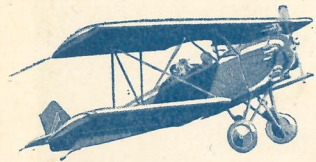




HOW TO JUDGE
AN
AIRPLANE



WHAT IS MEANT BY JUDGING AN AIRPLANE



TO the layman—the man in the street—an airplane is something that flies. If he has been told by some person, or by publicity, that a certain make of airplane is considered good . . . that is sufficient authority for him to pass on to his friends, “They say that’s a good plane!”

To the aviator—the pilot—or any man identified with things aeronautical—an airplane is a piece of mechanism that flies . . . well or not so well. His opinion of a particular plane means something, for he knows airplanes; but very often even the man in aviation is unconsciously swayed in his opinion by what his friends and colleagues think and say.

It is human to take for granted that which is said by people whose judgment we respect, but there is only one way to know for certain—and that is by personal investigation . . . first-hand examination. So, to enable all of us in aviation (as well as those who plan to get into the air) to determine first-hand what plane is good, not so good, or unworthy of serious consideration—we have prepared this booklet, “How To Judge An Airplane.”

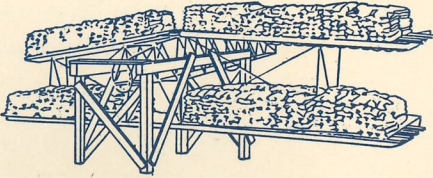
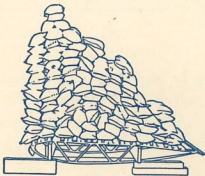
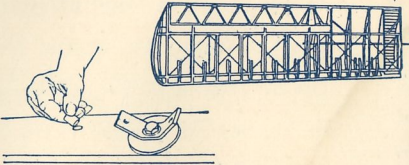
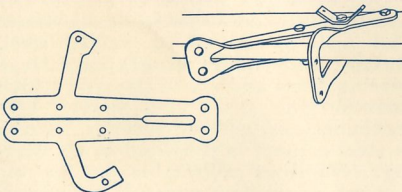
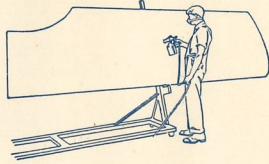
In judging any airplane, there are five major considerations—

1. The purpose for which the plane is to be used.
2. Its design and construction.
3. Its performance.
4. The reputation of its maker.
5. Its price.

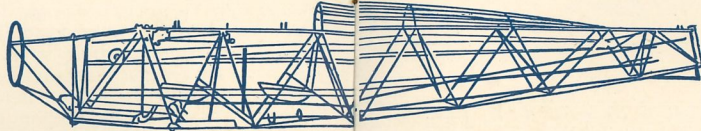
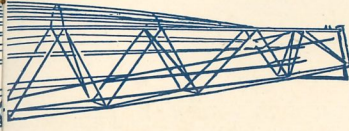

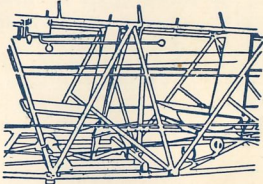
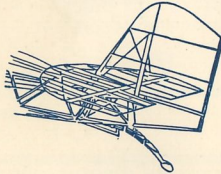
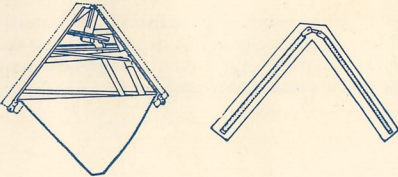
The proper use of this booklet will enable any person interested in an airplane *for training purposes* or *for private use*—to check, point by point, those qualities, features and refinements with which he should be familiar before he purchases, or even flies, any plane. No judgment, however, can be made without a standard of measure—so to that end, we have incorporated in this outline, those features and qualities of “The Fleet” biplane which will serve as a comparison and check against the corresponding features and qualities of any similar type of plane of the same horsepower.





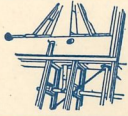

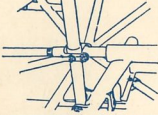
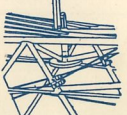
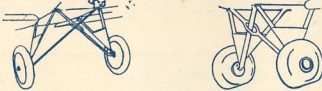

JUDGING THE PLANE ON THE GROUND ●

THE ESSENTIAL PARTS TO BE CONSIDERED	DESIGN AND CONSTRUCTION		CHECK HERE HOW CORRESPONDING PARTS OF ANY SIMILAR TYPE OF TRAINING PLANE (100 H.P.) COMPARE WITH THOSE DESCRIBED.					
A WINGS	OF "THE FLEET"		A WINGS OF PLANE TO BE JUDGED					
1. STRUCTURE		<p>All metal structure except laminated spruce spars. Fabric covered. Two flying wires and one landing wire each side simplify rigging and maintenance. Wing cellule in static test carried actual load of almost 7 tons—nearly 50 per cent greater than Department of Commerce requirements. The Fleet can be stunted with complete assurance.</p>	1. is the wing structure as sturdy as that of "The Fleet" ?	<table border="1"> <thead> <tr> <th data-bbox="1976 378 2024 423">Yes</th> <th data-bbox="2024 378 2091 423">No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
2. RIBS	<p>Ribs are built of heat-treated duralumin stampings. Each rib can carry a load of 1065 lbs. The drag loads are taken by means of alloy steel struts and heavy steel tie rods.</p>		2. are the wing ribs as strong as those of "The Fleet" ?	<table border="1"> <thead> <tr> <th data-bbox="1976 594 2024 639">Yes</th> <th data-bbox="2024 594 2091 639">No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
3. SPARS		<p>The spars and all other wood parts are protected by three coats of first grade spar varnish—one more coat than required by the Army and Navy. To increase bearing area in the wood and to prevent play developing in service . . . every bolt piercing the wing spars is surrounded by a large diameter bakelite bushing.</p>	3. are the wing spars as well made as those of "The Fleet" ?	<table border="1"> <thead> <tr> <th data-bbox="1976 802 2024 847">Yes</th> <th data-bbox="2024 802 2091 847">No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
4. FITTINGS	<p>Wing fittings and other metal parts are first cadmium plated . . . a more costly process than zinc plating, but three times as effective against corrosion. Every metal part then receives one coat of primer and two coats of enamel. There is no opportunity for corrosion to endanger the strength of the structure.</p>		4. are the wing fittings as carefully protected against corrosion as those of "The Fleet" ?	<table border="1"> <thead> <tr> <th data-bbox="1976 1010 2024 1055">Yes</th> <th data-bbox="2024 1010 2091 1055">No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
5. COVERING AND FINISH		<p>To provide a more substantial and beautiful finish . . . six coats of dope are used on all fabric parts. Ordinarily four coats of dope are considered sufficient.</p>	5. is the covering and finish as durable and pleasing as that of "The Fleet" ?	<table border="1"> <thead> <tr> <th data-bbox="1976 1218 2024 1263">Yes</th> <th data-bbox="2024 1218 2091 1263">No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							


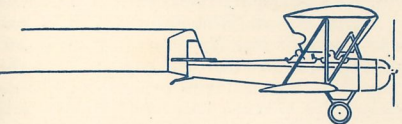
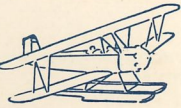

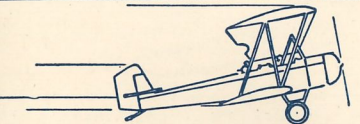

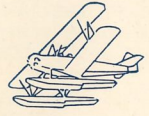


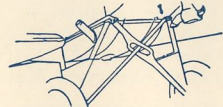
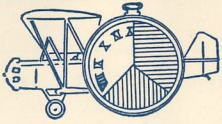
JUDGING THE PLANE ON THE GROUND

THE ESSENTIAL PARTS TO BE CONSIDERED	DESIGN AND CONSTRUCTION		CHECK HERE HOW CORRESPONDING PARTS OF ANY SIMILAR TYPE OF TRAINING PLANE (100 H.P.) COMPARE WITH THOSE DESCRIBED.					
B FUSELAGE	OF "THE FLEET"		B FUSELAGE OF PLANE TO BE JUDGED					
<p>1. STRUCTURE</p>	 <p>Welded fuselage construction . . . no tie rods . . . alloy steel tubes oiled internally and hermetically sealed to prevent in-</p>	 <p>ternal corrosion. For safety, Department of Commerce strength factor requirements are exceeded in all instances . . . in many cases more than 300 per cent.</p>	<p>1. is the fuselage structure as sturdily engineered as that of "The Fleet" ?</p>	<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
<p>2. ENGINE MOUNT</p>	<p>The engine is bolted to a patented mount which absolutely prevents crankcase distortion. Affords utmost access to engine thereby facilitating maintenance.</p>		<p>2. is the engine as accessible and well mounted as in "The Fleet" ?</p>	<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
<p>3. COCKPIT ARRANGEMENT</p>		<p>Patented bucket-type parachute seats are standard equipment. Rudder pedals are used in place of usual foot-bar. Cockpit structure exceptionally strong to afford maximum safety—large safety pads installed in front of each cockpit.</p>	<p>3. is the cockpit as comfortable and convenient as that of "The Fleet" ?</p>	<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
<p>4. TAIL SURFACES</p>	<p>Tail surfaces are all of welded steel. Elevator and rudder hinges have large bearing areas and are of the type which surround the spars and thereby give maximum strength and security. Bronze to steel contact is provided in all bearings. Stabilizer adjustable in the air through convenient control. Fin adjustable on ground.</p>		<p>4. are the tail surfaces as well designed and constructed as those of "The Fleet" ?</p>	<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							
<p>5. INSPECTION DOORS</p>		<p>"Zipper" inspection doors are provided for quick positive check of all wearing parts. Ease of maintenance is paramount in Fleet design.</p>	<p>5. are the inspection doors as practical and conveniently arranged as those in "The Fleet" ?</p>	<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Yes	No		
Yes	No							

JUDGING THE PLANE ON THE GROUND

THE ESSENTIAL PARTS TO BE CONSIDERED	DESIGN AND CONSTRUCTION		CHECK HERE HOW CORRESPONDING PARTS OF ANY SIMILAR TYPE OF TRAINING PLANE (100 H.P.) COMPARE WITH THOSE DESCRIBED.	
C POWER PLANT	OF "THE FLEET"		C POWER PLANT OF PLANE TO BE JUDGED	
1. TYPE AND RATING	Kinner K-5 radial, five-cylinder, air-cooled, 100 h.p. engine. Department of Commerce Approved Type Certificate No. 30.		1. is the engine as well proven and reliable as that of "The Fleet" ?	Yes No
2. FUEL CONSUMPTION		5.9 gallons per hour.	2. is the fuel consumption as economical as that of "The Fleet" ?	
D CONTROLS	OF "THE FLEET"		D CONTROLS OF PLANE TO BE JUDGED	
1. AILERONS	Ailerons are on bottom wings only. Balanced and differentially controlled. Patented control—no exposed operating parts—eliminates pulleys, bell-cranks, cables and torque tubes. Unequalled lateral control.		1. are the ailerons as well engineered as those of "The Fleet" ?	Yes No
2. RUDDER		Rudder operated by cable attached directly to rudder pedals. No pulleys used. Reduces cable replacement.	2. is the rudder as well constructed as that of "The Fleet" ?	
3. ELEVATOR	Elevator operated by positive push and pull rod—no cables or pulleys used. Eliminates maintenance trouble from frayed cables.		3. is the elevator as strong and free from wear as that of "The Fleet" ?	
4. STABILIZER		Stabilizer is adjustable from either cockpit while in flight. Fin is adjustable on ground.	4. is the stabilizer adjustable while in flight as in "The Fleet" ?	
E LANDING GEAR	OF "THE FLEET"		E LANDING GEAR OF PLANE TO BE JUDGED	
1. LANDPLANE	Landing gear is of divided-axle type with a 64½-inch tread. Axles are heat-treated alloy steel tubes. Choice of standard wheels with 26x5 tires or Musselman wheels. Oleo-spring shock absorbers—7-inch stroke.		1. is the landing gear as light and sturdy as that of "The Fleet" ?	Yes No
2. SEAPLANE		EDO—Standardized all-metal seaplane floats.	2. are the floats as practicable as those of "The Fleet" ?	

JUDGING THE PLANE IN THE AIR

QUALITIES THAT SHOULD BE DETERMINED BY ACTUAL FLIGHT	OPERATION		CHECK HERE HOW CORRESPONDING PERFORMANCE OF ANY SIMILAR TYPE OF TRAINING PLANE (100 H.P.) COMPARES WITH THAT DESCRIBED.					
F PERFORMANCE	OF "THE FLEET"		F PERFORMANCE OF PLANE TO BE JUDGED					
1. HIGH SPEED	 <p>Landplane 110 M. P. H. Seaplane 101 M. P. H.</p>		1. is the high speed as fast as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
2. CRUISING SPEED		<p>Landplane 95 M. P. H. Seaplane—85 M. P. H.</p>	2. is the cruising speed as good as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
3. LANDING SPEED	 <p>Landplane 37 M. P. H. Seaplane 45 M. P. H.</p>		3. is the landing speed as slow as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
4. USEFUL LOAD		<p>Landplane—577 Lbs. Seaplane—543 Lbs.</p>	4. is the useful load as great as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
5. CLIMB	<p>Landplane—730 Ft. P. M. Seaplane—584 Ft. P. M.</p>		5. is the climb as efficient as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
6. CEILING		<p>Landplane—14,700 Ft. Seaplane—12,500 Ft.</p>	6. is the ceiling as high as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
7. FUEL CAPACITY	 <p>Normal 24 Gals.</p>	<p>With Extra Tank 50 Gals.</p> 	7. is the fuel capacity as much as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							
8. ENDURANCE AT CRUISING SPEED		<p>Normal —4 Hours Maximum—7½ Hours</p>	8. is the endurance at cruising speed as long as that of "The Fleet" ?	<table border="1"> <tr> <th>Yes</th> <th>No</th> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No		
Yes	No							

JUDGING THE PLANE BY THE REPUTATION OF ITS MAKER

CONSIDERATIONS—OTHER THAN DESIGN, CONSTRUCTION AND PERFORMANCE—THAT SHOULD BE WEIGHED BEFORE PURCHASING ANY PLANE

FACTS

CHECK HERE HOW CORRESPONDING CONSIDERATIONS RELATING TO THE MANUFACTURER OF ANY SIMILAR TYPE OF TRAINING PLANE (100 H.P.) COMPARE WITH THOSE STATED.

G REPUTATION

OF THE MANUFACTURER OF "THE FLEET"

G REPUTATION OF THE MANUFACTURER OF THE PLANE TO BE JUDGED

1. HISTORY OF MANUFACTURER

The Consolidated Aircraft Corporation . . . builders of "The Fleet" . . . has had nine years of intensive aircraft engineering experience—devoted primarily to the manufacture and development of training planes. Its success has been due largely

to leadership in design and the ability to supply a proven product to meet a genuine demand. In its six plants, Consolidated Aircraft has a personnel that leads the industry.

1. has he had as much experience as the manufacturer of "The Fleet" ?

Yes No

"Consolidated" has been and is now engaged in manufacturing and marketing the following types of airplanes, in addition to "The Fleet" landplane and seaplane.



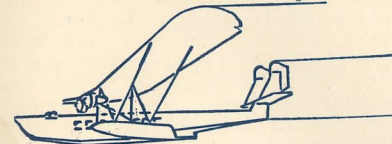
The Consolidated "Husky" . . . designed especially for strenuous training purposes. Known in the Army as the PT-1, 2, 3 or 3A; and, in the Navy as the NY-1, 2 or 3.

2. has he built as many different types of successful planes as the manufacturer of "The Fleet" ?

2. TYPES OF PLANES BUILT



The Commodore . . . the largest flying boat of exclusive American design. With accommodations for 20 passengers in addition to 200 cubic feet of cargo space for mail and express. The Commodore has a cruising radius of 1,000 miles at 105 miles an hour.



The Thomas-Morse all-metal military observation plane, recently acquired and now being built by Consolidated.

3. are his planes as extensively used as those built by the manufacturer of "The Fleet" ?

3. USED BY WHOM

One or more of these types of planes has been adopted as standard by the U. S. Army Air Corps, Naval Air Service, National Guard, Marine Corps, Organized Reserves, Marine Reserves, and

by the Royal Canadian Air Force, Cuban Army Air Corps, Brazilian Naval Air Service, Peruvian Army Air Corps, Argentinian Air Force and the Siamese Army Air Corps.

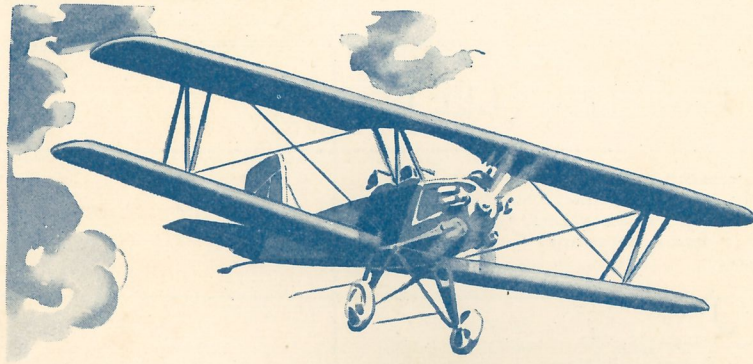
4. has he as many planes in active service as the manufacturer of "The Fleet" ?

4. NUMBER OF PLANES IN SERVICE

More than 1,000 Consolidated-built training planes are in daily service . . . subjected to the *manhandling and mis-handling* of student flyers. Unsurpassed records for safety, durability, economy of upkeep and operation, and simplicity of maintenance, have been established by

these planes. As a matter of record, more than 4,200 Americans have received flight training in Consolidated "Huskies" alone . . . a greater number than have been trained in all other types combined since the World War.

BUILT TO A STANDARD NOT TO MEET A PRICE



IF you have followed the preceding outline as a guide in judging any training airplane of 100 horse power, you will readily appreciate what we mean when we say that . . . "from the propeller hub-nut to the trailing edge of the rudder, quality is the dominant keynote of 'The 1930 Model FLEET.'" Built to fulfill every pertinent requirement of sport and flying instruction . . . to fly with strength factors well in excess of Army, Navy and Department of Commerce requirements—"The Fleet" possesses innumerable features found in no other similar type of training plane . . . reasons why "The Fleet" can be truly described as the plane which is built to a standard—not to meet a price.

Standard Equipment

Wood Propeller
Primer
Tachometer
Oil Thermometer
Altimeter
Safety Belts
Cushions
Fuel Gauge
Oil Pressure Gauge
Fire Extinguisher
First Aid Kit
Tool Kit
Log Book

Optional Equipment

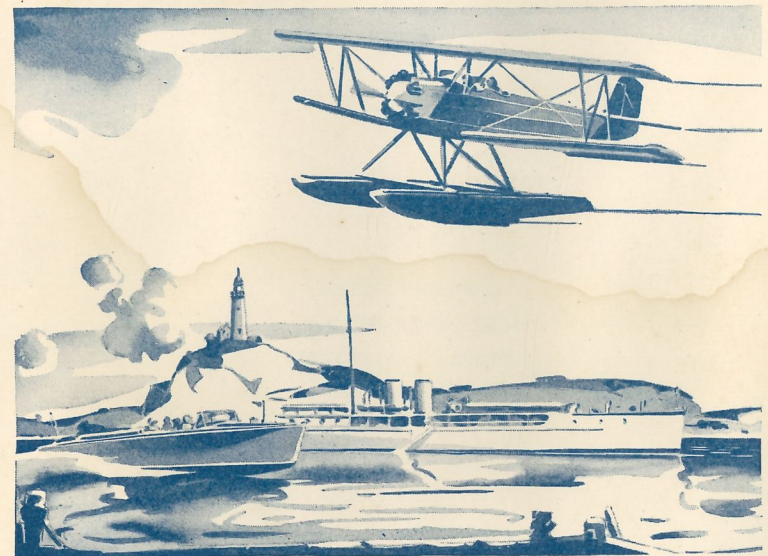
Metal Adjustable Pitch Propeller
Air Starter
Air Speed Indicator
Extra Fuel Tank (26 gallons)
Compass
Bank and Turn Indicator
Rate of Climb Indicator
Clock
Extra Baggage Space (50 lbs.)
A.T.C. 131 allows maximum gross weight of 1820 lbs. including enough fuel for 7.5 hours cruising, and extra baggage.

With Kinner K-5 (100 h. p.) Engine as standard equipment—the list price of The Fleet Landplane is \$3,985; The Fleet Seaplane, \$4,995—flyaway, Buffalo, New York.

Department of Commerce Approved Type Certificate 131

FLEET AIRCRAFT INC.

Subsidiary of Consolidated Aircraft Corporation
BUFFALO , , , NEW YORK



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