

Chapter 6: Aircraft Systems

Page 6-1 through 6-4 applies to four stroke engines. Two stroke engines are covered in the PPC Handbook. Page 6-6 to 6-7 ignore "ADJUSTABLE-PITCH PROPELLER" section. Start back with the "INDUCTION SYSTEMS" section.

Page 6-8 "MIXTURE CONTROL" Most PPC light sport aircraft two stroke have ground adjustable jets, and typically automatic mixture control on four stroke engines.

Page 6-11 through 6-14 ignore "SUPERCHARGERS and TURBOSUPERCHARGERS" Only a few 4 stroke LSA engines have turbo or super chargers. Only study if your aircraft has this system.

Page 6-16 "OIL SYSTEMS" is for 4 stroke here only where 2 stroke engines are different and covered in the PPC Handbook.

Page 6-19 ignore (FADEC) since these are not typically used on smaller LSA engines.

Page 6-20 through 6-24 ignore "TURBINE ENGINES" section

Page 6-28 through 6-30 "ELECTRICAL SYSTEMS" is generally more complicated with more accessories, but basically the same general systems are used for LSA. Only study if your aircraft has an electric system (battery, main switch/key/ electric starter).

Page 6-30 "HYDRAULIC SYSTEM" is only for aircraft with these type of systems. Some PPC use hydraulic brakes.

Page 6-31 and 6-32 ignore "TRYCYCLE & TAIL WHEEL AIRPLANES" and "PRESSURIZED AIRCRAFT" section and everything through the end of this chapter.

Chapter 7 Flight Instruments Only study the instruments you have.

Page 7-1 "PITOT STATIC FLIGHT INSTRUMENTS", lower speed and/or open cockpit aircraft will not have a pitot tube heater or separate static line and port which just reads the ambient static pressure.

Page 7-9 ignore "AIRSPEED INDICATOR MARKINGS" to Page 7-12.

Page 7-12 Electronic Flight Display (EFD) section is only applicable to some sophisticated PPC which may have a computer screen for instruments.

Page 7-14 through 7-15 Ignore Air Data Computer (ADC) and Trend Vectors section.

Page 7-15 ignore "GYROSCOPIC FLIGHT INSTRUMENTS" section unless your aircraft has these instruments (not typical on LSA) and all the flight instruments to page 7-22 and start on page 7-22 with the "Magnetic Compass".

Chapter 9 Weight and Balance (8083-25A)

Page 9-2 ignore "BALANCE, STABILITY, AND CENTER OF GRAVITY" through end of chapter.

Chapter 10: Aircraft Performance

Page 10-5 – ignore the "PERFORMANCE" section until page 10-11 and start at "TAKEOFF AND LANDING PERFORMANCE"

Page 10-17 ignore "PERFORMANCE SPEEDS" and the rest of the chapter.

Chapter 12: Weather Reports, Forecasts, and Charts

The FAA covers significantly more weather reports, forecasts, and charts than needed for the sport pilot certificate; however, the more weather information you gather, the better an evaluation you can do.

There is a significant difference between a sport pilot flying a powered parachutes around the pattern versus LSA that may cruise at 120 knots and go on long cross-country trips.

Many pilots flying around in the pattern observe the local weather only and feel this is an acceptable weather analysis. This is done by experienced pilots and works most of the time. However, knowing how hard the wind is blowing 3,000 feet altitude, plus what the wind is predicted to do during the time of your flight, should be the minimum pre-flight weather analysis in addition to observation of the sky for local flights.

The *Weather to Fly for Sport Pilots* system DVD is a time-proven system and should be used by all pilots to evaluate the weather to make the important go/no go decision.

Here are the specific FAA reports I recommend that are particularly useful for all sport pilots:

Page 12-5 "WEATHER BRIEFINGS - STANDARD/ABBREVIATED/OUTLOOK" great to call 1-800-WX-Brief and get the report from an aviation specialist.

Page 12-6 "AVIATION ROUTINE WEATHER REPORT- (METAR)" what the conditions are at specific locations. Great to find out if your airport is fogged in or blown out before you drive there. These are now decoded on the Internet so you do not have to memorize the coding as discussed in the book.

Page 12-10 "TERMINAL AERODROME FORECASTS (TAF)" show the predicted conditions at specific locations. Great to get predicted conditions to have find out what the predictions are for the airport