CESSNA AIRCRAFT COMPANY
WICHITA, KANSAS

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CUSTOMER CARE

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1975

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Stationair

MODEL U206F

and

TURBO Stationair

MODEL TU206F

FLOATPLANE
SKIPLANE

OWNER'S MANUAL SUPPLEMENT

D1054-13-RPC-250-9/90

PERFORMANCE - SPECIFICATIONS

Stationair

	FLOATPLANE	SKIPLANE
GROSS WEIGHT	3500 lbs	3300 lbs
SPEED, BEST POWER MIXTURE:		
Top Speed at Sea Level	156 mph	139 mph
Cruise, 75% Power at 6500 ft	151 mph	137 mph
RANGE, EXTENDED RANGE MIXTURE:		
Cruise, 75% Power at 6500 ft	600 mi	545 mi
63 Gallons, No Reserve	4.0 hrs	4.0 hrs
	150 mph	136 mph
Cruise, 75% Power at 6500 ft	765 mi	695 mi
80 Gallons, No Reserve	5.1 hrs	5.1 hrs
	150 mph	136 mph
Maximum Range at 10,000 ft	790 mi	655 mi
63 Gallons, No Reserve	7.0 hrs	6.2 hrs
	113 mph	106 mph
Maximum Range at 10,000 ft	1005 mi	835 mi
80 Gallons, No Reserve	8.9 hrs	7.9 hrs
	113 mph	106 mph
RATE OF CLIMB AT SEA LEVEL	855 fpm	800 fpm
SERVICE CEILING	13,900 ft	11,500 ft
TAKE-OFF:		
Water Run or Ground Run	1445 ft	...*...
Total Distance Over 50-Foot Obstacle	2475 ft	.....
LANDING:		
Water Run or Ground Roll	695 ft	..**...
Total Distance Over 50-Foot Obstacle	1570 ft	.....
STALL SPEED:		
Flaps Up, Power Off	63 mph	68 mph
Flaps Down, Power Off	56 mph	58 mph
EMPTY WEIGHT: (Approximate)		
Standard (Six Seats)	2200 lbs	2100 lbs
Utility Option (One Seat)	2105 lbs	2005 lbs
USEFUL LOAD: (Approximate)		
Standard (Six Seats)	1300 lbs	1200 lbs
Utility Option (One Seat)	1395 lbs	1295 lbs
WING LOADING: Pounds/Sq Foot	20.1	19.0
POWER LOADING: Pounds/HP	11.7	11.0
FUEL CAPACITY: Total		
Standard Tanks	65 gal.	65 gal.
Optional Long Range Tanks	84 gal.	84 gal.
OIL CAPACITY: Total	12 qts.	12 qts.
PROPELLER: Constant Speed, Diameter		
2-Bladed	86 in.	.....
3-Bladed	.....	80 in.
ENGINE:		
Continental Fuel Injection Engine	IO-520-F	IO-520-F
300 rated BHP at 2850 RPM (5-Minute Take-Off Rating)		
285 rated BHP at 2700 RPM (Maximum Continuous Rating)		
WING SPAN	35 ft, 10 in.	35 ft, 10 in.
LENGTH	28 ft, 5 1/2 in.	28 ft
HEIGHT	13 ft, 11 1/2 in.	9 ft, 7 1/2 in.

*Refer to page 2-3 for take-off data.
**Refer to page 2-4 for landing data.

PERFORMANCE - SPECIFICATIONS

TURBO Stationair

SKIPLANE

GROSS WEIGHT	3300 lbs
SPEED, BEST POWER MIXTURE:	
Top Speed at 19,000 ft	167 mph
Cruise, 75% Power at 20,000 ft	152 mph
75% Power at 10,000 ft	141 mph
RANGE, EXTENDED RANGE MIXTURE:	
Cruise, 75% Power at 20,000 ft	570 mi
63 Gallons, No Reserve	3.8 hrs
	151 mph
Cruise, 75% Power at 10,000 ft	530 mi
63 Gallons, No Reserve	3.8 hrs
	140 mph
Cruise, 75% Power at 20,000 ft	740 mi
80 Gallons, No Reserve	4.9 hrs
	151 mph
Cruise, 75% Power at 10,000 ft	680 mi
80 Gallons, No Reserve	4.9 hrs
	140 mph
Maximum Range at 20,000 ft	595 mi
63 Gallons, No Reserve	4.6 hrs
	130 mph
Maximum Range at 10,000 ft	580 mi
63 Gallons, No Reserve	5.1 hrs
	114 mph
Maximum Range at 20,000 ft	755 mi
80 Gallons, No Reserve	5.8 hrs
	130 mph
Maximum Range at 10,000 ft	730 mi
80 Gallons, No Reserve	6.4 hrs
	114 mph
RATE OF CLIMB AT SEA LEVEL	920 fpm
SERVICE CEILING	23,500 ft
TAKE-OFF	...*...
LANDING	..**...
STALL SPEED:	
Flaps Up, Power Off	68 mph
Flaps Down, Power Off	58 mph
EMPTY WEIGHT: (Approximate)	
Standard (Six Seats)	2205 lbs
Utility Option (One Seat)	2110 lbs
USEFUL LOAD: (Approximate)	
Standard (Six Seats)	1095 lbs
Utility Option (One Seat)	1190 lbs
WING LOADING: Pounds/Sq Foot	19.0
POWER LOADING: Pounds/HP	11.6
FUEL CAPACITY: Total	
Standard Tanks	65 gal.
Optional Long Range Tanks	84 gal.
OIL CAPACITY: Total	13 qts.
PROPELLER: 3-Bladed Constant Speed, Diameter	80 in.
ENGINE:	
Continental Turbocharged Fuel Injection Engine	TSIO-520-C
285 rated HP at 2700 RPM and 32.5" MP	
WING SPAN	35 ft, 10 in.
LENGTH	28 ft, 3 in.
HEIGHT	9 ft, 7 1/2 in.

*Refer to page 3-3 for take-off data.
**Refer to page 3-4 for landing data.

FLOATPLANE

OPERATING CHECKLIST

BEFORE ENTERING THE FLOATPLANE.

(1) Inspect the floats and fairings for dents, cracks, scratches, etc.
(2) Remove rubber balls (which serve as stoppers on the standpipe in each float compartment) and pump out any accumulation of water. Reinstall rubber balls with enough pressure for a snug fit.

BEFORE STARTING ENGINE.

(1) Water Rudder Operation -- CHECK VISUALLY.
(2) Water Rudders -- DOWN for taxiing (retraction handle positioned full aft).

TAKE-OFF.

(1) Water Rudders -- UP (retraction handle full forward, stowage hook engaged).
(2) Wing Flaps -- 20°.
(3) Control Wheel -- HOLD FULL AFT.
(4) Power -- FULL THROTTLE and 2850 RPM (advance slowly).
(5) Control Wheel -- MOVE FORWARD when bow wave moves aft of wing strut position to attain planing attitude (on the step).
(6) Control Wheel -- APPLY LIGHT BACK PRESSURE to lift off.

NOTE

To reduce take-off water run, the technique of raising one float out of the water may be used. This procedure

is described in Section I under Take-Off.

(7) Climb Speed -- 85-95 MPH. With obstacles ahead climb at 71 MPH.
(8) Wing Flaps -- UP after all obstacles are cleared.

ENROUTE CLIMB.

NORMAL CLIMB.

(1) Airspeed -- 100-110 MPH.

MAXIMUM PERFORMANCE CLIMB.

(1) Airspeed--101 MPH (sea level) to 94 MPH (10,000 feet).

BEFORE LANDING.

(1) Water Rudders -- UP.
(2) Airspeed -- 80-90 MPH (wing flaps extended).

LANDING.

(1) Touchdown -- SLIGHTLY TAIL LOW.
(2) Control Wheel -- HOLD FULL AFT as floatplane decelerates to taxi speed.

AFTER LANDING.

(1) Water Rudders -- DOWN.

DESCRIPTION AND OPERATING DETAILS

THE FLOATPLANE.

The floatplane is identical to the landplane with the following exceptions:

(1) Floats, incorporating a water rudder steering system, replace the landing gear. A water rudder retraction handle, connected to the water rudders by cables, is located on the cabin floor between the front seats.
(2) Additional fuselage structure is added to support the float installation (includes removable cover panels for the nose gear opening).
(3) An additional structural "V" brace is installed between the top of the front door posts and cowl deck. When optional radio selector switches are installed, radio switch wiring beneath the cowl deck is altered.
(4) The airspeed indicator is replaced with an indicator having different airspeed markings, and the stall sensor is relocated.
(5) An enlarged rudder, and a redesigned vertical fin, tailcone stinger and flashing beacon installation replace the standard rudder, fin, stinger and flashing beacon.
(6) A ventral fin is installed at the rear of the tailcone on the bottom for additional directional stability.
(7) The standard propeller is replaced with a propeller of larger diameter (86 inches).
(8) The standard engine tailpipes are replaced with tailpipes having extensions for deflecting hot exhaust gases around the front float struts.
(9) Special cowl flap side extensions and cowl flap control linkage extensions are added to ensure proper engine cooling.
(10) A rudder trim system bungee with a lighter spring replaces the standard bungee.
(11) The wing flap limit switch is adjusted to restrict the maximum flap travel to 30°.
(12) Hoisting provisions are added to the top of the fuselage.
(13) Floatplane placards are added.
(14) The aircraft has additional corrosion-proofing and stainless steel control cables.
(15) The elevator trim tab rigging is changed to increase the maximum down travel.
(16) Fueling steps and assist handles are mounted on the forward

fuselage, and steps are mounted on the wing struts to aid in refueling the aircraft. Inboard fuel fillers are added when long range fuel tanks are installed.

NOTE

A 7.5 gallon reduction in usable fuel will result when inboard fillers are used to fill the fuel tanks.

WATER RUDDER STEERING SYSTEM.

Retractable water rudders, mounted at the aft end of each float, are connected by a system of cables and springs to the aircraft rudder pedals. When the water rudders are extended, normal pedal operation moves the water rudders to provide steering control for taxiing.

A water rudder retraction handle, located on the cabin floor between the front seats, is used to manually raise and lower the water rudders. During take-off, landing, and in flight, the retraction handle should be secured on the stowage hook located on the cabin floor just aft of the control pedestal. With the handle in this position, the water rudders are up. When the handle is removed from the hook and allowed to move full aft, the water rudders extend to the full down position for taxiing.

TAXIING.

Taxi with water rudders down. It is best to limit the engine speed to 1000 RPM for normal taxi because water piles up in front of the float bow at higher engine speeds. Taxiing with higher engine RPM may result in engine overheating and will not appreciably increase the taxi speed. In addition, it may lead to water spray striking the propeller tips, causing propeller tip erosion.

For minimum taxi speed in close quarters, use idle RPM with a single magneto. This procedure is recommended for short periods of time only.

Although taxiing is very simple with the water rudders, it is sometimes necessary to "sail" the floatplane under high wind conditions. In addition to the normal flight controls, the wing flaps, cabin door, and water rudders will aid in "sailing."

Rudder trim may be used to reduce rudder pedal forces while taxiing in crosswinds, or for extended sailing in one direction.

To taxi great distances, it may be advisable to taxi on the step with the water rudders retracted. Turns on the step may be made with safety providing they are not too sharp and if ailerons are used to counteract any overturning tendency.

TAKE-OFF.

The use of 20° wing flaps throughout the take-off run is recommended (take-off distances are given on figure 1-6).

Apply full throttle smoothly and hold the control wheel full aft. Watch the point where the bow wave leaves the float and move the control wheel forward slowly as this point moves aft of the wing strut. Slow control movement and light control pressures produce the best results. Attempts to force the aircraft into the planing attitude will generally result in loss of speed and delay in getting on the step. The aircraft will assume a planing attitude which permits acceleration to take-off speed (50 to 60 MPH) at which time the aircraft will fly off smoothly.

If lift off is difficult due to high lake elevation or glassy water, the following procedure is recommended: With the aircraft in the planing attitude, apply full aileron to raise one float out of the water. When one float leaves the water, apply slight elevator back pressure to complete the take-off. Care must be taken to stop the rising wing as soon as the float is clear of the water, and in crosswinds, raise only the downwind wing. With one float out of the water, the aircraft accelerates to take-off speed almost instantaneously.

If porpoising is encountered while on the step, apply additional control wheel back pressure to correct the excessively nose-low attitude.

For a crosswind take-off, start the take-off run with 20° wing flaps and the water rudders extended for better directional control. The water rudders are retracted when the aircraft is on the step; the remainder of the take-off is normal. If the floats are lifted from the water one at a time, the downwind float should be lifted first.

To clear an obstacle after take-off with 20° wing flaps, use an obstacle clearance speed of 73 MPH. Upon reaching a safe altitude and

airspeed, retract the wing flaps slowly, especially when flying over glassy water, because a loss of altitude is not very apparent over such a surface.

ENROUTE CLIMB.

Normal climbs are conducted at 100-110 MPH with wing flaps retracted and cowl flaps open as required for engine cooling. If maximum rate-of-climb performance is desired, climb at 101 MPH at sea level, with maximum continuous power (full throttle and 2700 RPM). Reduce this climb speed about 1/2 MPH for each 1000 feet above sea level.

To climb steeply over an obstacle with wing flaps retracted, use an obstacle clearance speed of 80 MPH.

NOTE

Steep climbs at this low speed should be of short duration to improve engine cooling.

CRUISE.

Observe the same engine operation limitations as for the landplane. Speed, range and endurance are shown on the Cruise Performance charts, figure 1-7.

NOTE

Range and endurance figures must be reduced to allow for a 7.5 gallon reduction in usable fuel when inboard fillers are used to fill the long range fuel tanks.

LANDING.

Power-off landings may be made with any wing flap setting. However, with glassy water it is recommended that a power approach and landing be made with 0° - 20° wing flaps at a low rate of descent.

BALKED LANDING.

In a balked landing (go-around) climb, the wing flap setting should be reduced to 20° immediately after full power is applied.

OPERATING LIMITATIONS

GROSS WEIGHT.

Floatplane	3500 lbs

AIRSPEED LIMITATIONS (CAS).

The following is a list of the certificated calibrated airspeed (CAS) limitations for the aircraft:

Never Exceed Speed (glide or dive, smooth air)	210 MPH
Maximum Structural Cruising Speed	170 MPH
Maximum Speed, Flaps Extended	
Flaps 10°	160 MPH
Flaps 10° - 30°	120 MPH
*Maneuvering Speed	138 MPH

*The maximum speed at which you may use abrupt control travel.

AIRSPEED INDICATOR MARKINGS.

The following is a list of the certificated calibrated airspeed markings (CAS) for the aircraft:

Never Exceed (glide or dive, smooth air)	210 MPH (red line)
Caution Range	170-210 MPH (yellow arc)
Normal Operating Range	68-170 MPH (green arc)
Flap Operating Range	61-120 MPH (white arc)

WEIGHT AND BALANCE.

The following information will enable you to operate your floatplane within the prescribed weight and center of gravity limitations. To figure weight and balance, use the Sample Loading Problem, Loading Graph, and Center of Gravity Moment Envelope in this section. Also, refer to

the Owner's Manual for diagrams showing Loading Arrangements, Internal Cabin Dimensions, and Cargo Loading.

Take the licensed empty weight and moment from appropriate weight and balance records carried in your airplane and write them down in the column titled YOUR AIRPLANE on the Sample Loading Problem.

NOTE

The licensed empty weight and moment are recorded on the Weight and Balance and Installed Equipment Data sheet, or on revised weight and balance records, and are included in the aircraft file. In addition to the licensed empty weight and moment noted on these records, the c.g. arm (fuselage station) is also shown, but need not be used on the Sample Loading Problem. The moment which is shown must be divided by 1000 and this value used as the moment/1000 on the loading problem.

Use the Loading Graph to determine the moment/1000 for each additional item to be carried; then list these on the loading problem.

NOTE

Loading Graph information for the pilot, passengers, and baggage or cargo is based on seats positioned for average occupants and baggage or cargo loaded in the center of these areas as shown in the Loading Arrangements diagram. For loadings which may differ from these, the Sample Loading Problem lists fuselage stations for these items to indicate their forward and aft c.g. range limitations (seat travel of adjustable seats or baggage-cargo area limitations). Additional moment calculations, based on the actual weight and c.g. arm (fuselage station) of the item being loaded, must be made if the position of the load is different from that shown on the Loading Graph. The arm for any location in the aircraft can be determined from the Internal Cabin Dimensions diagram. Multiply the weight of the object by the arm and divide by 1000 to get the moment/1000.

NOTE

Each loading should be figured in accordance with the above paragraph. When loading is light (such as pilot and copilot, and no rear seats or cargo), be sure to check the forward balance limits. When loading is heavy (near gross weight), be sure to check the aft balance limits.

To avoid time consuming delays in cargo and/or passenger shifting, plan your load so that the heaviest cargo and/or passengers are in the forward part of the aircraft, and the lightest in the rear. Always plan to have any vacant space at the rear of the aircraft. For example, do not have passengers occupy the aft seat unless the front and center seats are to be occupied.

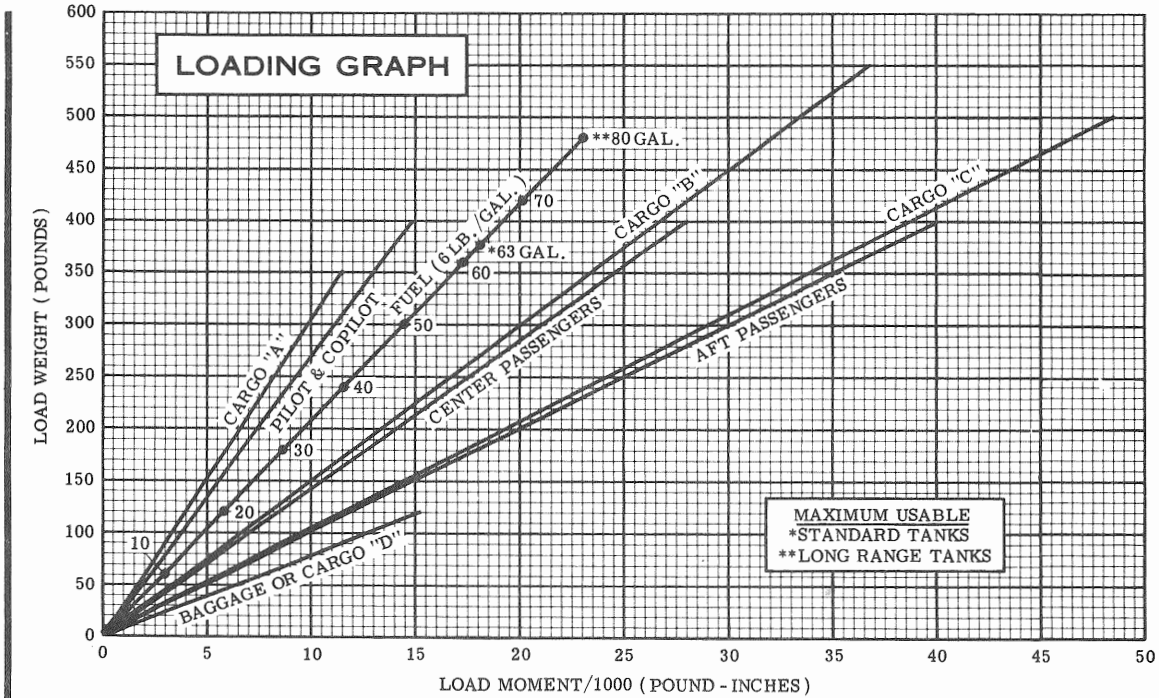
Total the weights and moments/1000 and plot these values on the Center of Gravity Moment Envelope to determine whether the point falls within the envelope, and if the loading is acceptable.

SAMPLE LOADING PROBLEM FLOAT PLANE	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb. -ins. /1000)	Weight (lbs.)	Moment (lb. -ins. /1000)
1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel) .	2308	92.2		
2. Oil (The weight of full oil may be used for all calculations): No Oil Filter: 12 Qts. = 22 Lbs. @-0.4 Moment/1000 . .	22	-0.4		
With Oil Filter: 13 Qts. = 24 Lbs. @-0.5 Moment/1000 .				
3. Usable Fuel (At 6 Lbs./Gal.) Standard Tanks (63 Gal. Maximum)				
Long Range Tanks (80 Gal. Maximum)	480	23.0		
4. Pilot and Copilot (Sta. 34 to 48)	340	12.6		
5. Center Passengers (Sta. 69 to 79)	340	23.8		
Aft Passengers (Sta. 92 to 100)				
Baggage IV (Sta. 109 to 145; 120 Lbs. Max)	10	1.3		
6. *Cargo "A" (Sta. 10 to 50)				
*Cargo "B" (Sta. 50 to 84)				
*Cargo "C" (Sta. 84 to 109)				
*Cargo "D" (Sta. 109 to 145)				
7. TOTAL WEIGHT AND MOMENT	3500	152.5		

8. Locate this point (3500 at 152.5) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.

*Maximum allowable cargo loads will be determined by the type and number of tie-downs used, as well as by the airplane weight and C. G. limitations. Floor loading must not exceed 200 lbs. per square foot.

Figure 1-1.



NOTES: (1) Lines representing adjustable seats show the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant c.g. range.

(2) Engine Oil: No oil filter; 12 Qts. = 22 Lbs. at -0.4 Moment/1000.
With optional oil filter; 13 Qts. = 24 Lbs. at -0.5 Moment/1000.

Figure 1-2.

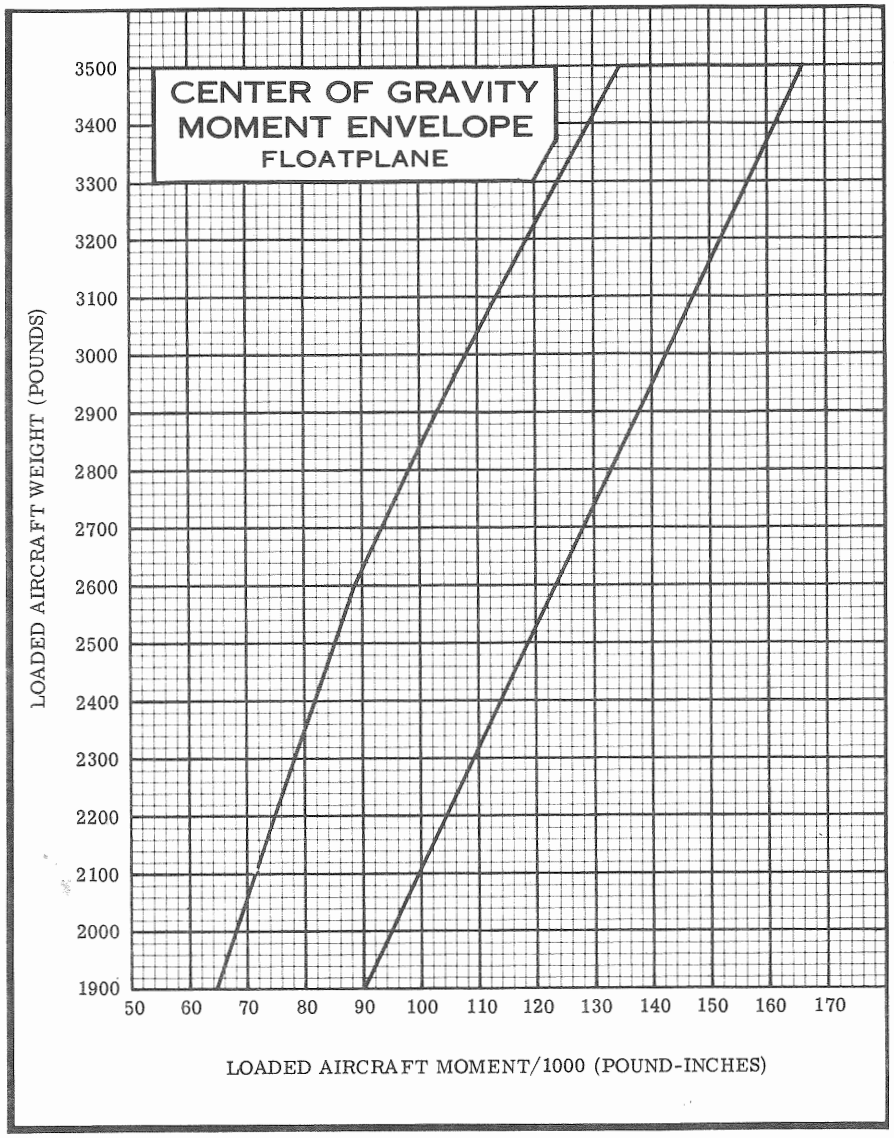


Figure 1-3.

OPERATIONAL DATA

In the Cruise Performance charts, figure 1-7, range and endurance are given for extended range mixture from 2500 feet to 10,000 feet. All figures are based on zero wind, 63 and 80 gallons of fuel for cruise, 3500 pounds gross weight, and standard atmospheric conditions.

Allowances for fuel reserve, headwinds, take-off and climb, and variations in mixture leaning technique should be made and are in addition to those on the charts. Other indeterminate variables such as fuel metering-characteristics, engine and propeller conditions, and turbulence of the atmosphere may account for variations of 10% or more in maximum range.

AIRSPEED CORRECTION TABLE
FLOATPLANE

FLAPS UP	IAS	60	80	100	120	140	160	180	---
	CAS	69	79	96	116	136	156	176	---
* FLAPS 20°	IAS	50	60	70	80	90	100	110	120
	CAS	62	65	73	81	90	99	108	118
* FLAPS 30°	IAS	50	60	70	80	90	100	110	120
	CAS	58	63	71	79	88	98	108	118

* MAXIMUM FLAP SPEED 120 MPH - CAS

Figure 1-4.

STALL SPEEDS - MPH CAS
FLOATPLANE

GROSS WEIGHT 3500 LBS.	ANGLE OF BANK			
CONFIGURATION	0°	20°	40°	60°
FLAPS UP	63	65	72	89
FLAPS 20°	58	60	67	82
FLAPS 30°	56	58	64	79

POWER OFF - AFT CG

Figure 1-5.

FLOATPLANE TAKE-OFF DATA
TAKE-OFF DISTANCE WITH 20° FLAPS FROM SHELTERED WATER

GROSS WEIGHT POUNDS	IAS @ 50 FT.	HEAD WIND KNOTS	AT SEA LEVEL & 59° F		AT 2500 FEET & 50° F		AT 5000 FEET & 41° F		AT 7500 FEET & 32° F	
			WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.
3500	73	0	1445	2475	1940	3290	2730	4665	4115	7360
		10	980	1830	1335	2455	1905	3530	2915	5655
		20	595	1270	835	1730	1220	2530	1905	4145
3000	68	0	870	1565	1115	1960	1475	2535	2015	3430
		10	565	1135	740	1430	995	1875	1385	2560
		20	325	760	440	975	605	1300	865	1805
2500	62	0	510	1005	635	1205	805	1475	1045	1855
		10	315	710	405	860	525	1065	690	1350
		20	170	460	220	565	295	710	405	915

NOTE: Increase distances 10% for each 20° F above standard temperature for particular altitude.

FLOATPLANE MAXIMUM RATE-OF-CLIMB DATA

GROSS WEIGHT POUNDS	AT SEA LEVEL & 59° F			AT 5000 FEET & 41° F			AT 10,000 FEET & 23° F			AT 15,000 FEET & 5° F		
	IAS MPH	RATE OF CLIMB FT/MIN.	GAL. OF FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S. L. FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S. L. FUEL USED	IAS MPH	RATE OF CLIMB FT/MIN.	FROM S. L. FUEL USED
3500	101	855	2.0	98	580	4.5	94	310	8.2	91	40	18.0
3000	98	1130	2.0	95	825	3.8	91	520	6.2	87	215	10.2
2500	95	1485	2.0	92	1135	3.3	88	785	4.9	82	440	7.2

NOTES:
1. Full throttle, 2700 RPM, mixture at recommended leaning schedule, flaps up.
2. With full throttle, 2850 RPM, mixture at recommended leaning schedule, rate-of-climb is increased by 30 ft./min.
3. Fuel used includes warm-up and take-off allowance.
4. For hot weather, decrease rate-of-climb 30 ft./min. for each 10° F above standard day temperature for particular altitude.

Figure 1-6.

CRUISE PERFORMANCE
FLOATPLANE

EXTENDED RANGE MIXTURE

Standard Conditions ↘ Zero Wind ↘ Gross Weight - 3500 Pounds

2500 FEET

RPM	MP	% BHP	TAS MPH	GAL/ HOUR	63 GAL (NO RESERVE) ENDR. HOURS	63 GAL (NO RESERVE) RANGE MILES	80 GAL (NO RESERVE) ENDR. HOURS	80 GAL (NO RESERVE) RANGE MILES
2550	24.5	76	145	15.9	4.0	575	5.0	730
	24	74	144	15.5	4.1	585	5.2	740
	23	70	141	14.6	4.3	605	5.5	770
	22	66	138	13.8	4.6	630	5.8	800
2500	25	76	145	15.9	4.0	575	5.0	730
	24	72	142	15.0	4.2	595	5.3	755
	23	68	139	14.2	4.4	615	5.6	785
	22	64	136	13.4	4.7	640	6.0	810
2400	25	71	141	14.8	4.2	600	5.4	765
	24	67	139	14.1	4.5	620	5.7	790
	23	63	136	13.3	4.7	640	6.0	815
	22	60	133	12.6	5.0	665	6.4	845
2300	25	67	138	14.0	4.5	625	5.7	795
	24	63	135	13.2	4.8	645	6.0	820
	23	59	132	12.5	5.0	665	6.4	845
	22	56	129	11.8	5.3	685	6.8	870
2200	25	61	134	12.9	4.9	655	6.2	830
	24	58	131	12.3	5.1	675	6.5	855
	23	55	128	11.7	5.4	690	6.9	880
	22	52	125	11.1	5.7	710	7.2	900
	21	48	121	10.4	6.0	730	7.7	930
	20	45	116	9.8	6.4	750	8.2	950
	19	42	111	9.2	6.9	765	8.7	970
	18	38	105	8.5	7.4	775	9.4	985

NOTE: Range and endurance figures must be reduced to allow for a 7.5 gallon reduction in usable fuel when inboard fillers are used to fill the fuel tanks.

Figure 1-7 (Sheet 1 of 4).

CRUISE PERFORMANCE
FLOATPLANE

EXTENDED RANGE MIXTURE

Standard Conditions ↘ Zero Wind ↘ Gross Weight - 3500 Pounds

5000 FEET

RPM	MP	% BHP	TAS MPH	GAL/ HOUR	63 GAL (NO RESERVE) ENDR. HOURS	63 GAL (NO RESERVE) RANGE MILES	80 GAL (NO RESERVE) ENDR. HOURS	80 GAL (NO RESERVE) RANGE MILES
2550	24.5	79	150	16.4	3.8	575	4.9	730
	24	77	149	16.0	3.9	585	5.0	745
	23	72	146	15.1	4.2	605	5.3	770
	22	68	143	14.3	4.4	630	5.6	800
2500	25	78	150	16.3	3.9	580	4.9	735
	24	74	147	15.5	4.1	600	5.2	760
	23	70	144	14.7	4.3	620	5.4	785
	22	66	141	13.9	4.5	640	5.8	815
2400	25	73	146	15.2	4.1	605	5.3	770
	24	69	144	14.5	4.3	625	5.5	795
	23	66	141	13.8	4.6	645	5.8	820
	22	62	138	13.0	4.8	665	6.2	845
2300	25	69	143	14.4	4.4	630	5.6	800
	24	65	140	13.6	4.6	645	5.9	820
	23	61	137	12.9	4.9	670	6.2	850
	22	58	134	12.2	5.1	690	6.5	875
2200	25	63	139	13.3	4.7	660	6.0	835
	24	60	136	12.7	5.0	675	6.3	860
	23	57	133	12.0	5.2	695	6.6	880
	22	54	129	11.4	5.5	715	7.0	905
	21	50	126	10.8	5.8	735	7.4	930
	20	47	121	10.2	6.2	750	7.9	955
	19	44	116	9.5	6.6	765	8.4	975
	18	40	110	8.9	7.1	780	9.0	990

NOTE: Range and endurance figures must be reduced to allow for a 7.5 gallon reduction in usable fuel when inboard fillers are used to fill the fuel tanks.

Figure 1-7 (Sheet 2 of 4).

CRUISE PERFORMANCE
FLOATPLANE

EXTENDED RANGE MIXTURE

Standard Conditions ⟍ Zero Wind ⟍ Gross Weight - 3500 Pounds

7500 FEET

RPM	MP	% BHP	TAS MPH	GAL/ HOUR	63 GAL (NO RESERVE) ENDR. HOURS	63 GAL (NO RESERVE) RANGE MILES	80 GAL (NO RESERVE) ENDR. HOURS	80 GAL (NO RESERVE) RANGE MILES
2550	22	71	148	14.8	4.3	630	5.4	800
	21	67	145	14.0	4.5	655	5.7	830
	20	62	141	13.1	4.8	680	6.1	860
	19	58	137	12.3	5.1	700	6.5	890
2500	22	69	147	14.4	4.4	645	5.6	815
	21	65	143	13.6	4.6	665	5.9	845
	20	60	139	12.7	4.9	690	6.3	875
	19	56	135	11.9	5.3	715	6.7	905
2400	22	64	143	13.4	4.7	670	6.0	850
	21	60	139	12.7	5.0	690	6.3	875
	20	57	135	12.0	5.3	710	6.7	905
	19	53	131	11.3	5.6	735	7.1	930
2300	22	60	139	12.7	5.0	690	6.3	880
	21	56	135	12.0	5.3	715	6.7	905
	20	53	131	11.3	5.6	735	7.1	930
	19	49	127	10.6	5.9	755	7.5	955
2200	22	55	134	11.8	5.3	720	6.8	910
	21	52	131	11.2	5.6	735	7.2	935
	20	49	126	10.6	6.0	755	7.6	955
	19	46	121	9.9	6.4	770	8.1	980
	18	42	115	9.3	6.8	785	8.6	995
	17	39	108	8.6	7.3	790	9.3	1005
	16	35	100	8.0	7.9	790	10.0	1005

NOTE: Range and endurance figures must be reduced to allow for a 7.5 gallon reduction in usable fuel when inboard fillers are used to fill the fuel tanks.

Figure 1-7 (Sheet 3 of 4).

CRUISE PERFORMANCE
FLOATPLANE

EXTENDED RANGE MIXTURE

Standard Conditions ⟍ Zero Wind ⟍ Gross Weight - 3500 Pounds

10,000 FEET

RPM	MP	% BHP	TAS MPH	GAL/ HOUR	63 GAL (NO RESERVE) ENDR. HOURS	63 GAL (NO RESERVE) RANGE MILES	80 GAL (NO RESERVE) ENDR. HOURS	80 GAL (NO RESERVE) RANGE MILES
2550	20	65	147	13.6	4.6	680	5.9	860
	19	61	143	12.8	4.9	705	6.3	895
	18	56	138	11.9	5.3	730	6.7	925
	17	52	133	11.1	5.7	750	7.2	955
2500	20	63	145	13.2	4.8	690	6.1	875
	19	59	141	12.4	5.1	715	6.5	910
	18	55	136	11.6	5.4	740	6.9	940
	17	50	130	10.8	5.8	760	7.4	965
2400	20	59	141	12.4	5.1	715	6.5	910
	19	55	137	11.7	5.4	735	6.9	935
	18	51	132	10.9	5.8	755	7.3	960
	17	47	126	10.2	6.2	775	7.9	985
2300	20	55	137	11.7	5.4	735	6.9	935
	19	51	132	11.0	5.7	755	7.3	960
	18	48	126	10.3	6.1	775	7.8	980
	17	44	120	9.6	6.6	790	8.3	1000
2200	20	51	131	10.9	5.8	755	7.3	960
	19	48	126	10.3	6.1	775	7.8	980
	18	44	121	9.6	6.5	785	8.3	1000
	17	41	113	9.0	7.0	795	8.9	1010
	16	37	105	8.3	7.6	795	9.6	1010

NOTE: Range and endurance figures must be reduced to allow for a 7.5 gallon reduction in usable fuel when inboard fillers are used to fill the fuel tanks.

Figure 1-7 (Sheet 4 of 4).

FLOATPLANE LANDING DISTANCE

LANDING DISTANCE WITH 30° FLAPS AND POWER OFF

GROSS WEIGHT POUNDS	APPROACH IAS MPH	@SEA LEVEL & 59°F		@ 2500 FEET & 50°F		@ 5000 FEET & 41°F		@ 7500 FEET & 32°F	
		WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.	WATER RUN	TOTAL TO CLEAR 50 FT. OBS.
3500	80	695	1570	735	1660	780	1760	825	1865

NOTE: Reduce landing distances 10% for each 4 knots headwind.

Figure 1-8.

SKIPLANE

OPERATING CHECKLIST

BEFORE ENTERING THE SKIPLANE.

(1) Check that the skis are not frozen to the snow or icy surface.
(2) Check hydraulic system for quantity, leakage, and skis and attachments for condition.
(3) Check weight and balance records, and load the aircraft to maintain the center of gravity within the designated limits.

BEFORE TAKE-OFF.

(1) Check that the ski movable plates are pumped to the maximum position.
(2) A full throttle RPM check is recommended only when the condition of the engine is in doubt. Due to the absence of brakes on the skiplane, this check is normally done during the initial portion of the take-off.

LANDING.

(1) Visually check position of the movable plates in the main wheel skis. If a wheels landing is intended, the movable plates should be full forward on the skis; when a landing on skis is intended, the movable plates should be positioned beneath the landing gear wheels.
(2) Check that the ski movable plates are pumped to the maximum position.
(3) The landing technique is conventional for all wing flap settings.

DESCRIPTION AND OPERATING DETAILS

THE SKIPLANE.

The skiplane is identical to the landplane with the following exceptions:

(1) Main and nose wheel skis are attached by tubular yokes to axle extensions on the main and nose wheels. The skis are designed with an opening in the bottom, and are mounted with the wheels protruding through the opening slightly below the skis. Slight swiveling of the yoke permits conversion from wheels to skis; conversion is accomplished by movement of a plate within the ski assembly. Ski alignment and stability are maintained by positioning bungees on each end of the main skis, and by a spring-loaded cylinder mechanism on the nose ski.

In the ski position, the wheels (both main and nose) rest on a movable plate in each ski. A hydraulic actuator on each ski moves the plates into position beneath the wheels by the operation of a hand-operated hydraulic pump. These plates then may be pumped back to the wheel position by repositioning the ski-wheel selector lever and pumping the plates in the skis forward. When the plates are full forward, the aircraft may be operated on bare runways. The transition from ski to wheel position, or conversely, from wheel to skis, may be made at any time the aircraft wheels are not rolling, both in the air and on icy or snow covered surfaces.

NOTE

Do not cycle skis while taxiing or while parked on abrasive surfaces.

(2) Special cowl flap side extensions and cowl flap control linkage extensions are added to ensure proper engine cooling.

SKI-WHEEL SELECTOR AND HAND PUMP.

Control and actuation of the skis is accomplished by means of a ski-wheel selector lever and a hand-operated hydraulic pump, both of which are contained in a pedestal mounted on the cabin floor just aft of the fuel selector valve.

The ski-wheel selector lever controls a three-position hydraulic valve. When the SKIS position is selected and the hand pump is actuated, the movable plates will move to a position beneath the wheels. When the WHEELS position is selected and the hand pump is actuated, the movable plates will be retracted from beneath the wheels. The neutral position is not used.

Conversion from wheels to skis (or skis to wheels) is accomplished as follows:

(a) Move selector lever to SKIS for operation on skis, or to WHEELS for operation on wheels.

(b) Operate hydraulic pump handle until it can no longer be moved (due to the buildup of hydraulic pressure when the ski actuators reach the end of their travel).

NOTE

The ski movable plates should be pumped to the maximum position prior to take-off or landing.

TAXIING.

Normal skiplane taxiing techniques are used. Due to the characteristics of nose ski steering, the minimum turning radius is increased as compared to landplane taxiing with the use of brakes. However, sharper turns on snow are possible by the use of differential main wheel and nose wheel extension. Differential extension of the main wheels is accomplished by holding toe brake pressure on the outside wheel and pumping the plates to the wheels position. Extending only the nosewheel (for better steering on snow) is done by holding both toe brakes and pumping the plates to the wheels position.

TAKE-OFF.

Under the most favorable conditions of smooth packed snow, skiplane take-off distance is approximately 10% greater than the distance for the landplane. Caution should be exercised in that other snow conditions will

usually increase this distance.

NOTE

Early nose ski lift-off decreases take-off distance.

ENROUTE CLIMB.

Skiplane airspeeds and techniques used during climb are identical to those used for the landplane. Climb performance is approximately 300 ft/min less than the landplane at the same weight and altitude.

CRUISE.

Skiplane speeds are 30 to 35 MPH slower than shown in the Owner's Manual for the landplane at the same altitude and power. Range can be determined approximately by subtracting the product of 35 × endurance (in hours) from the landplane range value.

LANDING.

The landing speeds for the skiplane are identical to those for the landplane. Under the most favorable conditions of smooth packed snow at temperatures of approximately 32°F., the skiplane landing distance is approximately 20% greater than that shown for a landplane. Caution should be exercised in that other temperatures or other snow conditions may either decrease or increase this distance.

BALKED LANDING.

In a balked landing (go-around) climb, the wing flap setting should be reduced to 20° immediately after full power is applied.

OPERATING LIMITATIONS

GROSS WEIGHT.

Skiplane . . . . . 3300 lbs

AIRSPEED LIMITATIONS (CAS).

The following is a list of the certificated calibrated airspeed (CAS) limitations for the aircraft:

Never Exceed Speed (glide or dive, smooth air)	210 MPH
Maximum Structural Cruising Speed	170 MPH
Maximum Speed, Flaps Extended	
Flaps 10°	160 MPH
Flaps 10° - 30°	120 MPH
*Maneuvering Speed	134 MPH

*The maximum speed at which you may use abrupt control travel.

WEIGHT AND BALANCE.

The following information will enable you to operate your skiplane within the prescribed weight and center of gravity limitations. To figure weight and balance, use the Sample Loading Problem, Loading Graph, and Center of Gravity Moment Envelope in this section. Also, refer to the Owner's Manual for diagrams showing Loading Arrangements, Internal Cabin Dimensions, and Cargo Loading.

Take the licensed empty weight and moment from appropriate weight and balance records carried in your airplane and write them down in the column titled YOUR AIRPLANE on the Sample Loading Problem.

NOTE

The licensed empty weight and moment are recorded on the Weight and Balance and Installed Equipment Data sheet, or on revised weight and balance records, and are included

in the aircraft file. In addition to the licensed empty weight and moment noted on these records, the c.g. arm (fuselage station) is also shown, but need not be used on the Sample Loading Problem. The moment which is shown must be divided by 1000 and this value used as the moment/1000 on the loading problem.

Use the Loading Graph to determine the moment/1000 for each additional item to be carried; then list these on the loading problem.

NOTE

Loading Graph information for the pilot, passengers, and baggage or cargo is based on seats positioned for average occupants and baggage or cargo loaded in the center of these areas as shown in the Loading Arrangements diagram. For loadings which may differ from these, the Sample Loading Problem lists fuselage stations for these items to indicate their forward and aft c.g. range limitations (seat travel of adjustable seats or baggage-cargo area limitations). Additional moment calculations, based on the actual weight and c.g. arm (fuselage station) of the item being loaded, must be made if the position of the load is different from that shown on the Loading Graph. The arm for any location in the aircraft can be determined from the Internal Cabin Dimensions diagram. Multiply the weight of the object by the arm and divide by 1000 to get the moment/1000.

NOTE

Each loading should be figured in accordance with the above paragraph. When loading is light (such as pilot and copilot, and no rear seats or cargo), be sure to check the forward balance limits. When loading is heavy (near gross weight), be sure to check the aft balance limits.

To avoid time consuming delays in cargo and/or passenger shifting, plan your load so that the heaviest cargo and/or passengers are in the forward part of the aircraft, and the lightest in the rear. Always plan to have any vacant space at the rear of the aircraft. For example, do not have passengers occupy the aft seat unless the front and center seats are to be occupied.

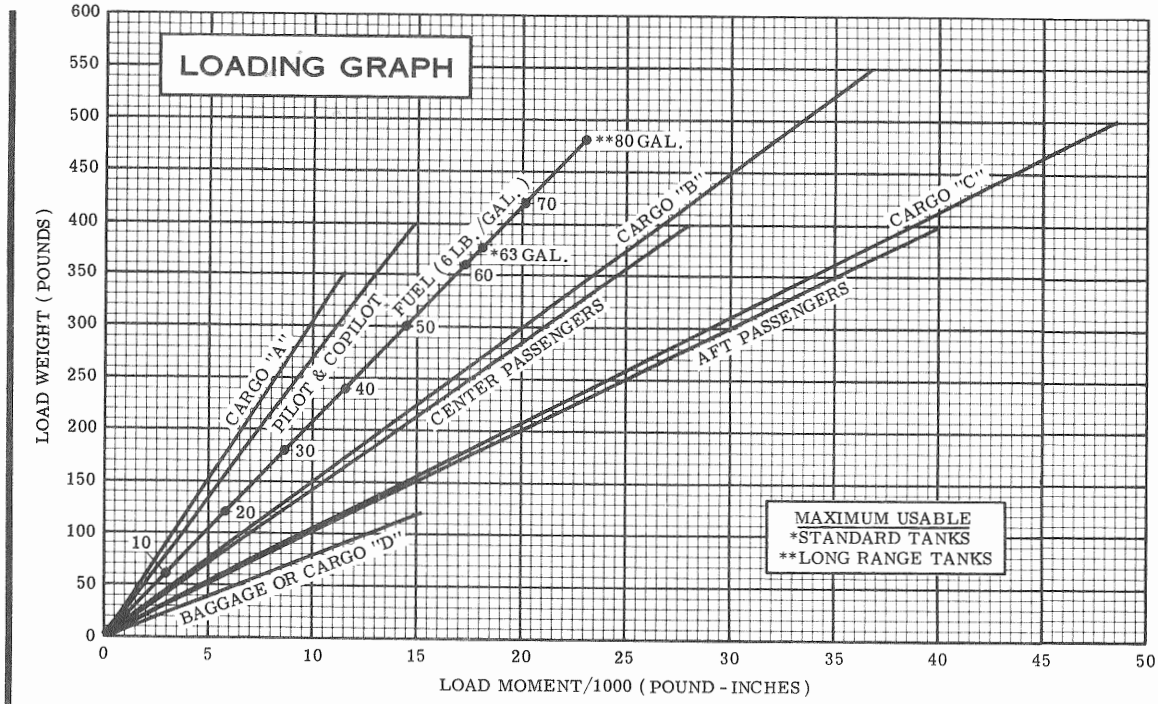
Total the weights and moments/1000 and plot these values on the Center of Gravity Moment Envelope to determine whether the point falls within the envelope, and if the loading is acceptable.

SAMPLE LOADING PROBLEM SKIPLANE	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb.-ins. /1000)	Weight (lbs.)	Moment (lb.-ins. /1000)
1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel)	2192	83.6		
2. Oil (The weight of full oil may be used for all calculations): No Oil Filter: 12 Qts. = 22 Lbs. @-0.4 Moment/1000	22	-0.4		
With Oil Filter: 13 Qts. = 24 Lbs. @-0.5 Moment/1000				
3. Usable Fuel (At 6 Lbs./Gal.) Standard Tanks (63 Gal. Maximum)	480	23.0		
Long Range Tanks (80 Gal. Maximum)	340	12.6		
4. Pilot and Copilot (Sta. 34 to 48)	170	11.9		
5. Center Passengers (Sta. 69 to 79)	96	12.2		
Aft Passengers (Sta. 92 to 100)				
Baggage IV (Sta. 109 to 145; 120 Lbs. Max.)				
6. *Cargo "A" (Sta. 10 to 50)				
*Cargo "B" (Sta. 50 to 84)				
*Cargo "C" (Sta. 84 to 109)				
*Cargo "D" (Sta. 109 to 145)				
7. TOTAL WEIGHT AND MOMENT	3300	142.9		

8. Locate this point (3300 at 142.9) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.

*Maximum allowable cargo loads will be determined by the type and number of tie-downs used, as well as by the airplane weight and C.G. limitations. Floor loading must not exceed 200 lbs. per square foot.

Figure 2-1.



NOTES: (1) Lines representing adjustable seats show the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant c.g. range.

(2) Engine Oil: No oil filter; 12 Qts. = 22 Lbs. at -0.4 Moment/1000.
With optional oil filter; 13 Qts. = 24 Lbs. at -0.5 Moment/1000.

Figure 2-2.

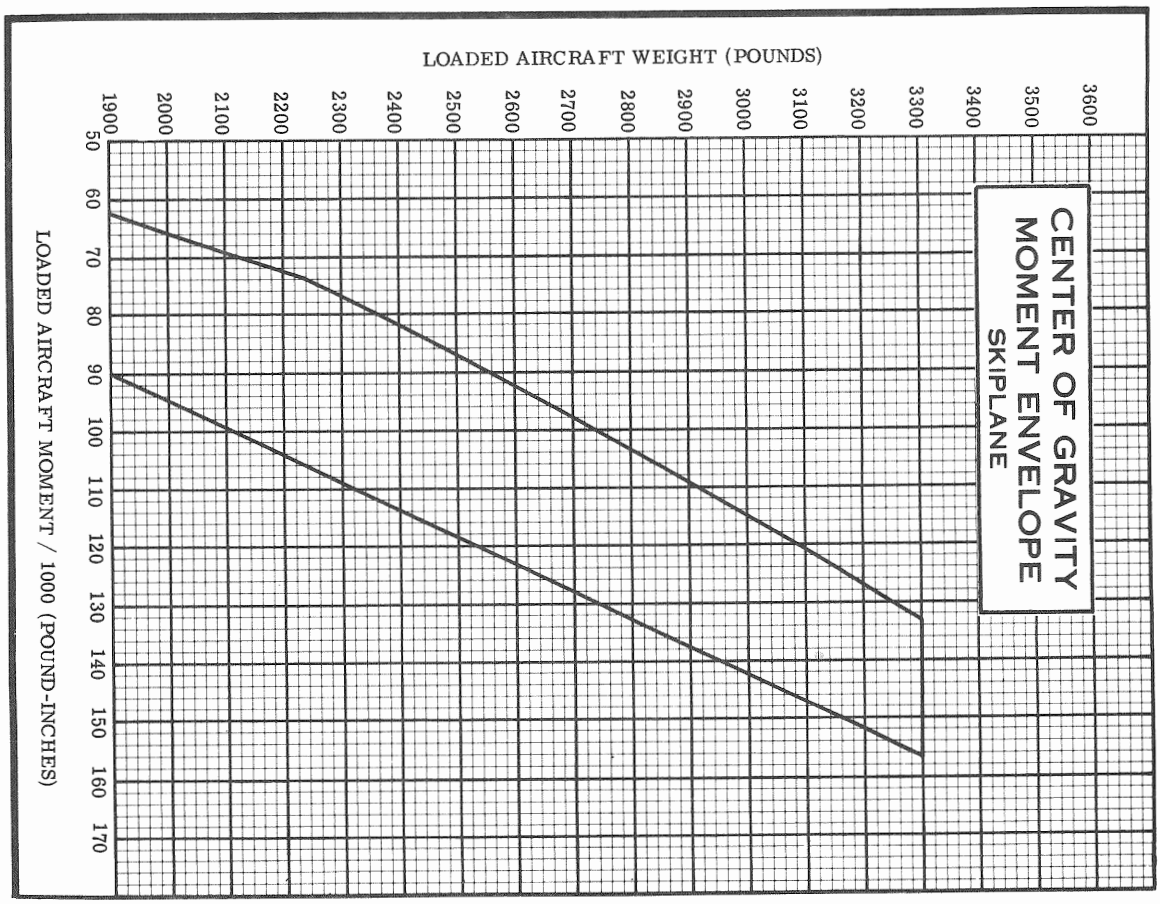


Figure 2-3.

SKIPLANE

OPERATING CHECKLIST

BEFORE ENTERING THE SKIPLANE.

(1) Check that the skis are not frozen to the snow or icy surface.
(2) Check hydraulic system for quantity, leakage, and skis and attachments for condition.
(3) Check weight and balance records, and load the aircraft to maintain the center of gravity within designated limits.

BEFORE TAKE-OFF.

(1) Check that the ski movable plates are pumped to the maximum position.
(2) A full throttle RPM check is recommended only when the condition of the engine is in doubt. Due to the absence of brakes on the skiplane, this check is normally done during the initial portion of the take-off.

LANDING.

(1) Visually check the position of the movable plates in the main wheel skis. If a wheels landing is intended, the movable plates should be full forward on the skis; when a landing on skis is intended, the movable plates should be positioned beneath the landing gear wheels.
(2) Check that the ski movable plates are pumped to the maximum position.
(3) The landing technique is conventional for all wing flap settings.

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THE SKIPLANE.

The skiplane is identical to the landplane with the following exceptions:

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In the ski position, the wheels (both main and nose) rest on a movable plate in each ski. A hydraulic actuator on each ski moves the plates into position beneath the wheels by the operation of a hand-operated hydraulic pump. These plates then may be pumped back to the wheel position by repositioning the ski-wheel selector lever and pumping the plates in the skis forward. When the plates are full forward, the aircraft may be operated on bare runways. The transition from ski to wheel position, or conversely, from wheel to skis, may be made at any time the aircraft wheels are not rolling, both in the air and on icy or snow covered surfaces.

NOTE

Do not cycle skis while taxiing or while parked on abrasive surfaces.

(2) Special cowl flap side extensions and cowl flap control linkage extensions are added to ensure proper engine cooling.

SKI-WHEEL SELECTOR AND HAND PUMP.

Control and actuation of the skis is accomplished by means of a ski-wheel selector lever and a hand-operated hydraulic pump, both of which are contained in a pedestal mounted on the cabin floor just aft of the fuel selector valve.

The ski-wheel selector lever controls a three-position hydraulic valve. When the SKIS position is selected and the hand pump is actuated, the movable plates will move to a position beneath the wheels. When the WHEELS position is selected and the hand pump is actuated, the movable plates will be retracted from beneath the wheels. The neutral position is not used.

Conversion from wheels to skis (or skis to wheels) is accomplished as follows:

(a) Move selector lever to SKIS for operation on skis, or to WHEELS for operation on wheels.

(b) Operate hydraulic pump handle until it can no longer be moved (due to the buildup of hydraulic pressure when the ski actuators reach the end of their travel).

NOTE

The ski movable plates should be pumped to the maximum position prior to take-off or landing.

TAXIING.

Normal skiplane taxiing techniques are used. Due to the characteristics of nose ski steering, the minimum turning radius is increased as compared to landplane taxiing with the use of brakes. However, sharper turns on snow are possible by the use of differential main wheel and nose wheel extension. Differential extension of the main wheels is accomplished by holding toe brake pressure on the outside wheel and pumping the plates to the wheels position. Extending only the nosewheel (for better steering on snow) is done by holding both toe brakes and pumping the plates to the wheels position.

TAKE-OFF.

Under the most favorable conditions of smooth packed snow, skiplane take-off distance is approximately 10% greater than the distance for the landplane. Caution should be exercised in that other snow conditions will usually increase this distance.

NOTE

Early nose ski lift-off decreases take-off distance.

ENROUTE CLIMB.

Skiplane airspeeds and techniques used during climb are identical to those used for the landplane. Climb performance is approximately 300 ft/min less than the landplane at the same weight and altitude.

CRUISE.

Skiplane speeds are 30 to 35 MPH slower than shown in the Owner's Manual for the landplane at the same altitude and power. Range can be determined approximately by subtracting the product of 35 × endurance (in hours) from the landplane range value.

LANDING.

The landing speeds for the skiplane are identical to those for the landplane. Under the most favorable conditions of smooth packed snow at temperatures of approximately 32°F., the skiplane landing distance is approximately 20% greater than that shown for a landplane. Caution should be exercised in that other temperatures or other snow conditions may either decrease or increase this distance.

BALKED LANDING.

In a balked landing (go-around) climb, the wing flap setting should be reduced to 20° immediately after full power is applied.

OPERATING LIMITATIONS

GROSS WEIGHT.

Skiplane . . . . . 3300 lbs

AIRSPEED LIMITATIONS (CAS).

The following is a list of the certificated calibrated airspeed (CAS) limitations for the aircraft:

Never Exceed Speed (glide or dive, smooth air)	210 MPH
Maximum Structural Cruising Speed	170 MPH
Maximum Speed, Flaps Extended	
Flaps 10°	160 MPH
Flaps 10° - 30°	120 MPH
*Maneuvering Speed	134 MPH

*The maximum speed at which you may use abrupt control travel.

WEIGHT AND BALANCE.

The following information will enable you to operate your skiplane within the prescribed weight and center of gravity limitations. To figure weight and balance, use the Sample Loading Problem, Loading Graph, and Center of Gravity Moment Envelope in this section. Also, refer to the Owner's Manual for diagrams showing Loading Arrangements, Internal Cabin Dimensions, and Cargo Loading.

Take the licensed empty weight and moment from appropriate weight and balance records carried in your airplane and write them down in the column titled YOUR AIRPLANE on the Sample Loading Problem.

NOTE

The licensed empty weight and moment are recorded on the Weight and Balance and Installed Equipment Data sheet, or on revised weight and balance records, and

are included in the aircraft file. In addition to the licensed empty weight and moment noted on these records, the c.g. arm (fuselage station) is also shown, but need not be used on the Sample Loading Problem. The moment which is shown must be divided by 1000 and this value used as the moment/1000 on the loading problem.

Use the Loading Graph to determine the moment/1000 for each additional item to be carried; then list these on the loading problem.

NOTE

Loading Graph information for the pilot, passengers, and baggage or cargo is based on seats positioned for average occupants and baggage or cargo loaded in the center of these areas as shown in the Loading Arrangements diagram. For loadings which may differ from these, the Sample Loading Problem lists fuselage stations for these items to indicate their forward and aft c.g. range limitations (seat travel of adjustable seats or baggage-cargo area limitations). Additional moment calculations, based on the actual weight and c.g. arm (fuselage station) of the item being loaded, must be made if the position of the load is different from that shown on the Loading Graph. The arm for any location in the aircraft can be determined from the Internal Cabin Dimensions diagram. Multiply the weight of the object by the arm and divide by 1000 to get the moment/1000.

NOTE

Each loading should be figured in accordance with the above paragraph. When loading is light (such as pilot and copilot, and no rear seats or cargo), be sure to check the forward balance limits. When loading is heavy (near gross weight), be sure to check the aft balance limits.

To avoid time consuming delays in cargo and/or passenger shifting, plan your load so that the heaviest cargo and/or passengers are in the forward part of the aircraft, and the lightest in the rear. Always plan to have any vacant space at the rear of the aircraft. For example, do not have passengers occupy the aft seat unless the front and center seats are to be occupied.

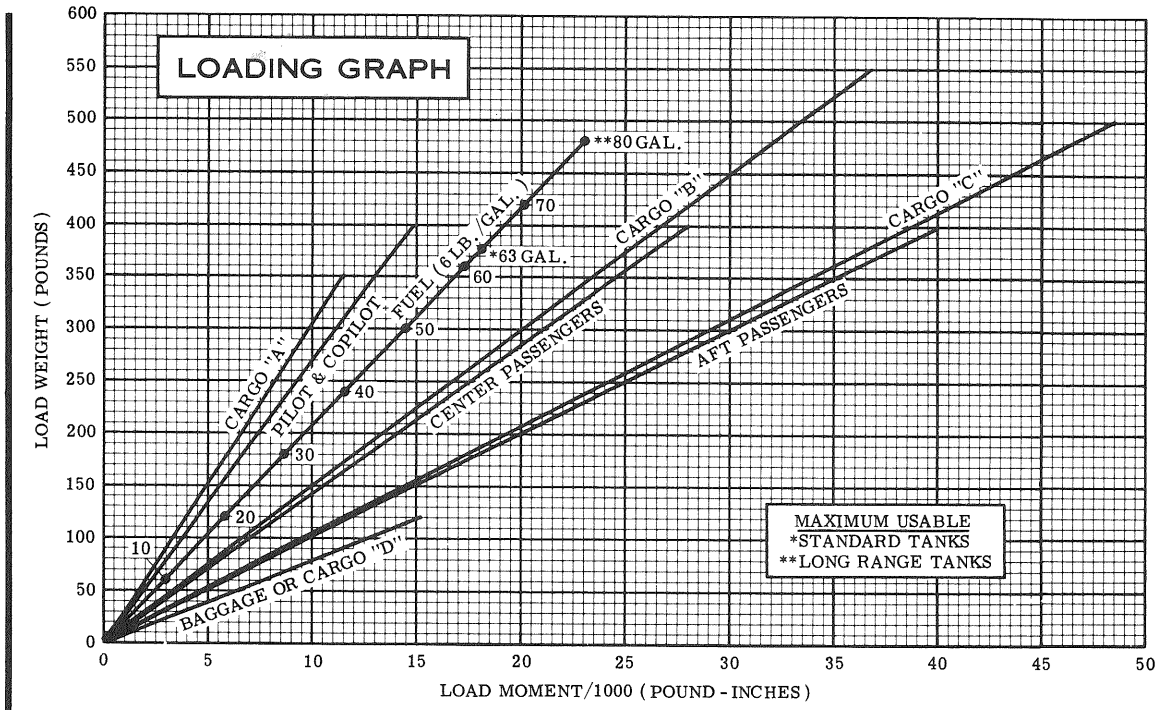
Total the weights and moments/1000 and plot these values on the Center of Gravity Moment Envelope to determine whether the point falls within the envelope, and if the loading is acceptable.

SAMPLE LOADING PROBLEM SKIPLANE	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb.-ins. /1000)	Weight (lbs.)	Moment (lb.-ins. /1000)
1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel)	2291	88.1		
2. Oil (13 Qts. - The weight of full oil may be used for all calculations. 13 Qts. = 24 Lbs. at -0.5 Moment/1000)	24	-0.5		
3. Usable Fuel (At 6 Lbs./Gal.) Standard Tanks (63 Gal. Maximum)	480	23.0		
Long Range Tanks (80 Gal. Maximum)	340	12.6		
4. Pilot and Copilot (Sta. 34 to 48)				
5. Center Passengers (Sta. 69 to 79)				
Aft Passengers (Sta. 92 to 100)	120	15.2		
Baggage IV (Sta. 109 to 145; 120 Lbs. Max.)				
6. *Cargo "A" (Sta. 10 to 50)				
*Cargo "B" (Sta. 50 to 84)	45	4.3		
*Cargo "C" (Sta. 84 to 109)				
*Cargo "D" (Sta. 109 to 145)				
7. TOTAL WEIGHT AND MOMENT	3300	142.7		

8. Locate this point (3300 at 142.7) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.

*Maximum allowable cargo loads will be determined by the type and number of tie-downs used, as well as by the airplane weight and C.G. limitations. Floor loading must not exceed 200 lbs. per square foot.

Figure 3-1.



NOTES: (1) Lines representing adjustable seats show the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant c.g. range.
(2) Engine Oil: 13 Qts. = 24 Lbs. at -0.5 Moment/1000.

Figure 3-2.

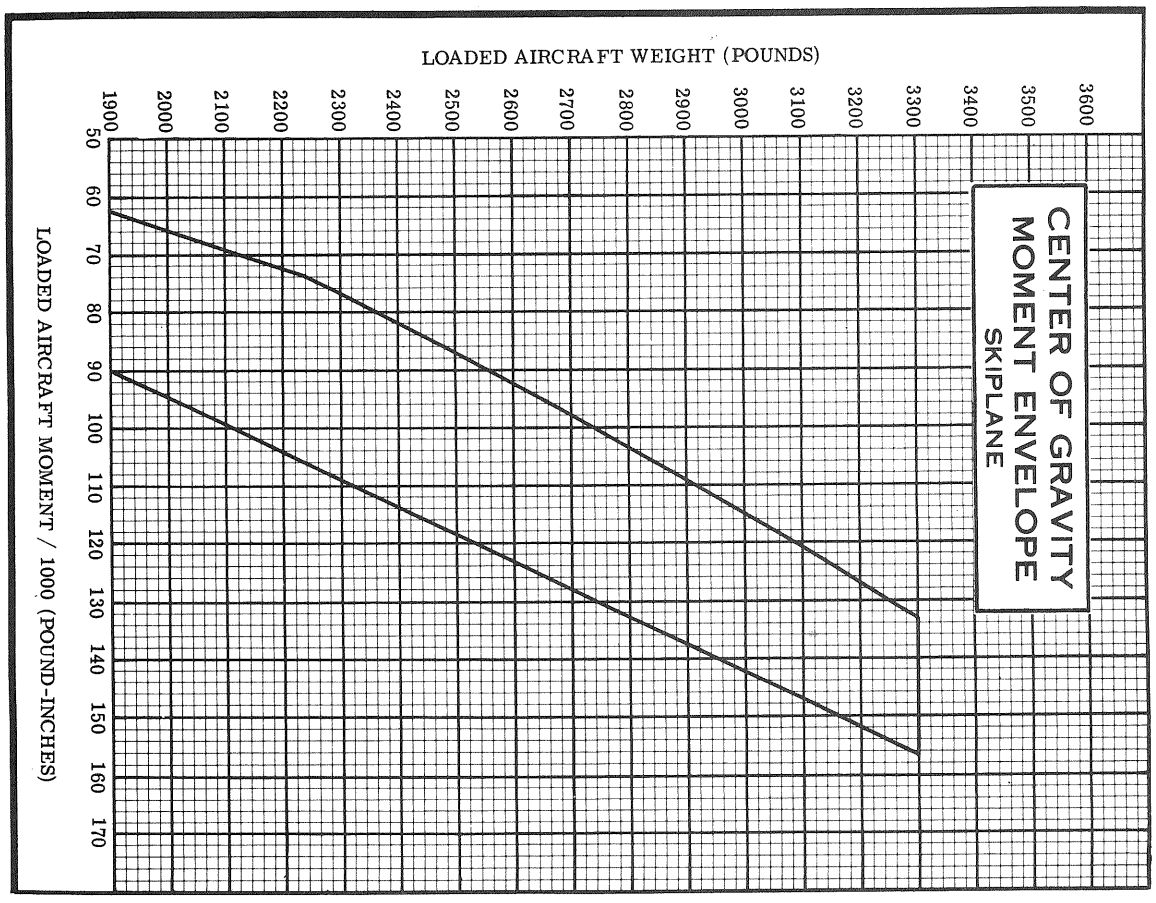


Figure 3-3.

REVISED FUEL QUANTITY DATA

STATIONAIR
TURBO STATIONAIR

1973 AIRCRAFT (SERIAL U20602127 AND ON)
1974 AIRCRAFT (ALL SERIALS)
1975 AIRCRAFT (ALL SERIALS)

Due to changes in fuel tank manufacturing technique, the fuel systems in the above noted airplanes have been found to contain less than the capacity published in the Owner's Manuals for landplanes and Owner's Manual Supplements for floatplanes and skiplanes. Data in these manuals indicates total usable capacities of 63 gallons for standard tanks and 80 gallons for long range tanks; the usable capacity per tank is shown to be 31.5 gallons and 40 gallons respectively.

All fuel capacity references in Owner's Manuals and Supplements for these airplanes should be marked to reflect the capacities in the chart below.

	TOTAL BOTH TANKS	USABLE BOTH TANKS	TOTAL PER TANK	USABLE PER TANK
CAPACITY (STANDARD TANKS)	61 Gal.	59 Gal.	30.5 Gal.	29.5 Gal.
CAPACITY (LONG RANGE TANKS)	80 Gal.	76 Gal.	40 Gal.	38 Gal.

When figuring weight and balance data, consideration should be given to the reduction in weight and change in moment/1000 which results from a reduced fuel capacity.

For quick re-computation of cruise performance data, use the information in the Cruise Performance charts provided in Owner's Manuals and Supplements by multiplying the ENDR. HOURS and RANGE MILES figures by 0.93 (for standard tank values) or 0.95 (for long range tank values); this will provide conservative endurance and range based on the reduced fuel capacities.

Pages in the Owner's Manuals or Supplements which are affected by the change in fuel capacity are listed in the chart below.

MANUAL	PAGES AFFECTED														
1973 STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-16	4-6	4-8	5-8	6-4	6-5	6-6	6-7	6-8	7-1	Inside Cover	–
1973 TURBO STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-25	4-6	4-8	5-8	6-5	6-6	6-7	6-8	6-9	6-10	7-1	Inside Cover
1973 STATIONAIR & TURBO FLOAT, SKI SUPPL.	Inside Cover	i	1-10	1-11	1-13	1-16 thru 1-19	2-4	2-7	2-8	3-10	3-11	3-13	3-17 thru 3-22	4-7	4-8
1974 STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-3	2-15	2-16	4-6	4-8	6-4	6-5	6-6	6-7	6-8	Inside Cover	–
1974 TURBO STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-3	2-25	4-6	4-8	6-5	6-6	6-7	6-8	6-9	6-10	Inside Cover	–
1974 STATIONAIR & TURBO FLOAT, SKI SUPPL.	Inside Cover	i	1-10	1-11	1-13	1-16	1-17	1-18	1-19	2-4	2-7	2-8	3-7	3-8	–
1975 STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-3	4-6	4-8	6-4	6-5	6-6	6-7	6-8	Inside Cover	–	–	–
1975 TURBO STATIONAIR OWNER'S MANUAL	Inside Cover	2-1	2-2	2-3	4-6	4-8	6-5	6-6	6-7	6-8	6-9	6-10	Inside Cover	–	–
1975 STATIONAIR & TURBO FLOAT, SKI SUPPL.	Inside Cover	i	1-10	1-11	1-13	1-16	1-17	1-18	1-19	2-7	2-8	3-7	3-8	–	–

THIS ADHESIVE BACKED STICKER IS TO BE ATTACHED TO ANY BLANK PAGE IN YOUR MANUAL FOR FUTURE REFERENCE.

REFERENCE SERVICE LETTER SE 75 – 7