The Smart Pilot's Expedited Approach

A Complete & Easy Buyers' Guide For Cessna 210s, Turbo 210s & Pressurized 210s

Everything You MUST KNOW To Be A Fully Equipped, Safe & Confident Buyer/Owner

Guaranteed to save you;

- ★ *time*
- ★ *money*
- ★ *guess work*
- ★ *& most of all - regrets!*

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Preface

This book has been written to relay vital information about Cessna 210 aircraft to any pilot/owner or potential pilot/owner considering making a purchase. While both the good and the bad are covered, more space is dedicated to problem areas. The reason for that is to reveal the "gotcha's" that could come back and bite you rather than fill pages with gushing superlatives. It is not meant to discourage a purchase in any way.

In the following pages, every effort is made to present all of the known issues (and some that may not be very well known) for these aircraft that would appreciably affect the value, safety, comfort, performance, maintenance costs and overall satisfaction for a pilot/owner. However, it is not possible to mention every possible discrepancy or problem that might have been experienced by some pilots & owners.

It is believed that through research and personal experience, the author has revealed all the major and pertinent issues for someone considering becoming a pilot/owner. That said, you are encouraged to continue your research beyond the study of these pages for any information that may have been inadvertently omitted.

It is expected (and strongly recommended) that the reader of this book will be enlisting a qualified aircraft mechanic to perform a thorough pre-purchase inspection as part of the purchase decision. Your mechanic will review whether the target aircraft is compliant with all current ADs and for that reason, ADs have not been covered here.

"Remember that all things are only opinion and that it is in your power to think as you please." *- Marcus Aurelius*

This guide is intended to present a comprehensive overview of information for you to "think about". It is my hope that this volume of research will be of great assistance in your quest for the perfect Cessna 210 for you.

"All things are difficult before they are made easy." *- Thomas Fuller*

Happy Buying & Flying!

Lee Parker

I. Introduction

During the life of its production, the Cessna 210 captured the crown position of the Cessna single piston engine model lineup as the premiere Cessna aircraft for the step-up buyer.

The first flight of the 210 occurred in January 1957. It featured for the first time on a single engine Cessna aircraft, a retractable undercarriage and swept back vertical tail surfaces. The 210 entered production in late 1959 and was constantly improved over the years.

Early upgrades include the 210B which introduced the wraparound rear windows, the 210D with a more powerful 285 HP engine (and introduced the Centurion name) and the turbocharged T210F. The 210G introduced a new strutless cantilever wing, greater fuel capacity, restyled rear windows and enlarged tail surfaces.

The landmark pressurized P210N model first appeared in 1978. With a rather lackluster pressure differential of 3.35 pounds, the cabin's internal altitude of 8,000 feet could not be maintained any higher than about 17,000 feet.

Development of the 210, T210 and P210 aircraft continued through 1985 until production ceased in 1986 along with all of Cessna's line of single engine aircraft (in 1998 Cessna briefly considered returning the 210 to production).

The Excitement of Owning a Centurion

If you've decided that a Cessna 210 is likely in your future, you're joining a loyal group of aircraft owners. Once pilots find a 210 that fits their use profile, they seem to hang on to them. It's no wonder the 210 has caught your eye. It's one of the most popular airplanes in the used aircraft market.

Perhaps it's the design itself that's attractive to you, the speed and load hauling capability or maybe it's just the attraction of owning this solid IFR cross country magic carpet that delivers high flying performance unlike any other aircraft in this price range. The 210 can be a joy to own and fly and it can deliver some of the best performance for the purchase dollar than any other single engine aircraft available. It can also be one of the most expensive single engine aircraft to maintain. Nonetheless, many of the Cessna 210 service problem horror stories circulating on the internet discussion boards are overblown. In addition, some of the maintenance

problems are specific to certain models and **can be avoided** by knowing (1) what to look for and (2) what to avoid.

This airplane went through such a dramatic evolution over the 27 years of its production and Cessna made so many improvements year to year, that no one should even consider buying a 210 until having a clear understanding of what year and what model fits the use profile and, following that, what specific things to include in the pre-purchase analysis and buying inspection.

For example, when shopping for a turbocharged or pressurized 210, you should know before starting your search that Cessna provided these aircraft with, what turned out to be, miserably weak exhaust systems. Consequently, they carry a very annoying and bothersome AD requiring a stop in the shop every 50 hours for a complete exhaust inspection. That's not the kind of discovery that you want to be surprised with after you've completed your purchase (see Chapter V on maintenance for my recommendations).

Of course, some of the buying decisions, like model and year, may be driven by price (and therefore affordability). And for good reason. The price range is huge between the cheapest to buy 1960 normally aspirated 210 models and the most expensive pressurized, turbocharged "fire-breathing dragon" produced in 1986. You'll likely pay more than 10 times as much for the later design. And for good reason, as you'll soon learn.

Is speed important to you? Depending on which year and model of aircraft you're looking at, maximum speeds for this family of aircraft have a very large range. The slowest is about 160 knots true air speed, while the fastest is 225 knots maximum cruise – more than a 25% variation from the slowest to the fastest.

Do you need to maximize your payload capability? The Cessna Centurions are known as heavy haulers. However, does the early models useful load of 1,220 lbs. provide enough? If not, perhaps you should opt for one of the later models that carry a useful load approaching almost a ton!

Dramatic enhancements = significant performance improvements

It started out in 1960 as a strutted, 260 HP, 160k cruise/174k redline, 2,900 pound airplane and through 27 years of improvements ended production after 1986 as a 325 HP, 217k cruise/200k redline, 4,100 pound gross weight wonder. During that span of time, turbo and pressurized versions were introduced, the P210 being the first pressurized single (if you don't count the Mooney Mustang), and the airplane went from the original "retractable 182" with 4 seats to a high flying, fast and efficient transport for up to six individuals.

4 seat interior in 1961 210A (note: the rear window was added the next year)

The original 1959 design of the 210 was derived from the Cessna 182. In fact, it was little more than a retractable Cessna 182 with some minor improvements. The first 210's came with Continental IO-470's rated at 260 HP versus the non-injected version in the Cessna 182 (230 HP Continental O-470). To accomplish converting a high wing 182 into a retractable gear airplane, the Cessna engineers had to figure out a way to tuck the gear up under the belly of the airplane. That challenge was conquered with the twisting of the main gear, then tucking each wheel up flat under the belly. That complexity wasn't without its drawbacks however, as the maintenance and reliability of the 210 gear is not one of its strong points, particularly on the early models that featured an engine-driven hydraulic system. The additions added to the Cessna 182 to make it into a Cessna 210 added about 200 lbs. to the 182's empty weight.

'64 Nose on left – '65 on right. The prop shaft was extended in 1965 allowing a more attractive nose cowl

Bright Spots & Blight Spots

Where Centurions Shine & Where They Fall Short

It may appear that I'm much more focused on the Centurions problems than its assets, particularly as you read the following and note how short the section is for "pluses" and how long the section is for "minuses". It's not because I'm a pessimist (I'm really an optimist) and its not because I don't believe that the Centurions is a fine aircraft (it was one of my favorites ever). But my job in writing this book is to show you the pitfalls, the shortcomings and the weaknesses in the Centurion series so you'll know what models and years to shop for and then how to properly evaluate a potential purchase.

Where They Shine

Speed, useful load and range are the Centurion's strong suits. For the Centurion (normally aspirated for instance), with a top cruising speed of 171 knots, the 70's and later vintage can go 1,000 statue miles with reserve. Only the Mooney 201 of similar vintage has better range.

Better yet, that fully fueled Centurion can still carry 5-6 people plus baggage, depending on year and equipment, and remain under gross. No other single of similar vintage comes close (the Piper Lance comes closest, but is still 70 lbs shy).

The large useful load has an usually broad center of gravity envelope too. What that means is that loading is a breeze. Baggage can go into the baggage compartment where it belongs instead of on passengers' laps to satisfy weight and balance requirements.

From our Pilot/Owners Desk…

"The Cessna (210) wins on cabin comfort plus people ergonomics. You have two doors and a wing that shields you from the rain…, the center area for storage of charts, lots of cubby holes for stuff and of course, elbow room."

Cavernous Cabin Room

The seating up front is spacious and comfortable with plenty of shoulder room (a full 44" in the middle of the cabin and 47" of height). There's space between the seats for carry-alongs and lots of legroom. Unlike Mooneys and some Pipers, there's enough room to sit upright (as opposed to the feeling that you are literally sitting on the floor or laying on your back sports car

style). In particular, the upright seating means that those with back problems will be comfortable for those long, cross-country trips.

The Most Solid IFR Platform Available

The Centurion is renowned for its stable and smooth flying qualities in IFR. An IFR approach in a Centurion tends to make the pilot look good. The passengers may think that the airplane is virtually descending to the airport on rails.

From our Pilot/Owners Desk…

"… the T210 is a great cross country airplane and with experience it becomes a joy to fly. It is the smoothest running airplane and the best airplane in turbulence I have ever flown."

"Approaches are very pleasant. We usually hand-fly them just to stay in practice. I recommend doing this since one can become quite complacent in this airplane."

"…an IFR machine, built for travel."

Price/Performance Ratio Unexcelled

Where can you buy the performance of a turbocharged or a pressurized six place aircraft that can carry such heavy loads with the speed and range of these Centurions at such a price? Without a doubt, the Centurions are one of the best buys in the heavy-hauler, six-place marketplace.

Flight Level Flying in Pressurized Comfort

As the only pressurized single engine of its day (until the introduction of the Piper Malibu in 1983), the pressurized version of the Centurion offered single engine pilots the ability to ascend over the top of weather in the comfort of a pressurized cabin. With the beefed up structure required to pressurize the vessel and the air tight cabin, noise levels are lower, which adds to the comfort.

From our Pilot/Owners Desk…

It (his P-210) loves the high teens, but we will occasionally go up as high as FL230 eastbound to catch the jetstream in winter."

"The ability to get over ice was the main reason I bought this airplane."

Where they Fall Short

Cessna didn't "come out of the chute" with a perfect design with the 210. Although it sold well when the Cessna 210 was introduced (and even better