

## **SUNDOWNERS INC. C182S HIGH PERFORMANCE CHECKOUT**

FAR 61.3 (F) REQUIRES THE PIC OF AN AIRCRAFT OF MORE THAN 200HP TO HAVE A LOGBOOK ENDORSEMENT CERTIFYING THAT THE PILOT IS COMPETENT TO PILOT HIGH PERFORMANCE AIRCRAFT. NOTE: THIS ENDORSEMENT IS NOT REQUIRED IF THE PILOT HAS LOGGED PIC TIME IN HIGH PERFORMANCE AIRCRAFT PRIOR TO AUGUST 14, 1997.

THE FOLLOWING SYLLABUS HAS BEEN DESIGNED FOR SUNDOWNERS INC. PILOTS TRANSITIONING FROM THE C172S TO THE C182S.

THE SYLLABUS HAS 2HRS OF GROUND INSTRUCTION, A KNOWLEDGE TEST AND 3 HOURS OF FLIGHT INSTRUCTION.

IF A PILOT DOES NOT REQUIRE A HIGH PERFORMANCE CHECKOUT BY FAR 61.3 (F) HE OR SHE IS STILL REQUIRED BY SUNDOWNERS INC TO FLY WITH A CLUB INSTRUCTOR AND RECEIVE A SIGNOFF TO CONFIRM COMPETENCY.

ALL PILOTS MUST BE TRAINED TO PROFICIENCY BY A SUNDOWNERS INC. CLUB APPROVED INSTRUCTOR.

PILOTS MUST SEND A SIGNED COPY OF THE COMPLETED WRITTEN TEST ALONG WITH CLUB INSTRUCTOR SIGN OFF OF SUCCESSFUL CHECKOUT TO SUNDOWNERS FLIGHT SUPERVISOR FOR UPDATE IN SCHEDULE MASTER.

# **SUNDOWNERS C182 HIGH PERFORMANCE SYLLABUS**

## **GROUND INSTRUCTION 1 HOUR**

- (1) REVIEW LIMITATIONS SECTION OF THE C182S POH
- (2) REVIEW ALL NORMAL CHECKLISTS (PREFLIGHT THROUGH SECURING THE AIRCRAFT)
- (3) DISCUSS THE USE OF MANIFOLD PRESSURE, CONSTANT SPEED PROPELLERS, LEANING THE MIXTURE, COWL FLAPS AND CYLINDER HEAD TEMPERATURE

## **FLIGHT INSTRUCTION 1 HOUR**

- (1) STEEPTURNS
- (2) SLOW FLIGHT
- (3) STALLS
- (4) TAKEOFFS
- (5) BALKED LANDINGS
- (6) STABILIZED APPROACHS AND LANDINGS

**\*\*\*FLIGHT FOCUS WILL BE ON STABILIZED APPROACHS AND LANDINGS\*\*\***

(a) SAFETY: NEARLY HALF OF THE C182 LANDING ACCIDENTS ARE DUE TO HARD LANDING. The C182 IS HEAVY IN ELEVATOR CONTROL PRESSURE. THIS HEAVINESS CONTINUES INTO FLARE AND TOUCHDOWN. A SOLUTION TO THIS DIFFICULTY IS TO TRIM OFF THE HEAVY ELEVATOR CONTROL PRESSURE WHILE FLYING A STABILIZED POWER ON APPROACH. SLOWLY CLOSE THE THROTTLE DURING THE FLARE TO BE POWER OFF AS THE MAINS TOUCHDOWN. THEN GENTLY LOWER THE NOSEWHEEL.

## **GROUND INSTRUCTION 2<sup>ND</sup> SESSION (~1/2 HOUR)**

THIS GROUND INSTRUCTION WILL BE COMPLETED WHILE SEATED IN THE AIRCRAFT WITHOUT THE ENGINE RUNNING

- (1) REVIEW ALL NORMAL CHECKLISTS
- (2) REVIEW ALL EMERGENCY CHECKLISTS
- (3) RESOLVE ANY QUESTIONS

## **FLIGHT INSTRUCTION 2<sup>ND</sup> HOUR**

- (1) FORCED LANDING AND OTHER SELECTED IN FLIGHT EMERGENCIES
- (2) FOCUS ON STABILIZED APPROACH AND LANDINGS
- (3) BALKED LANDINGS
- (4) CROSSWIND LANDINGS

## **GROUND INSTRUCTION 3<sup>RD</sup> SESSION (~1/2 HOUR)**

- (1) REVIEW OF THE PERFORMANCE SECTION
- (2) PLAN A CROSS COUNTRY FLIGHT
- (3) REVIEW OF THE KNOWLEDGE TEST
- (4) RESOLVE ANY QUESTIONS

## **FLIGHT INSTRUCTION 3<sup>RD</sup> HOUR**

- (1) SHORT AND SOFT FIELD PROCEDURES
- (2) CROSSWIND LANDINGS

(3) BALKED LANDING

(4) STABILIZED APPROACH

(5) REVIEW AS NEEDED TO TRAIN TO PROFICIENCY

## **SUNDOWNERS C182 KNOWLEDGE TEST**

(1) WHAT IS THE MAXIMUM WEIGHT FOR TAXI \_\_\_\_\_, TAKEOFF \_\_\_\_\_ AND LANDING \_\_\_\_\_?

(2) IF YOU TAKEOFF AT GROSS WEIGHT HOW MANY GALLONS OF FUEL WILL YOU HAVE TO BURN PRIOR TO LANDING? \_\_\_\_\_

(3) WHAT IS THE FLAP EXTENDED SPEED FOR: 0 – 10 DEGREES \_\_\_\_\_, 10-20 DEGREES \_\_\_\_\_, 20 DEGREES – FULL \_\_\_\_\_?

(4) WHAT IS THE MINIMUM OIL LEVEL \_\_\_\_\_ WHAT IS THE MAXIMUM OIL LEVEL \_\_\_\_\_?

(5) WHAT IS THE TOTAL USUABLE FUEL IN GALLONS \_\_\_\_\_?

WHAT IS THE (TAB) REDUCED FUEL IN GALLONS \_\_\_\_\_?

(6) WHAT POSITION SHOULD THE COWL FLAPS BE IN BEFORE START \_\_\_\_\_?

(7) HOW LONG DO YOU PRIME A COLD ENGINE BEFORE STARTING?

(8) HOW DO YOU START A FLOODED ENGINE?

(9) HOW DO YOU LEAN AN ENGINE AFTER START PRIOR TO TAXI?

(10) WHY IS THE PROPELLER CYCLED FROM HIGH TO LOW RPM ON THE BEFORE TAKEOFF CHECKLIST?

(11) WHAT IS THE BEST RATE OF CLIMB AT SEA LEVEL \_\_\_\_\_  
AT 10,000 FT. \_\_\_\_\_?

(12) DURING CLIMB TO CRUISE ALTITUDE YOU NOTICE THE CYLINDER HEAD TEMPERATURE (CHT) NEAR THE 500 F DEGREE LIMIT. WHAT ACTIONS CAN YOU TAKE TO DECREASE THE TEMPERATURE?

(13) WHAT IS THE TARGET CHT THAT THE PILOT SHOULD STRIVE TO ACHIEVE?

(14) WHAT IS THE NORMAL POSITION OF THE COWL FLAPS IN CRUISE?

(15) WHAT IS THE RECOMMENDED LEAN MIXTURE SETTING FOR CRUISE?

(16) WHAT IS THE POSITION OF THE COWL FLAPS AFTER LANDING

(17) WHAT ARE THE MEMORY ITEMS IN THE ENGINE FAILURE DURING FLIGHT (RESTART PROCEDURES) CHECKLIST?

(18) CALCULATE THE FUEL BURN FROM PARKED AT THE RAMP AT POINT A TO POINT B FOR A FLIGHT FROM ( KFMY) FT MYERS TO ( MYGF) FREEPORT. USE THE FOLLOWING INFORMATION:

(1) TOTAL DISTANCE 178 NM

(2) NORMAL CLIMB – 90 KIAS CHART

(3) CRUISE ALTITUDE 8000 FT

(4) USE 2300 RPM AND 21 IN HG MP

(5) USE 20 DEGREES ABOVE STANDARD TEMPERATURE

(6) ASSUME ZERO WIND

WHAT IS THE FUEL REQUIRED FROM POINT A TO POINT B (NO RESERVE)?

(19) FLIGHT OVER WATER AND TO ISLANDS REQUIRES ADDITIONAL CONSIDERATION DUE TO POSSIBLE UNEXPECTED CONDITIONS. REFERRING TO (18) ABOVE, CALCULATE THE FUEL REQUIRED FLYING TO AN ALTERNATE THAT IS A 30 MINUTE FLIGHT AND LAND WITH 1 HOUR RESERVE USING THE 8000 FT CRUISE CHART.

(20) CALCULATE TAKEOFF DISTANCE AT 3100 LB, 30 DEGREE C, ZERO WIND, USING A FLAPS 20 DEGREES TAKEOFF.

(21) CALCULATE LANDING DISTANCE AT 2950 LB, 30 DEGREE C, ZERO WIND, WITH FULL LANDING FLAPS.

(22) REVIEW THE PRE CALCULATED WEIGHT AND BALANCE ON PG. 6-12.

USING: 300 LB. OF FUEL

400 LB. PILOT & FRONT SEAT PASSENGER

300 LB. SECOND ROW PASSENGERS

100 LB. BAGGAGE

(23) CALCULATE A WEIGHT AND BALANCE USING YOUR ACTUAL WEIGHT AND WEIGHT OF YOUR FRIENDS ON A TRIP TO FREEPORT.

(24) SEQUENCE OF OPERATIONS IS IMPORTANT WHEN MAKING POWER SETTING ADJUSTMENTS. LIST THE PROPER ORDER AND CONTROL INPUTS USED FOR ADJUSTING MP, RPM, MIXTURE AND COOLING UNDER THE FOLLOWING CIRCUMSTANCES

A) INITIAL POWER REDUCTION AFTER TAKEOFF

B) INITIAL LEVEL OFF AT CRUISE



C) CHANGING FROM INITIAL CRUISE ALTITUDE TO A HIGHER  
ASSIGNED ALTITUDE

D) BEGINNING INITIAL DESCENT FROM CRUISE TO LANDING

(25) DETERMINE THE APPROPRIATE THROTTLE AND PROPELLER  
SETTINGS FOR THE FOLLOWING SCENARIOS:

A. 4000' P.A, 7 DEG. C, 75% POWER

B. 8000' P.A, 19 DEG. C, 60% POWER

(26) LIST THE TRUE AIRSPEED AND FUEL CONSUMPTION FOR EACH OF  
THE SCENARIOS IN (25) ABOVE

A.

B.

I certify that (Print Name) \_\_\_\_\_,

pilot certificate # \_\_\_\_\_, has received the required training of FAR 61.31 (f) in Sundowners Inc. Cessna 182S, N7270H. I have determined that he/she is proficient in the operation and systems of a high performance airplane.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

CFI: \_\_\_\_\_ Expires: \_\_\_\_\_

I have received transition training to high performance airplanes and completed the ground and flight training noted above.

Pilot Signature: \_\_\_\_\_ Date: \_\_\_\_\_