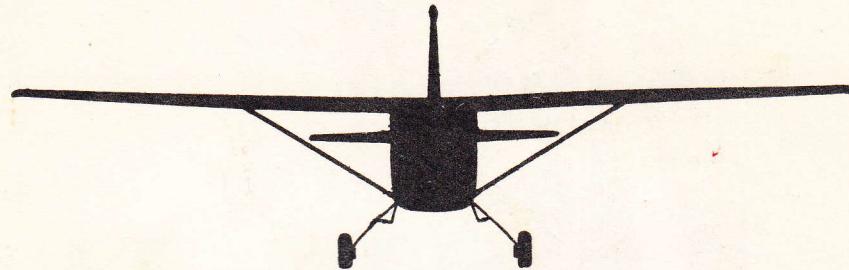


180-182

FACTS



A COMPREHENSIVE OUTLINE OF TECHNICAL DATA
COVERING ALL MODELS OF THE CESSNA 180 - 182
SKYLINE AIRCRAFT FOR THE YEARS 1953 THROUGH
1964.

180-182

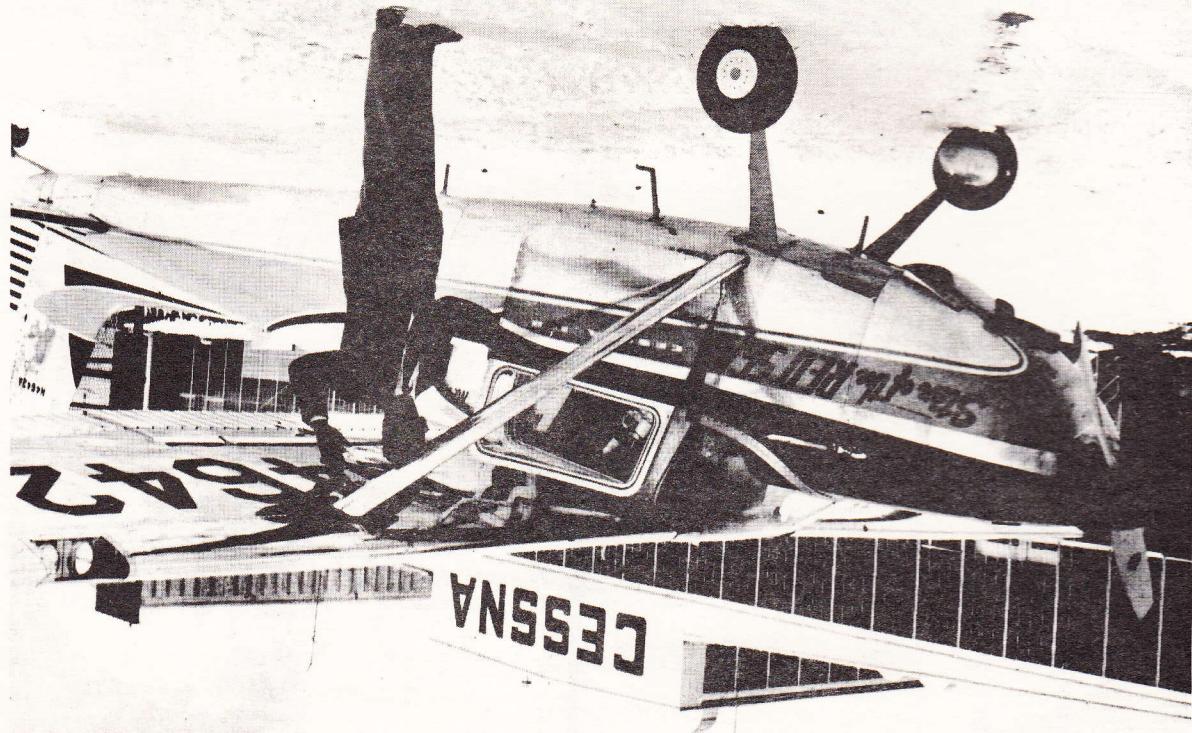
F A C T S

by

Charles H. Taft

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CAPT. BILL JUDD, NON-STOP NEW YORK TO PARIS, JANUARY 1956



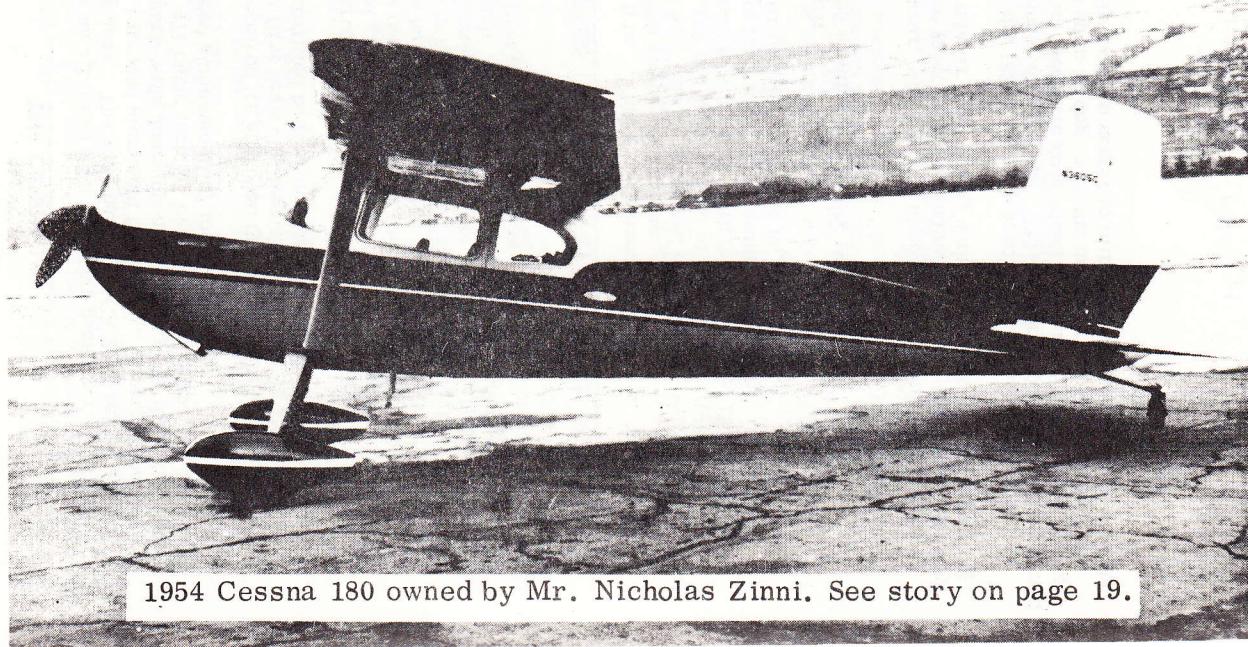
ABOUT THE AUTHOR

The author of this book, "Chuck" Taft, a licensed A. & P. mechanic with FAA inspector's rating, flies a 1953 Cessna 180 for company business. He is a graduate of the Academy of Aeronautics at La Guardia Airport in New York and has been a licensed aircraft mechanic for over ten years. Since graduation, he has had continuous experience in the service and maintenance of single engine and light twin aircraft and is at present a pilot and chief mechanic for Genesee Aviation of Dansville, New York. He has been a licensed pilot since 1956 and personally test flights all aircraft that have undergone major repairs or modifications under his supervision.

The author has no affiliation with the Cessna Aircraft Company of Wichita, Kansas and owns no stock in the corporation but is fond of Cessna products and the 180 in particular.

The technical data in this booklet has been very carefully checked and it is hoped that no significant errors are present. However, in no case should it be used in place of an appropriate Owner's Manual and no responsibility is assumed to any person or persons in connection with the use of the data in this booklet.

EMPIRE CITY DIRECTORIES
April 10, 1964



1954 Cessna 180 owned by Mr. Nicholas Zinni. See story on page 19.

Cover photo - 1953 model Cessna 180, serial No. 30,004, the fourth production model Cessna 180 built. This plane is owned by Genesee Aviation of Dansville, New York and is flown by the author on business. It still gives excellent service, has outstanding short-field performance, and good cross country speed. For example--recent trip Dansville, N.Y. to Ocala, Fla.--7 hrs. 50 min. --one gas stop.

THE CESSNA 180

The Cessna 180 is an all metal high wing four passenger plane with a fixed conventional landing gear. The wing has an NACA 2412 series airfoil section and uses a single extruded aluminum front strut. A semi-monocoque fuselage is used and two yard-wide doors open on each side of the cabin. All models are powered by a 471 cubic inch six cylinder Continental air-cooled engine with a constant speed aluminum alloy metal propeller.

The Cessna 180 received its approved type certificate (#5A6) on December 23, 1952. The first dealer deliveries were early in 1953. The first production models were certified both as land and sea planes.

The 180 was constructed for both strength and durability. It gives excellent speed for a fixed gear aircraft and is well known for its exceptionally high performance. It has outstanding ability for getting a heavy load off the ground and to altitude in a hurry. Actually the 180 will climb from sea level to 20,000 feet in about 45 minutes. (Whereas airline pilots figure that good time to 20,000 feet in a Connie or DC-6 is about 1 hour). As to its durability, there has never been a single AD Bulletin concerning the airframe structure of the Cessna 180 since the first production models were built in 1953.

SPECIFICATIONS TO ALL OR MOST OF THE 180 SERIES

Length 25 ft. 6 in. This is increased to 27 ft. 4 in. beginning with 1960 swept-tail Skylane.

Height 7 ft. 6 in. This is increased to 9 ft. 4 in. with the 1956 model 182 and reduced to 8 ft. 6 in. in 1957. It is increased to 9 ft. 6 in. with the 1960 model 182-Skylane and was lowered to the present 9 ft. in 1961. (The model 180 still remains at 7 ft. 6 in.).

Wing Span 36 ft.
Wing Area 175 sq. ft.
Landing Speed about 55 mph for all models 1953-64.

Landing Gear

The main landing gear, which is fabricated from chrome-vanadium spring steel, is probably the most forgiving and maintenance-free in the industry. The tail wheel features a tubular steel spring with a steerable and full swiveling pneumatic tire and wheel.

Beginning in 1956, the 182 tricycle-gearred version was certified and marketed as a logical companion to the 180. This incorporated a firewall-mounted air-oil oleo shock strut with steerable nose wheel. The nose wheel gives 10 deg. rudder pedal steering and up to 20 deg. with the use of brakes. After take-off, the nose gear automatically locks on center to eliminate drag and assure straight landings.

Fuel Tanks

The fuel system is a simple gravity-flow type with wing mounted fuel cells. Standard gas capacity is 60 gals. total for the 1953-56 models and the standard capacity is 65 gals. for the 1957-64 models. In 1962 large optional tanks totaling 84 gals. were offered for the first time.

The 1953 through 1961 models have a single outlet in each tank. Beginning with the 1962 models two fuel pickups are used in each fuel cell, fore and aft, rather than one. Addition of this second fuel outlet in each wing cell has the effect of giving less unusable fuel in some of the adverse attitudes of flight. The fuel outlets are coupled through a four position selector valve and both tanks can be used at once or each separately. The fourth position is off.

Due to the high angle of climb and descent possible and being of the gravity feed type, the useable fuel of these tanks has to be rated as to all attitudes of flight. This causes confusion as some models are listed as carrying up to 5 gals. of fuel in each tank as unusable. This is true only in very unusual attitudes.

In level or normal flight, the 180-82 series will use all but 1-1/2 gals. of fuel from each cell. Most of this could actually be used in an emergency by flying with one wing and then the other high to allow this fuel to run to the pickup area. In 1957 the gross weight of the 180-82 aircraft was increased by 100 lbs and the fuel capacity increased from the original 60 gals. (30 per wing) to 65 gals. total. Due to the new all attitude requirement, the useable fuel was rated at 55 gals. Since unusable fuel is part of the aircraft's empty weight, it may be noted that the empty weight appears to have increased by about 50 lbs. and the useful load gain only 50 lbs. in the 1957 model--when actually the useful load is really increased about 100 lbs. except in unusual flight attitudes.

Engines

Continental O-470-A, rated at 225 hp continuous @ 2600 rpm. Octane 80/87 Comp. ratio 7-1. Dry weight about 378 lbs.

Continental O-470-J, rated at 225 hp continuous @ 2550 rpm. Octane 80/87 Comp. ratio 7-1. Dry weight about 378 lbs.

Continental O-470-K*, rated at 230 hp continuous @ 2600 rpm. Octane 80/87 Comp. ratio 7-1. Dry weight about 404 lbs.

Continental O-470-L, rated at 230 hp continuous @ 2600 rpm. Octane 80/87 Comp. ratio 7-1. Dry weight about 404 lbs. This engine is exactly the same as the O-470-K except for slight changes made mostly in the design of the oil pan and location of the carburetor to allow the nose wheel mechanism of the 182.

Continental O-470-R, rated at 230 hp continuous @ 2600 rpm. Octane 80/87 Comp. ratio 7-1. Dry weight about 404 lbs.

*The O-470-K, L, and R engines are eligible for incorporation of the Continental motors continuous flow fuel injection system.

180 179 " rotating baseon

Wing Flaps

Large single-slotted Fowler type "Para-Lift" flaps are used on all models. They increase the size of the wing as well as the camber. At half-flaps, excellent lift is obtained and at full 40 deg. flaps, a very high rate of sink is possible. An experienced pilot can easily land a fully loaded 180 on a football field.

The flaps are operated by a single manual lever and maximum flap lowering speed is 100 mph on all models except for the 1964 models which allow 110 mph. In 1962 electric motor operated flaps were used for the first time on the 182-Skylane models, but the 180 retained its manual control lever.

Floats and Skis

All models of the Cessna 180, including the original 1953 model, are approved for Edo floats (Edo model No. 44-2425 and Edo model No. 249-2870). In 1955 the Edo Corporation introduced an amphibious model which could be installed on any 180. The Cessna 180 was the first aircraft of a four place type ever to be approved for use with retractable gear amphibious floats.

Multiple standard ski installations are approved. This includes the Federal A3500A standard model and Federal AWB2500A wheel-ski combination (hydraulic operated). Wesco and Woychik skis are also approved.

Miscellaneous

Miscellaneous approved items for most of these aircraft include an 18 gal. Javelin baggage compartment fuel tank, camera installations, and the Alcor "Cargomore" utility door. The Whitaker model L-19 tandem gear utilizing dual wheels is approved for operation of the Cessna 180 on rough terrain. Crosswind gear and the Geiss safety gear are approved. Several autopilots including the Lear L-2, Arcon, Brittain, and Tactair are approved.

MODEL SPECIFICATIONS

1955	1954
180	180
Top speed	170 mph
Max. cruise	160 mph
Rate of climb	1150 fpm
Service ceiling	20,000 ft
Empty weight*	1500 lbs
Gross weight	2550 lbs
Useful load*	1050 lbs
Engine	O-470-A
Wing loading (lbs/sq. ft)	14.6
Power loading(lbs/hp)	11.3
	11.3

*Empty weight and useful loads are approximate on all models

1953 Model 180

Comments

Serial numbers 30,000 through 30,702.

The baggage capacity is 120 lbs and this is the same in all later models. The 1953 model did not have an outside baggage door and the only access to the baggage compartment was over the fold-down backseats. Controllable cow flaps are standard on the model 180 and a large access door is standard on each side of the cowling. Engine exhaust is through dual mufflers--one of which is shrouded for carburetor heat and one for cabin heat. (A Stewart-Warner gasoline heater was optional through 1955). Fuel guages are direct reading mechanical type.

1953 Model 180 Improvements and New Features

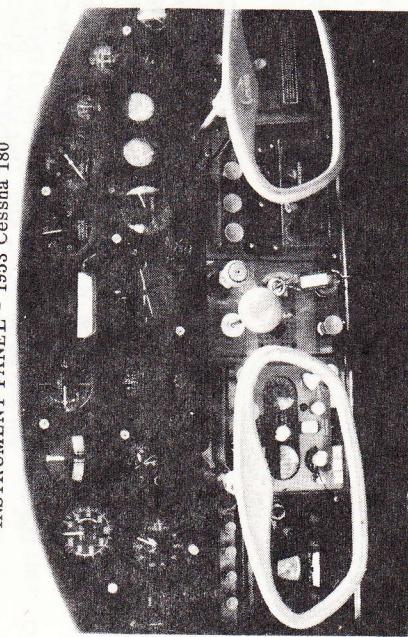
Serial numbers 30,703 through 31,260.

1. An outside baggage door was added, measuring approximately 15 x 22 in., allowing access to the baggage area without going over the rear seat. This is a big improvement since heavy suitcases and large parcels are much easier loaded from outside the plane. This baggage door is standard also in all succeeding models.

1954 Model 180 Improvements and New Features

Serial numbers 31,261 through 32,218.

1. A slower turning engine, the O-470-J, was standard, producing the same horsepower as in the previous model, but at fewer rpm's. The main wheels were moved 3 inches further ahead for improved braking and ground handling. This was done by changing the rake (forward angle) of the spring steel gear.
2. New heavier 1/4 inch thick windshield for better sound-proofing and extra fiberglass sound-proofing was added to the cabin and wing-butt areas.
3. Fresh air inlets were moved further out on the leading edge of the wing. This placed them outside of the propeller slip-stream and lowered the noise level in the cabin.



INSTRUMENT PANEL - 1953 Cessna 180

	1956	1957	1957
	180	182	182
Top speed	170 mph	168 mph	165 mph
Max. cruise	160 mph	158 mph	160 mph
Rate of climb	1200 fpm	1100 fpm	1130 fpm
Service ceiling	21,500 ft	19,000 ft	21,500 ft
Empty weight	1505 lbs	1510 lbs	1555 lbs
Gross weight	2550 lbs	2550 lbs	2650 lbs
Useful load	1045 lbs	1040 lbs	1095 lbs
Engine	O-470-K	O-470-L	O-470-K
Wing loading (lbs/sq.ft)	14.6	14.6	15.1
Power loading (lbs/hp)	11.1	11.1	11.5

1956 Models 180-182 Improvements and New Features

Serial numbers 32, 219 through 32, 661 for Model 180.

Serial numbers 33, 000 through 33, 842 for Model 182.

1. The Cessna 182 featuring a tricycle gear was offered for the first time.

The 182 is essentially the same basic aircraft as the 180 with the main gear supporting structure moved rearward and a firewall mounted nose gear added. The early 182 had the most ground clearance of any of the succeeding models. (The later models were lowered slightly for improved cross-wind handling). The cowling for the 182 differed slightly from the 180 in that it did not incorporate controllable cowl flaps. A new engine was used for the 1956 models--the O-470-K for the 180 and the O-470-L for the 182--both of which are essentially the same and both developing 230 hp at 2600 rpm. These engines featured larger shell cast cylinder heads having thinner and more numerous fins--for cooler operation. Additional dynamic dampeners were used and these plus revised engine mounts produced a much smoother, quieter, vibration-free engine operation.

2. The engine cowling was redesigned for both models by adding a carburetor air scoop at the bottom--this gives more engine power from the ram-air effect and is said to give up to 1 1/4 inch more manifold pressure at high altitude than the previous arrangement.

3. The engine cowling was redesigned for both models by adding a carburetor air scoop at the bottom--this gives more engine power from the ram-air effect and is said to give up to 1 1/4 inch more manifold pressure at high altitude than the previous arrangement.

4. A new large stainless steel single muffler was used for the first time with separate compartments within the muffler for carburetor heat and cabin heat. This had a long single exhaust stack at the lower left side of the engine cowl.

5. The tail wheel was modified on the 180 to give more steering ability.

1957 Models 180-182 Improvements and New Features

Serial numbers 32, 662 through 32, 999 and 50, 000 through 50, 105 for Model 180.

Serial numbers 33, 843 through 34, 753 for Model 182.

1. The gross weight was increased 100 lbs.
2. A fuel strainer drain control was added to the inside for ease of draining fuel without having to reach under the cowl.
3. Instrument panel rearranged and new electric fuel guages used for the first time. Engine instruments used were smaller non-standard type.
4. A heavier door seal was used. For ease of locking, a new cam type latch was used for pulling the door in tightly on the seal. A flush long lever type outside door handle was added for ease of opening the door.
5. A generator warning redlight was used to replace the ammeter. This also served to warn that the master switch is on when the engine is not running.
6. A vacuum selector switch was used on the panel to allow checking the vacuum of either the directional gyro or the artificial horizon.
7. The fuel vent to the main tanks was moved to a new position behind the left wing strut to prevent ice formation in icing conditions. This was a big improvement since the previous vent was located on top of the cabin and could occasionally become blocked by ice formation--particularly during IFR operations.
8. The fuel capacity was increased from 60 to 65 gals. total. This plus a modified, more economical carburetor, increased the range.
9. The landing gear on the 182 was made 5.4 inches wider and the fuselage was lowered 6 inches. The nose strut was shortened 2 inches. The thickness of the main gear spring steel was increased from 11/16 to 3/4 inch. The net effect of the changes gave the aircraft a 7 deg. ground angle which aided in takeoff and ground handling was improved with less sway on corners and crosswind. The propeller clearance remained the same due to the change in fuselage ground angle.

10. Note--it appears that the empty weight increased about 50 lbs in the 1957 models. This is not entirely true since the unuseable fuel rating was upped and this fuel included in the empty weight. See section under Fuel Tanks.

	1958 180 A	1958 182 A	1958 Skylane	1959 180 B	1959 182 B	1959 Skylane
Top speed	170 mph	167 mph	170 mph	170 mph	167 mph	170 mph
Max. cruise	160 mph	157 mph	160 mph	160 mph	157 mph	160 mph
Rate of climb	1130 fpm	1030 fpm	1030 fpm	1130 fpm	1030 fpm	1030 fpm
Service ceiling	22,800 ft*	19,800 ft	19,800 ft	21,500 ft	19,800 ft	19,800 ft
Empty weight	1530 lbs	1535 lbs	1632 lbs	1555 lbs	1560 lbs	1632 lbs
Gross weight	2650 lbs	2650 lbs	2650 lbs	2650 lbs	2650 lbs	2650 lbs
Useful load	1120 lbs	1115 lbs	1018 lbs	1095 lbs	1090 lbs	1018 lbs
Engine	O-470-K	O-470-L	O-470-L	O-470-K	O-470-L	O-470-L
Wing loading (lbs/sq. ft)	15.1	15.1	15.1	15.1	15.1	15.1
Power loading (lbs/hp)	11.5	11.5	11.5	11.5	11.5	11.5

1958 Models Improvements and New Features

Serial numbers 50, 106 through 50, 355 for Model 180 A.
Serial numbers 34, 574 through 51, 556 for Model 182 A. and Skylane.

- This year marked the introduction of the Skylane--a fully instrumented deluxe version of the 182. The Skylane included radio, complete paint, and new fiberglass wheel speed fairings which were introduced for the first time in 1958--all being standard equipment on the Skylane and the windows were also tinted on this model. Because the Skylane was fully equipped with radio, gyros, wheel fairings, etc. it will be noted that empty weight of this model is more than the others.
- The engine exhaust outlet was changed to the right side on all models to route the exhaust stain down under the fuselage--on earlier models there was some tendency for exhaust stains to accumulate on the left side of the fuselage due to slip stream effects.
- New seal put around windows for reduction in wind noise.
- New instrument panel and new lighting console. The tachometer and m.p. guage went back to standard size.
- A new ratchet-click mechanism added to the elevator trim wheel to prevent creeping.
- Rudder trim was added to the 182 and Skylane.
- Lock with key for opening added to baggage door.
- Tactair T-3 autopilot offered as a factory installed optional item for the first time. An 18 gal. aux. baggage comp. fuel tank was also a factory installed option.

1959 Models Improvements and New Features

Serial numbers 50, 356 through 50, 661 for Model 180 B.
Serial numbers 51, 557 through 52, 358 for Model 182 B and Skylane.

- The cowling was redesigned on the 182 B - Skylane models with better streamlining and cowl flaps were standard for the first time on these models (the 180 has had cowl flaps continually). The aircoop was removed and the airtscreen flush-mounted on the front of the cowl. The net effect of the cowling redesign was to produce slightly more airspeed, although Cessna never advertised this.
- New heavier door hinges.
- New instrument panel.
- Strut cuffs were standard on the Skylane, for better streamlining.
- New adjustable fresh air vents for the rear seat area. (optional)
- Optional pilot and co-pilot 3-position tilting seats.

*With McCauley propeller --This higher ceiling also applies on any other 230 hp 180, using this propeller.

	1960 180 C	1960 182 C	1960 Skylane
Top speed	170 mph	167 mph	170 mph
Max. cruise	160 mph	157 mph	160 mph
Rate of climb	1130 fpm	1030 fpm	1030 fpm
Service ceiling	21,500 ft	19,800 ft	19,800 ft
Empty weight	1530 lbs	1550 lbs	1632 lbs
Gross weight	2650 lbs	2650 lbs	2650 lbs
Useful load	1120 lbs	1108 lbs	1120 lbs
Engine	O-470-K	O-470-L	O-470-L
Wing loading (lbs/sq. ft)	15.1	15.1	15.1
Power loading (lbs/hp)	11.5	11.5	11.5

1960 Models Improvements and New Features

Serial numbers 50, 662 through 50, 911 for Model 180 C.

Serial numbers 52, 359 through 53, 007 for Model 182 C and Skylane.

1. Fuel cells changed to incorporate flush gas tank caps on the upper surface of the wings to replace the original counter-sunk caps.
2. Seat backs made adjustable with optional head rests.
3. New third side window for model 182 and Skylane.
4. New swept tail for the 182 and Skylane, increasing the length of these aircraft to 27 ft. 4 in. and improving appearance.
5. New smaller streamlined wing fillers (flap area).
6. Cowling modified slightly on model 180, for improved streamlining.
7. New stabilizer-elevator down spring on all models to improve longitudinal stability.
8. Nose wheel fairing redesigned to simplify removal. On earlier models, the strut had to be deflated or disassembled.

	1960 180 C	1960 182 C	1960 Skylane
Top speed	170 mph	167 mph	170 mph
Max. cruise	160 mph	157 mph	162 mph
Rate of climb	1130 fpm	1030 fpm	1030 fpm
Service ceiling	21,500 ft	19,800 ft	19,800 ft
Empty weight	1530 lbs	1550 lbs	1535 lbs
Gross weight	2650 lbs	2650 lbs	2650 lbs
Useful load	1120 lbs	1108 lbs	1115 lbs
Engine	O-470-K	O-470-L	O-470-L
Wing loading (lbs/sq. ft)	15.1	15.1	15.1
Power loading (lbs/hp)	11.5	11.5	11.5

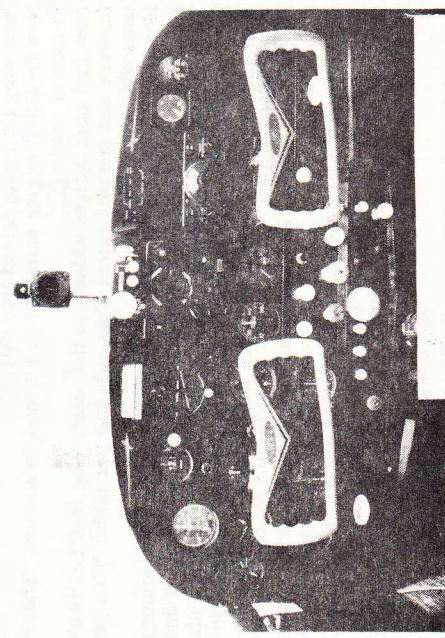
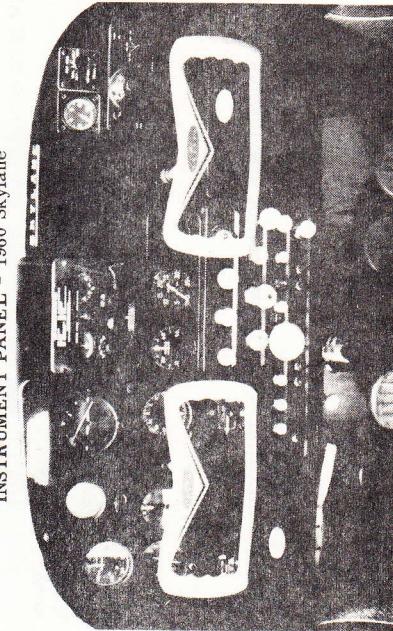
1961 Models Improvements and New Features

Serial numbers 50, 912 through 51, 063 for Model 180 D.

Serial numbers 53, 008 through 53, 598 for Model 182 D and Skylane.

1. Cowling was changed to incorporate cam locks for holding it on.
2. "Shower of Sparks" Bendix mags were used for easier starting. A special switch was used under the instrument panel to supply primary current to the mag coils without engaging the starter--to allow hand cranking of the engine.
3. A new lever-type cowl flap control with mechanical position notches.
4. Right door window permanently sealed.
5. New generator--50 amp, as standard equipment--all previous models used a 35 amp generator.
6. The nose and main gear were lowered 4 inches for better crosswind handling. This is a good feature but does make the propeller slightly more susceptible to nicks by loose gravel.

INSTRUMENT PANEL - 1960 Skylane



	<u>1962</u>	<u>180 E</u>	<u>1962</u>	<u>182 E</u>	<u>1962</u>	<u>Skylane</u>
Top speed	170 mph	167 mph	170 mph	159 mph	170 mph	170 mph
Max. cruise	162 mph	159 mph	162 mph	980 fpm	162 mph	162 mph
Rate of climb	1130 fpm	980 fpm	162 mph	18,900 ft	1130 fpm	980 rpm
Service ceiling	21,500 ft	18,900 ft	18,900 ft	1625 lbs	21,500 ft	18,900 ft
Empty weight	1530 lbs	1545 lbs	1545 lbs	2800 lbs	1530 lbs	1545 lbs
Gross weight	2650 lbs	2800 lbs	2800 lbs	1255 lbs	2650 lbs	2800 lbs
Useful load	1120 lbs	1255 lbs	1175 lbs	1120 lbs	1120 lbs	1165 lbs
Engine	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R
Wing loading (lbs/sq. ft)	15.1	16.0	16.0	12.2	15.1	16.0
Power loading (lbs/hp)	11.5				11.5	12.2

1962 Models Improvements and New Features

Serial numbers 51, 064 through 51, 183 for Model 180 E.

Serial numbers 53, 599 through 54, 423 for Models 182 E and Skylane.

1. Electrically operated flaps became standard equipment for the first time on the 182 and Skylane models. The 180 retained its manual operated flaps.
2. Redesigned interior with removal of the tunnel between the front seats in the 182 and Skylane models--this makes the entire front flooring level and allows more foot space. The fuel selector was also moved forward in these models into a more convenient position. The elevator trim wheel was also moved forward in these models and relocated under the instrument panel.
3. New rear windows featuring 360 deg. "omni vision". The cabin was made wider, higher, and longer. These features apply to the 182 and Skylane models.
4. New wing tip lights faired into tips.
5. New O-470-R engine standard on all models and new "shark's gill" vents in side of cowling.
6. New fuel tank outlets added, so that each wing tank has two outlets (one forward and one aft) rather than only one per tank. This gives a less unusable fuel rating.
7. New center-line radio installation area used on instrument panel for first time, making radios easily accessible to both pilot and co-pilot. This design also makes it easier to install and service multiple radios.

8. New optional long-range wing tanks, increasing capacity to 84 gals.
9. New 150 lb. gross weight increase for 182 and Skylane models with more useful load.

	<u>1962</u>	<u>180 F</u>	<u>1963</u>	<u>180 F</u>	<u>1963</u>	<u>182 F</u>
Top speed	170 mph	167 mph	170 mph	162 mph	167 mph	170 mph
Max. cruise	162 mph	159 mph	162 mph	980 fpm	159 mph	162 mph
Rate of climb	1130 fpm	980 fpm	162 mph	18,900 ft	980 rpm	980 rpm
Service ceiling	21,500 ft	18,900 ft	18,900 ft	1625 lbs	1530 ft	18,900 ft
Empty weight	1530 lbs	1545 lbs	1545 lbs	2800 lbs	1530 lbs	1545 lbs
Gross weight	2650 lbs	2800 lbs	2800 lbs	1255 lbs	2650 lbs	2800 lbs
Useful load	1120 lbs	1255 lbs	1175 lbs	1120 lbs	1120 lbs	1165 lbs
Engine	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R
Wing loading (lbs/sq. ft)	15.1	16.0	16.0	12.2	15.1	16.0
Power loading (lbs/hp)	11.5				11.5	12.2

1963 Models Improvements and New Features

Serial numbers 51, 184 through 51, 312 for Model 180 F.

- Serial numbers 54, 424 through 55, 058 for Model 182 and Skylane.
1. New magnesium-cast rudder pedals.
 2. Magnets changed to the impulse-coupling type replacing the "Sparks".

	<u>1964</u>	<u>182 G</u>	<u>1964</u>	<u>182 G</u>	<u>1964</u>	<u>182 G</u>
Top speed	170 mph	162 mph	170 mph	162 mph	167 mph	170 mph
Max. cruise	162 mph	980 fpm	162 mph	980 fpm	159 mph	162 mph
Rate of climb	1090 fpm	19,600 ft	1090 fpm	19,600 ft	980 rpm	980 rpm
Service ceiling	1525 lbs	1550 lbs	1525 lbs	1550 lbs	18,900 ft	18,900 ft
Empty weight	2800 lbs	2800 lbs	2800 lbs	2800 lbs	1610 lbs	1610 lbs
Gross weight	1275 lbs	1250 lbs	1275 lbs	1250 lbs	2800 lbs	2800 lbs
Useful load					1190 lbs	1190 lbs
Engine	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R	O-470-R
Wing loading (lbs/sq. ft)					16.09	16.09
Power loading (lbs/hp)					12.2	12.2

1964 Models Improvements and New Features

Serial numbers 51, 313 and up for Model 180 G.

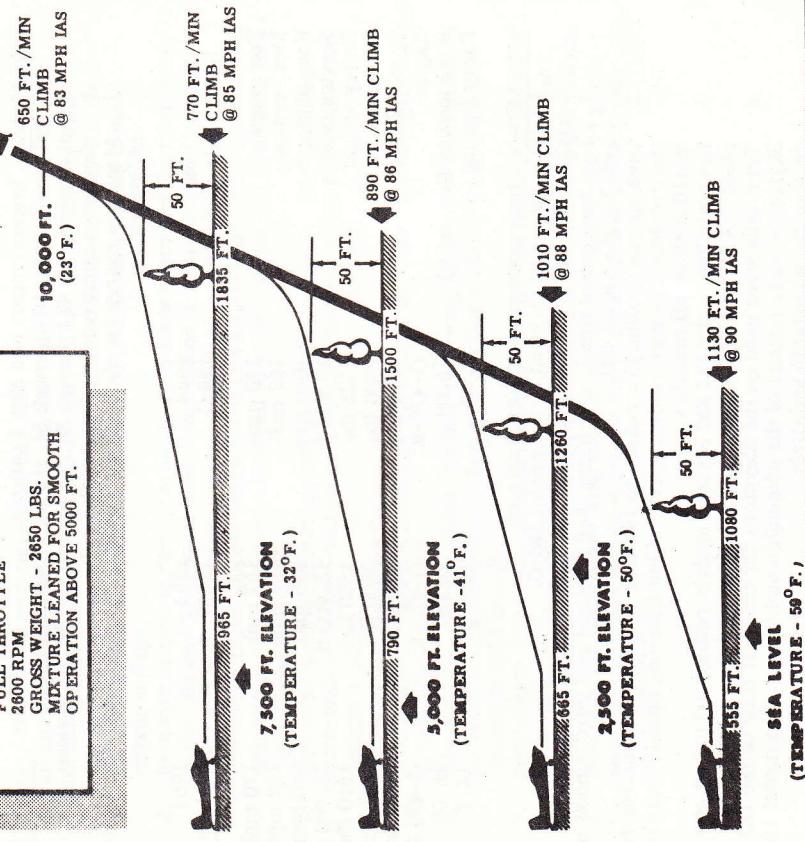
- Serial numbers 55, 059 and up for Models 182 G and Skylane.
1. New instrument panel, new heavy duty axle and new third window on side for the Model 180.
 2. Dive speeds (redline) increased to 192 mph I.A.S. on all models from the previous 184 mph redline speed. Flap lowering speeds increased to 110 mph on all models.
 3. Rear window on the 182 and Skylane models redesigned and is now one piece. A large single rear side window is used.
 4. Trim tabs were used on the elevators for the first time on the 182 and Skylane models instead of the adjustable stabilizer. The model 180 retains the adjustable stabilizer.
 5. Gross weight increase of 150 lbs for model 180 with more useful load.

Opposite page

Diagram illustrating the remarkable performance of the Cessna 180. This diagram, from the 1957 Owner's Manual applies to the 1957 model, but performance is quite similar in all models, when flown at the same gross weight.

Note that the sea level rate of climb is better than 1100 fpm and at 15,000 ft it still climbs at 415 fpm at full gross weight. Performance data for 1956 models at 2550 lbs gross indicates a 370 ft. take-off run, a 1200 fpm sea level climb and a 465 fpm climb at 15,000 ft. The difference in performance between the two models is primarily due to the gross weight difference.

Data for the 1964 model shows a sea level climb of 1090 fpm at 2800 lbs gross, but when only moderately loaded (2000 lbs gross), a 1765 fpm climb is obtained. All of the 180 models are capable of a 1700 fpm climb or better when lightly loaded.



Take-Off Diagram (Landplane)

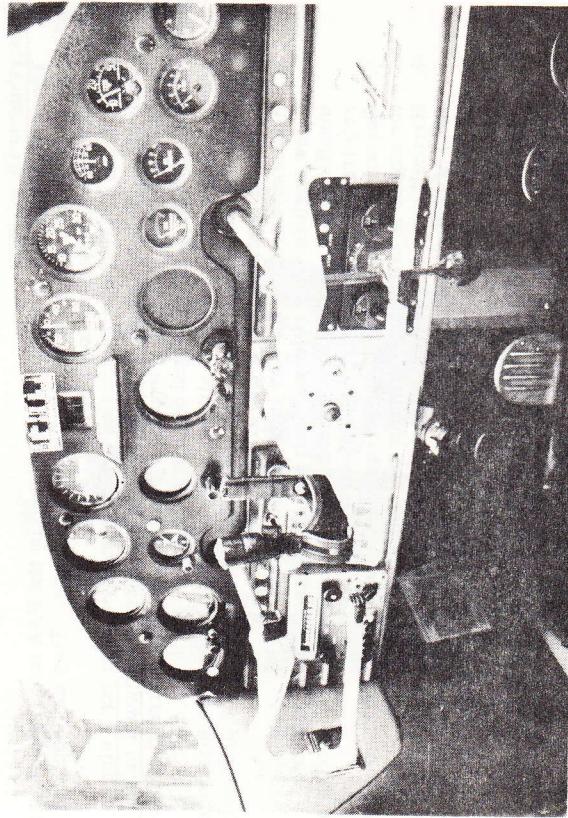
New York to Paris

On January 29, 1956 Capt. Bill Judd, veteran TWA airline pilot, took off from Westchester County Airport in his 1956 Cessna 180 "Star of the Red Sea" and flew non-stop to Paris—a distance of more than 3600 miles. In spite of icing conditions and IFR weather encountered over the North Atlantic, the flight averaged 156 mph.

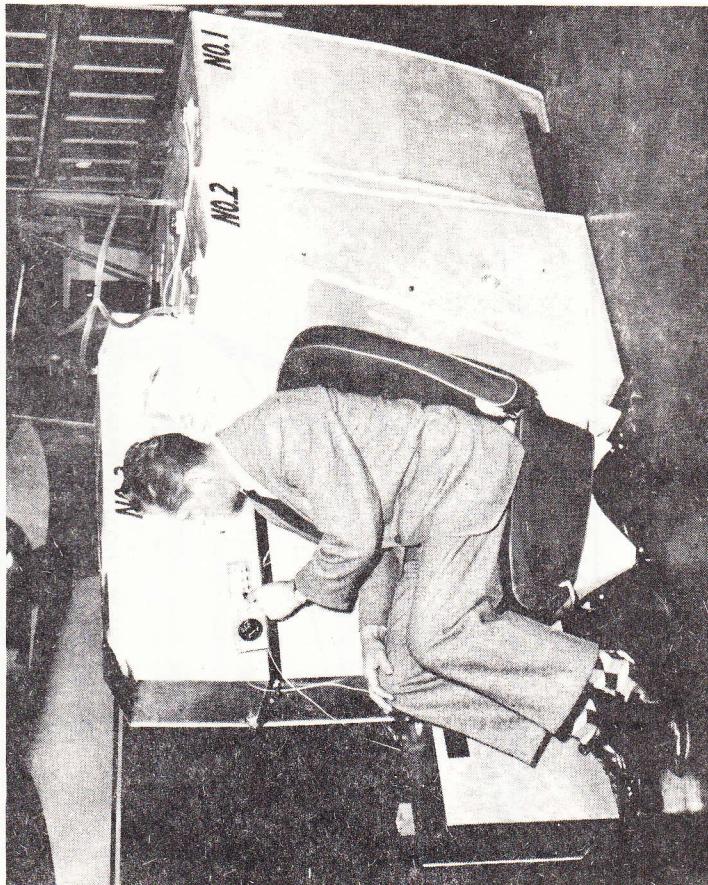
Gross weight at take-off was 4150 lbs and 323 gals. of fuel was carried. The take-off run required only about 1100 ft. in spite of the very high gross weight.

Total fuel consumed during the flight was 226 gals. and the flight time from New York to Paris was 24 hours. Fuel consumption was less than 10 gals. per hour, which is excellent considering the ground speed made and the fact that the plane was 1600 lbs overloaded at take-off. Capt. Judd had originally planned his flight to be non-stop from New York to Cairo, Egypt but because of icing conditions discontinued the flight at Paris. The plane had 97 gals. of fuel remaining when landed at the Toussus-le-Noble Airport. The next day Capt. Judd took off and flew non-stop from Paris to Cairo in 15 hours.

This flight in the "Star of the Red Sea" demonstrates the remarkable performance that can be obtained from an outstanding plane when flown by an equally outstanding, capable pilot.



Photograph illustrating instrument panel and unusual cockpit of a 1954 Cessna 180 owned by Attorney Nicholas Zinni of Batavia, N. Y. Mr. Zinni was a USAF pilot in World War II and flew P-38 fighters in the South Pacific area. He lost his entire right arm during the war but never lost his interest in flying. Mr. Zinni flies the 180 from the right hand seat and has a special FAA permit giving him full private pilot privileges. He uses a fitting on the throttle control so that it can be moved with the left elbow. The attachment under the right control wheel is held between the knees whenever needed. He flies his plane extensively on cross country flights solo or with passengers and has never used an autopilot.



Airworthiness Directives

These mandatory instructions are published by the FAA on various aircraft and compliance is required as instructed on each release. They can apply to an airframe, engine, or any component part.

The Cessna 180-182-Skylane series are noteworthy in that not a single AD bulletin has ever been issued on these airframes since the original model was first certified. This indicates that excellent engineering and construction have gone into the building of these rugged durable aircraft.

The component parts of these aircraft have had only a very few directives issued on them and most of these have already been complied with on presently licensed models. Directives that apply are as follows:

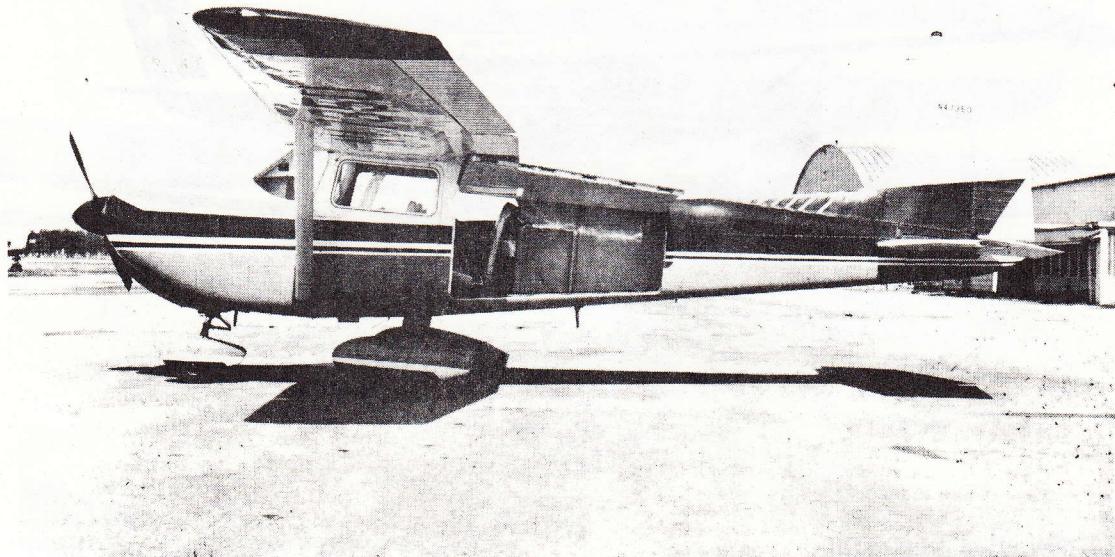
1. A flasher switch in the Nav light system (AD59-10-3).
2. A few engines were released with new redesigned piston pins of insufficient strength. These were removed from service. Compliance required as of July 1, 1956 (AD56-6-1).
3. Certain exhaust valves must be replaced by a redesigned valve whenever the engine is either top or major overhauled (AD63-15-1).
4. Hartzell propeller piston guide rod collars to be inspected for cracks at time of periodic check. Can be inspected through spinner (AD60-16-4).
5. McCauley propeller blade shanks to be inspected for cracks at threads (AD61-19-4).
6. McCauley propeller inspection and/or blade change required at certain operating times. Exact propeller blade serial number and time must be known for each individual propeller compliance (AD63-8-4).
7. Marvel-Schebler carburetor--on certain models a modified or new type float to be installed by August 15, 1959 (AD59-13-7).
8. Marvel-Schebler carburetor--new locking screws and main needle seat replacement. Compliance at time of engine overhaul (AD62-4-2).
9. Marvel-Schebler carburetor--new one piece venturi to be installed replacing old 2 piece type. Compliance at time of engine or carburetor overhaul--whichever occurs first (AD63-22-3).

AiResearch Turbocharger

An AiResearch turbocharger has been developed and used by Bob Byers of Seattle, Washington for his 1954 Cessna 180. This aircraft is used for high altitude photography and flights above 34,000 ft have been made. The installation weighs about 64 lbs. and gives a true air speed of 202 mph at 20,000 ft using 60% power. This aircraft at a 2450 lb gross weight is said to climb to 20,000 ft in only 19 minutes and sea level take-off power is available at altitudes up to 18,500 ft. See Flight Magazine, October 1962, page 29.

Opposite page

1958 Skylane showing installation of the ALCOR "Cargomore" door. This is an approved installation developed by ALCOR Aviation Inc. 2905 Bandera Road, San Antonio, Texas. The door measures 65" x 33" and this installation is applicable to all models of the Cessna 180-182 aircraft. (It can also be used with the 170B, and 185 Cessna series). There is no loss in structural strength when this modification is made. This very nice modification allows this plane to be used for hauling heavy bulky cargo or for ambulance work.





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1964
CESSNA **182**

TOP SPEED at Sea Level ----- 167 mph.
Cruise, 75% power at 6500 ft. ----- 159 mph.
RATE OF CLIMB at Sea Level ----- 980 fpm.
BAGGAGE ----- 120 lbs.

RANGE
Cruise, 75% power at 6500 ft. ----- 685 mi.
60 gal., no reserve ----- 4.3 hr.

Optimum range, at 10,000 ft. ----- 1190 mi.
79 gal., no reserve ----- 10.0 hr.
SERVICE CEILING ----- 18,900 ft.

GROSS WEIGHT ----- 2800 lbs.
EMPTY WEIGHT (approx.) ----- 1545 lbs.
FUEL CAPACITY (standard) ----- 65 gals.
(optional) ----- 84 gals.
POWER: Six-Cylinder Engine, 230 Rated HP
at 2600 RPM - Four-place airplane
with optional "family seating" for six

GROSS WEIGHT	-----	2800 lbs.
EMPTY WEIGHT (approx.)	-----	1545 lbs.
FUEL CAPACITY (standard)	-----	65 gals.
(optional)	-----	84 gals.
POWER: Six-Cylinder Engine, 230 Rated HP		
at 2600 RPM - Four-place airplane		
with optional "family seating" for six		
1964 CESSNA SKYLANE		
BAGGAGE	-----	120 lbs.
HIGH RATE OF CLIMB	-----	980 fpm.
SERVICE CEILING	-----	18,900 ft.
TOP SPEED at Sea Level		170 mph.
Cruise, 75% power at 6500 ft.	-----	162 mph.
Optimum range @ 10,000 ft.	-----	125 mi.
79 gal., no reserve		10.0 hr.
60 gal., no reserve		4.3 hr.
With optional "family seating" for six		
1964 CESSNA SKYLANE		



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