are not sufficiently numerous to warrant consideration in this manual.

c. *Combat types, Navy.*—Most of the combat airplanes of the Navy normally operate with the United States Fleet and hence are generally beyond the field of observation of Army personnel. However, personnel on duty in oversea possessions, units engaged in joint operations, and personnel on duty near naval air stations must be able to identify Navy as well as Army aircraft. In the Navy, lines of demarcation between special types of combat aircraft for particular classes of missions are not so sharply drawn as in the Army. For example, nearly all fighter (pursuit) types may also be employed as light bombers and are designed and equipped for such missions; nearly all scout, observation, and patrol types are designed and equipped to perform medium or heavy bombardment missions; others are equipped as torpedo planes, as well as for patrol missions. Bearing in mind this overlapping of types and functions, combat types of Navy airplanes may be classified as follows:

(1) *Fighters* (class VF) are single-engine airplanes designed for operation from aircraft carriers. They include both biplane and monoplane types with performance characteristics generally similar to pursuit airplanes of the Army; that is, high speed, high ceilings, high rate of climb, and a high degree of maneuverability. They may also be employed as light bombers. Their tactical operations and formations are similar to those of Army pursuit airplanes.

(2) *Bombers, scout bombers, and scouts* (class VB–VSB–VS) are single-engine landplanes designed for carrier operation to perform any of the missions indicated by their designation. They include both biplane and monoplane types. They are slightly larger than the fighter types, with less speed, lower ceilings, and greater range. They operate in formations or singly, depending on their missions.

(3) *Observation and scouts* (class VOS–VSO) are both landplane and seaplane types, single-engine, and include both biplanes and monoplanes. The landplanes are designed for carrier operation, while the seaplane types operate from battleships and cruisers. Their normal missions are scouting, observation, and spotting of naval gunfire. They are characterized by relatively low speeds, medium operating ranges, and medium ceilings. They normally operate singly at medium or low altitudes.

(4) *Patrol bombers* (class VPB) are large flying boats with two or four engines and wing spans in excess of 100 feet. They include both biplane and monoplane types. They operate singly or in formations, from low to high altitudes, depending upon the type of mission upon which they are engaged.

(5) *Torpedo bombers* (class VTB) are medium-sized, single-engine monoplanes, land type, designed primarily as torpedo airplanes to operate from aircraft carriers. They normally operate in formation.

(6) *Other types.*—The Navy has also a considerable number of noncombat airplanes. The bulk of these are training airplanes, both seaplane and landplane types. Others are transports and utility airplanes of various kinds, including landplanes, seaplanes, flying boats, and amphibians.

d. Marine Corps airplanes.—The United States Marine Corps uses the same type of airplanes as are used by the United States Navy.

e. Coast Guard airplanes.—The United States Coast Guard operates a considerable number of airplanes for seaward patrolling, rescue work, and other activities connected with its peacetime functions. In time of war, the Coast Guard becomes a part of the Navy. Coast Guard airplanes are mostly of the seaplane or amphibian types. They vary in size from small-type landplanes to large, long-range, twin-

engine patrol airplanes. They include both biplanes and monoplanes. Army personnel on duty in the vicinity of Coast Guard air stations should become familiar with the Coast Guard airplanes operating therefrom.

f. Forest Service airplanes.—The United States Forest Service operates a few airplanes—they are high-wing cabin monoplanes designed for good visibility forward and down. They are painted forest green and are marked with the United States Forest Service insignia. The airplanes used by other United States Government agencies are usually commercial types operating under contract.

SECTION II

VISIBLE FEATURES

■ 8. DISTINCTIVE MARKINGS.—*a.* Airplanes of the United States Army, Navy, and Coast Guard may be identified when very close at hand by distinctive markings and insignia (fig. 1).

(1) *Army.*—(*a*) *Noncombat types.*—On both top and bottom wing surfaces, at the outer end of each, is a five-pointed white star with red center, all superimposed on a blue field. At the forward edge of the rudder is a vertical blue stripe. On the remainder of the rudder surface are 13 alternating red and white horizontal stripes.

(*b*) *Combat types.*—The star insignia appears on the upper left and the lower right wing tips, and on the sides of the fuselage about midship. The rudder is painted a dark olive drab, which is the same color as the upper and side portions of the airplanes.

(2) *Navy.*—(*a*) *Noncombat type.*—On both top and bottom wing surfaces, at the outer edge of each, is a five-pointed white star with red center, superimposed on a blue circle. Tail markings are three vertical stripes, one blue, one white, and one red, with the blue on the forward edge of the rudder.

(*b*) *Combat types.*—Naval aircraft are painted in nonspecular color for purpose of concealment. Star insignia appear on the upper left and lower right wing tips and on the side of the fuselage, about midship. The rudder is painted the same nonspecular color as the remainder of the body.

(3) *Marine Corps.*—Noncombat and combat type same as for the Navy.





① U. S. Army.





② U. S. Navy.



③ U. S. Coast Guard.

Wing Rudder

FIGURE 1.—Distinctive markings and insignia (noncombat).

(4) *Coast Guard.*—(*a*) The under surface of the wings are marked with black block letters "USCG," and the sides of the fuselage, slightly aft, are marked in black block letters with the words "United States Coast Guard." On the rudder are five alternating red and white vertical stripes with the top portion of the rudder solid blue.

(*b*) When operating under Navy control, Coast Guard airplanes have the same markings as the Navy.

b. An observer well acquainted with the appearance of the more important external features of airplanes in varying positions of flight is able to make positive identification at altitudes

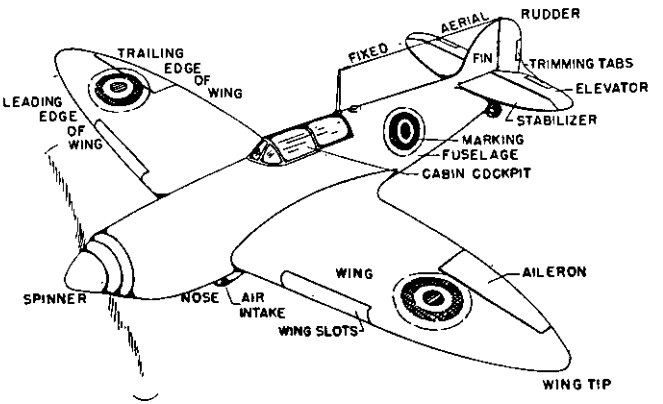


FIGURE 2.—Nomenclature of airplane parts.

and distances much greater than those at which distinctive markings can be detected. This is done by recognition and analysis of characteristic visible features.

■ 9. CHARACTERISTIC FEATURES.—For the most part the characteristic features of airplanes in flight, visible to ground observers, are distinctive variations in the type of construction and arrangement of the major elements of the airplane structure. It is necessary, therefore, that all persons concerned with the problem of aircraft recognition be familiar with the appearance of the more important types of airplane structures and such of their major component parts as are normally visible in flight. Figures 2 and 3 illustrate these structures and features.

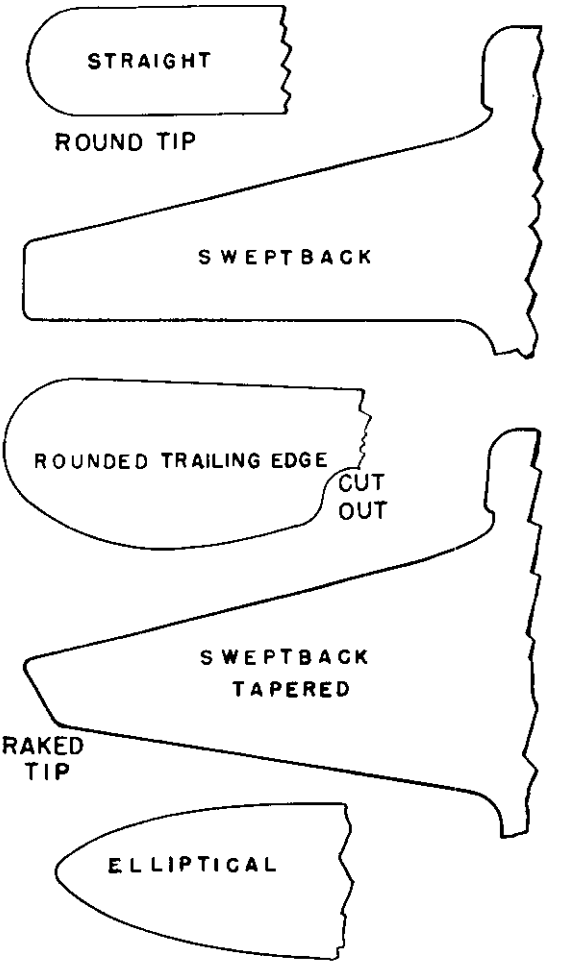


FIGURE 3.—Wing shapes.

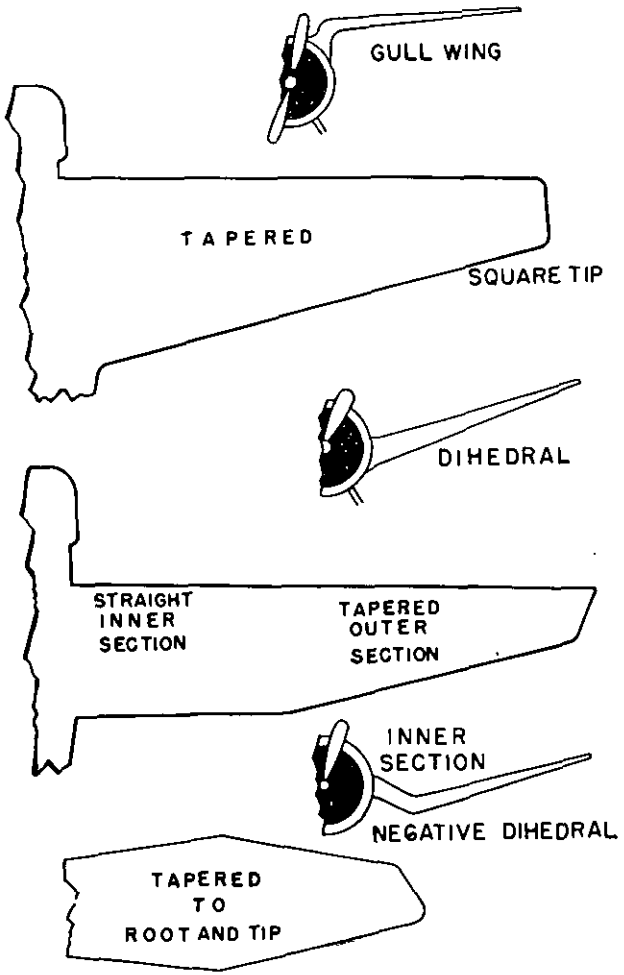


FIGURE 3.—Wing shapes—Continued.

■ 10. ANALYSIS OF VISIBLE FEATURES NOTED.—Observers should be trained to make a quick and logical analysis of all features noted in observation of aircraft. The most outstanding and easily recognized features should be considered first.

a. It is generally quite easy in most positions of flight, except at extreme altitudes and distances, to distinguish between biplanes and monoplanes, and between landplanes, seaplanes, and flying boats or amphibians. Such basic distinctions having been made, the next step is detection and analysis of such characteristic features as may be visible under the existing conditions of observation.

b. In discussing these methods of recognition, attention will be devoted to the monoplane type, for the reason that practically all modern types of military airplanes are monoplanes (fig. 4). The methods, however, are applicable to all types.

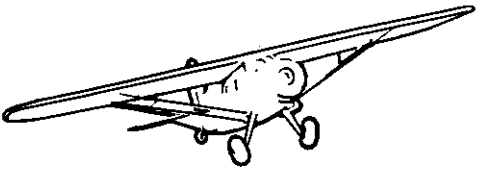
c. One of the most important considerations in recognizing characteristic visible features is the flight position of the airplane during the period of observation. Obviously, an unlimited number of positions and angles of presentation may be assumed by airplanes in flight. In order to simplify procedure, however, only certain basic positions will be considered here, although it is fully recognized that endless combinations and variations of these basic positions are possible. These basic flight positions will be referred to as—

(1) *Coming flight or front view.*—All positions of flight in which only a general head-on view of the airplane is presented to the observer. In this position of flight, the major surfaces of wings, fuselage, and tail will generally not be presented to view.

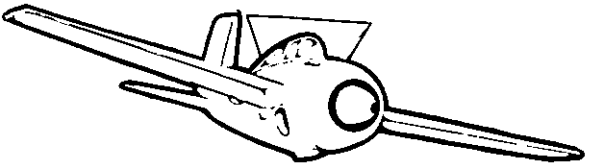
(2) *Passing flight or side view.*—All flight positions in which the side of the fuselage, vertical fin, and rudder are the major surfaces presented to view. In passing flight, the size, shape, and location of wings and horizontal tail surface will generally be indistinguishable.

(3) *Flight at lower altitude or top view.*—All flight positions in which the upper sides of wings, fuselage, and horizontal tail surface are the major surfaces presented to view.

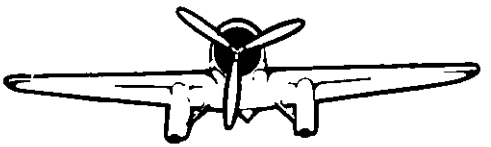
(4) *Overhead flight or bottom view.*—All flight positions in which the under sides of wings, fuselage, and horizontal tail surface are the major surfaces presented to view.



HIGH-WING



MIDWING



LOW-WING



PARASOL MONOPLANE

FIGURE 4.—Monoplanes.

(5) *Maneuvering flight or perspective view.*—Positions of flight which vary materially from those generally assumed in normal rectilinear flight; it includes banking, turning, climbing, diving, and all combinations of such maneuvers. A maneuvering airplane may present to view, momentarily, at least, nearly all of the aspects visible in other flight positions.

■ 11. OVERHEAD FLIGHT.—*a. Shape of wing.*—Characteristic shapes of wings are readily apparent in virtually all positions of overhead flight. The general shape and proportion of wings, as long and narrow, short and stubby, etc., should be noted.

b. Type and shape of nose.—Note whether nose extends much or little in advance of leading edges of wings; that is, whether airplane is long-nosed or short-nosed.

c. Relative length and shape of fuselage.—In overhead flight the contour of the fuselage is not outstanding as an indication of identity. However, comparison of the relatively short fuselage lengths of small- and medium-sized airplanes with the long, slender, streamlined appearance of those in larger ships sometimes gives valuable clues to the recognition of certain types. This is a characteristic feature which should always be considered.

d. Location and number of engines.—(1) It is usually possible in overhead flight, except at very great altitudes, for an observer with field glasses or equivalent optical instruments to determine whether an airplane is a single- or multiple-engine craft, and to count the number of engines. In single-engine airplanes the engine is usually located in the nose and by its type determines the general contour of the nose; that is, with radial engines the nose is blunt and stubby, while with in-line and V-type engines it is more slender and pointed.

(2) In multiple-engine airplanes the engines are usually housed in nacelles protruding from the leading edges of the wings. In the more unusual pusher types the nacelles extend somewhat to the rear of the trailing edges of the wings. In overhead flight it is generally possible, except at very high altitudes, to count the nacelles and thus determine the number of engines. Even at great altitudes, when the number of engine nacelles cannot be exactly determined, their presence will give an unmistakable irregularity of outline to the wings, which is sufficient to warrant identification as a multiple-engine airplane.

■ 12. PASSING FLIGHT.—*a.* Note the general shape and contour of the fuselage as follows:

(1) Whether short and chunky, as in the smaller pursuit and training types; elongated and streamlined, as in some of the larger types; or relatively long and thick-bodied, as in other large airplanes.

(2) The manner in which the contour is broken by cockpits, canopies, gun turrets, etc. Note the single relatively small break approximately in the center, characteristic of single-seaters; the elongated canopies of airplanes with two or three cockpits; the relatively small protrusions on top or bottom of the fuselage, indicating gun turrets on large bombers, as compared with the smooth, unbroken outline of transports of generally similar appearance.

b. The shape of the nose is almost always readily apparent in passing flight. It should be especially noted whether the nose is slender and pointed, blunt and stubby, smoothly rounded, or whether it has any specially distinctive shape such as the shark nose of the B–24 and B–18A.

c. Landing gear of the nonretractable type is almost always plainly visible in passing flight. Since nearly all types of military aircraft are equipped with retractable landing gear, it is not visible in flight, except just before landing and just after take-off. The presence, therefore, of nonretracted undercarriages in normal flight is of great assistance in identifying the type of airplane observed.

d. Note the size, type, and shape of vertical tail surfaces, as follows:

(1) The relative size of the fin and rudder with respect to the fuselage is generally quite apparent in passing flight. In many types of airplanes this feature is not sufficiently distinctive to be of much value in identification. In some cases, however, it is an outstanding characteristic that can be distinguished even at considerable distances.

(2) It is not always possible in passing flight to tell whether an airplane has a single or double rudder. If the distinction is apparent, however, it is of great aid in identification.

■ 13. COMING OR GOING FLIGHT.—*a.* Note the relation of wings to fuselage as follows:

(1) Whether high-wing, midwing, low-wing, or parasol-wing type. This feature is readily discernible in these flight

positions and is an important factor in determining identity.

(2) The dihedral angle, whether pronounced, moderate, or practically zero.

b. The number of engines can usually be determined in these positions. As in overhead flight, at great distances, the irregularity of outline imparted to the wing silhouettes by engine nacelles will usually permit recognition of a multiple-engine airplane as such.

c. Features of the tail surfaces are generally difficult to distinguish in these positions. It is sometimes possible, however, to tell the difference between single- and double-rudder types.

d. The undercarriages of airplanes with nonretractable landing gear are plainly visible in these positions of flight.

■ 14. MANEUVERING FLIGHT.—The positions that airplanes may assume in maneuvering flight are so many and varied that it is impossible to formulate any group of features more likely to be observed than others. Any or all of the features previously discussed may become visible momentarily, and observers must be alert to detect whatever significant features are displayed.

■ 15. INFLUENCE OF FLIGHT CONDITIONS.—Conditions of light, atmosphere, and sky exert a very great influence on the clarity with which significant features stand out and the distances at which they can be observed. Observers must be trained to concentrate attention on noting the features most outstanding under the conditions of the moment.

SECTION III

METHODS OF OPERATION

■ 16. PURSUIT AIRPLANES.—As stated in paragraph 6, pursuit airplanes normally operate in formations. The squadron of 18 airplanes is usually the largest group to be seen as a single unit in the air. When two or more squadrons are operating together, the other squadron formations will be seen usually echeloned to the rear and well above the leading squadron. Pursuit formations normally fly at high altitudes, and hence are difficult to see. An observer noting one pursuit formation should look above it and to the rear to discover whether or not there are other units with the formation.

■ 17. HEAVY AND MEDIUM BOMBARDMENT AIRPLANES.—Heavy and medium bombers flying over friendly territory will generally be seen, both going out and returning from their missions, in route column formations. This is a column of three-plane elements, with successive elements stepped up or down from front to rear. Such formations will usually be seen flying straight courses at medium or high altitudes.

■ 18. LIGHT BOMBARDMENT AIRPLANES.—*a.* Light bombers normally operate in formations at minimum or medium altitudes, except dive bombers which normally operate at medium and high altitudes.

b. In passing over friendly territory, light bombers will usually be seen flying straight courses at minimum or medium altitudes in formations composed of elements of three airplanes each. Dive bombers operate similarly over friendly territory, except at medium and high altitudes. The three-plane elements are usually echeloned to the rear of the leading element at about the same altitude. The normal operating unit is the squadron of nine airplanes. The largest unit that ordinarily operates in a single formation is the group of three squadrons.

c. Since light bombers generally operate within range of small arms weapons on the ground, and since they are the type of airplanes which have the mission of direct support of ground forces, it is of especial importance that troops be able to identify friendly light bombers quickly and accurately.

■ 19. CORPS AND DIVISION RECONNAISSANCE AIRPLANES.—These airplanes will usually be seen over friendly territory when going and returning from missions over the hostile lines. They will generally fly on straight courses, but may be seen at any altitude from low to high. They operate singly.

■ 20. OBSERVATION AIRPLANES.—These airplanes operate almost entirely within our own lines. They will be seen flying singly on variable courses at low and medium altitudes. They will also be seen circling over troops and columns to drop messages and observe panel signals, flying in and out of advance landing fields, and otherwise maintaining contact and liaison. It is especially important that troops be thoroughly familiar with these airplanes and their methods of operation.

SECTION IV

SOUNDS

■ 21. GENERAL.—*a.* The sound of airplanes in flight is frequently the first indication of their presence. Observers hearing such sounds should immediately search the sky in the direction of the apparent source of the sound. They should also note carefully the characteristics of such sounds in order to connect them with the types of airplanes observed.

b. Recognition of airplane types by sound alone is difficult and uncertain except for highly skilled observers who have constant practice. However, most persons can readily recognize the difference between the sounds made by a single airplane and those made by a formation. They can also be trained to detect the more outstanding differences in the sounds made by different types of airplanes by noting carefully such things as the rhythm, volume, tone, and variations in these. This training can be accomplished only by actual experience and by a conscious effort to analyze these sound effects at every opportunity.

■ 22. PURSUIT AIRPLANES.—The sounds generated by pursuit airplanes are characterized by a fast rhythm, high pitch, moderate volume, and by extreme variations in quality of tone during such maneuvers as diving and climbing.

■ 23. HEAVY AND MEDIUM BOMBARDMENT AIRPLANES.—The sounds from bombardment airplanes are generally characterized by a fairly deep pitch, moderately heavy volume, and steady tone and rhythm.

■ 24. LIGHT BOMBARDMENT AIRPLANES.—The outstanding feature of sounds from light bombers (not including dive bombers) is the very heavy volume of sound because of their low altitudes of operation. In regular flight the pitch is fairly deep, and tone and rhythm are steady but fluctuate considerably if the airplanes dive or climb.

■ 25. OTHER TYPES.—It is difficult to point out and analyze sound features generally characteristic of other types of airplanes. However, observers who have frequent opportunities to hear and see particular types of airplanes in operation can by careful attention and study soon learn to pick out certain characteristic sound effects which are of great assistance in recognizing those types.

SECTION V

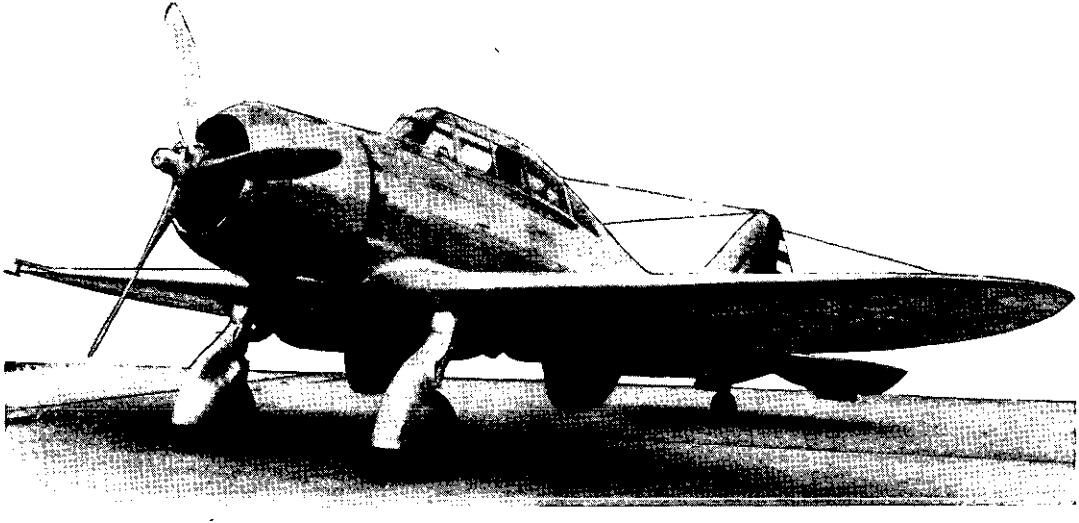
MODEL DESIGNATION

■ 26. MODEL DESIGNATION OF ARMY AIRCRAFT.

Type	*Designation*
Bombardment (light)	A
Bombardment (medium and heavy)	B
Pursuit (interceptor)	P (I)
Pursuit (fighter)	P (F)
Observation	O
Observation amphibian	OA
Army reconnaissance (photographic)	F
Training (primary)	PT
Training (basic)	BT
Training (advance)	AT (BC)
Transport (cargo and personnel)	C
Miscellaneous:	
Autogiro	G
Glider (cargo)	CG
Glider (training)	TG
Rotary wing	R

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

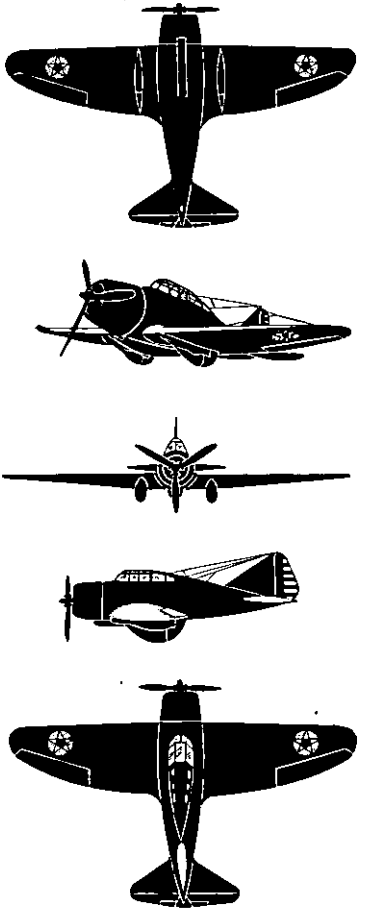
UNITED STATES ARMY

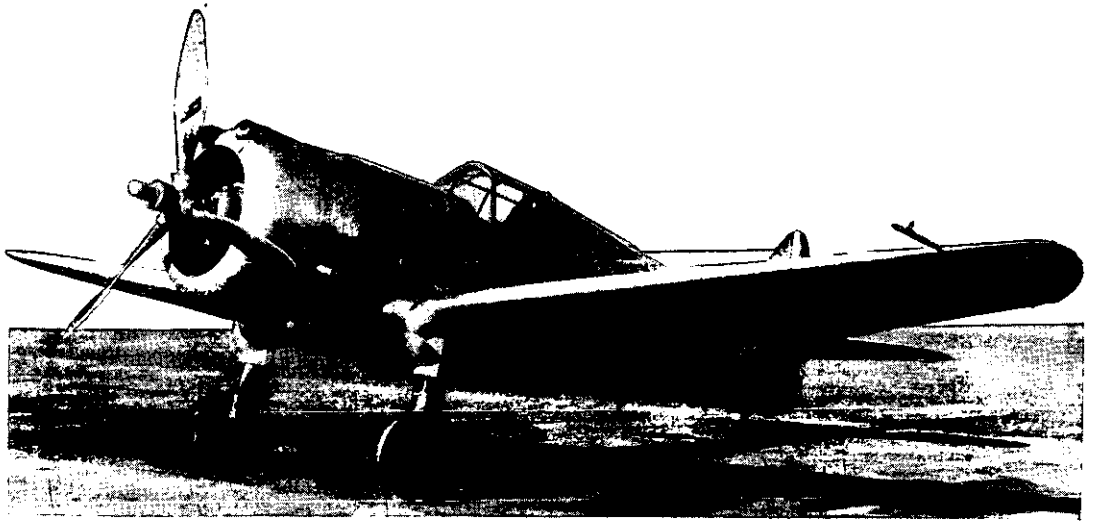


UNITED STATES ARMY
P–35 (SEVERSKY) PURSUIT AIRPLANE (INTERCEPTOR)

Straight front edge, rounded trailing edge, low-wing monoplane, all metal, single engine, inclosed cockpit, and retractable landing gear, with noticeable bulge when wheels are retracted.

IDENTIFICATION U. S. AIRCRAFT



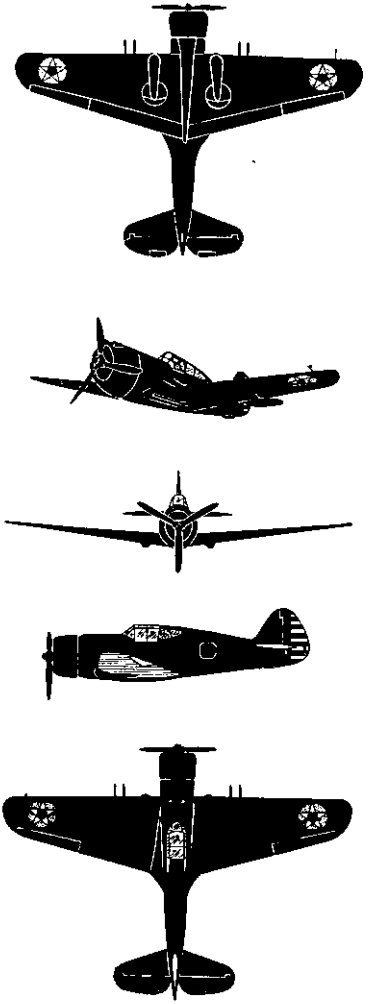


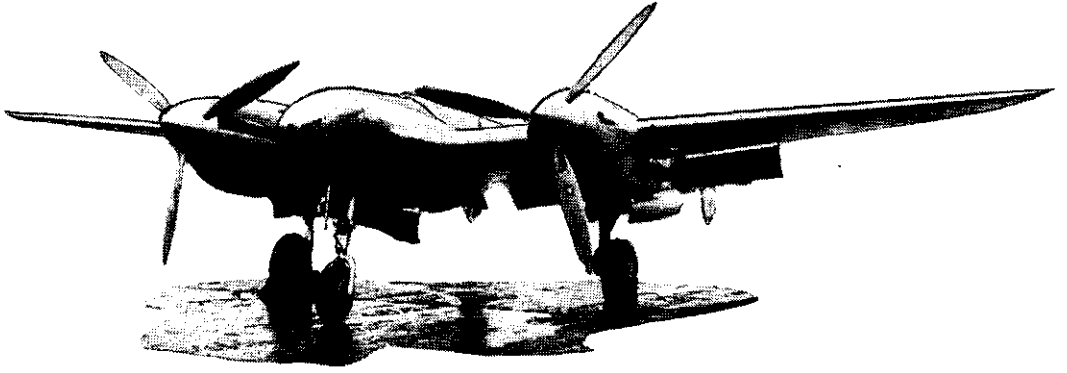
UNITED STATES ARMY
P–36 (CURTISS) PURSUIT AIRPLANE (INTERCEPTOR)

Tapered, slightly dihedral, low-wing monoplane, all metal, single engine, comparatively short blunt nose, retractable landing gear and tail wheel, and inclosed cockpit.

UNITED STATES
ARMY

PURSUIT
CURTISS P-36



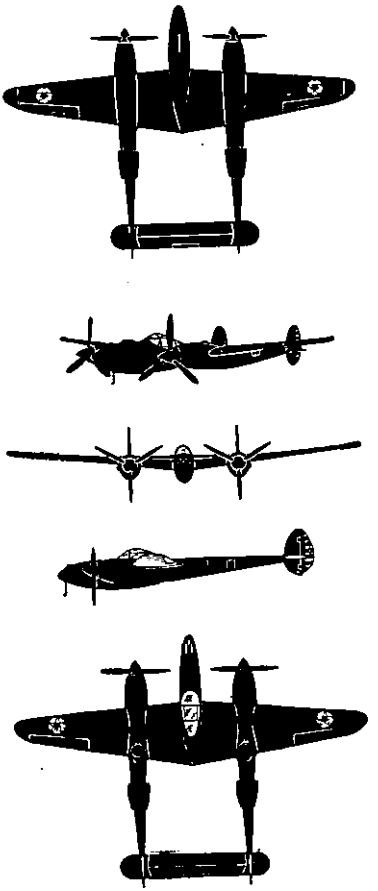


UNITED STATES ARMY
P–38 (LOCKHEED) PURSUIT FIGHTER AIRPLANE

Sweptback, tapered, midwing, all metal, two-engined monoplane, retractable tricycle landing gear, inclosed cockpit, and twin tail booms.

UNITED STATES
ARMY

PURSUIT
LOCKHEED P-38



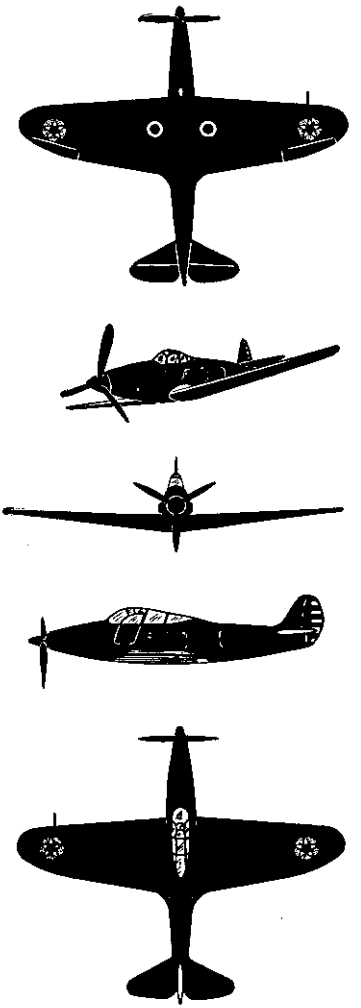


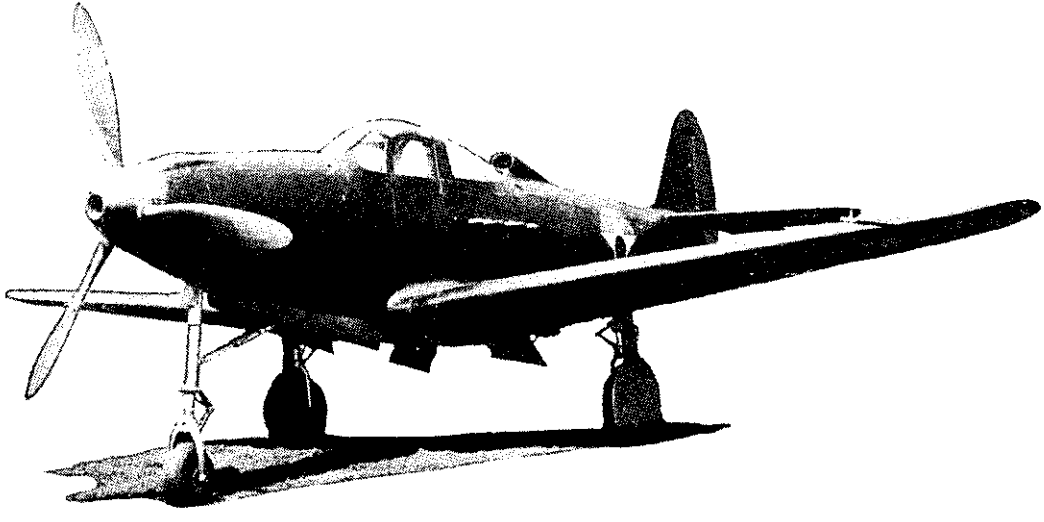
UNITED STATES ARMY
P–39 (BELL) PURSUIT AIRPLANE (INTERCEPTOR)

Slightly sweptback, tapered, low-wing monoplane, all metal, single engine, inclosed cockpit, decidedly long pointed nose, and tricycle retractable landing gear.

UNITED STATES
ARMY

PURSUIT
BELL P–39



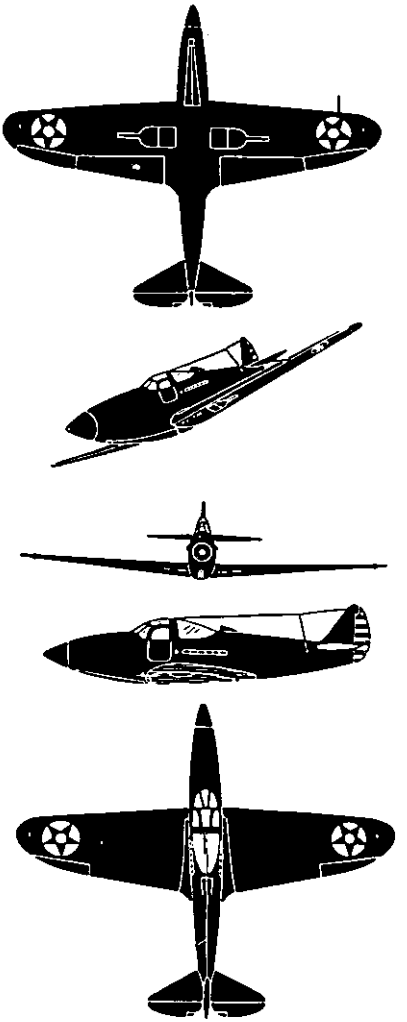


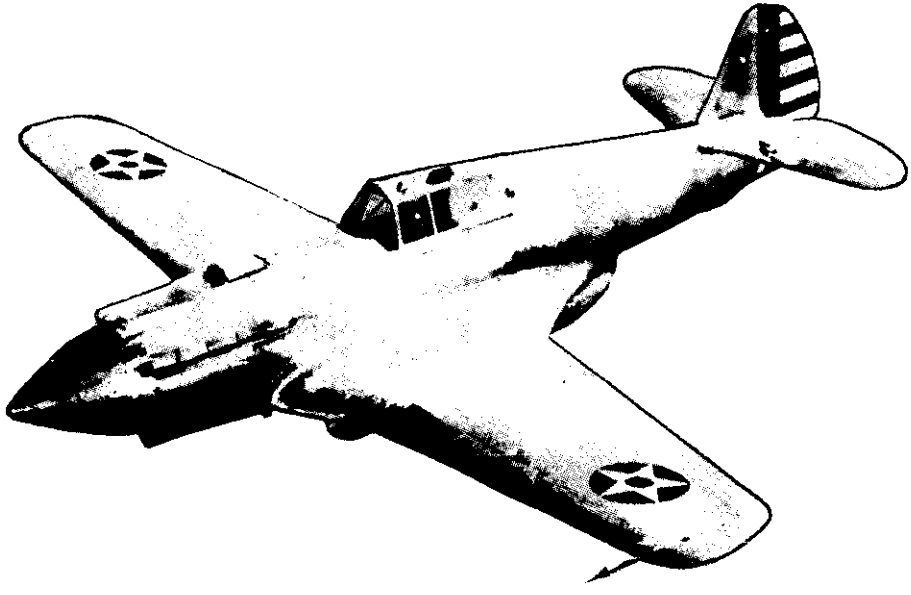
UNITED STATES ARMY
P–39C AND P–39D (BELL) PURSUIT (INTERCEPTOR) AIRPLANES

Slightly sweptback, tapered, low-wing monoplane, all metal, single engine, inclosed cockpit, decidedly long pointed nose, and tricycle retractable landing gear. P–39D has a removable auxiliary gasoline tank underneath the fuselage.

UNITED STATES
ARMY

PURSUIT
BELL P-39C AND P-39D



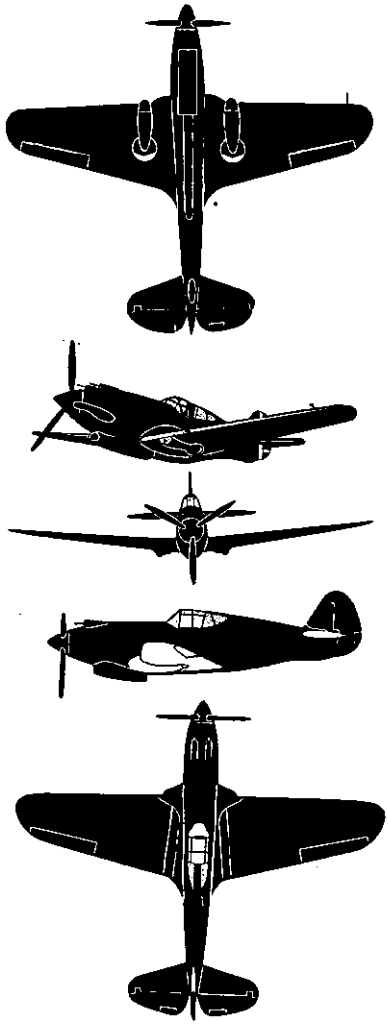


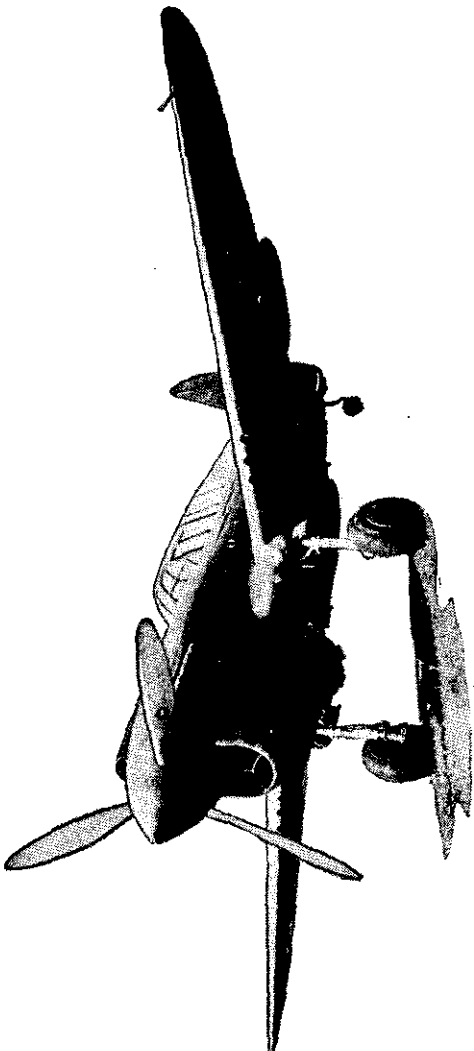
UNITED STATES ARMY
P-40 (CURTISS) PURSUIT INTERCEPTOR AIRPLANE

Slightly dihedral, tapered, low-wing monoplane, all metal, single engine, inclosed cockpit, fairly long tapered nose, and retractable landing gear and tail wheel.

UNITED STATES
ARMY

PURSUIT
CURTISS P–40





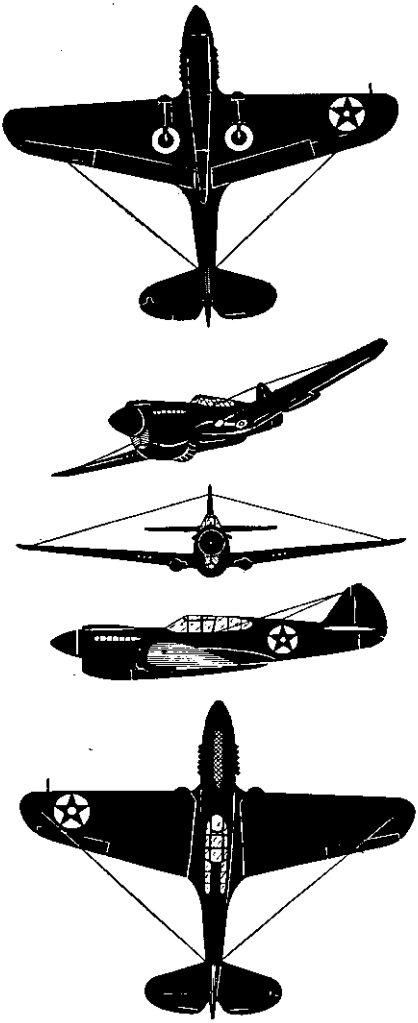
UNITED STATES ARMY

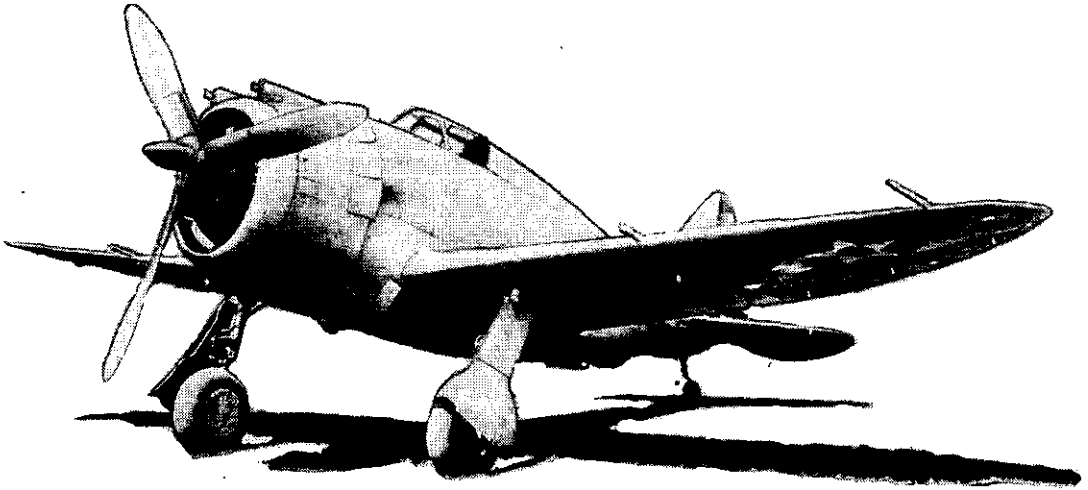
P–40E (CURTISS) PURSUIT (INTERCEPTOR) AIRPLANE

Dihedral, slightly sweptback, round tip, low-wing monoplane, all metal, single engine, inclosed single-place cockpit, and retractable landing gear.

UNITED STATES
ARMY

PURSUIT
CURTISS P-40E



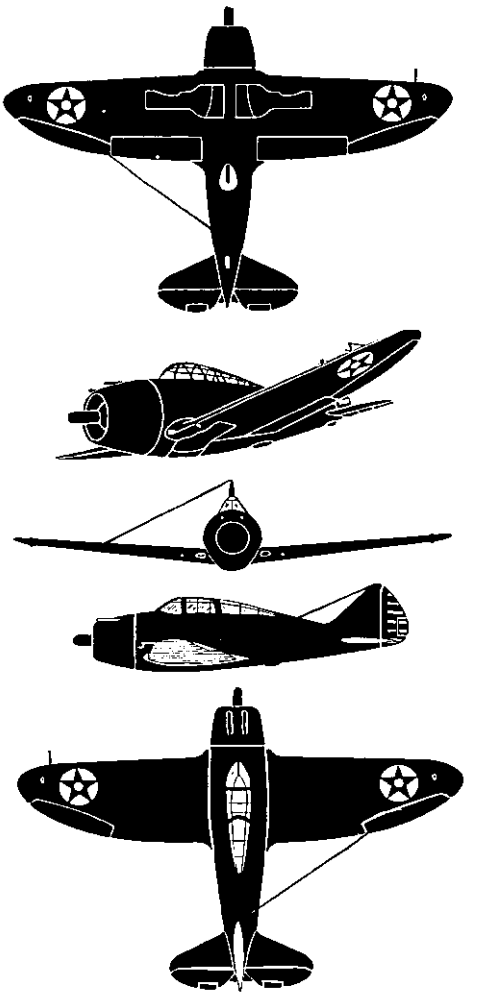


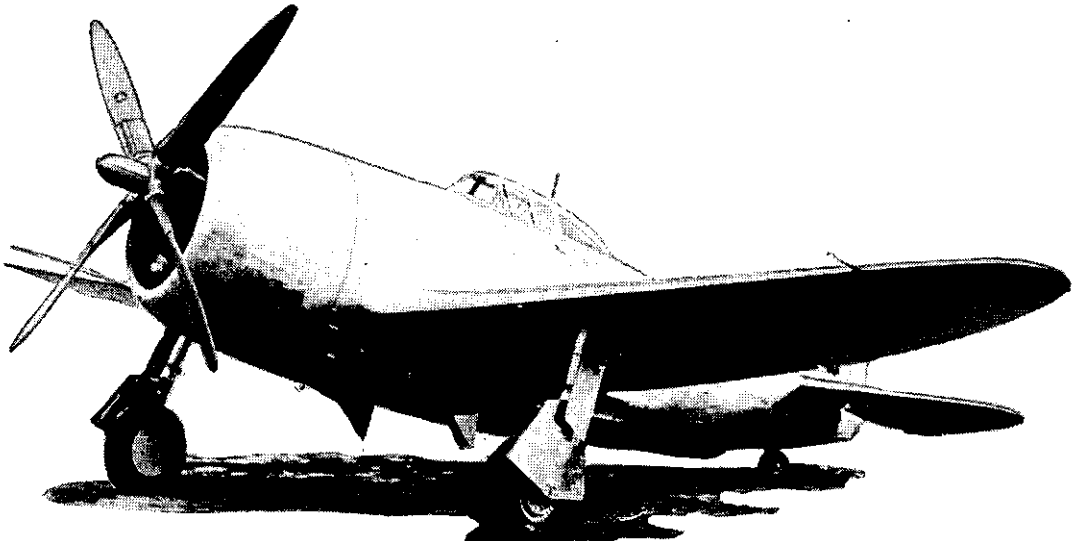
UNITED STATES ARMY
P–43 (REPUBLIC) PURSUIT INTERCEPTOR

Single engine, low-wing monoplane, dihedral, rounded trailing edge, short nose, inclosed cockpit, single-place; landing gear retracts flush with fuselage.

UNITED STATES
ARMY

PURSUIT
REPUBLIC P–43



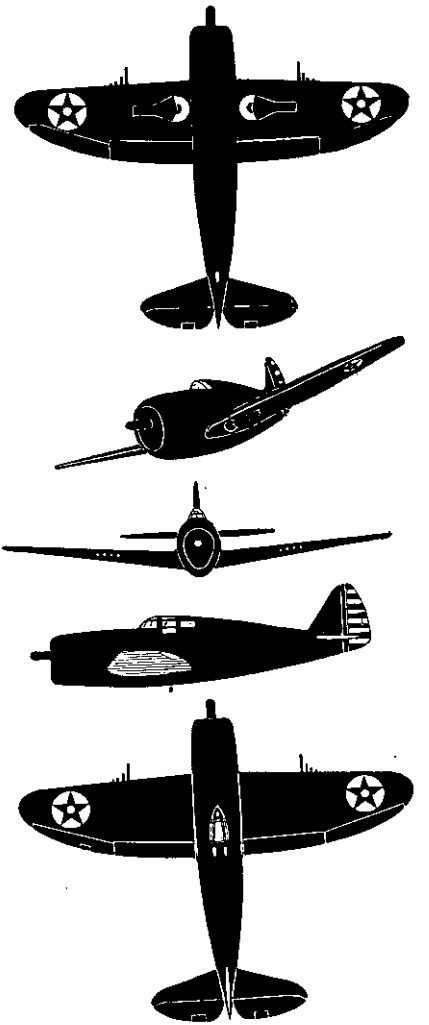


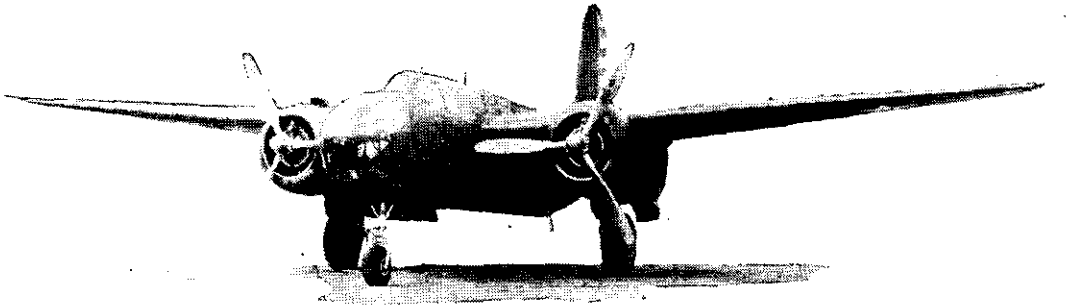
UNITED STATES ARMY
P-47B (REPUBLIC) PURSUIT INTERCEPTOR

Single engine, low-wing monoplane, dihedral, rounded outer trailing edge, elliptical tips, flaps, inclosed cockpit, single place, and retractable landing gear.

UNITED STATES
ARMY

PURSUIT
REPUBLIC P-47B



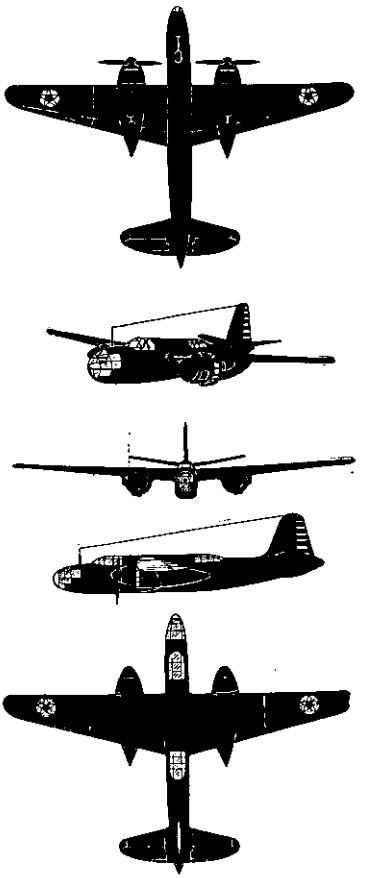


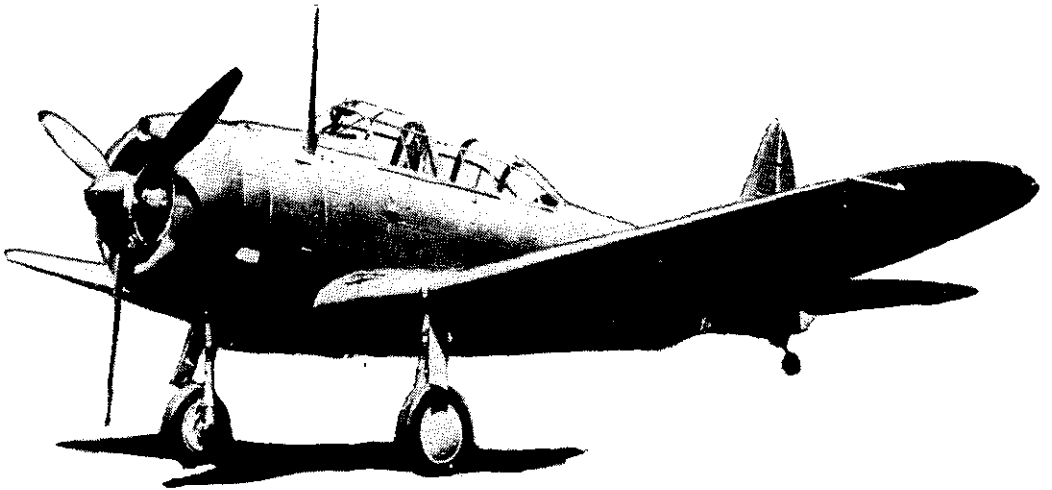
UNITED STATES ARMY
A–20 (DOUGLAS) LIGHT BOMBARDMENT AIRPLANE

Tapered, round tip, high-wing monoplane, all metal, two engines, tapered motor nacelles extending beyond trailing edge of wings, long tapered nose, inclosed cabin, and retractable landing gear and tail wheel.

UNITED STATES
ARMY

LIGHT BOMBARDMENT
DOUGLAS A-20



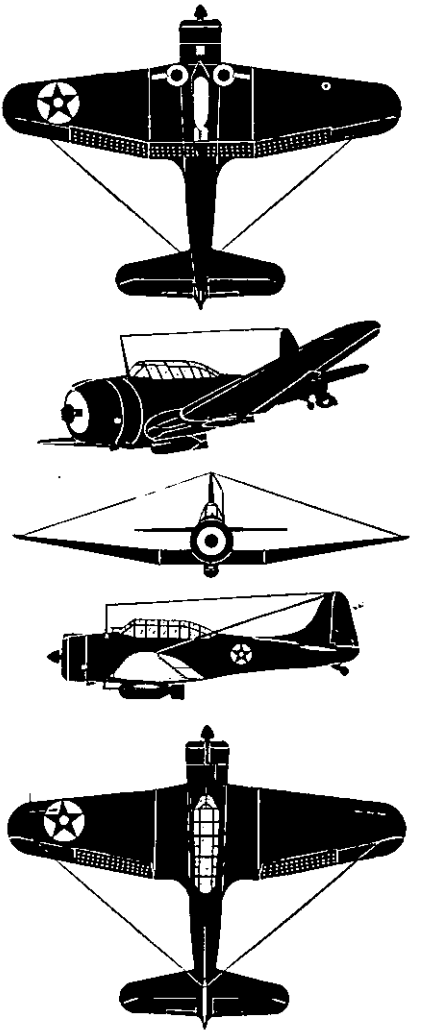


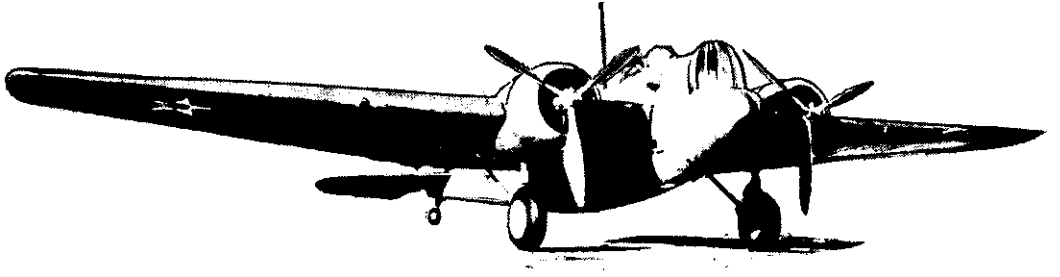
UNITED STATES ARMY
A–24 (DOUGLAS) LIGHT BOMBARDMENT AIRPLANE

One engine, slightly dihedral, low-wing monoplane, all metal, inclosed cockpit, retractable landing gear, and single tail.

UNITED STATES
ARMY

LIGHT BOMBARDMENT
DOUGLAS A–24



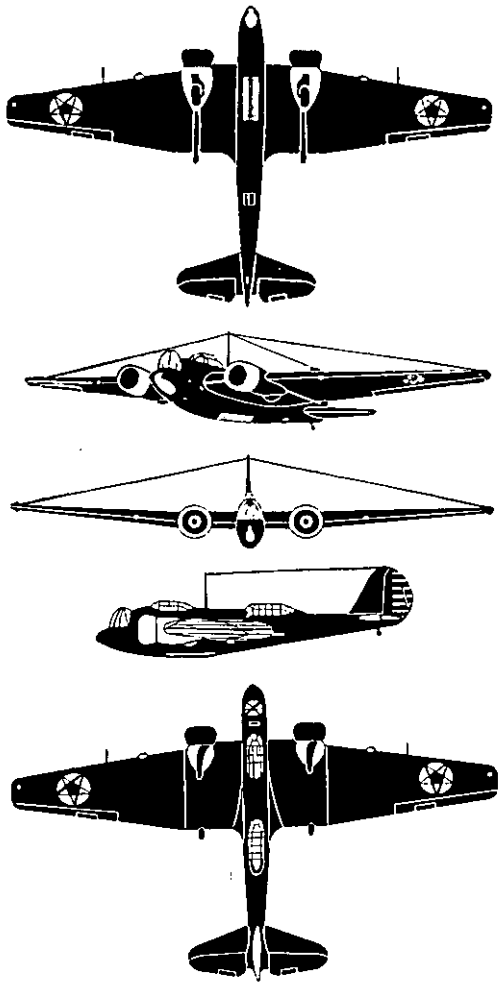


UNITED STATES ARMY
B–10 AND B–10B (MARTIN) MEDIUM BOMBARDMENT AIRPLANE

Two engines, midwing monoplane, tapered outer wing panels, straight tips, nose turret, inclosed cockpits, and retractable landing gear with rear struts projecting beyond rear center section.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
MARTIN B–10 AND B–10B



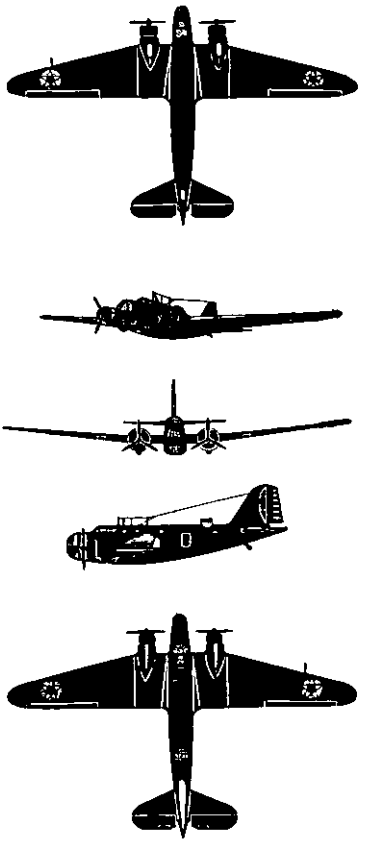


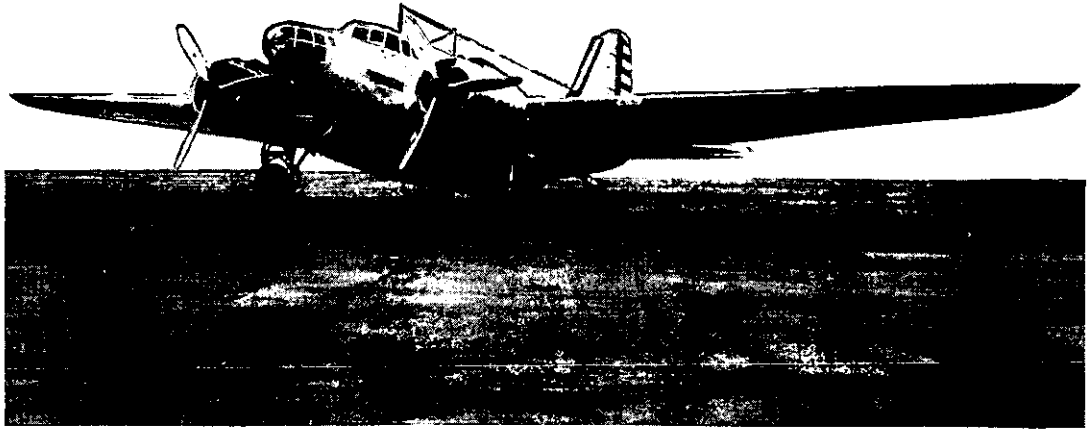
UNITED STATES ARMY
B-18 (DOUGLAS) MEDIUM BOMBARDMENT AIRPLANE

Slightly dihedral, sweptback, elliptical tip, midwing monoplane, all metal, two engines, inclosed cabins, and retractable landing gear.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
DOUGLAS B–18





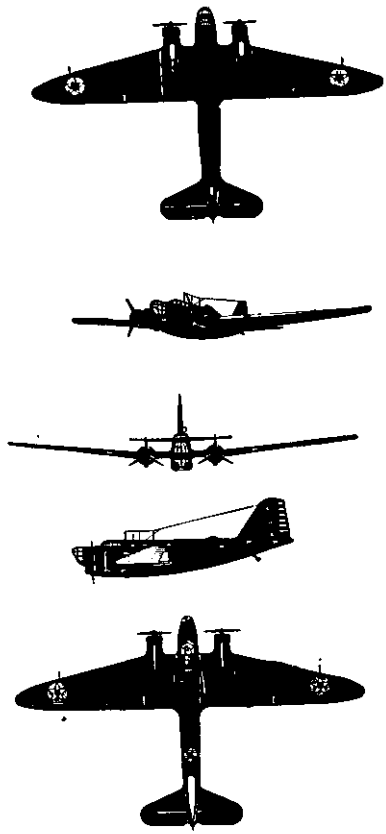
UNITED STATES ARMY

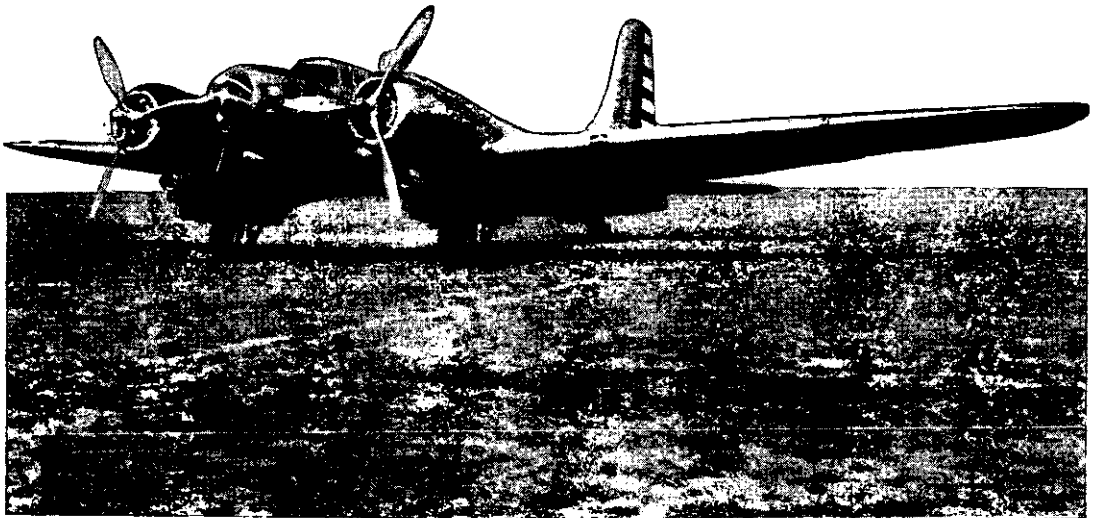
B–18A (DOUGLAS) MEDIUM BOMBARDMENT AIRPLANE

Similar to B–18, except for modified nose of fuselage. Slightly dihedral, sweptback, elliptical tip, midwing monoplane, all metal, two engines, inclosed cabins, and retractable landing gear.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
DOUGLAS B–18A





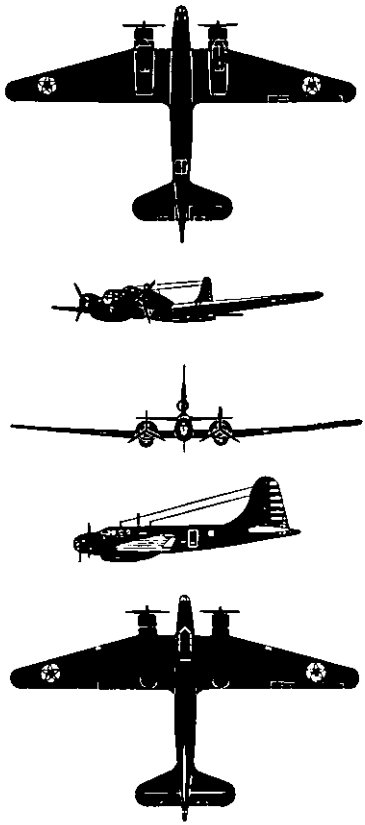
UNITED STATES ARMY

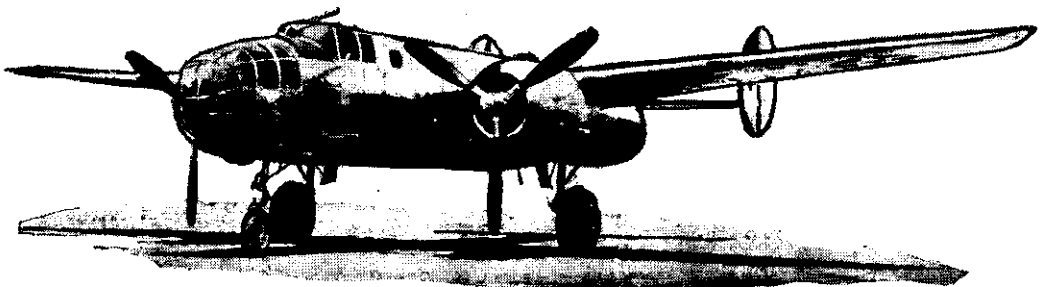
B–23 (DOUGLAS) MEDIUM BOMBARDMENT AIRPLANE

Similar to B–18, except for slimmer fuselage, more pointed nose, and slightly higher tail. Slightly dihedral, sweptback, round tip, midwing monoplane, all metal, two engines, inclosed cabins, and retractable landing gear.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
DOUGLAS B-23





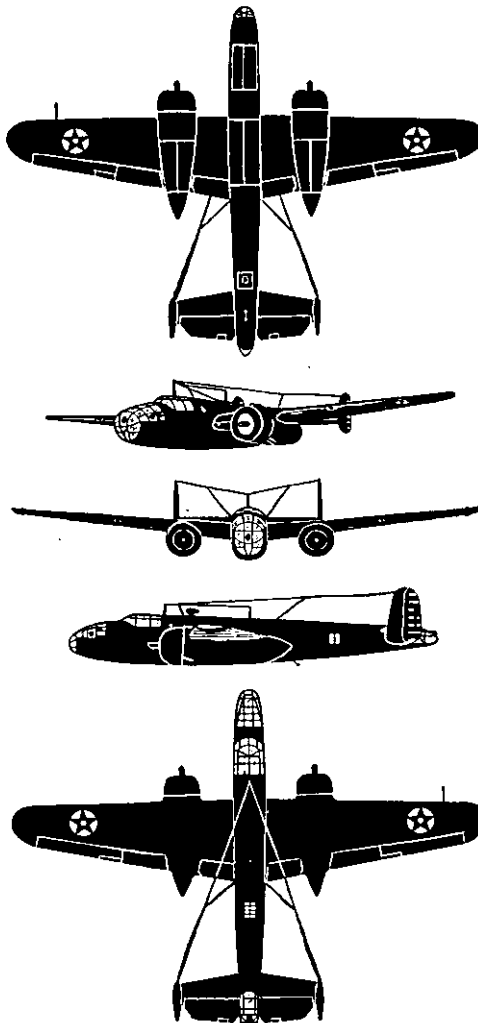
UNITED STATES ARMY

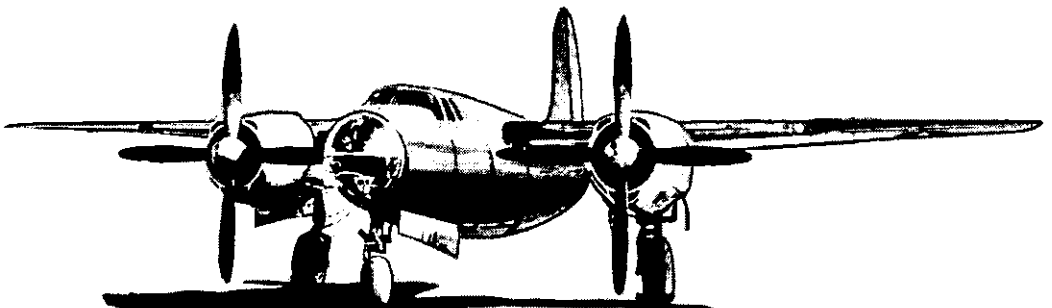
B–25, B–25A, B–25B, AND B–25C (NORTH AMERICAN) MEDIUM BOMBARDMENT AIRPLANES

Two engines, midwing monoplane, dihedral, tapered wing, wing flaps, round tips, long nose, inclosed cabins, twin rudders, retractable tricycle landing gear, and tail gun.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
NORTH AMERICAN B–25, B–25A,
B–25B, AND B–25C





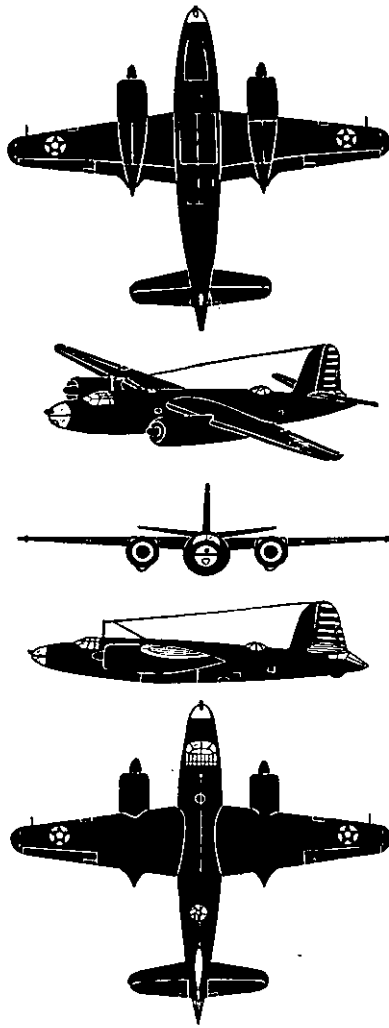
UNITED STATES ARMY

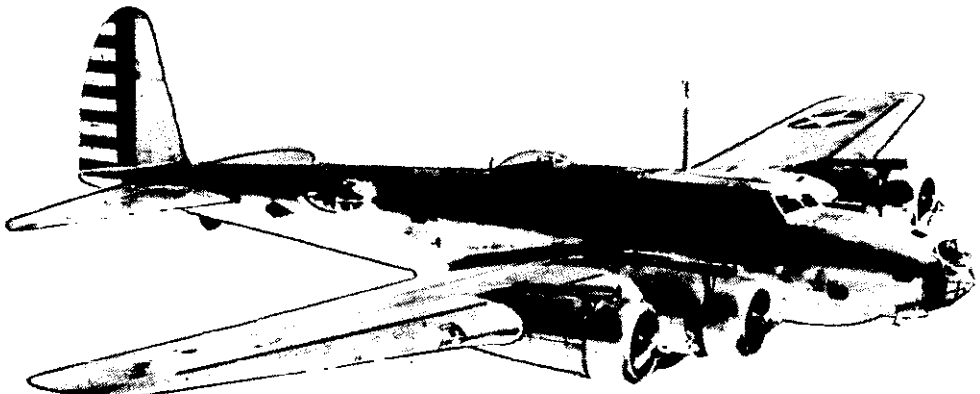
B–26, B–26A, AND B–26B (MARTIN) MEDIUM BOMBARDMENT AIRPLANES

Two engines, midwing monoplane, tapered wing, round tips, wing flaps, dihedral tail surfaces, long rounded nose, inclosed cabins, retractable tricycle landing gear, rear fuselage turret, and tail gun.

UNITED STATES
ARMY

MEDIUM BOMBARDMENT
MARTIN B–26, B–26A, AND B–26B



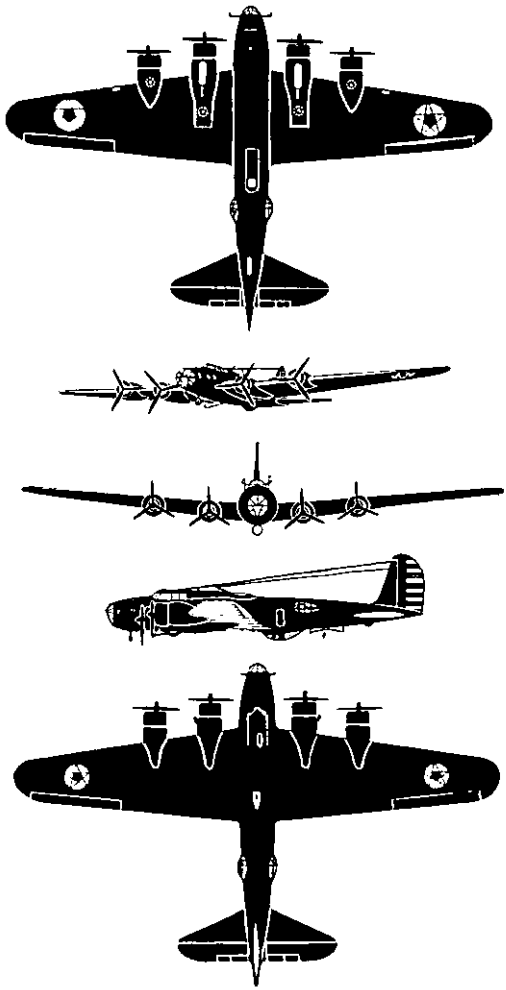


UNITED STATES ARMY
B–17 (BOEING) HEAVY BOMBARDMENT AIRPLANE

Sweptback, tapered, round tip, low-wing monoplane, all metal, four engines, inclosed cabins, gun turrets on each side and under fuselage in rear of wings, and retractable landing gear and tail wheels.

UNITED STATES
ARMY

HEAVY BOMBARDMENT
BOEING B-17



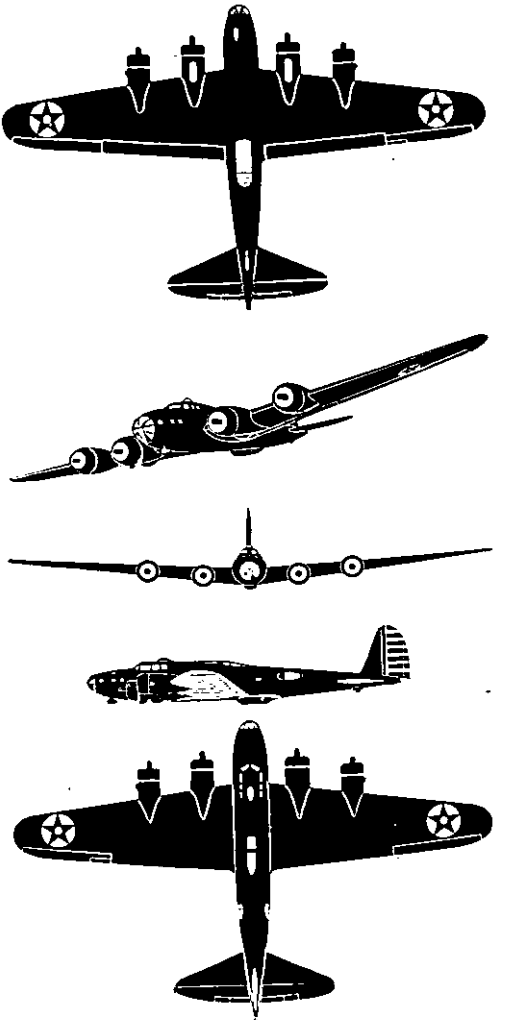


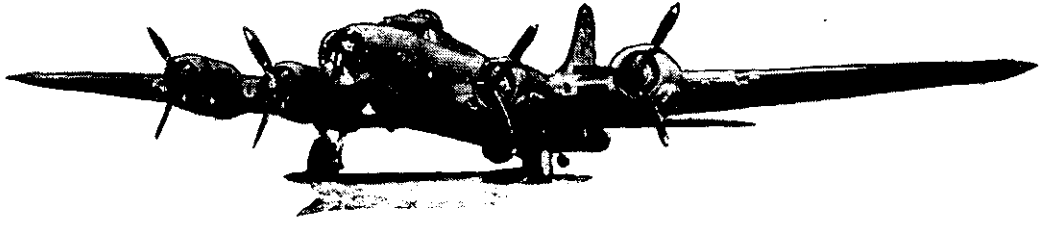
UNITED STATES ARMY
B–17C (BOEING) HEAVY BOMBARDMENT AIRPLANE

Sweptback, tapered, round tip, low-wing monoplane, all metal, four engines, inclosed cabins, machine-gun openings on each side, "bathtub" under fuselage in rear of wings, and retractable landing gear and tail wheels.

UNITED STATES
ARMY

HEAVY BOMBARDMENT
BOEING B–17C



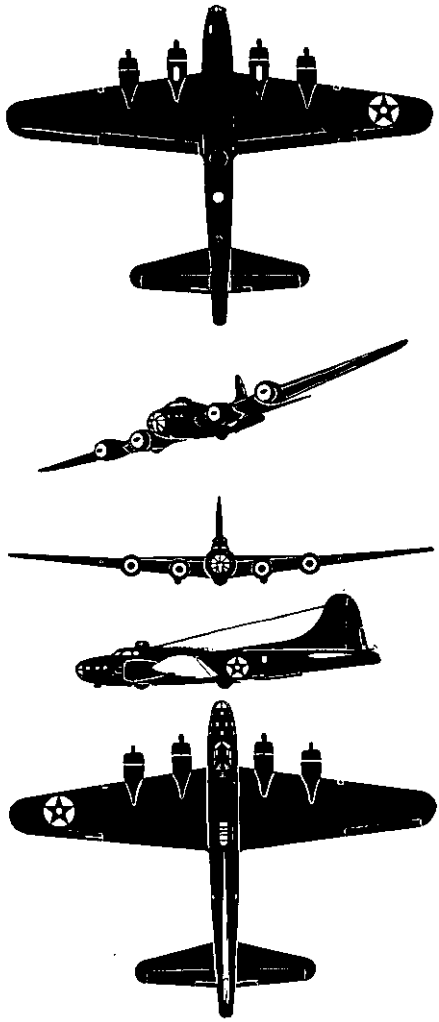


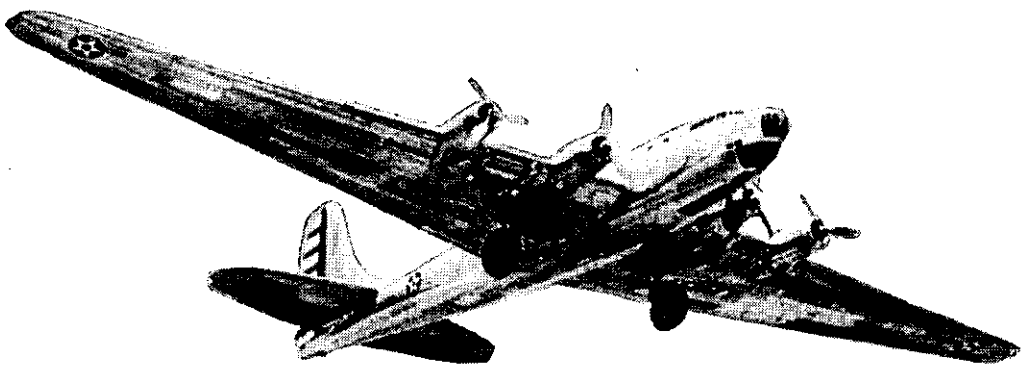
UNITED STATES ARMY
B–17E AND F (BOEING) HEAVY BOMBARDMENT AIRPLANES

Sweptback, tapered, round tip, low-wing monoplane, all metal, four engines, inclosed cabins, retractable landing gear and tail wheels, and long elliptical nose.

UNITED STATES
ARMY

HEAVY BOMBARDMENT
BOEING B-17E AND F



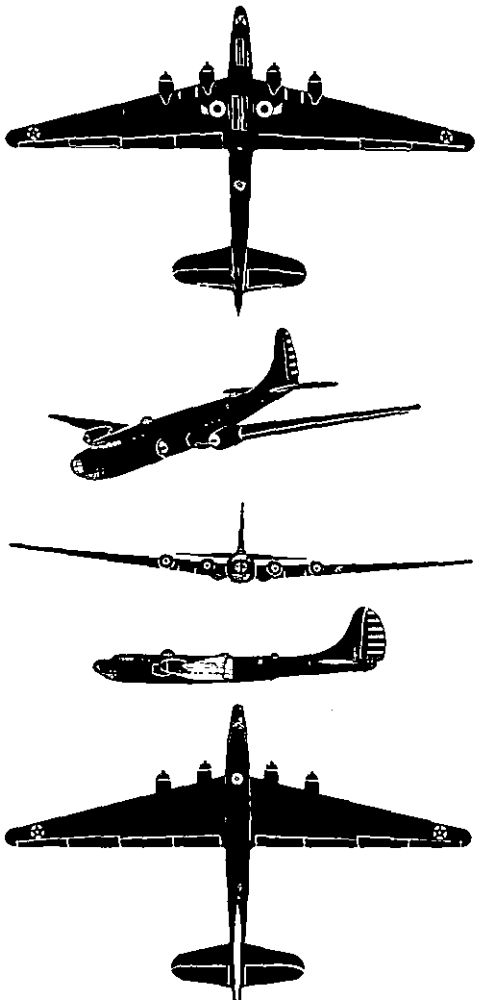


UNITED STATES ARMY
XB–19 (DOUGLAS) HEAVY BOMBARDMENT AIRPLANE

Sweptback, tapered, round-tip wing, ten-place, low-wing, full cantilever monoplane, all metal, four engines, inclosed cabin, three power-driven turrets, and retractable type tricycle landing gear.

UNITED STATES
ARMY

HEAVY BOMBARDMENT
DOUGLAS XB-19





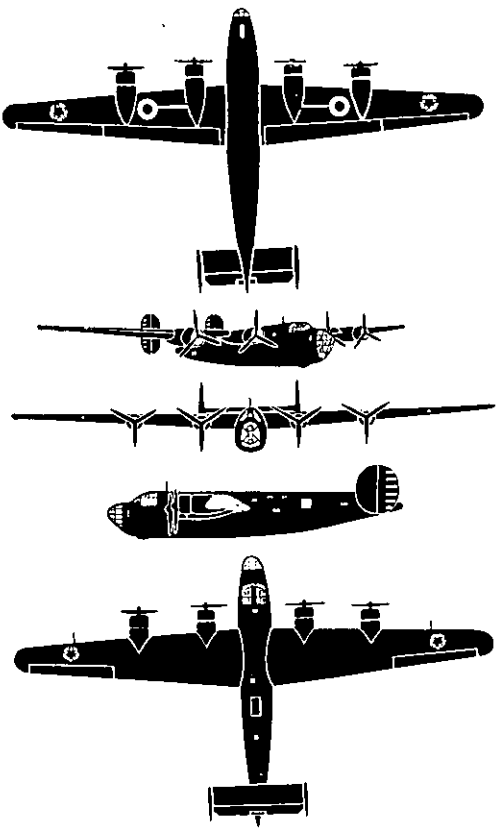
UNITED STATES ARMY

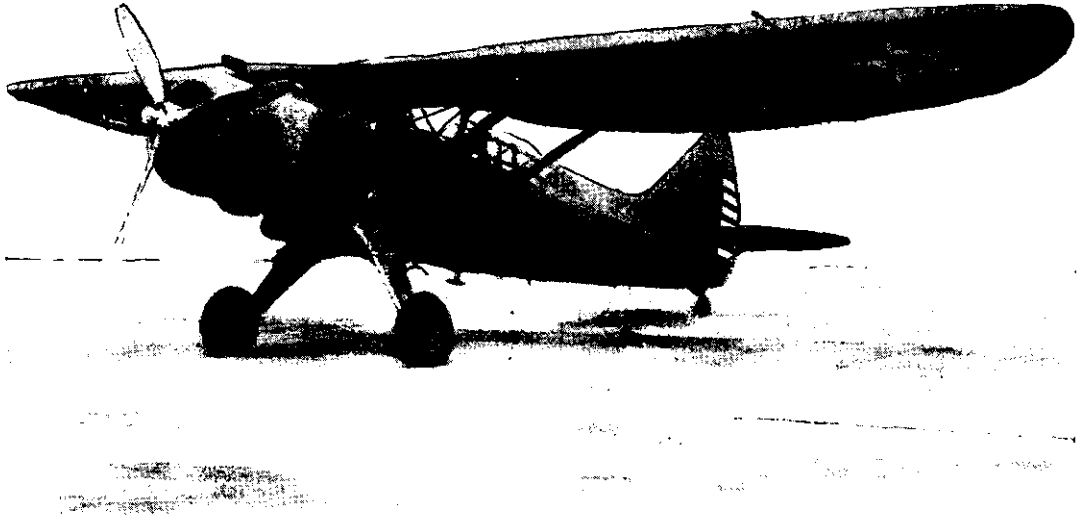
B-24 (CONSOLIDATED) HEAVY BOMBARDMENT AIRPLANE

Sweptback, tapered, round-tip, high-wing monoplanes, all metal, four engines, fairly long tapered nose, inclosed cabins, twin boom tail surfaces, and retractable tricycle landing gear.

UNITED STATES
ARMY

HEAVY BOMBARDMENT
CONSOLIDATED B-24



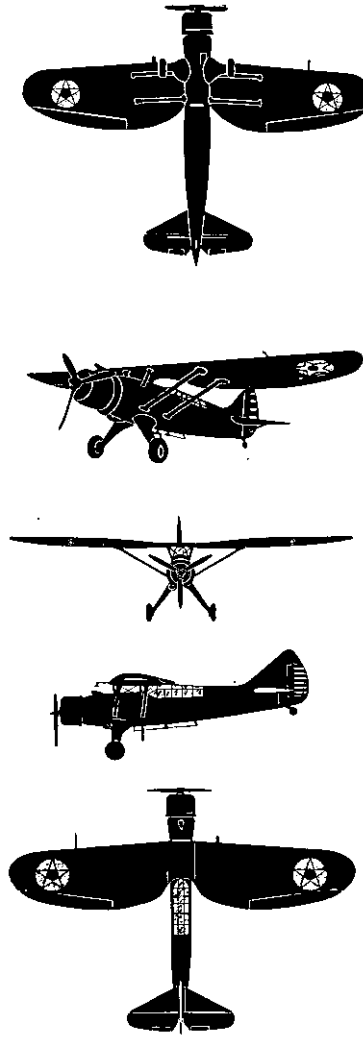


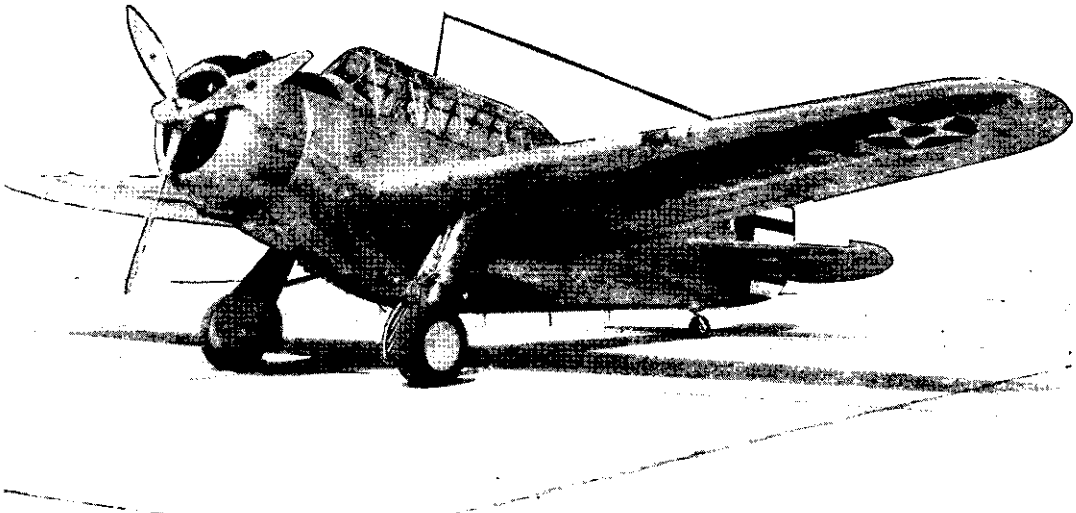
UNITED STATES ARMY
O–46A (DOUGLAS) OBSERVATION AIRPLANE

Sweptback, rounded trailing edge, parasol-wing monoplane, all metal, single engine, inclosed cockpit, and fixed landing gear.

UNITED STATES
ARMY

OBSERVATION
DOUGLAS O-46A



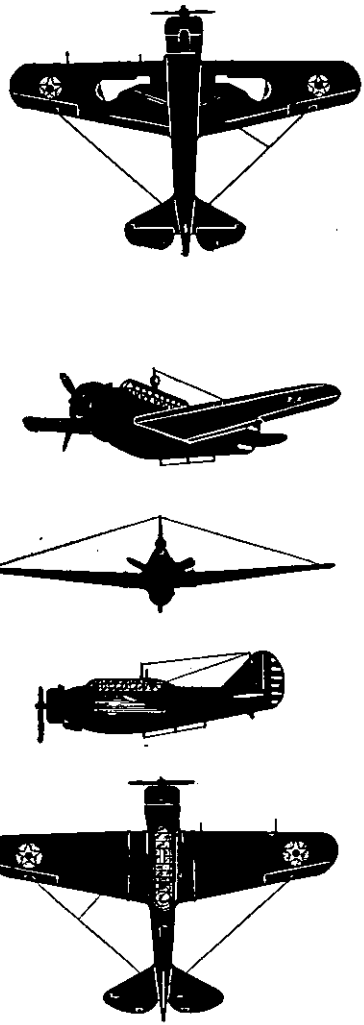


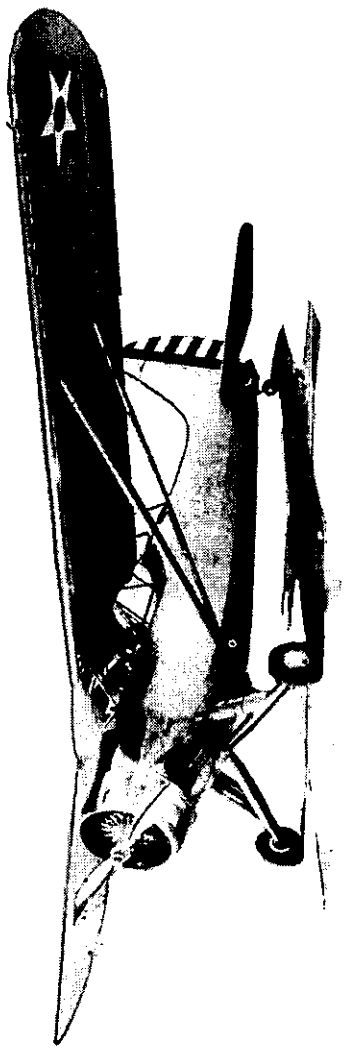
UNITED STATES ARMY
O–47A (NORTH AMERICAN) OBSERVATION AIRPLANE

Tapered, round tip, slightly dihedral, midwing monoplane, all metal, single engine, pronounced inclosed cabin, and retractable landing gear.

UNITED STATES
ARMY

OBSERVATION
NORTH AMERICAN O-47A





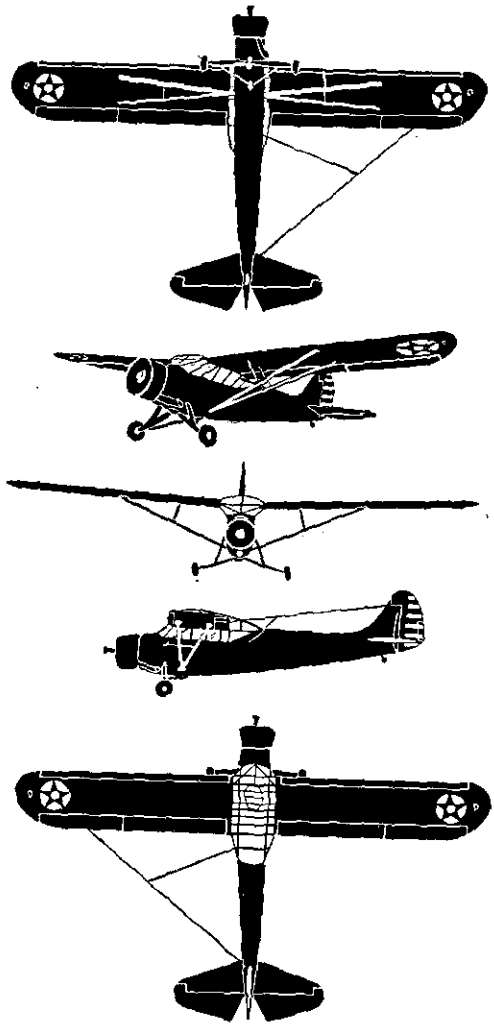
UNITED STATES ARMY

O–49 AND O–49A (STINSON) OBSERVATION AIRPLANE

Single engine, high-wing monoplane, externally braced, straight wing, rounded tips, inclosed cockpit, two-place, and wide-tread fixed landing gear.

UNITED STATES
ARMY

OBSERVATION
STINSON O-49 AND O-49A



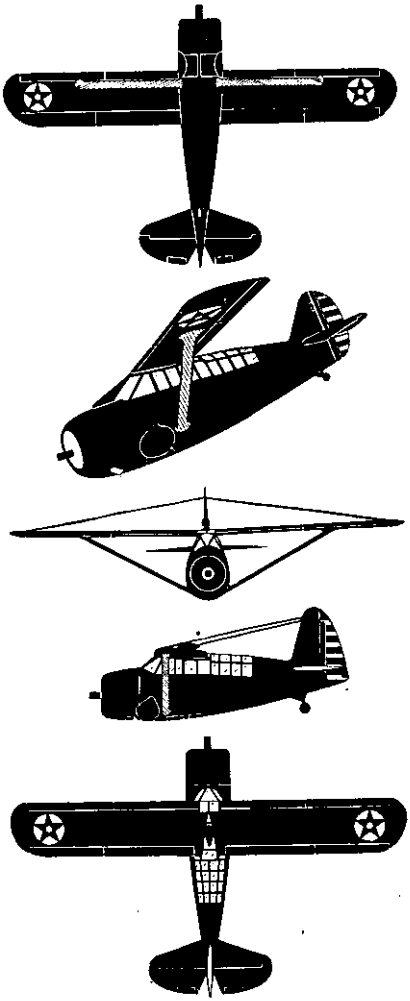


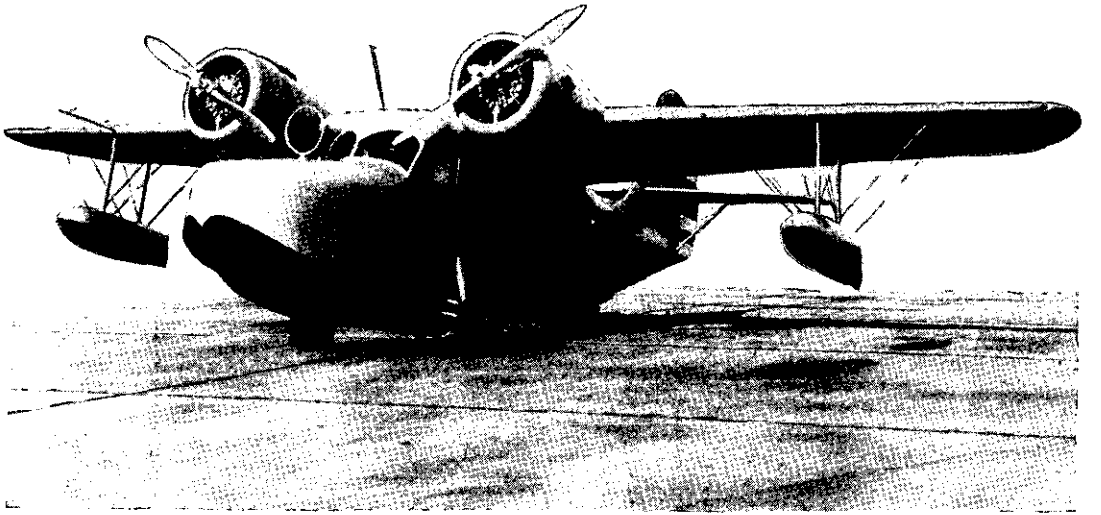
UNITED STATES ARMY
O–52 (CURTISS) OBSERVATION AIRPLANE

Same as O–49 except for shorter and thicker fuselage, cantilever tail, single wing strut, all metal, and retractable gear.

UNITED STATES
ARMY

OBSERVATION
CURTISS O-52



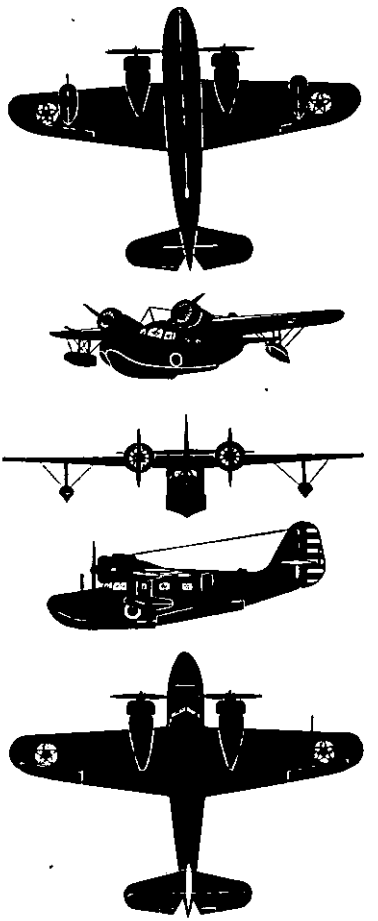


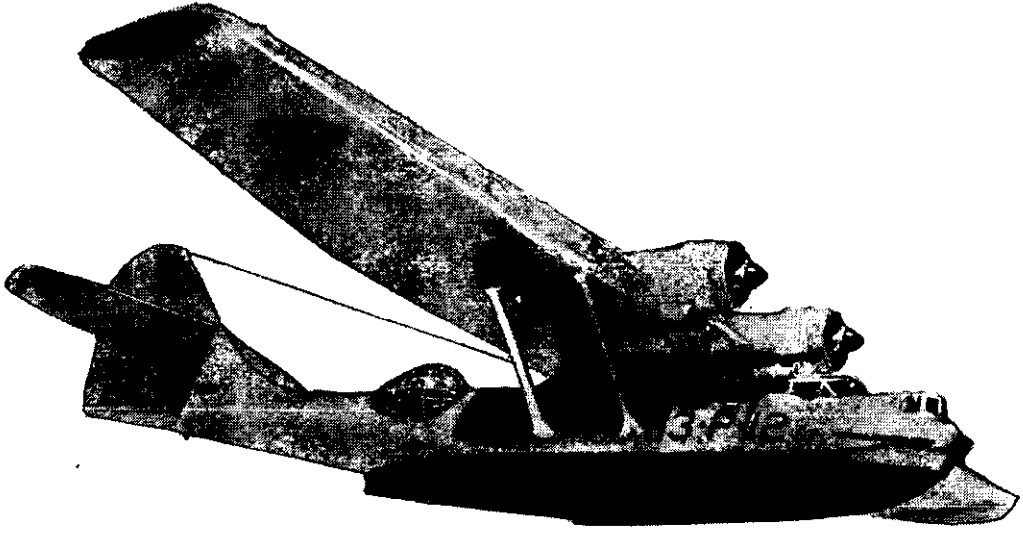
UNITED STATES ARMY
OA–9 (GRUMMAN) OBSERVATION AMPHIBIAN AIRPLANE

Tapered, round tip, high-wing amphibian monoplane, all metal, two engines, inclosed cabin, retractable landing gear and tail wheel, and wing floats under wings.

UNITED STATES
ARMY

OBSERVATION AMPHIBIAN
GRUMMAN OA-9



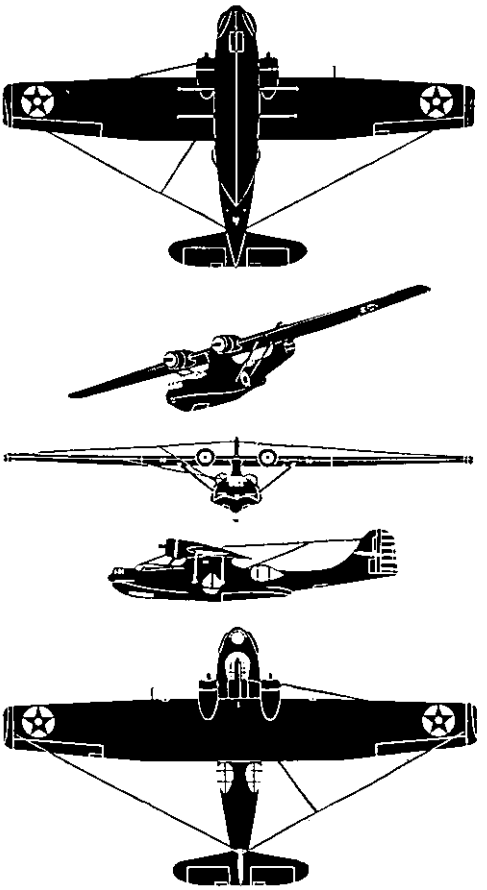


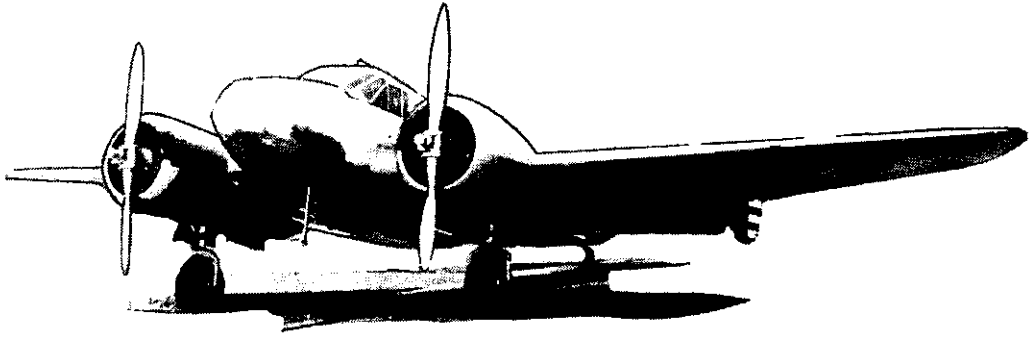
UNITED STATES ARMY
OA–10 (CONSOLIDATED) OBSERVATION AIRPLANE

Twin-engined flying boat, tapered outer section, parasol monoplane. Wing tip floats retract, forming square wing tips.

UNITED STATES
ARMY

OBSERVATION AMPHIBIAN
CONSOLIDATED OA-10



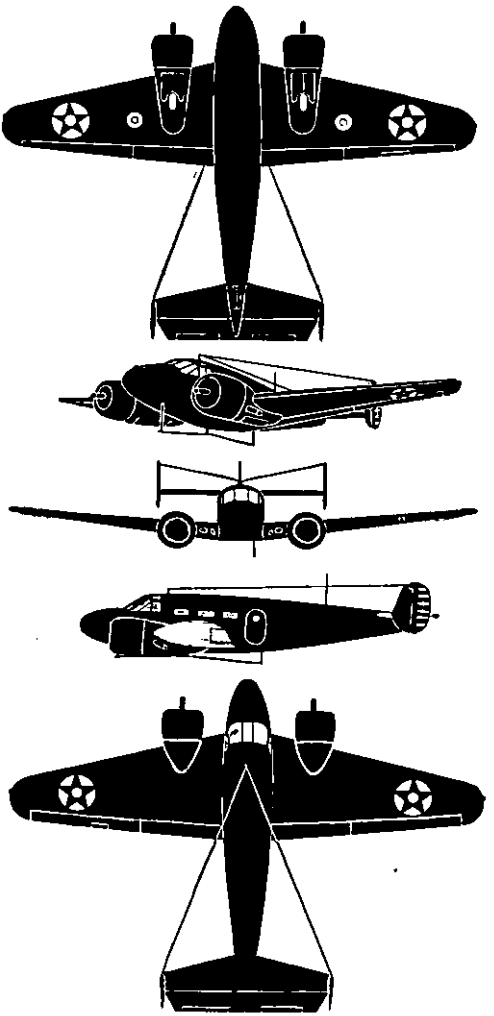


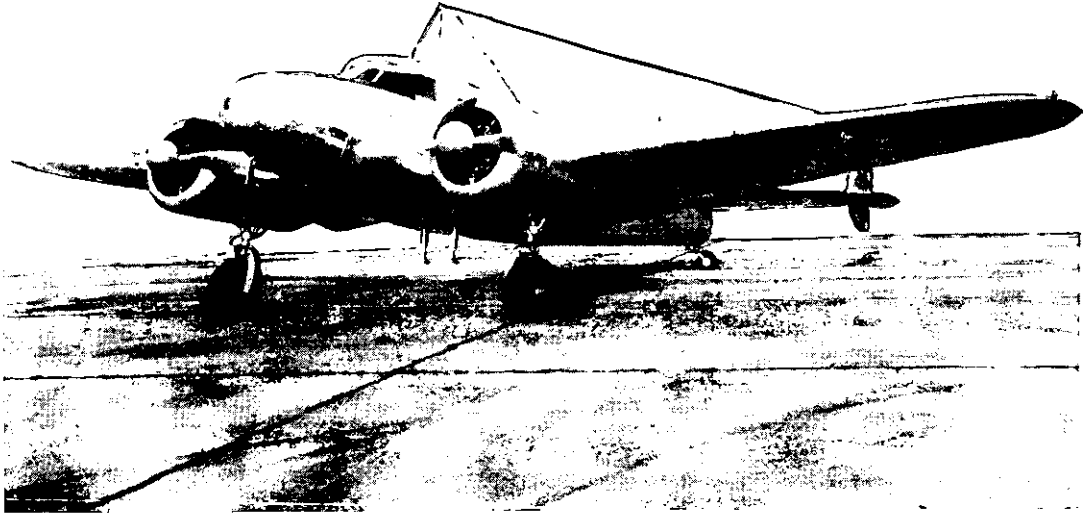
UNITED STATES ARMY
F–2 (BEECH) ARMY RECONNAISSANCE (PHOTOGRAPHIC) AIRPLANE

Two engines, low-wing monoplane, twin rudders, fuselage cabin, and retractable landing gear. Similar to C–45 Transport.

UNITED STATES
ARMY

RECONNAISSANCE
BEECH F-2



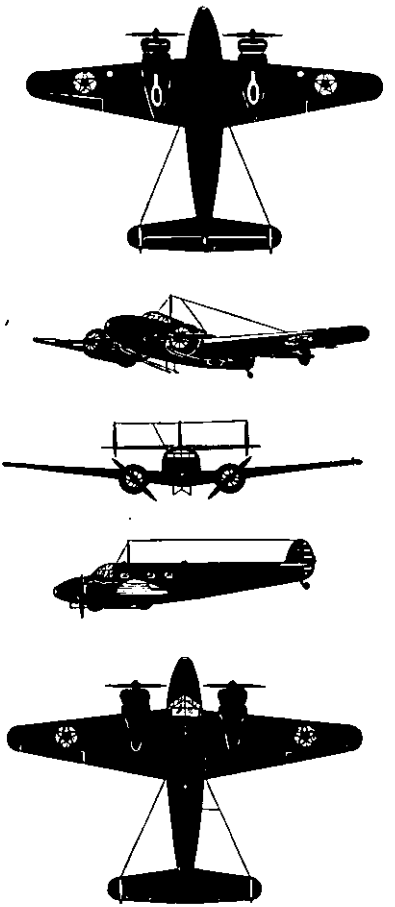


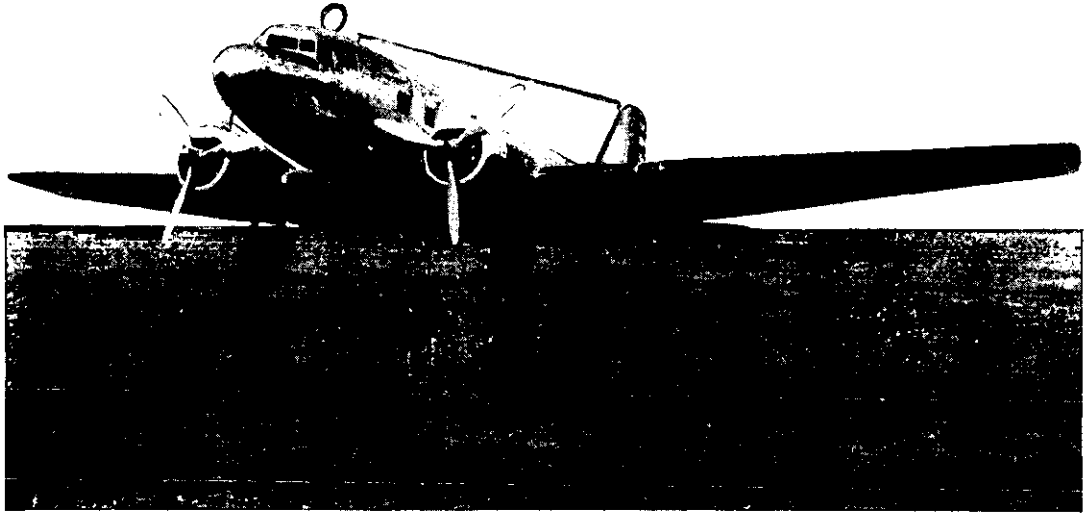
UNITED STATES ARMY
C–40 (LOCKHEED) TRANSPORT AIRPLANE

Dihedral, sweptback, tapered, round tip, low-wing cabin monoplane, all metal, two engines, twin boom tail surfaces, and retractable landing gear.

UNITED STATES
ARMY

TRANSPORT
LOCKHEED C–40



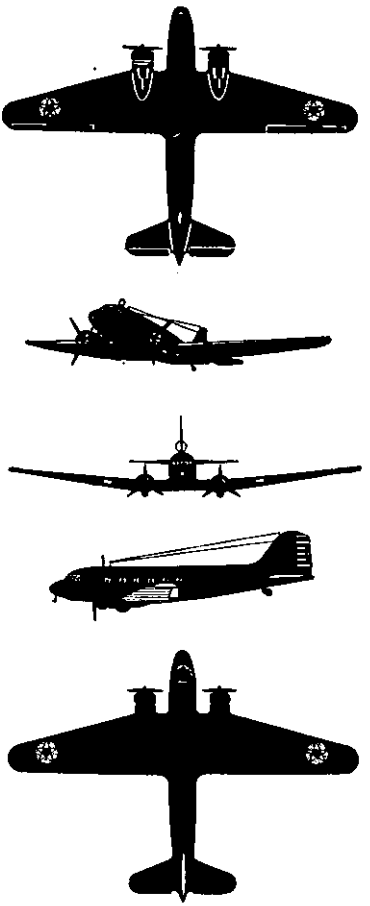


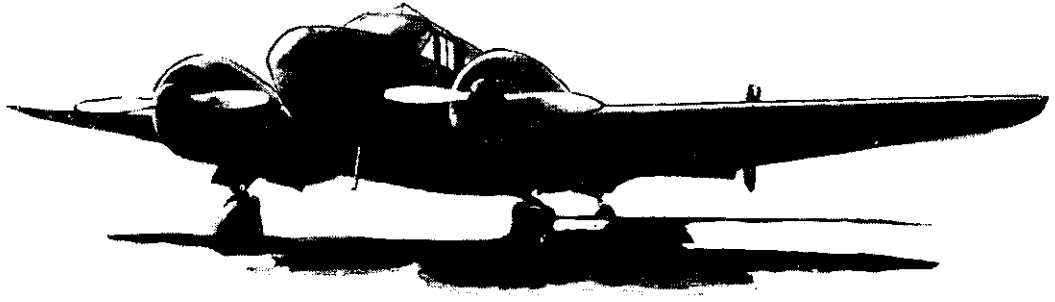
UNITED STATES ARMY
C–42 (DOUGLAS) TRANSPORT AIRPLANE

Dihedral, sweptback, round tip, low-wing cabin monoplane, all metal, two engines, and retractable landing gear.

UNITED STATES
ARMY

TRANSPORT
DOUGLAS C-42



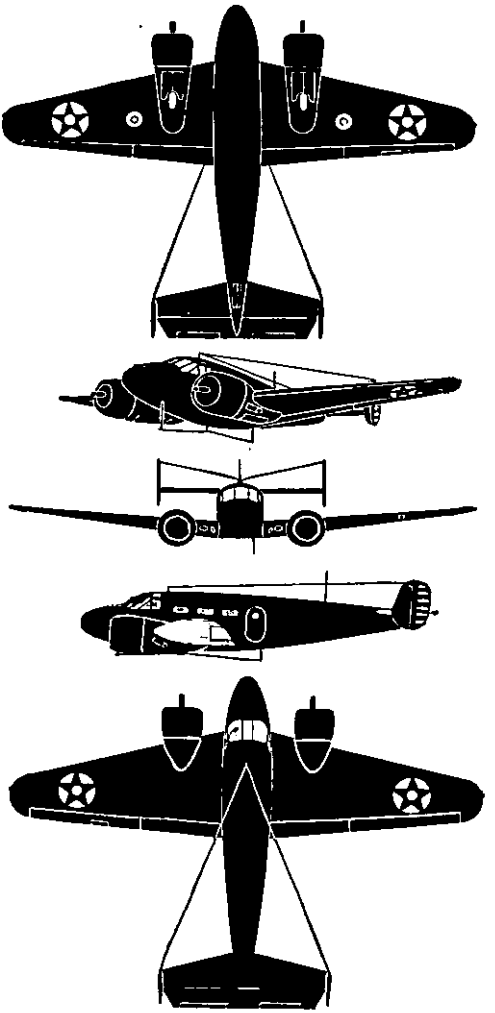


UNITED STATES ARMY
C–45 AND C–45A (BEECH) TRANSPORT AIRPLANES

Two engines, low-wing monoplane, sweptback, round tips, flaps, twin rudders, fuselage cabin, and retractable landing gear.

UNITED STATES
ARMY

TRANSPORT
BEECH C–45 AND C–45A

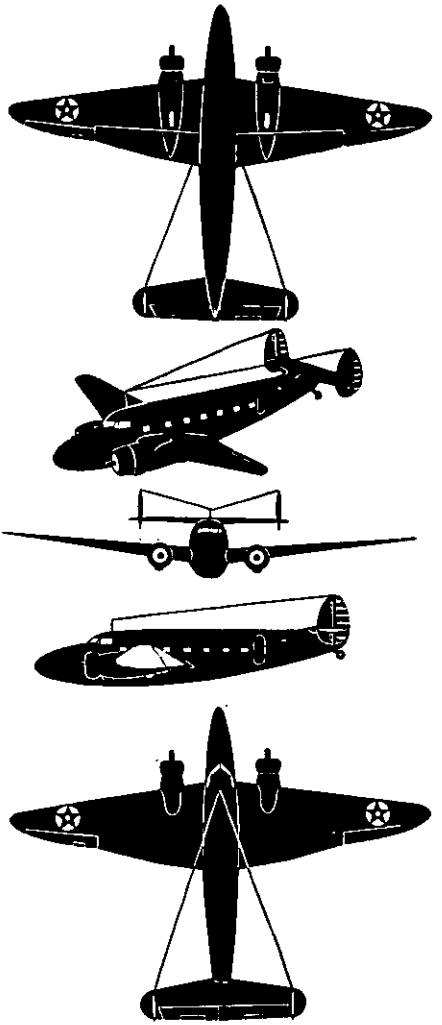


UNITED STATES ARMY
C–56 (LOCKHEED) TRANSPORT AIRPLANE

Sweptback, tapered, elliptical, midwing monoplane, twin engines, inclosed cabin, twin rudder, retractable landing gear, and long pointed nose.

UNITED STATES
ARMY

TRANSPORT
LOCKHEED C–56



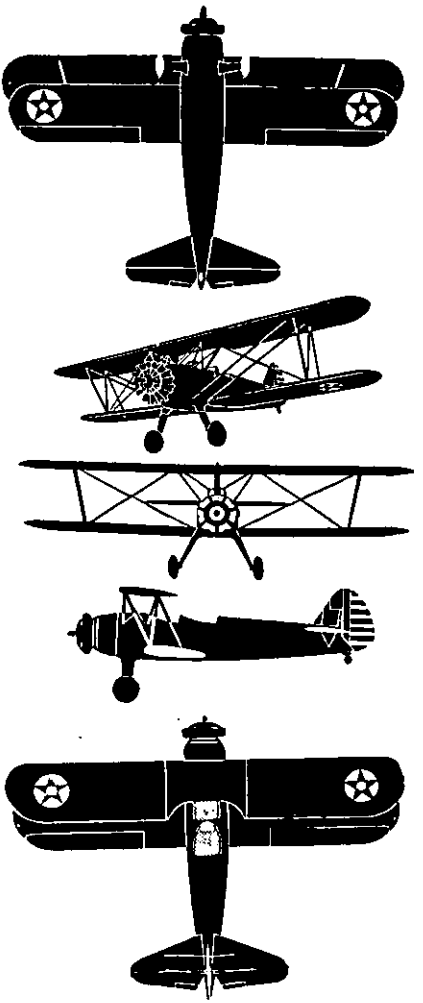


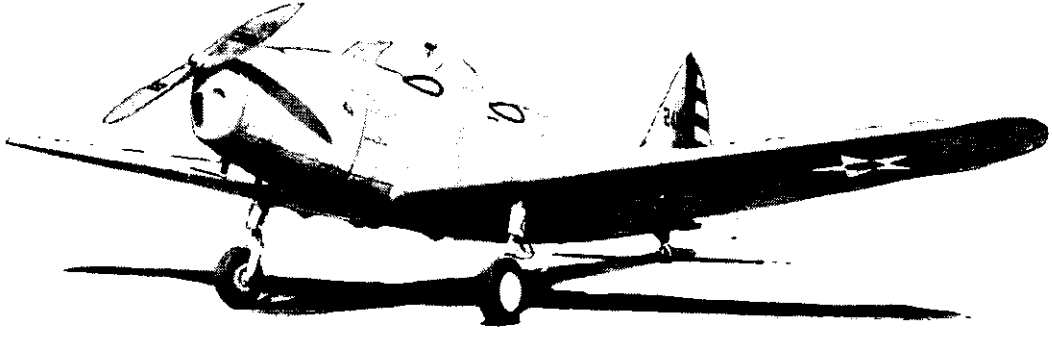
UNITED STATES ARMY
PT-17 AND PT-18 (STEARMAN) PRIMARY TRAINING AIRPLANES

exposed engine, two-piger, straight wings, rounded tips, fixed landing gear, Single engine, biplane, externally braced, positive stagace, and open cockpits.

UNITED STATES
ARMY

PRIMARY TRAINING
STEARMAN PT-17 AND PT-18



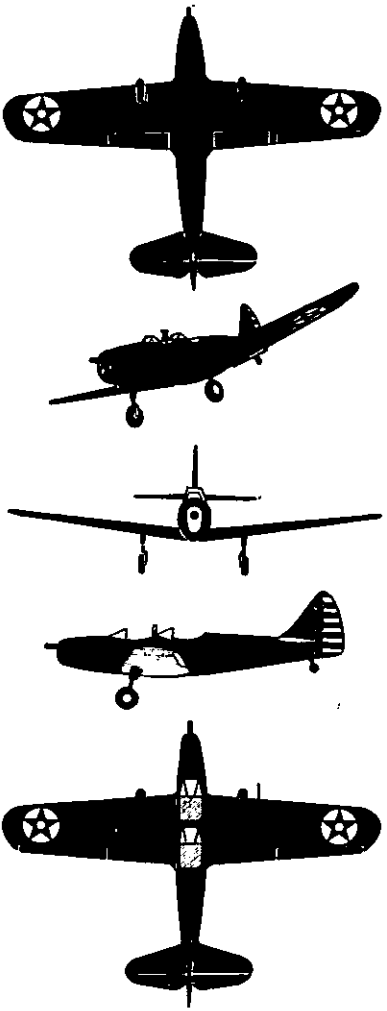


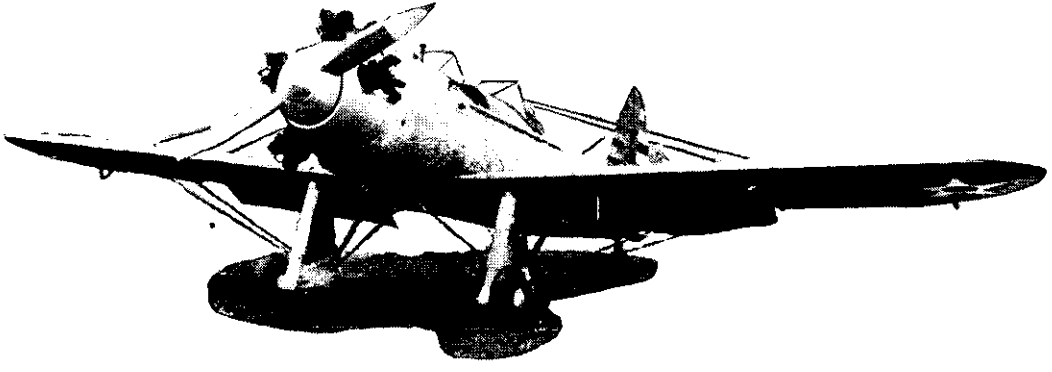
UNITED STATES ARMY
PT–19 AND PT–19A (FAIRCHILD) PRIMARY TRAINING AIRPLANES

Single engine, low-wing monoplane, dihedral, slightly tapered wing, round tips, cantilever landing gear, and open cockpits.

UNITED STATES
ARMY

PRIMARY TRAINING
FAIRCHILD PT-19 AND PT-19A



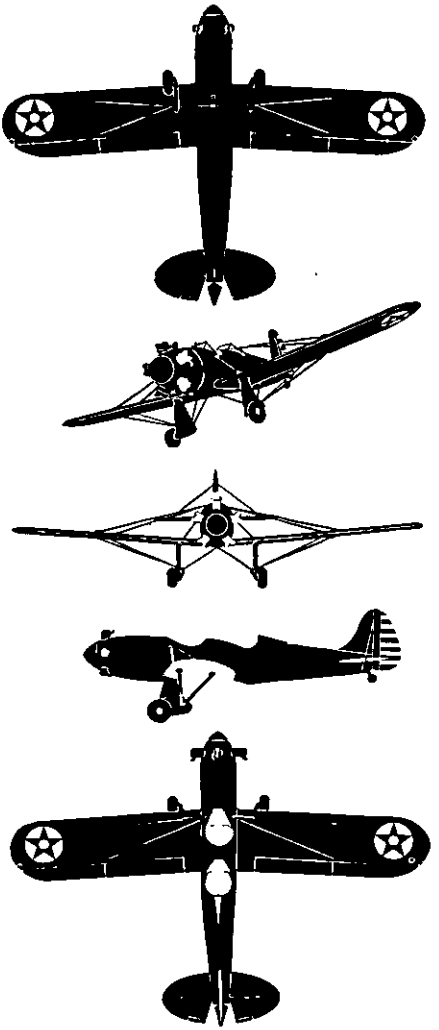


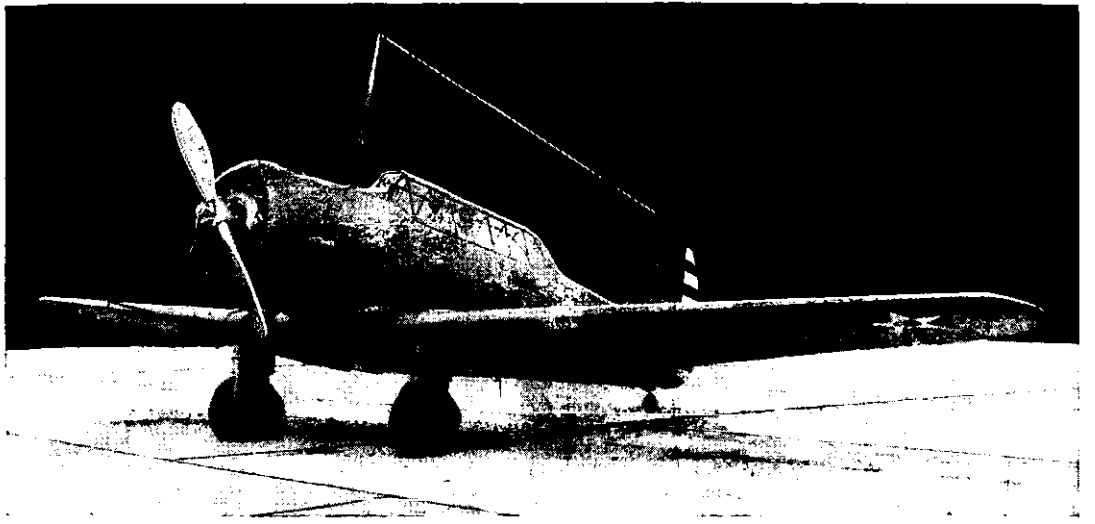
UNITED STATES ARMY
PT–21 (RYAN) PRIMARY TRAINING AIRPLANE

Single engine, low-wing monoplane, dihedral, wire-braced, sweptback, constant chord wing, round tips, open cockpits, fixed landing gear, and exposed cylinder heads.

UNITED STATES
ARMY

PRIMARY TRAINING
RYAN PT–21



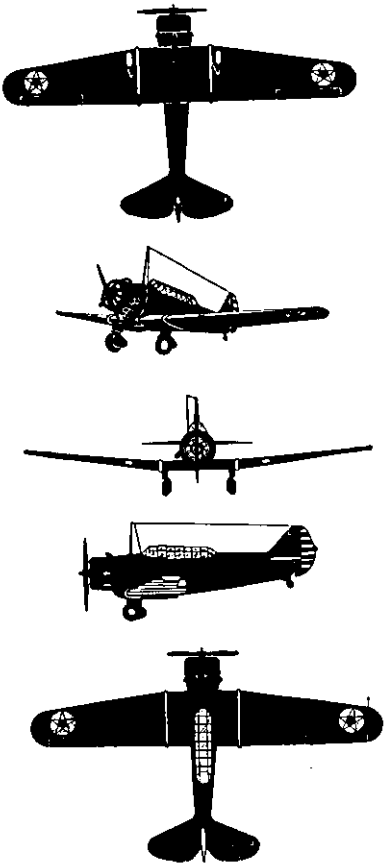


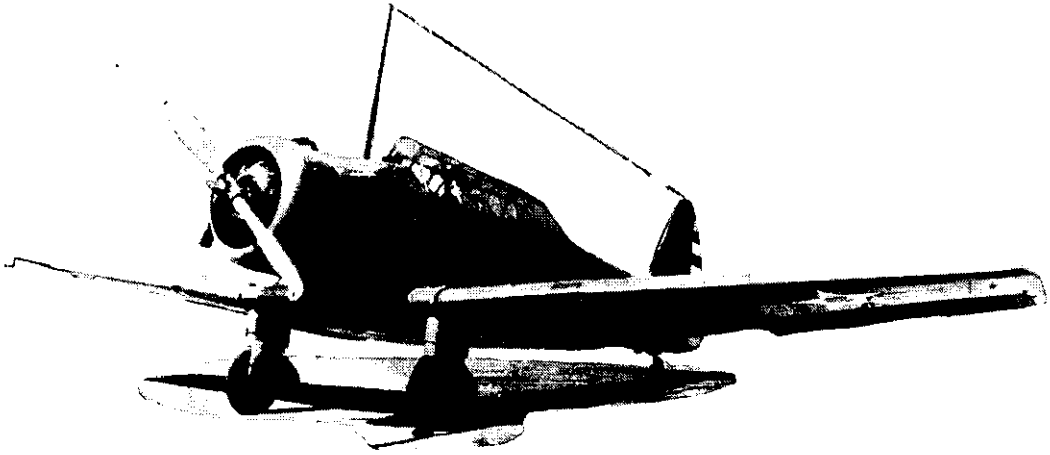
UNITED STATES ARMY
BT-9 (NORTH AMERICAN) BASIC TRAINING AIRPLANE

Dihedral, sweptback, round tip, low-wing monoplane, metal wing fuselage with fabric covering, single engine, inclosed cockpits, and fixed landing gear.

UNITED STATES
ARMY

BASIC TRAINING
NORTH AMERICAN BT-9





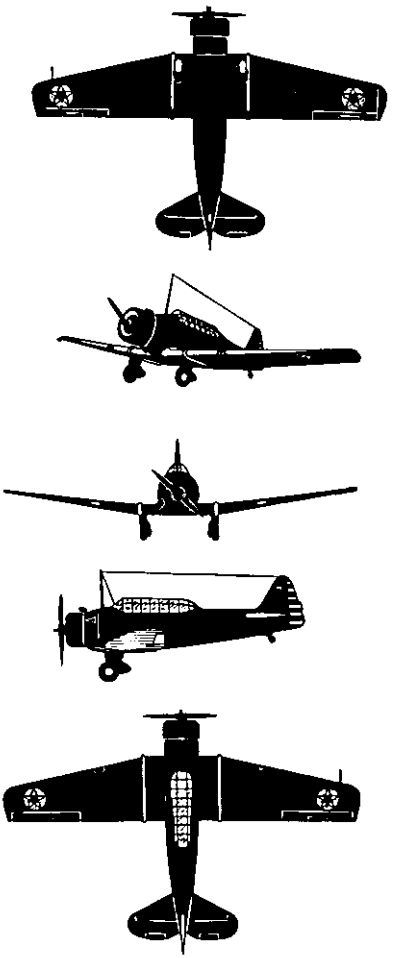
UNITED STATES ARMY

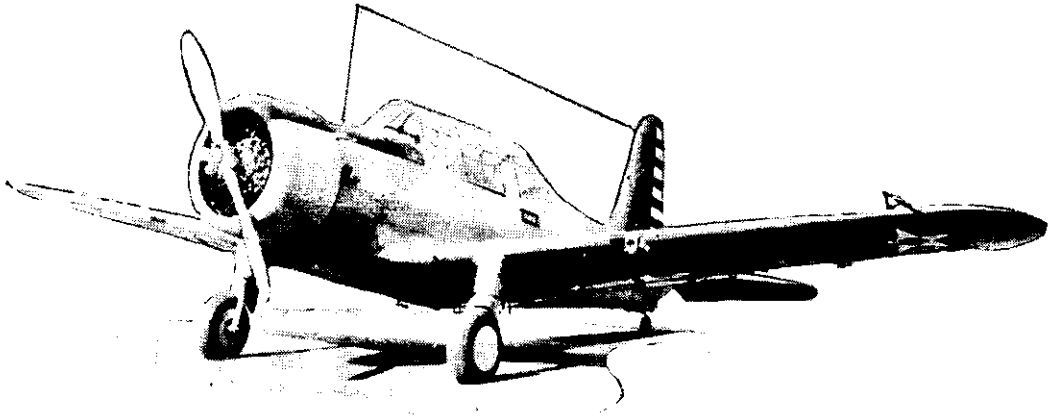
BT–9D AND BT–14 (NORTH AMERICAN) BASIC TRAINING AIRPLANES

Dihedral, sweptback, slightly raked square tip, low-wing monoplane, all metal, single engine, inclosed cockpits, and fixed landing gear.

UNITED STATES ARMY

BASIC TRAINING
NORTH AMERICAN BT-9D AND BT-14



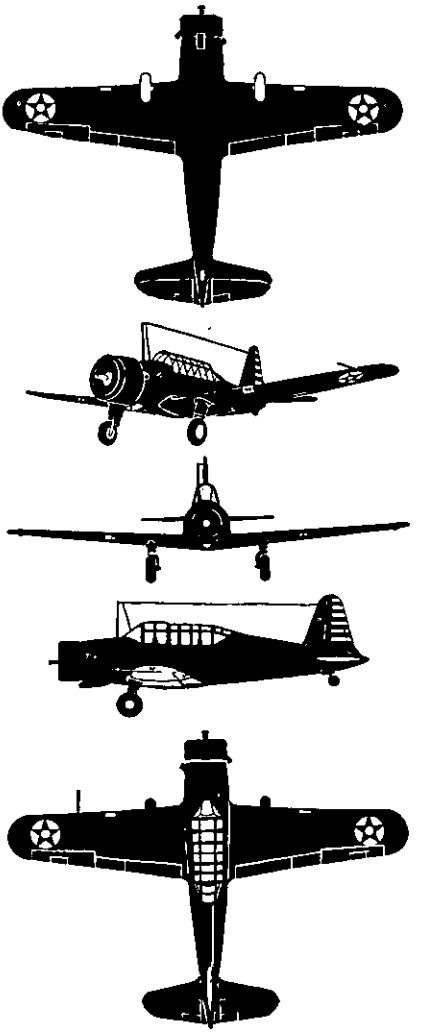


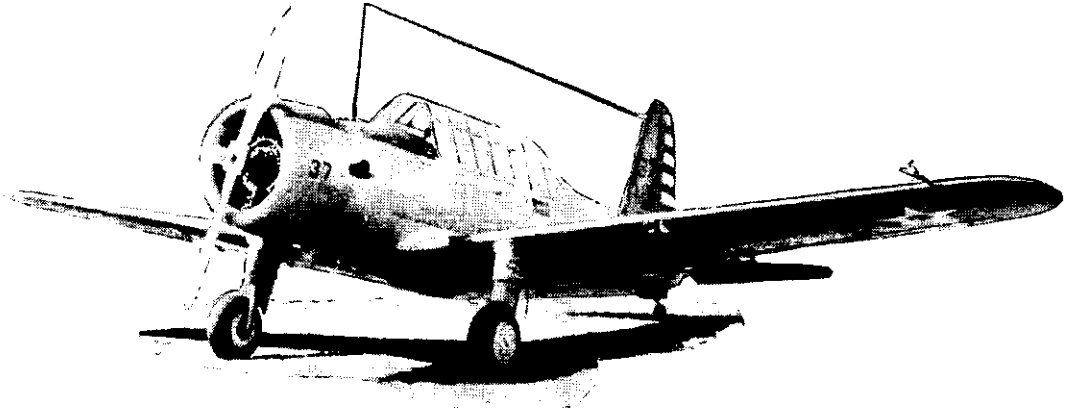
UNITED STATES ARMY
BT–13 (VULTEE) BASIC TRAINING AIRPLANE

Single engine, low-wing monoplane, dihedral, tapered wing, round tips, fixed landing gear, wide tread, inclosed cockpits, two-place.

UNITED STATES
ARMY

BASIC TRAINING
VULTEE BT-13



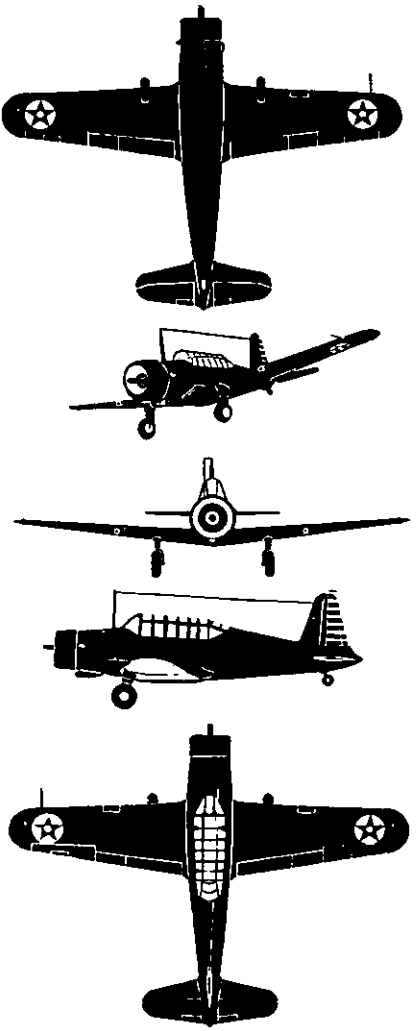


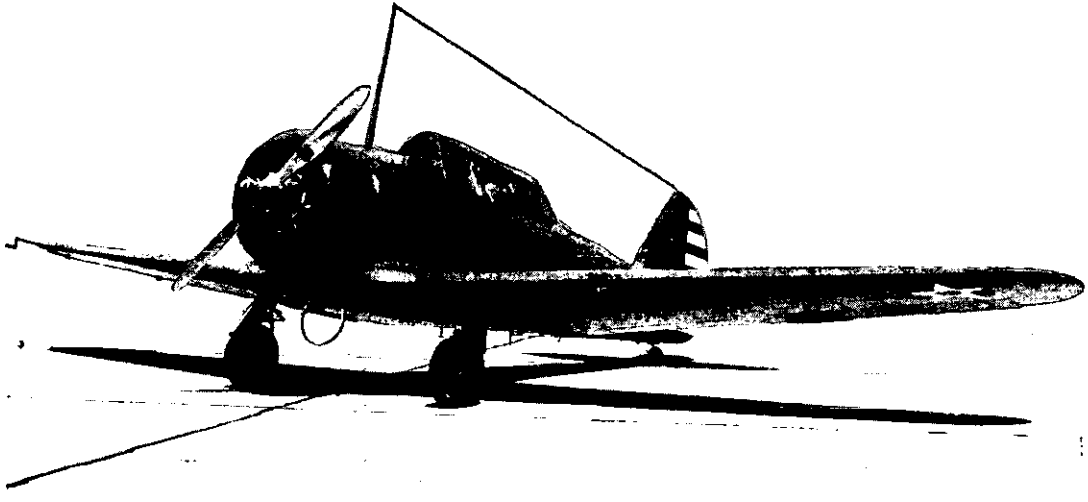
UNITED STATES ARMY
BT–15 (VULTEE) BASIC TRAINING AIRPLANE

Single engine, low-wing monoplane, dihedral, tapered wing, round tips, fixed landing gear, wide tread, inclosed cockpit, two-place.

UNITED STATES
ARMY

BASIC TRAINING
VULTEE BT–15



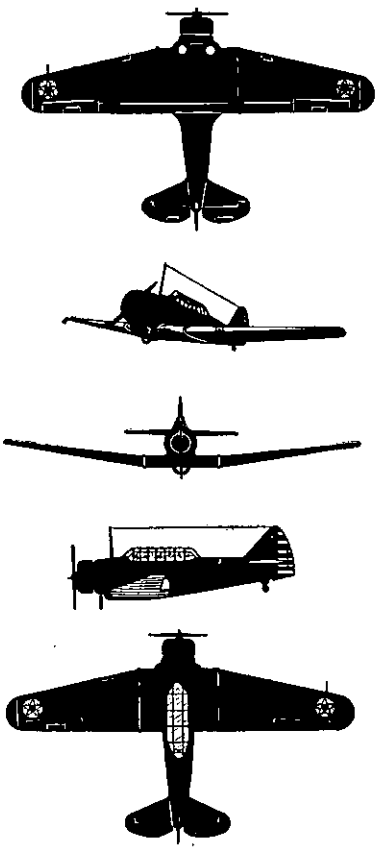


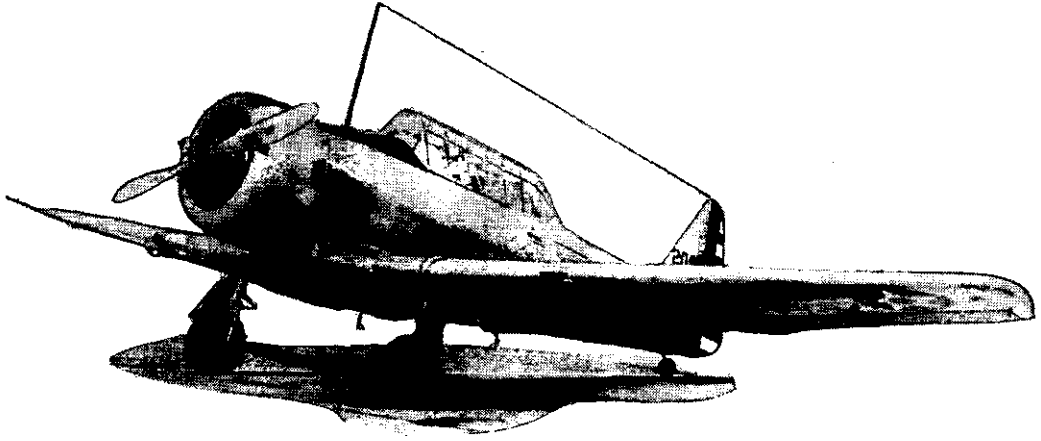
UNITED STATES ARMY
BC-1 (NORTH AMERICAN) ADVANCED TRAINING AIRPLANE

Dihedral, sweptback, round tip, low-wing monoplane, metal wings, fabric-covered fuselage, single engine, inclosed cockpits, and retractable landing gear.

UNITED STATES
ARMY

ADVANCED TRAINING
NORTH AMERICAN BC-1





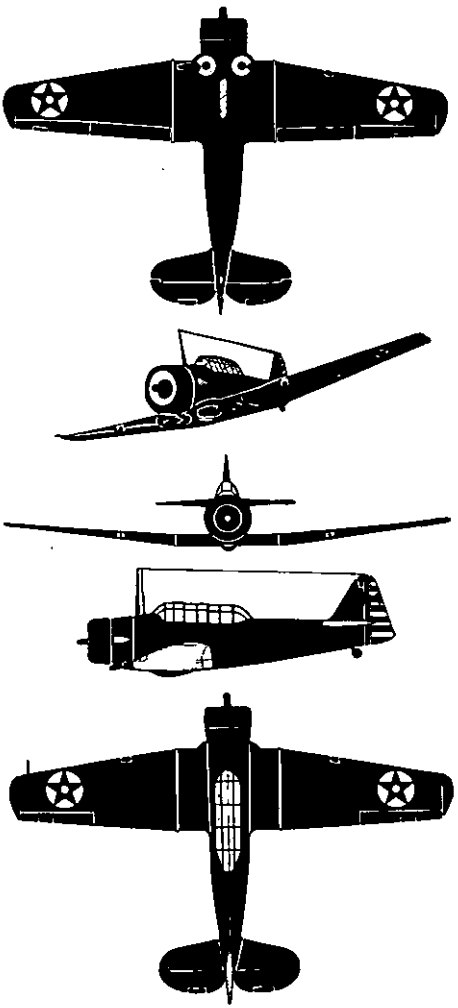
UNITED STATES ARMY

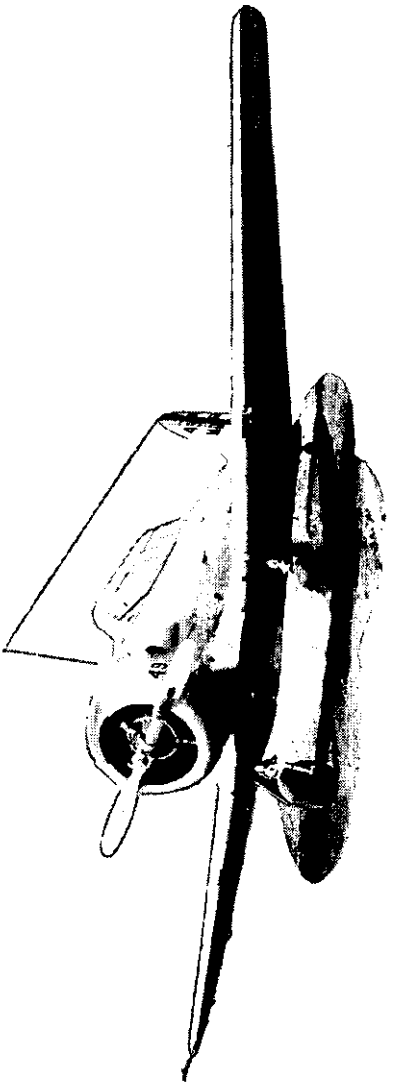
BC–1A AND AT–1 (NORTH AMERICAN) BASIC COMBAT ADVANCED TRAINING AIRPLANES

Similar to BC–1 in general construction, except for different wing and all-metal fuselage. Dihedral, sweptback, low-wing monoplane, all metal, single engine, inclosed cockpits, and retractable landing gear.

UNITED STATES ARMY

ADVANCED TRAINING
NORTH AMERICAN BC-1A AND AT-1





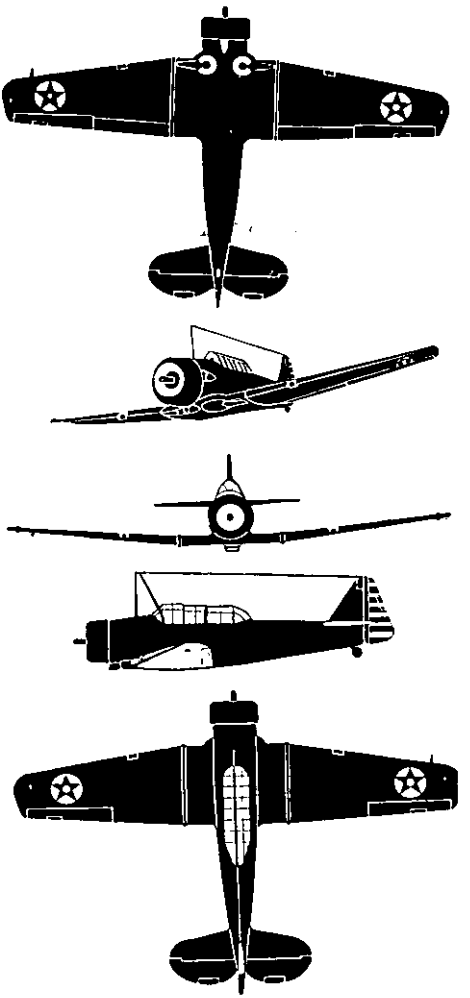
UNITED STATES ARMY

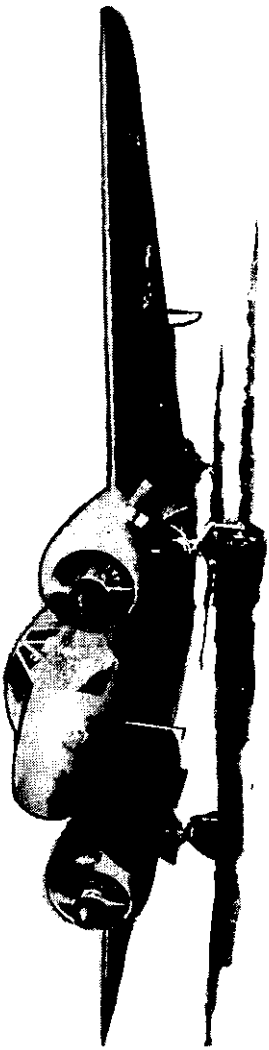
AT-6A (NORTH AMERICAN) ADVANCED TRAINING AIRPLANE

Single engine, low-wing monoplane, dihedral, sweptback, tapered, slightly rounded tips, retractable landing gear, inclosed cockpits, and two-place.

UNITED STATES
ARMY

ADVANCED TRAINING
NORTH AMERICAN AT-6A

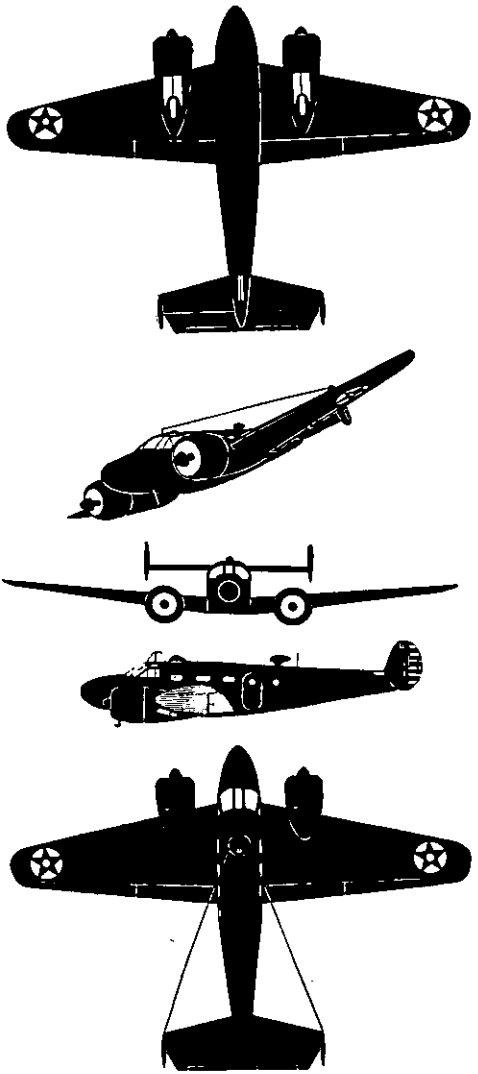


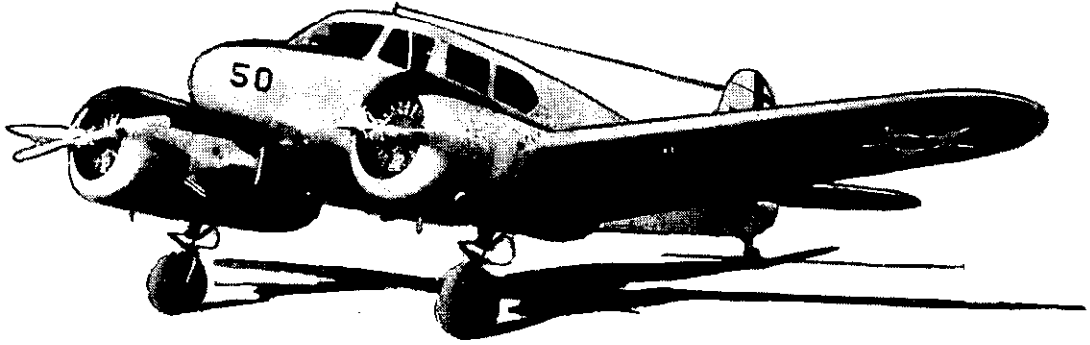


UNITED STATES ARMY
AT-7 (BEECH) ADVANCED TRAINING AIRPLANE
Same as C-45 in all respects or outward appearance.

UNITED STATES
ARMY

ADVANCED TRAINING
BEECH AT-7



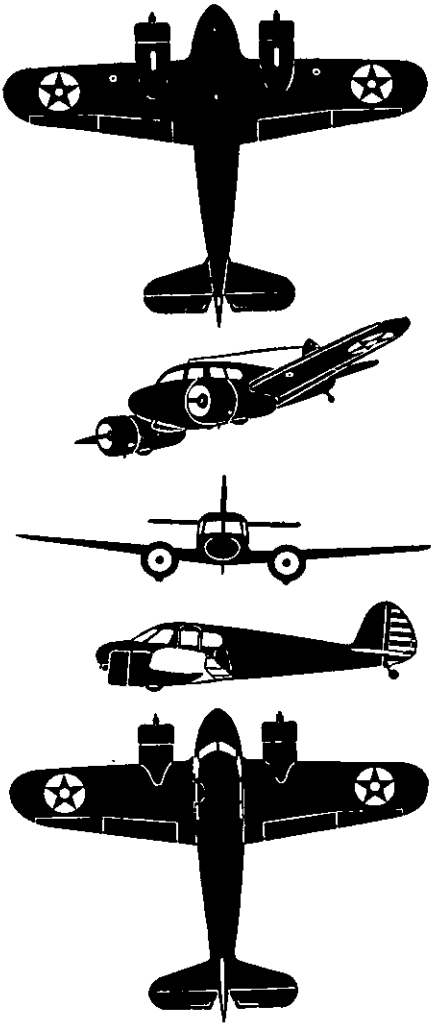


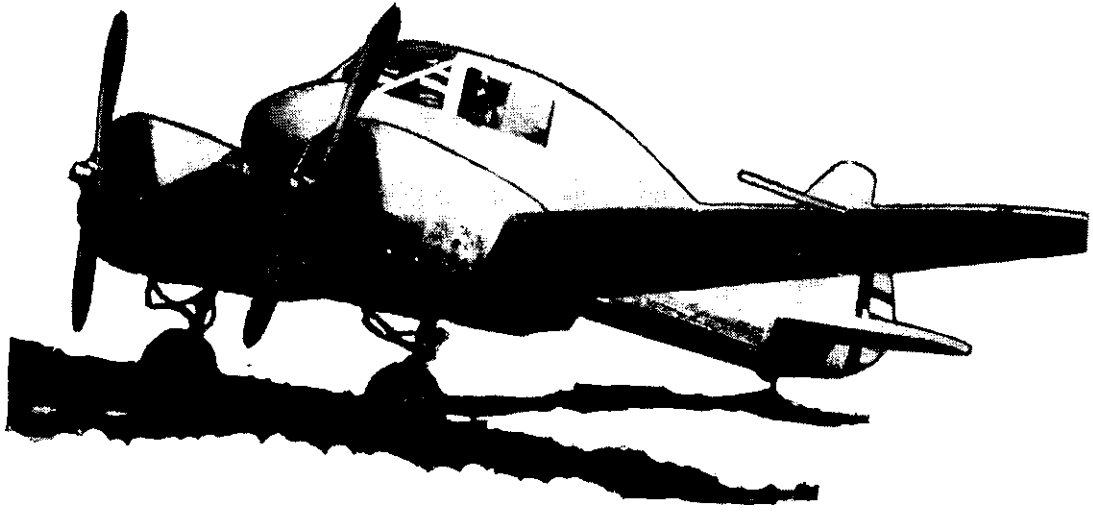
UNITED STATES ARMY
AT-8 (CESSNA) ADVANCED TRAINING AIRPLANE

Twin engines, low-wing cabin monoplane, dihedral, tapered wing, round tips, underslung engine nacelles, and wide-tread retractable landing gear withdrawing into nacelles.

UNITED STATES
ARMY

ADVANCED TRAINING
CESSNA AT-8



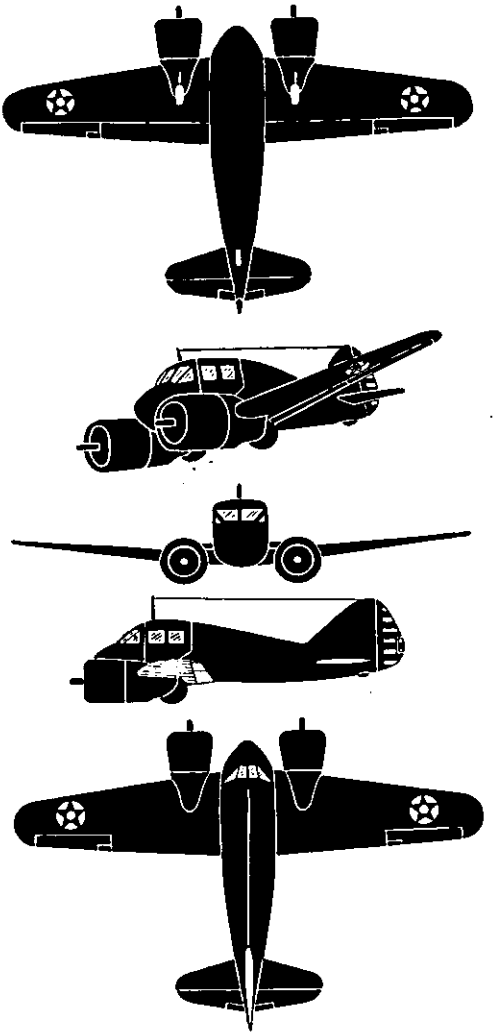


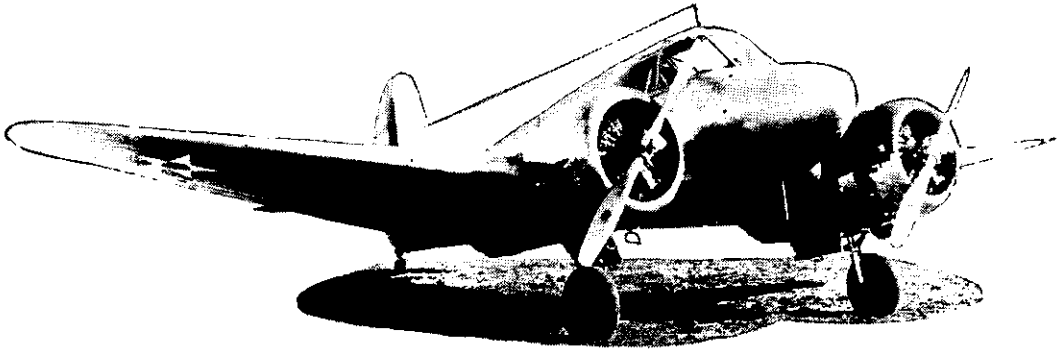
UNITED STATES ARMY
AT-9 (CURTISS-WRIGHT) ADVANCED TRAINING AIRPLANE

Twin engines, low-wing cabin monoplane, tapered wing, round tips, low-slung nacelles projecting beyond fuselage nose, and retractable landing gear.

UNITED STATES
ARMY

ADVANCED TRAINING
CURTISS-WRIGHT AT-9



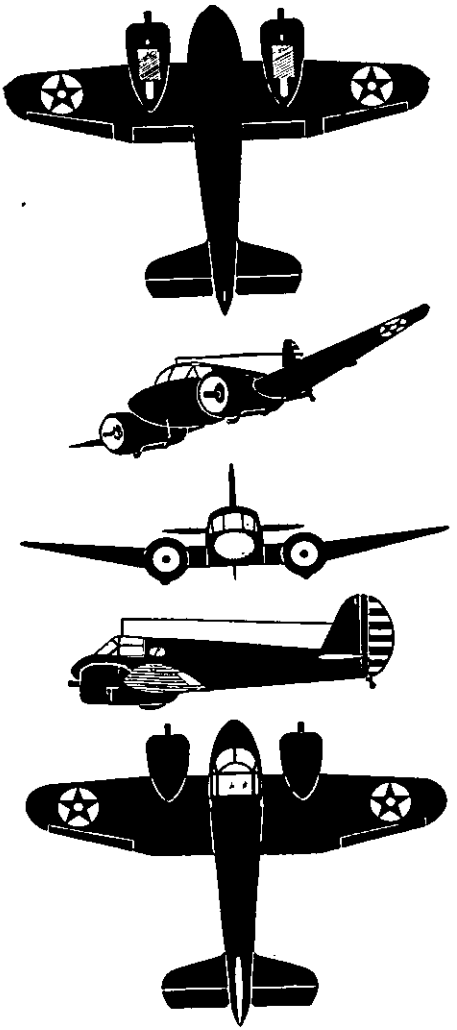


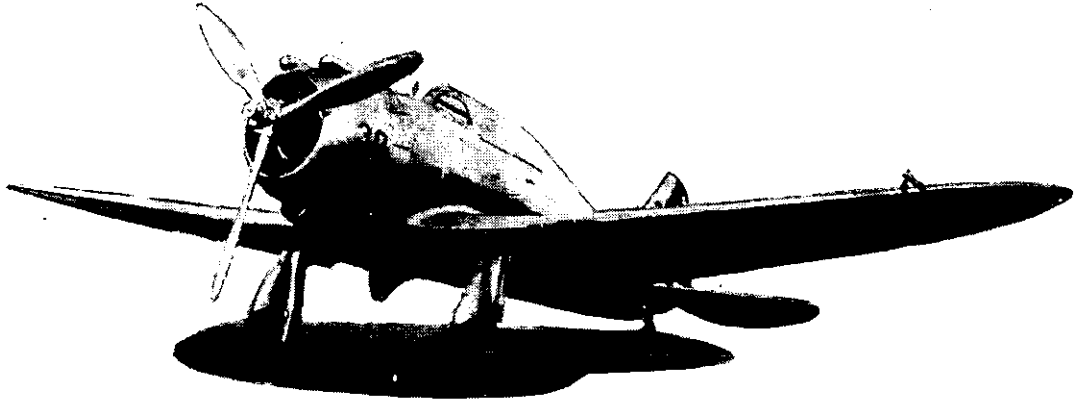
UNITED STATES ARMY
AT–10 (BEECH) ADVANCED TRAINING AIRPLANE

Twin engines, low-wing cabin monoplane, dihedral, tapered outer panels, round tips, wide tread, and retractable landing gear. Similar to C–45 except for smaller size and single rudder.

UNITED STATES
ARMY

ADVANCED TRAINING
BEECH AT-10



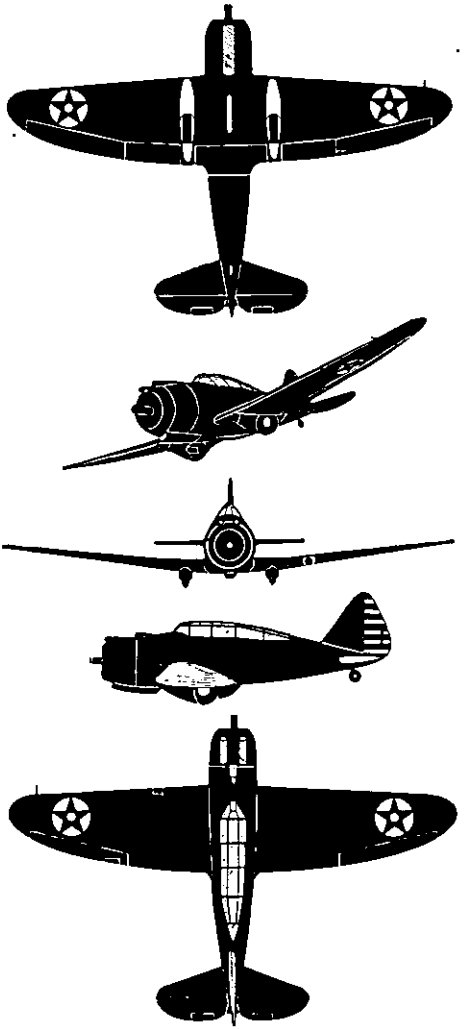


UNITED STATES ARMY
AT–12 (REPUBLIC) ADVANCED TRAINING AIRPLANE

Dihedral, roundly tapered tip, low-wing cantilever monoplane, all metal, single engine, two-place tandem inclosed cockpit, and retractable landing gear.

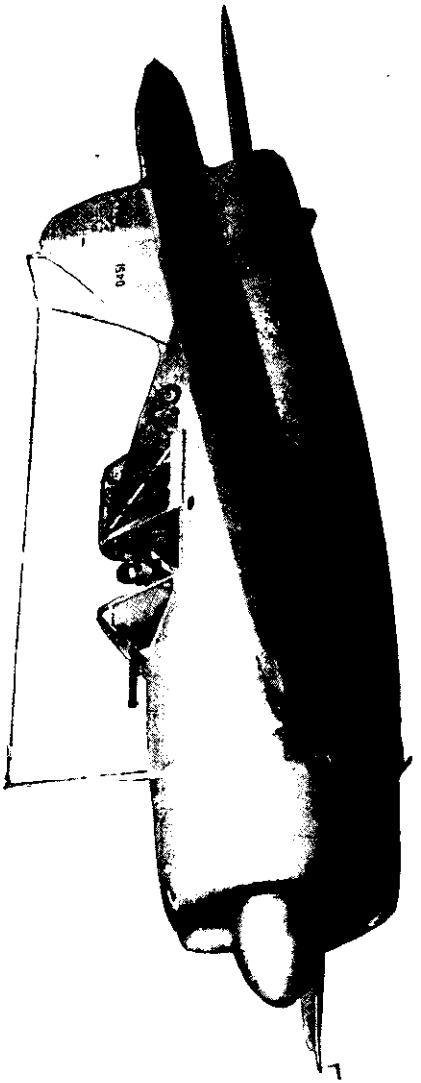
UNITED STATES
ARMY

ADVANCED TRAINING
REPUBLIC AT–12



US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

UNITED STATES NAVY
AND
MARINE CORPS



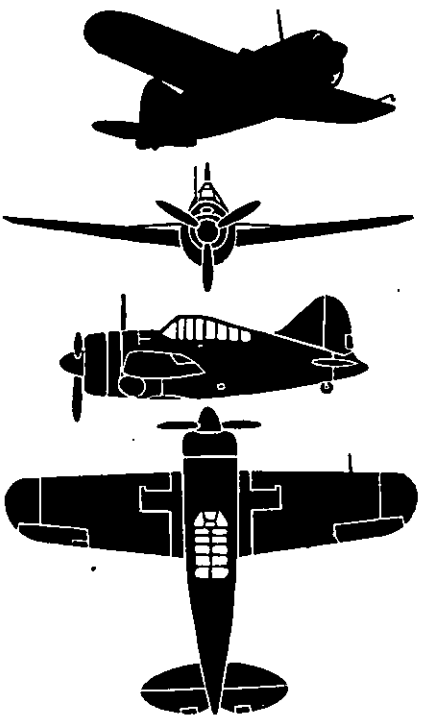
UNITED STATES NAVY

F2A (BREWSTER) FIGHTER "BUFFALO"

Tapered round tip, midwing monoplane with retractable landing gear.

UNITED STATES
NAVY

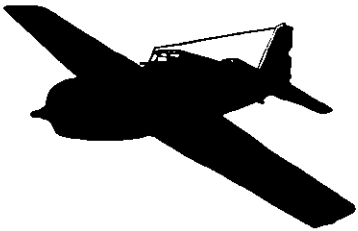
FIGHTER
F2A BREWSTER "BUFFALO"

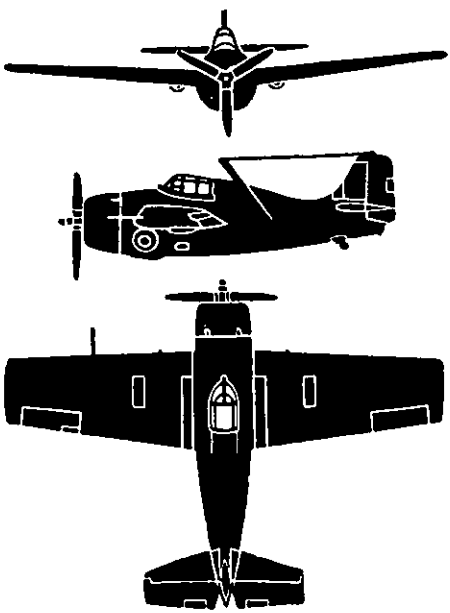


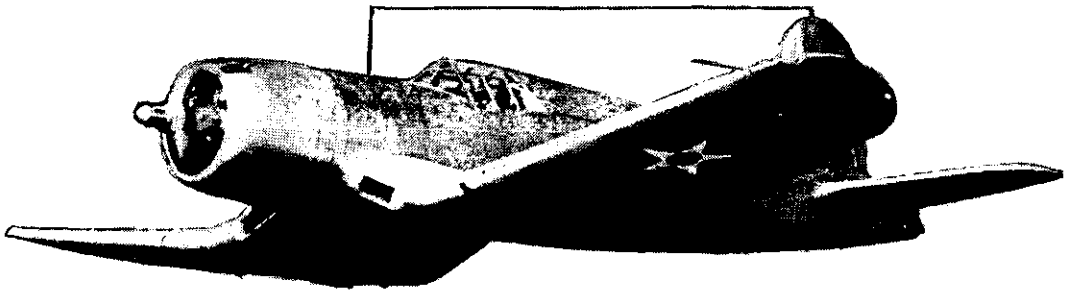
UNITED STATES NAVY
F4F (GRUMMAN) FIGHTER "WILDCAT"

UNITED STATES
NAVY

"FIGHTER
F4F (GRUMMAN)
"WILDCAT"





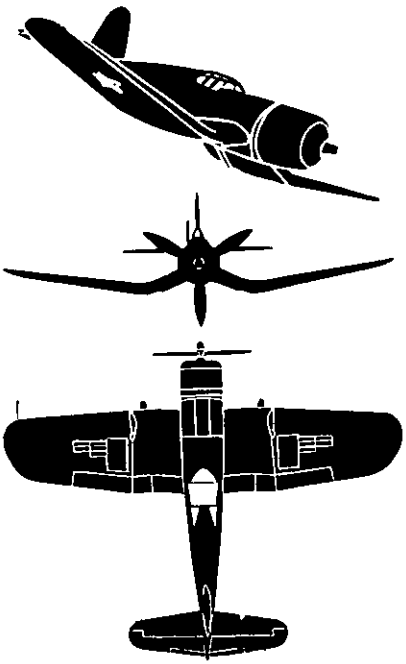


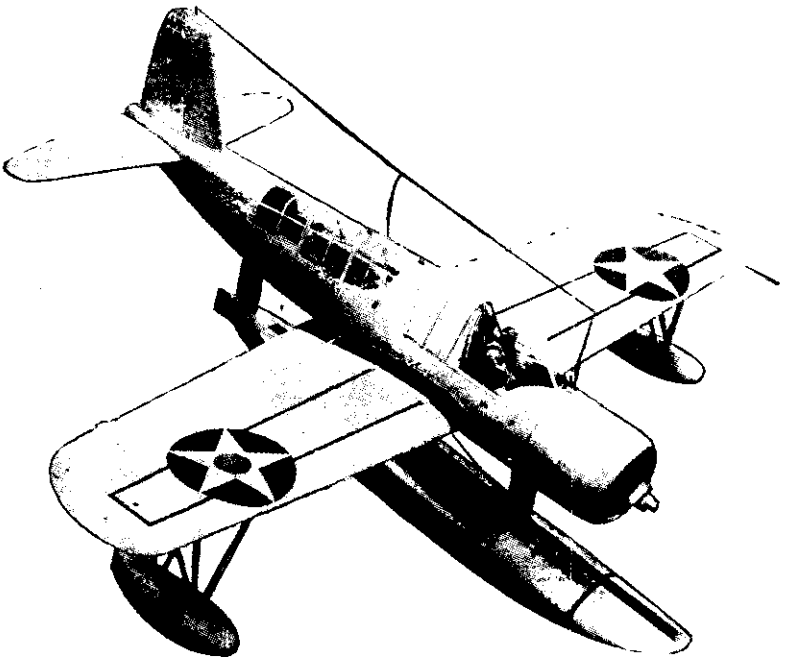
UNITED STATES NAVY
F4U (VOUGHT) FIGHTER "CORSAIR"

Slightly tapered, round tip, slightly dihedral, low-wing monoplane, single engine, inclosed cockpit, and retractable landing gear.

UNITED STATES
NAVY

FIGHTER
VOUGHT F4U
"CORSAIR"



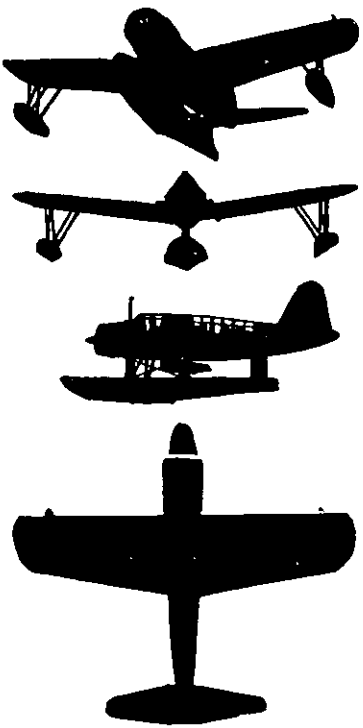


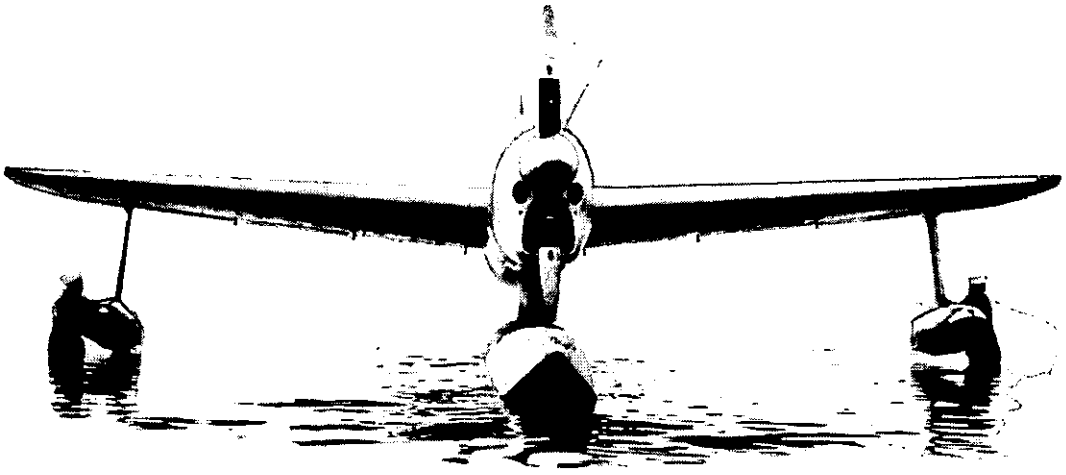
UNITED STATES NAVY OS2U (VOUGHT)
SCOUT OBSERVATION "KINGFISHER"

Slightly tapered, round tip, small dihedral, midwing monoplane; single main float, with wing tip floats; inclosed cockpits. Sometimes fitted and used as landplane.

UNITED STATES
NAVY

SCOUT OBSERVATION
OS2U (VOUGHT)
"KINGFISHER"



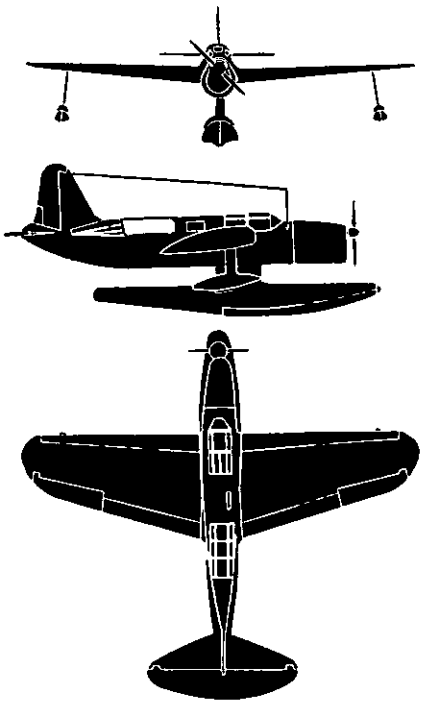


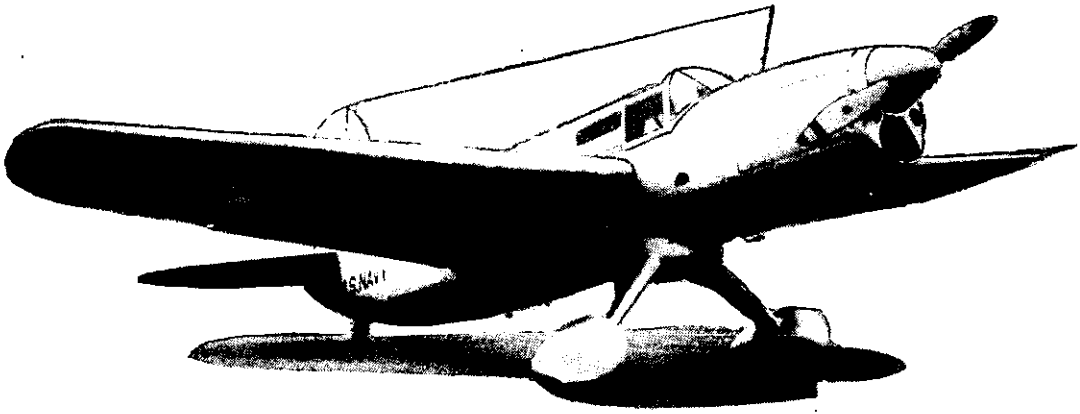
UNITED STATES NAVY
SO3C (CURTISS) SCOUT OBSERVATION "SEAGULL" AMPHIBIAN TYPE

Slightly tapered, round tip, midwing monoplane, single engine, inclosed cockpit, and single float with wing floats.

UNITED STATES
NAVY

SCOUT OBSERVATION
CURTISS SO3C
"SEAGULL"



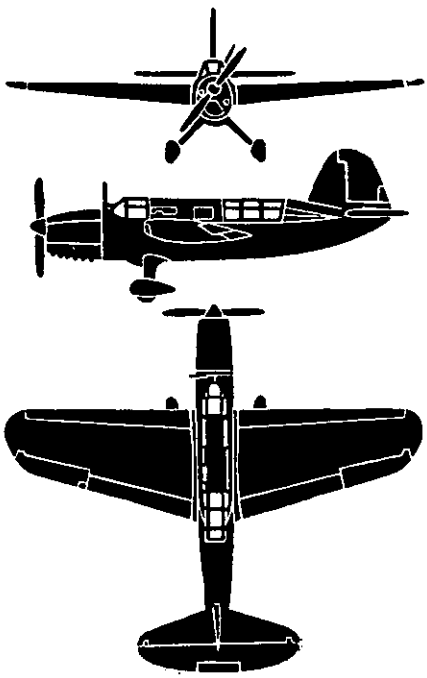


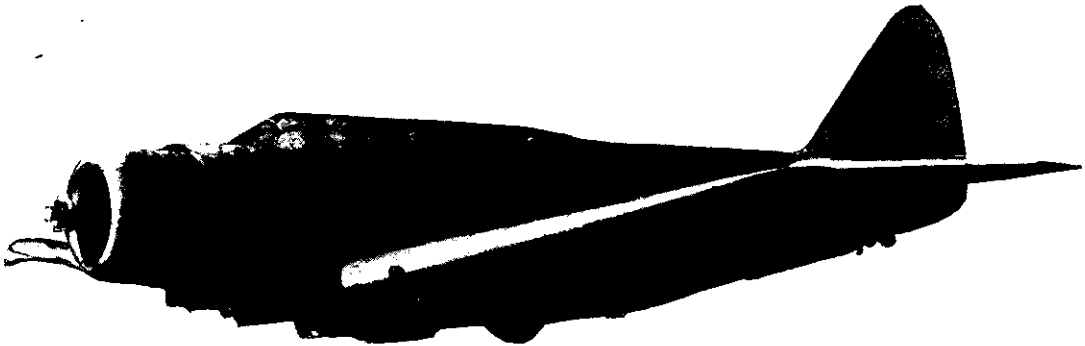
UNITED STATES NAVY
SO3C (CURTISS) SCOUT OBSERVATION "SEAGULL" LANDPLANE TYPE

Slightly tapered, round tip, midwing monoplane, single engine, inclosed cockpit, and fixed landing gear.

UNITED STATES
NAVY

SCOUT OBSERVATION
CURTISS SO3C
"SEAGULL"



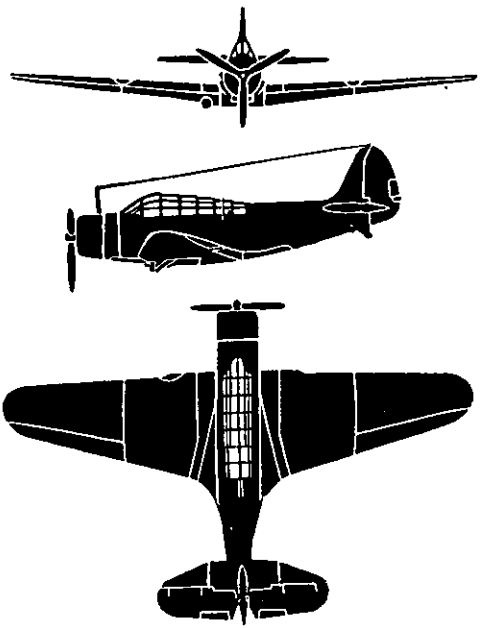


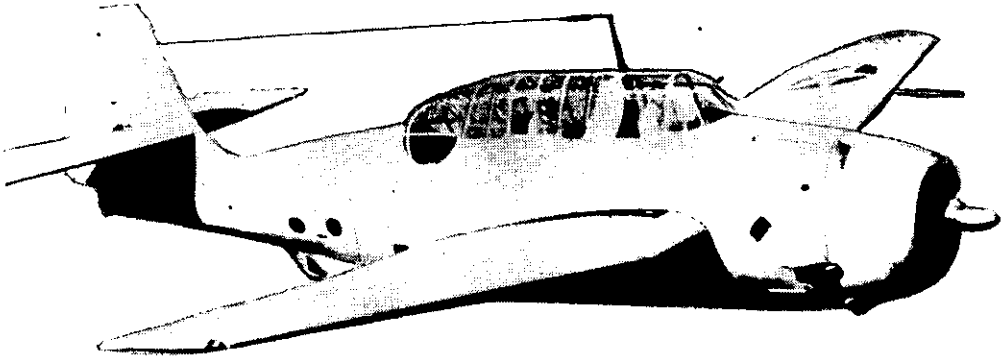
UNITED STATES NAVY
TBD (DOUGLAS) TORPEDO BOMBER "DEVASTATOR"

Small dihedral, slightly sweptback, tapered round tip, low-wing monoplane, single engine, fairly long nose, and retractable landing gear.

UNITED STATES
NAVY

TORPEDO BOMBER
DOUGLAS TBD
"DEVASTATOR"





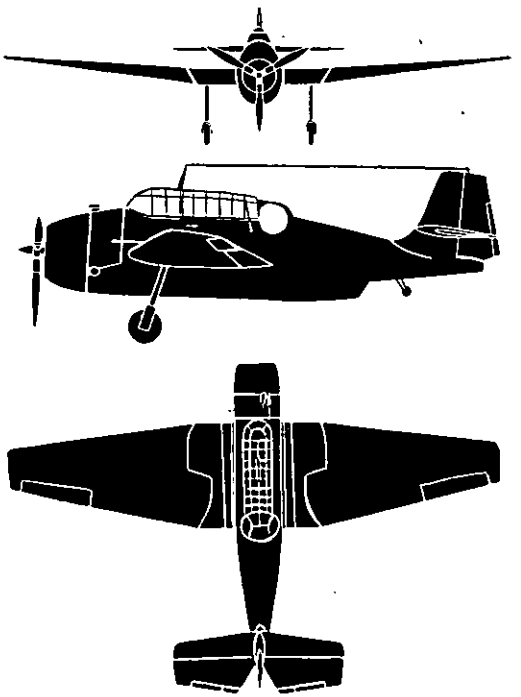
UNITED STATES NAVY

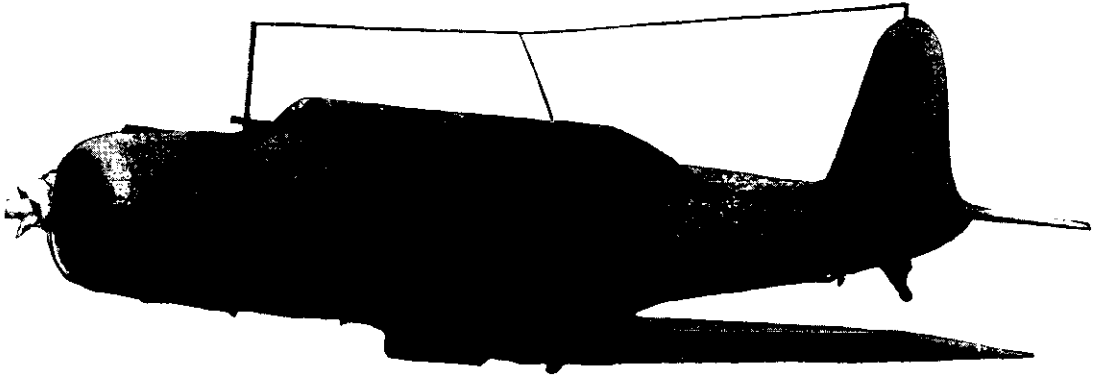
TBF (GRUMMAN) TORPEDO BOMBER "AVENGER"

Slightly tapered, square tip, slightly dihedral, midwing monoplane, single engine, inclosed cockpit, and retractable landing gear.

UNITED STATES
NAVY

TORPEDO BOMBER
GRUMANN TBF
"AVENGER"



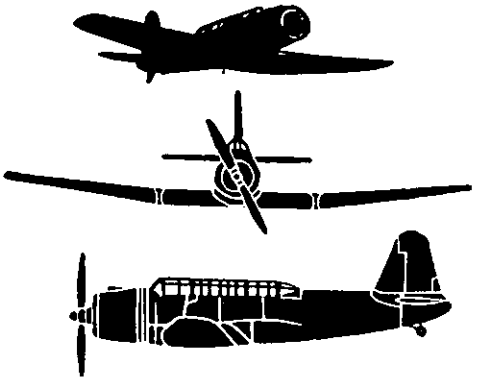


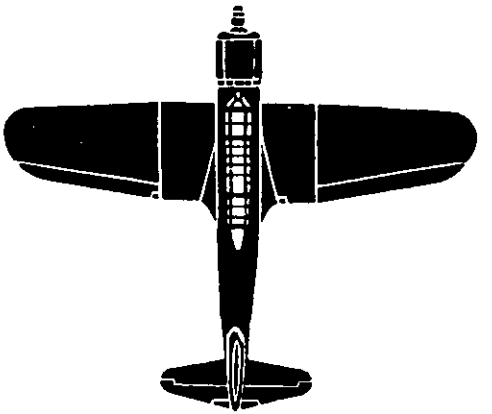
UNITED STATES NAVY
SB2U (VOUGHT) SCOUT BOMBER "VINDICATOR"

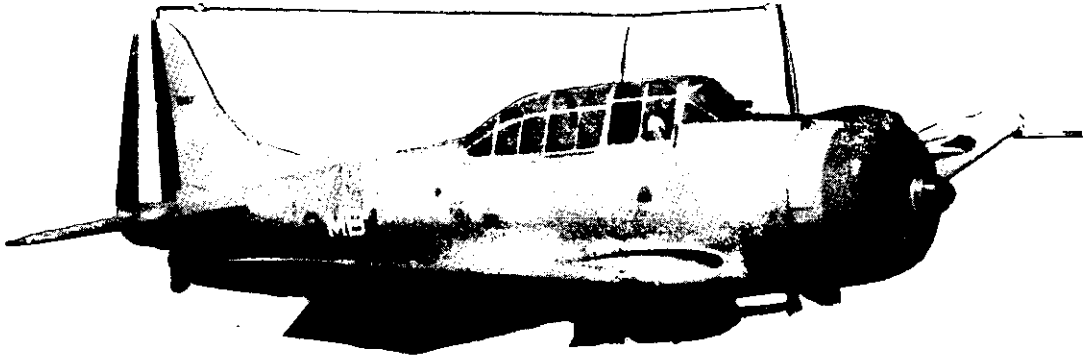
Small dihedral, slightly tapered, round tip, low-wing monoplane, single engine, and retractable landing gear. Occasionally encountered as a twin-float seaplane.

UNITED STATES
NAVY

SCOUT BOMBER
SB2U (VOUGHT)
"VINDICATOR"





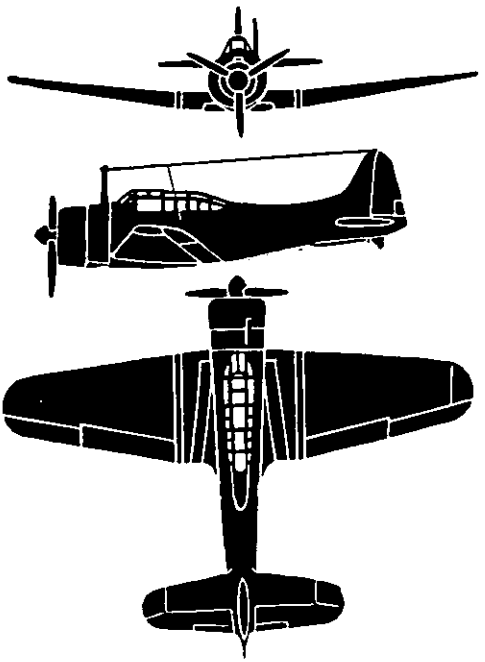


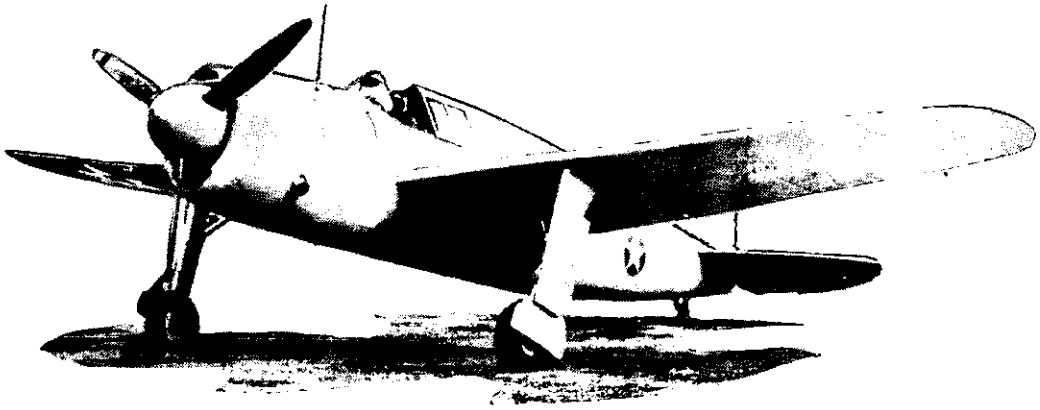
UNITED STATES NAVY
SBD (DOUGLAS) SCOUT BOMBER "DAUNTLESS"

Small dihedral, sweptback, tapered round tip, low-wing monoplane, single engine, and retractable landing gear.

UNITED STATES
NAVY

SCOUT BOMBER
DOUGLAS SBD
"DAUNTLESS"



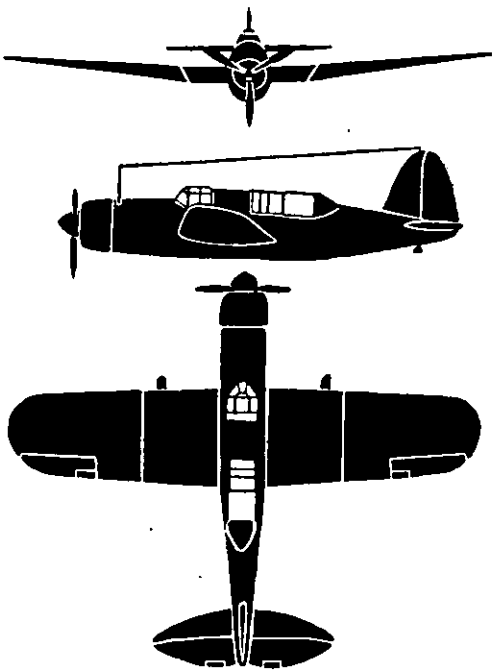


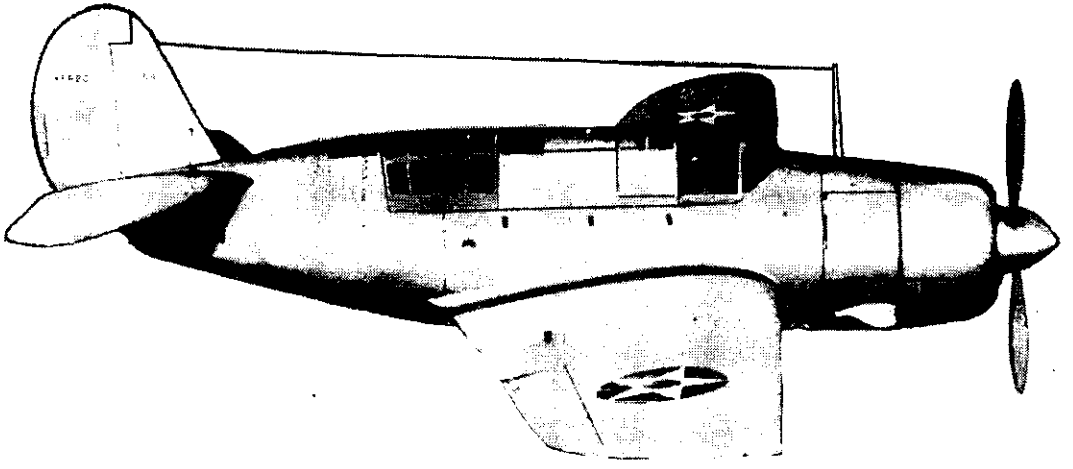
UNITED STATES NAVY
SB2A (BREWSTER) SCOUT BOMBER "BUCCANEER"

Slightly tapered, round tip, dihedral, midwing monoplane, single engine, inclosed cockpit, and retractable landing gear.

UNITED STATES
NAVY

SCOUT BOMBER
BREWSTER SB2A
"BUCCANEER"



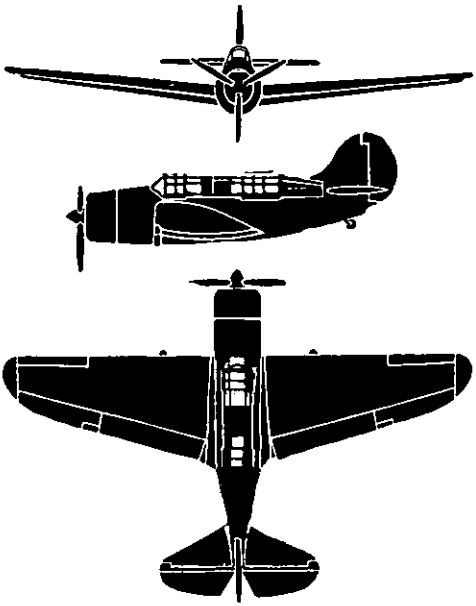


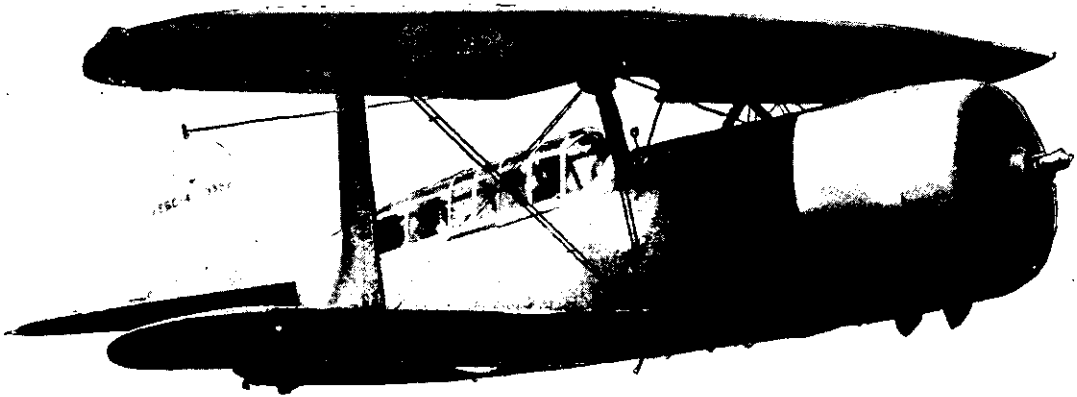
UNITED STATES NAVY
SB2C (CURTISS) SCOUT BOMBER "HELLDIVER"

Tapered, round trailing edge, slightly dihedral, midwing monoplane, single engine, inclosed cockpit, and retractable landing gear.

UNITED STATES
NAVY

SCOUT BOMBER
CURTISS SB2C
"HELLDIVER"



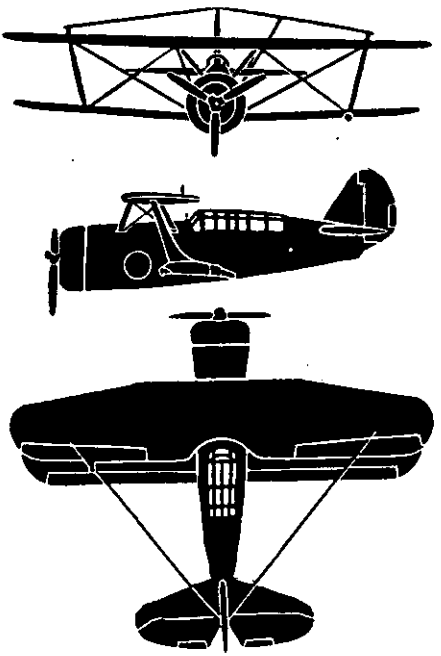


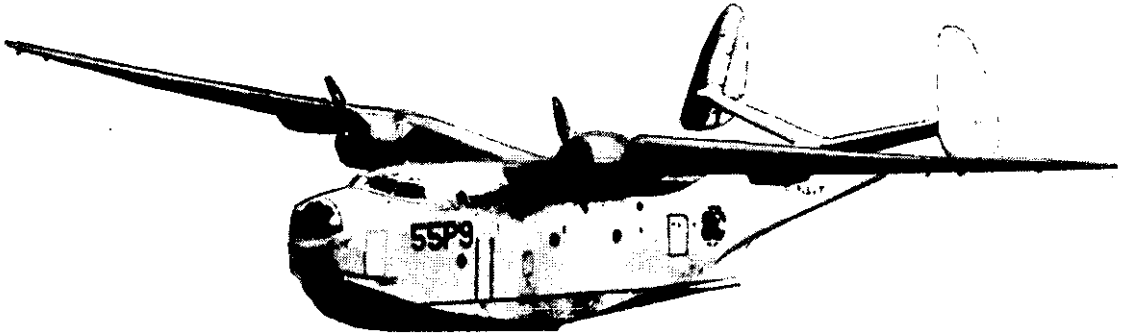
UNITED STATES NAVY
SBC (CURTISS) SCOUT BOMBER

Biplane, sweptback upper wing, straight lower wing with small dihedral, rounded tips, and retractable landing gear.

UNITED STATES
NAVY

SCOUT BOMBER
CURTISS SBC



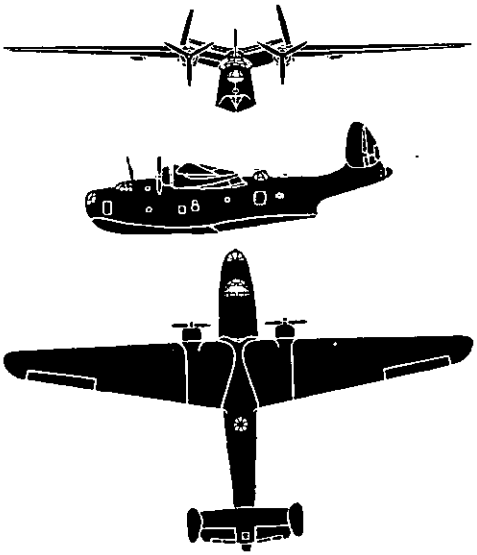


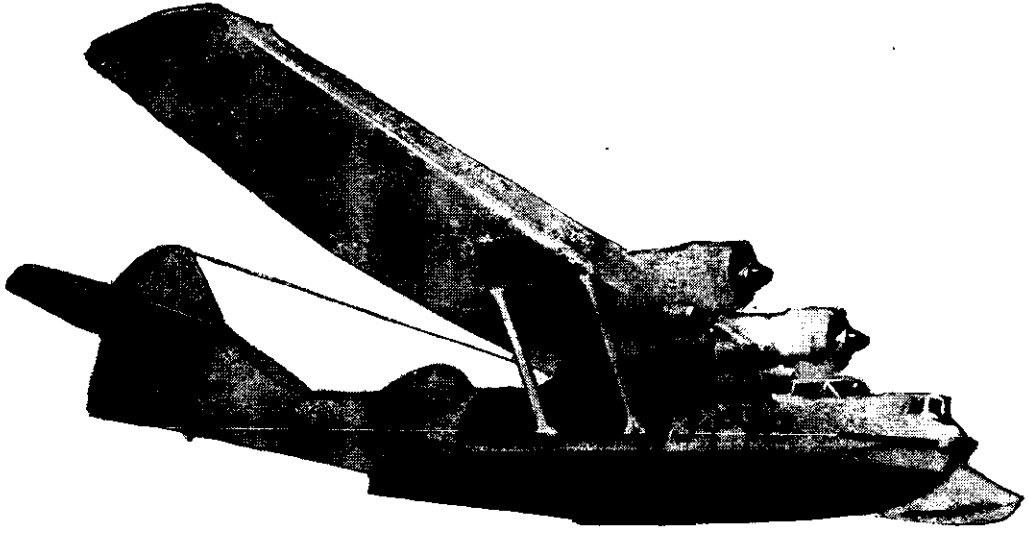
UNITED STATES NAVY
PBM–1 (MARTIN) PATROL BOMBER "MARINER"

Twin-motored flying boat, sweptback, tapered gull wing, round tip monoplane, retractable wing tip floats and twin elliptical rudders. Tail planes have large dihedral.

UNITED STATES
NAVY

PATROL BOMBER
PBM-1 (MARTIN)
"MARINER"



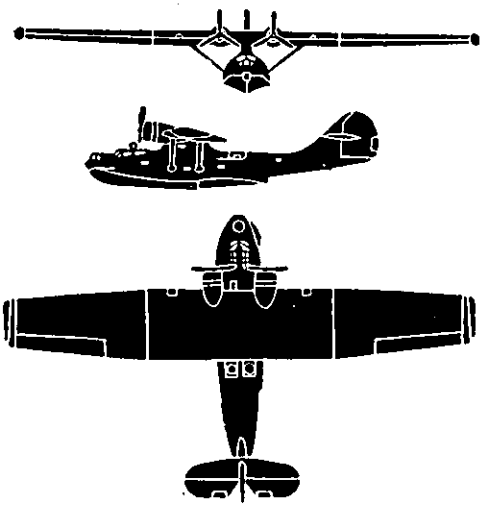


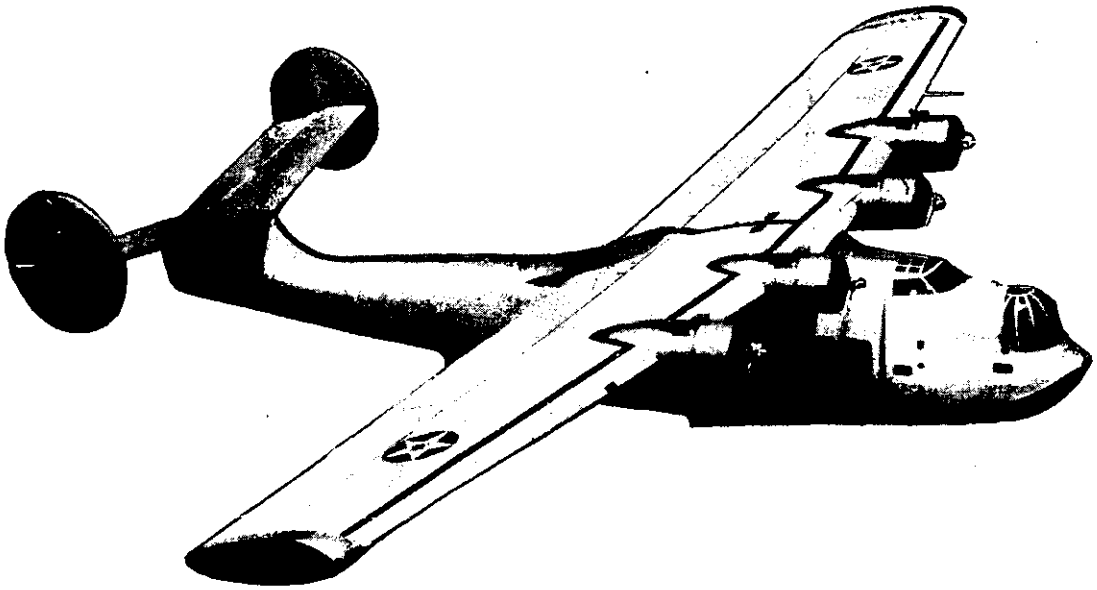
UNITED STATES NAVY
PBY (CONSOLIDATED) PATROL BOMBER "CATALINA"

Twin-motored flying boat, tapered outer section, parasol monoplane. Wing tip floats retract, forming square wing tips.

UNITED STATES
NAVY

PATROL BOMBER
CONSOLIDATED PBY
"CATALINA"





UNITED STATES NAVY
PB2Y (CONSOLIDATED) PATROL BOMBER "CORONADO"

Four-engined, sweptback, high-wing, square tip monoplane; twin oval rudders and large dihedral tail planes (stabilizer).

UNITED STATES
NAVY

PATROL BOMBER
CONSOLIDATED PB2Y
"CORONADO"