



Jim Bray (left) and Alec Simpson, Rex Aviation's sales executive and Aust. manager respectively, with new 182.

## The 1957 Model Cessna 182

The first new model Cessna to arrive in Australia is flight-assessed here by Keith Robey.

THE first example of the 1957 Model Cessna 182 to arrive in Australia was delivered by the Australian Cessna distributors, Rex Aviation, to its new owners, Marra Developments Ltd., last month.

The 1957 Cessna 182 features a number of significant changes to the earlier model described in AIRCRAFT of August last year. The appearance of the aircraft has been altered considerably by the fitting of a shorter undercarriage. The main legs of the new undercarriage are four inches shorter and their track 5.4 in. wider. The nose wheel undercarriage leg has only been shortened two inches and while last year's model sat on the ground in more or less the level flying attitude the 1957 model assumes, when at rest, a slightly nose up attitude. The spring steel of the main undercarriage legs has also been increased in thickness from 11/16in. to 3/4in. and 6-ply tyres are now fitted as standard.

The power unit of the 182 remains the same, a 230 HP Continental 0-470L engine, but a new carburettor has been fitted and the engine is now equipped with exhaust valve rotators which, it is claimed, give a significant increase in valve life.

The cabin doors are fitted with a new type door handle and latch, incorporating a flush exterior handle and a tapered sliding bolt. New type window catches are also fitted and these appear to be a considerable improvement to the type fitted to earlier model Cessnas.

Entry to the passenger cabin, due to the aircraft being closer to the ground, is even easier than in the previous model. Both front and rear seats have been redesigned, the front seats having a stronger frame, additional overhang and a square recessed back. The bench type rear seat, which is adjustable, has a higher back and has also been squared for additional support and comfort. Cabin trim is finished in nylon fabric and washable vinyl and is of most attractive appearance.

The instrument panel has been completely redesigned and all engine instruments are now grouped together in a cluster that really amounts to one large instrument mounted to the right of the centre line of the instrument panel. This cluster includes new electric fuel gauges, replacing the direct reading type previously found in the wing roots. Flight instruments are grouped together on the left hand side of the instrument panel and a handy sized glove box occupies the extreme right hand side of the panel in a slightly different position from where it was found previously. A generator indicator light on the instrument panel has now replaced the ammeter and this also serves as a master switch warning light when the engine is stopped. Other changes include the mounting of the Pioneer type compass in the centre of the windscreen and the fitting of a cockpit operated filter bowl drain valve, the control for which is found under the centre instrument panel. An entirely new type of parking brake has been fitted, the knob found on previously models having been replaced by a car type brake handle mounted under the instrument panel directly in front of the pilot's seat. To apply the parking brake the toe brakes must first be depressed and the brake handle then pulled out and turned counter clockwise to lock. I personally feel that this system is a big improvement on the previous one and

that the aircraft may now be left parked with much more assurance that the brakes are really on.

Fuel capacity of the 1957 182 has been increased by five US gallons to 65 gallons. The amount of unusable fuel in each tank, however, has increased from one gallon to 1.5 and the total gain, therefore, is only four US gallons. All up weight has been increased by 100 lb. which leaves approximately 70 lb. extra payload when the tanks are full. Takeoff distance at sea level at an all up weight of 2650 lb. is quoted in the manufacturer's handbook as 555 feet compared with 570 feet for last year's model. The distance to clear a 50-ft. obstacle is greater — 1080 feet as against 990 feet — and the rate of climb at sea level has dropped from 1200 ft./min. to 1030 ft./min. Figures quoted in the cruise and range performance charts for the 1957 model indicate cruising speeds averaging approximately five MPH slower and slightly higher fuel consumption, when operating at the increased all up weight. Landing distance over a 50-ft. obstacle at sea level is quoted as 1310 feet at 2650 lb. and 1125 feet at 2100 lb., compared with 1075 feet at 2550 lb. and 900 feet at 1950 lb. for the 1956 model.

Starting up procedure follows previous practice and the Continental engine starts easily and idles very quietly and smoothly. A touch of throttle is all that is required to start the 182 moving forward. The slightly tail down attitude is barely discernible when sitting in the aircraft and has not in any way reduced the very good forward visibility. The new undercarriage rides well even over quite a rough surface and the wider track has undoubtedly resulted in greater stability.

Pre-takeoff check remains the same except that the handbook recommends the 20 deg. flap setting for the shortest takeoff run instead of the 10 deg. setting recommended for last year's model. Acceleration on takeoff is very rapid and there is no tendency to swing. The 182 wastes very little time becoming airborne and the initial climb may be made at 60 MPH, settling down to 90 MPH after the flaps have been retracted. Throttling back to the recommended 23 inches x 2450 revs., I noted that, due to the small size of the new engine instruments together with the comparatively broad pointers with which they are equipped, slightly more concentration is required to accurately set the power. This is only a small point, but one that can be disconcerting when a pilot is trying to keep a good look out in a busy circuit and also attend to several other tasks.

Levelling out at 2500 feet I allowed the 182 to settle down to cruise at the same power setting used for the climb — 23 inches x 2450 revs (75% power). This is the recommended power for "high cruise" and with the outside air temperature gauge reading +8 deg. C, the 182 appeared to indicate 145 MPH (TAS 150 MPH). Reducing power to a "low cruise" setting of 21 inches x 2200 revs the indicated airspeed settled down to 138 MPH which corrects to 132 MPH TAS. Operating weight on this flight with two up and half tanks was well below the maximum all up. Noise and vibration level in flight is particularly good and conversation may be carried on without raising one's voice above normal levels. The new position for the compass on the windscreen centre strip is certainly more convenient, but the bracket upon which it is mounted is very light and I would not be surprised to see it crack after a comparatively short life.

General handling characteristics remain unchanged. Controls are well balanced, the aileron control is particularly pleasing and the elevators appear to be a little lighter than on previous models. The elevator trim is still very effective and in this year's model clicks over a ratchet as it is rotated. The aircraft at all times requires careful trimming to relieve the fore and aft load on the wheel.

Stalling characteristics are similar to those of the previous model and I found that with power off and flap up the stall occurred at 46 MPH (IAS) and with 20 deg. flap and 15 inches 37 MPH (IAS). Aileron control is particularly good right down to the point of stall.

The approach and landing remain as before and with full flap and no power the angle of descent is quite steep. The effect of the shorter undercarriage is barely discernible in the hold off and once on the ground the Cessna displays no tendency to deviate from the straight and narrow or to skip off again.

The Cessna 182 is easy and pleasing to fly and the new 1957 model maintains the high standard established by its predecessor. It offers a particularly good combination of high performance and simplicity of operation and there is little doubt that, now dollars for light aircraft are a little easier, the 182 will be seen in Australia in increasing numbers. The Australian price for the 1957 Model Cessna 182 is quoted by Rex Aviation as £7870 fly away Bankstown. END