

Howrah

AIRCRAFTER



An Appreciation

This first edition of the Howard Aircrafter is dedicated to Owners of Howard airplanes whose search for a superior modern airplane prompted them to purchase this product, then finding that it excelled in those characteristics which they sought, recommended these planes to others . . . But for the loyal support of these Owners and faith in the Product and the Industry by the Sponsors of this project, it could not have attained the financial stability with which to build a capable organization and house it in a modern aircraft manufacturing facility . . . The Aircrafter will be published when we have anything of unusual interest to write about, and now proceeds to announce the improved DGA-15 series of 4-5 place cabin airplanes which will be worthy successors to the Howards now in service.

HOWARD AIRCRAFT CORPORATION

CHICAGO • U. S. A

Cover — The Spirit of "Mister Mulligan" viewing the future home of Howard Aircraft





"Mister Mulligan" at Cleveland, 1935

Howard

Winning the Thompson Trophy Race

HOWARD airplanes were developed from Ben O. Howard's "Mister Mulligan" in which he won both the Bendix Transcontinental and Thompson Trophy Awards at the National Air Races in Cleveland in 1935.

Originally engineered from the knowledge gained in designing, building and piloting racing planes, and now further improved from the experience gained in three years of service, Howard airplanes are veterans and especially noted for ruggedness and strength in all parts affected by unusual conditions, yet the superior basic design makes for lighter weight with consequent greater load carrying ability.

Fast, yet superbly smooth in rough air, the new Howard gives a restful ride in motor car spaciousness and is surprisingly easy to land because of super-stable wings and effective flaps combined with wide tread gear and long stroke shock absorbers.

Thoroughly proven in millions of miles of cross country operation in the hands of many Owners, Howard DGA models will now be produced in quantities by an experienced manufacturing organization in modern facilities to meet the increased demand for a faster airplane which can carry more useful load and can thus serve a wider range of uses both in this country and abroad.

A photograph of Ben O. Howard's "Mister Mulligan" in which he won BOTH the Transcontinental Bendix and Thompson Trophy races at Cleveland in 1935. Competing against specially built racing craft, this conventional cabin plane took the money.





*Howard plane owned by
Mercury Air Services, Ltd.
Canada*



*Mr. Dwight P. Joyce, Vice President
The Glidden Company
Ohio*

We keenly regret that space does not permit us to publish the photographs of more Owners of Howard airplanes; however, ours is the loss, not theirs, and some of them are unduly modest.



*Mr. Carleton Putnam, President
Chicago and Southern Air Lines, Inc.
Missouri*



*Mr. W. W. Trout and Pilot Lyman Drew
Lufkin Foundry & Machine Co.
Texas*

*Dr. Sydney Walker, Jr.
Noted Surgeon
Illinois*



*Miss Ampara Iturbi and Mr. Jose Iturbi
Noted Spanish Pianists
New York City*

*Howard plane owned by
Mr. David S. Ingalls
Ohio*



*Mr. F. B. Evans (Below)
Berghoff Brewing Corporation
Indiana*



Howard airplanes serve not only as Personal Transports for Sportsman Flyers, but do the grueling cross country flying jobs for Business Executives and Commercial Operators carrying passengers and cargo on wheels,

To those of you who contributed to these pages, we are duly grateful and sincerely hope that our revised Product, which you have helped to create, will continue to merit your preference.



*Mr. Gene Meador
Packard Southwest Distributor
Texas*



*Howard plane owned by
Mr. Oliver Wallop — Rancher
Wyoming*



*Major D. H. Young
Pure Oil Company
Illinois*



*Mr. Wallace Beery
Noted Flyer, Actor and Sportsman
California*



*Pilot S. P. Gilley — Mr. Geo. H. Echols
Oil Drilling Operations
Texas*



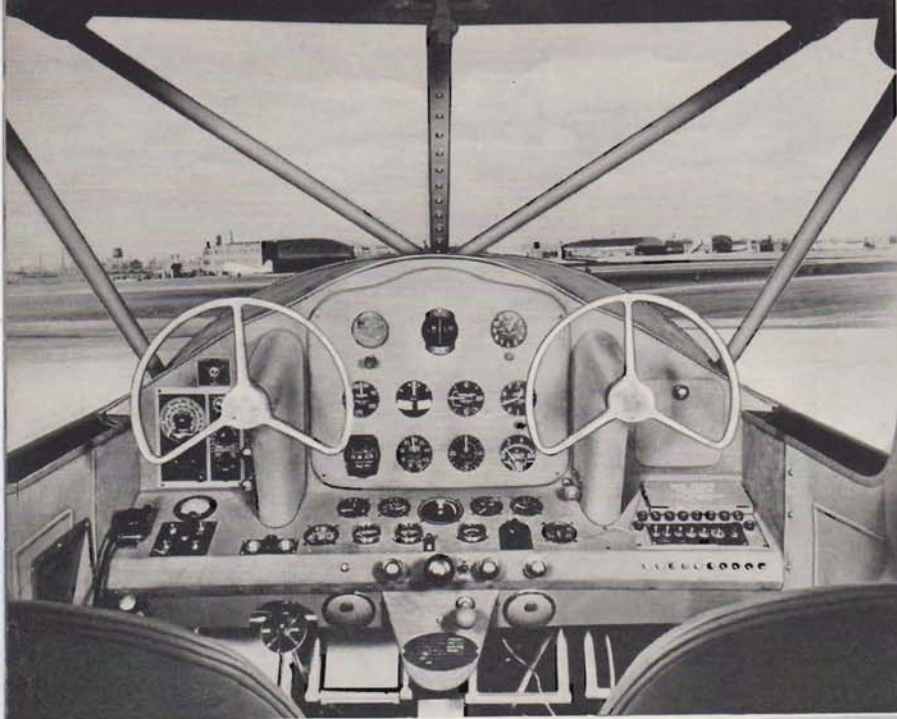
*Mr. Daniel Peterkin, Jr. (Below)
Morton Salt Company
Illinois*

*Mr. H. L. Lindner, Gen. Mgr.
Paramount Trucking Service, Inc.
Wisconsin*

*One of four Howards owned by
Civil Aeronautics Authority
Washington, D. C.*

pontoons, or skis into remote areas where travel by any other means often requires days instead of hours. Matching the Airliner for speed this Howard opens up new vistas for work or play. Ask for a demonstration.





"Instrument Flying"

Now that many are becoming trained in "Instrument" flying, it is important to have all instruments "airliner positioned", by which we mean, grouped according to the best accepted practice. Our Chief Designing Engineer, who also does Flight Research Work for the airlines, designed this flight panel and that is its greatest recommendation; furthermore, all controls are handy and we have avoided the use of "ginger bread" effects which detract from proper concentration.

Pilot Comfort — Vision

Any Pilot will tell you that fatigue, due to physical discomfort because of seating, control positioning, or being tossed about in rough air is a menace; therefore, we have taken great pains to build a Pilot's compartment which assures restful flying. The seats are properly upholstered and adjustable, an arm rest is provided, and the pedals and control wheels are set at just the right angle. Pilots tell us they fly for hours at a stretch without fatigue.

Vision is becoming increasingly important, therefore we went to work on this and greatly improved bad weather vision in the air and ground vision on the airport. You can now see "all out-of-doors" in this 1939-40 Howard and that will make for mental ease which adds immeasurably to safety.



The Utmost in a Personal Transport, or — for Work

It may seem farfetched that this Howard is the Personal Transport De Luxe, embodying every fine thing that money can buy, yet is built so ruggedly between its lustrous exterior and soft-toned, deep-cushioned interior that it is used by knowing Business Executives and Commercial Operators to carry most anything and go anywhere from the Arctic Circles to the Equator. This INBUILT sturdiness is a heritage from the Raceways and Airlines — there's peace of mind in knowing that it is there, but — it has a monetary value in that it enhances resale value and assures a lower cost of operation for the original, as well as the subsequent owners.

The New Howard for 1939-40

This new Howard for 1939-40 production does not obsolete the basic design of its predecessors, but has been improved through the advance in aeronautical science and the knowledge gained in three years of service in the hands of a distinguished group of Owners. The photographs on this page illustrate some of the improvements in a general manner and space did not permit of "close-ups", but the captions adjacent to the photographs describe the betterments in greater detail; however, you must inspect and fly this 1939-40 Howard to know first-hand about its amazing flying qualities which neither words nor pictures can adequately express. It is fast, carries adequate useful load, and can be landed alongside any other plane in its category. See Specifications.



Performance

There's something about this new Howard which reminds one of a thorough-bred coming down the stretch with his ears flattened back. It gets away and up fast, the airspeed is showing 90 M.P.H. before you realize it, and if you care to pull back slightly, it gets over an obstruction like a scared bird over a thicket. Once leveled out, you can "take" these big airliners with any Howard model at low altitudes and say goodbye with the Wasp Jr. Lastly, it's one of the easiest planes to land, in this category; facts are, it practically lands itself after you've learned how to help it a bit. That's the wing-flap combination and the new wide tread "soft" gear and locking type tail wheel. TRY IT.

Spacious Comfort

(RIGHT)

The Howard has always carried adequate useful loads but some have complained about the rear seat and lack of baggage space, therefore our Engineers heeded this call and not only have provided more width, headroom and legroom, but positioned and upholstered the seats for "long trip" comfort. Now five can ride. The baggage compartment has 16 cubic feet of space and a larger door.



The Most Completely Equipped Airplanes Ever Offered

We believe that the 1939-40 Howards are the most completely equipped Personal Transports ever offered in this category. A wider selection of exterior colors and interior finishes are also available without added cost. The materials and

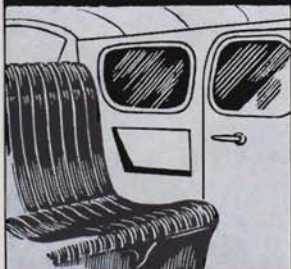
equipment used are the finest procurable, therefore we suggest that you compare equipment specifications when you compare Howard's prices with those of other makes in order to fully appreciate the extra value built into these airplanes.

EXTERIOR FINISH



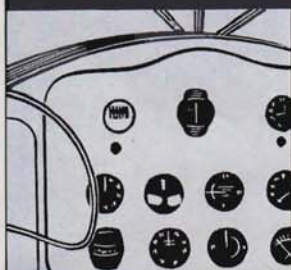
All Howard Models are finished with the newly created non-fading "bird" colors recently produced by Glidair. This 14-16 coat process results in a highly lustrous surface, impervious to the elements and which will stay new for years. Standard colors are two tones of red, blue, green or brown with a third color for pin striping, or black with any of the standard colors as the contrasting color, with a third color for pin striping. Other colors are special, as are striping schemes requiring excessive masking.

INTERIOR FINISH



Interior upholstery is of highest grade Laidlaw Broadcloth, selected for its beauty, durability and soundproofing qualities. Pilot's seats may be finished in hand-buffed leather in colors to match, if desired. Standard colors are dual tones of russet, blue, green and gray in a wide variety of patterns. The instrument panel is "custom" finished to harmonize with the interior color scheme chosen. Cabin furnishings are complete (arm rests, assist cords, ash trays, etc.) The hardware is in a modern motif.

INSTRUMENTS



Flight instruments are by Kollsman, accepted as a standard for the most luxurious airliners. The Flight Panel is shock mounted and indirectly lighted. Note particularly the identifying numbers of the instruments given on the opposite page, as Howard furnishes several instruments as standard equipment which may be had on other makes only at added cost. We do not furnish either the Sperry Directional Gyro or Artificial Horizon as standard equipment, but put these in proper position at the regular price for these instruments listed by the manufacturer, plus installation costs.

ACCESSORIES

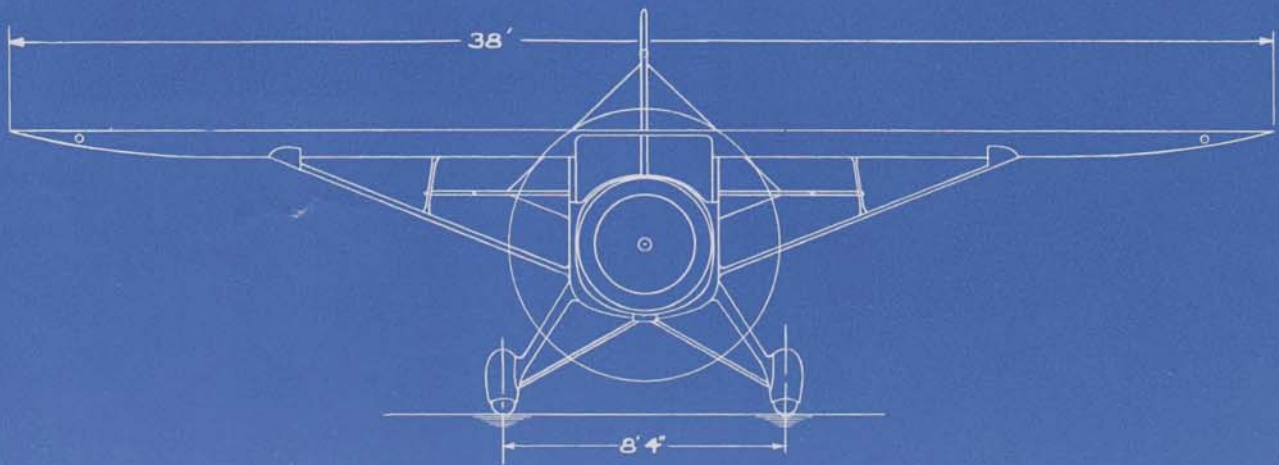
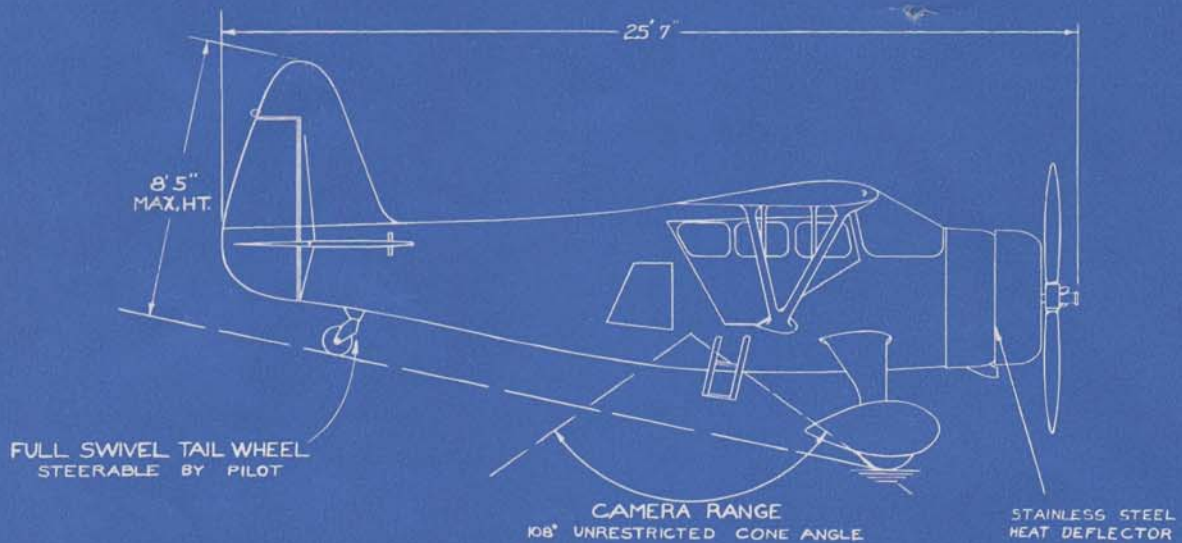
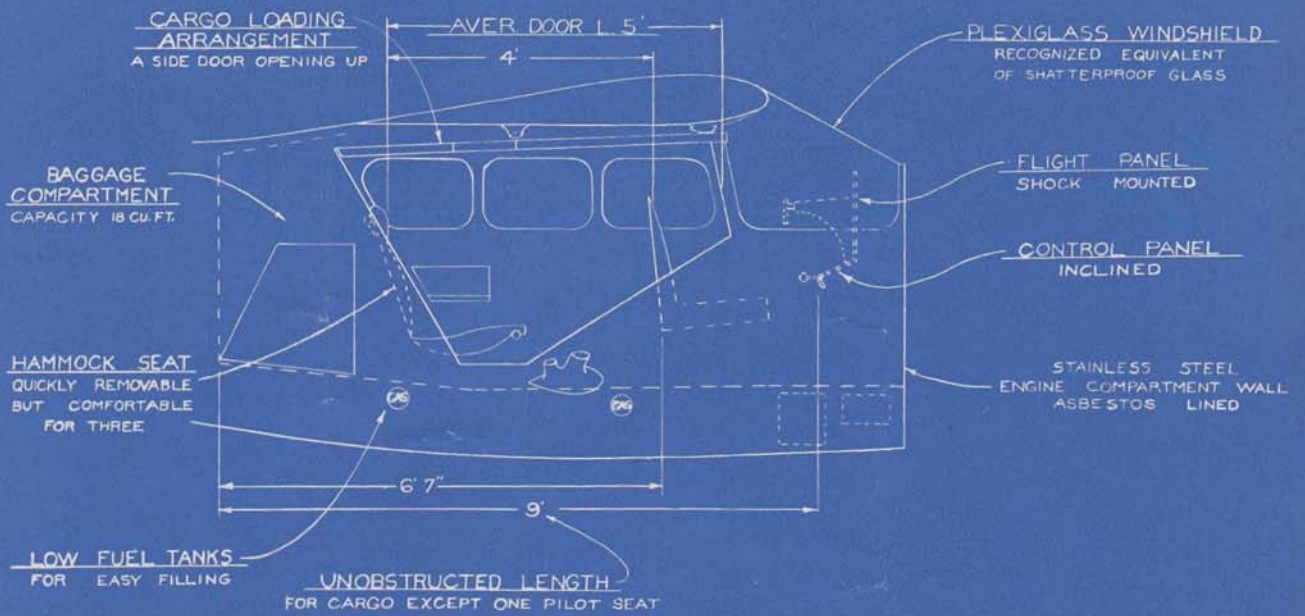


It is impractical to attempt to pre-select Radio Equipment because of the wide divergence of opinion regarding the range required, therefore we have not included RCA Transmitters, Receivers or Direction Finders as standard equipment, but furnish their instruments at regular prices listed by the manufacturer, plus installation costs, and maintain a special Radio Department. We have not included flares as standard equipment but will also furnish the same at regular prices when requested to do so. The engines are shielded and plane bonded for Radio. We will be glad to furnish recommendations about various sizes and ranges of Radio Equipment on request.

SPECIFICATIONS — Performance and Weight

	Model DGA-15P	Model DGA-15W	Model DGA-15J
PROPELLER	Hamilton Constant Speed	Hamilton Constant Speed	Curtiss-Reed (fixed)*
ENGINE	Wasp Jr. SB 450 H.P.	Wright E2 350 H.P.	Jacobs L-6 330 H.P.
Automatic Valve Lubrication	Yes	Yes	No
Carburetor	Stromberg	Stromberg	Stromberg
Ignition	Scintilla Dual Magnetos	Scintilla Dual Magnetos	Scintilla Magneto — Battery
Generator	Eclipse 15 Ampere	Eclipse 15 Ampere	Eclipse 15 Ampere
Battery	Exide 6-TS-13-1 (38 Amp. Hrs.)	Exide 6-TS-13-1 (38 Amp. Hrs.)	Exide 6-TS-13-1 (38 Amp. Hrs.)
Fuel Pump	Romec Engine Driven	Romec Engine Driven	Pesco Engine Driven
Auxiliary Pump	Romec Hand Pump	Romec Hand Pump	Romec Hand Pump
Oil Radiator	Yes	Yes	Yes
Fire Extinguisher	Pyrene Pressure	Pyrene Pressure	Pyrene Pressure
Engine Mount	Chrome Moly.—Lord Bushings	Chrome Moly.—Lord Bushings	Chrome Moly.—Lord Bushings
Engine Cowling	N.A.C.A.	N.A.C.A.	N.A.C.A.
INSTRUMENTS —			
Compass	Kollsman 398B	Kollsman L-65	Kollsman L-65
Altimeter	K. (Sensitive) 205-031	K. (Sensitive) 205-031	K. (Sensitive) 205-031
Bank and Turn	Pioneer 1700-1A-A1	Pioneer 1700-1A-A1	Pioneer 1700-1A-A1
Climb Indicator	Kollsman 472-K-02	Kollsman 472-K-02	Kollsman 472-K-02
Fuel Analyzer	Cambridge	Cambridge	No
Air Speed and Pitot	Yes	Yes	Yes
Tachometer	Yes	Yes	Yes
Clock	Pioneer 757BH	Pioneer 757BH	Pioneer 757BH
Thermocouple	Yes	Yes	Yes
Manifold Pressure Gauge	Yes	Yes	Yes
Carburetor Air Temperature	Yes	Yes	Yes
Oil Temperature Indicator	Yes	Yes	Yes
Oil Pressure Indicator	Yes	Yes	Yes
Fuel Level Indicator	Yes	Yes	Yes
Stabilizer Indicator	Yes	Yes	Yes
Ammeter	Yes	Yes	Yes
LIGHTS — Navigation	Yes	Yes	Yes
Landing	Yes	Yes	Yes
Dome	Yes	Yes	Yes
Baggage	Yes	Yes	Yes
WHEELS AND BRAKES	Goodyear Hydraulic Disc	Goodyear Hydraulic Disc	Goodyear Hydraulic Disc
TIRES	8:50" x 10"	8:50" x 10"	8:50" x 10"
TAIL WHEEL	12:50" Diameter (steerable)	12:50" Diameter (steerable)	12:50" Diameter (steerable)
WINGS — Covering	Mahogany Plywood — Fabric	Mahogany Plywood — Fabric	Mahogany Plywood — Fabric
Loading	20.7 lbs. per sq. ft.	19.5 lbs. per sq. ft.	18.5 lbs. per sq. ft.
FLAPS — Operation	Electric — Spring Loaded	Electric — Spring Loaded	Electric — Spring Loaded
CABIN — Cover	Metalclad	Metalclad	Metalclad
Heating	Yes	Yes	Yes
Ventilation	Yes — from wings	Yes — from wings	Yes — from wings
POWER LOADING	10.9 lbs. per H.P.	12.81 lbs. per H.P.	13 lbs. per H.P.
WEIGHTS — Gross	4350 lbs.	4100 lbs.	3900 lbs.
Empty	2650 lbs.	2500 lbs.	2400 lbs.
Useful	1700 lbs.	1600 lbs.	1500 lbs.
Cruising Speed (Optimum Altitude)	201 M.P.H.	178 M.P.H.	174 M.P.H.
Rate of Climb	1850 F.P.M.	1400 F.P.M.	1050 F.P.M.
Service Ceiling	22,500 Feet	19,000 Feet	16,500 Feet
Gasoline Capacity	115 Gals. Standard	95 Gals. Standard	82½ Gals. Standard
Oil Capacity	7½ Gals.	6 Gals.	5½ Gals.
Range	984 Miles	912 Miles	817 Miles

* With Hamilton Controllable Propeller gross weight increased to 4050 lbs., empty weight to 2452 lbs.



The Howard "Multi-Use" Model

Howard answers the demand for a faster airplane which can carry heavier loads on wheels, pontoons, or skis. This "MULTI-USE" model is a conversion of the Personal Transport described in the preceding pages, and the cabin is so arranged that the Operator can make quick changes without tools to accommodate passengers, cargo, a stretcher for the ill or injured, mail or express, or for use in aerial photography. Note the blueprint to the left. Mountings for machine guns and bomb racks are also obtainable.

EXPORT DATA

This model is particularly suited for commercial purposes in countries where the airplane is called upon to serve many purposes on short notice. When built for Export, the plane is carefully assembled and test flown, then disassembled and placed in one crate which is approximately 7½ feet by 7½ feet by 27 feet long and weighs about 6750 pounds (varies from 6600 to 6900 pounds, depending on model and equipment). The cost of crating, freight and insurance F.O.B. cars New York City is \$685.00.

SPECIFICATIONS

The specifications of these "MULTI-USE" Models differ from those shown on the preceding page and these variations are shown below; however, we will gladly furnish more detailed and specific data when presented with a particular flying problem, and we solicit your inquiries.

DESCRIPTION	Model DGA-15PC	Model DGA-15WC	Model DGA-15JC
Propeller	Hamilton Controllable (Two Position)	Hamilton Controllable (Two Position)	Curtiss-Reed (Fixed)
Generator	Eclipse 25 Ampere	Eclipse 25 Ampere	Eclipse 25 Ampere
Battery	Exide 6-XT-13-1 (65 Amp. Hrs.)	Exide 6-XT-13-1 (65 Amp. Hrs.)	Exide 6-XT-13-1 (65 Amp. Hrs.)
Gas Analyzer	No	No	No
Cargo Door	Yes	Yes	Yes
Stretcher and Fittings	Only when ordered	Only when ordered	Only when ordered
Pontoon Fittings	Only when ordered	Only when ordered	Only when ordered
Ski Fittings	Only when ordered	Only when ordered	Only when ordered
Standard Colors	Silver, Red or Yellow	Silver, Red or Yellow	Silver, Red or Yellow
Standard Upholstery	{Leather Seats and Backs Leatherette Side Walls	{Leather Seats and Backs Leatherette Side Walls	{Leather Seats and Backs Leatherette Side Walls
Camera Openings	Special — state make	Special — state make	Special — state make
Machine Gun Mountings	Special	Special	Special
Bomb Rack Mountings	Special	Special	Special

Empty and Gross Weights, also Performance same as on preceding page except when special fittings are installed.

NOTE: To calculate performance and weights on "pontoons", add 400 pounds (plus or minus) to empty and gross weights, deduct 10% from speed and 15% from climb. This is approximate only and we will be glad to give specific data on request.



Air Express Today — Air Freight Tomorrow

With Air Express piling up beyond capacity at many Terminals, it requires but little foresight to predict that vast tonnages of freight will soon be transported by air in the United States as is already being done in other lands.

The Howard "CARGO-CARRIER" illustrated on this page is being created to fill present demands for airplanes especially designed to transport freight at low cost in many countries which do not have adequate ground transportation because of excessive cost to build.

Howard

AIRCRAFT CORPORATION
5301 WEST 65TH STREET, CHICAGO, ILL., U.S.A.

