



CHECKLIST DR400 / 200R

ENGLISH

SPEED

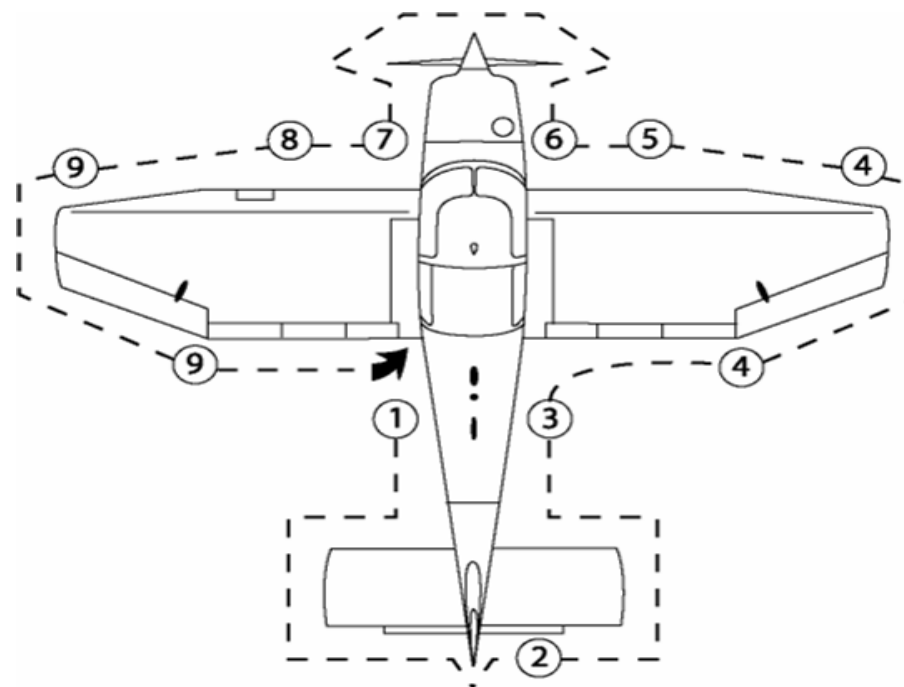
Vr.....	61 kt	Vs0.....	49 kt
Vx.....	65 kt	Va.....	116 kt
Vy.....	86 kt	Vref.....	70 kt + WIND
Vbest glide.....	81 kt	Cruise.....	130 kt

FUEL

TOTAL	160 L
USABLE	159 L
CONSUMPTION	~ 45L/H
ENDURANCE	~ 3H30

OTHER

DEMONSTRATED CROSSWIND	22 kt
MTOM.....	1100 kg



INSPECTION PRE-FLIGHT

1. MAGNETO SWITCH.....	OFF
2. CONTROLS	FREE
3. BATTERY SWITCH	ON
4. FLAPS, COWL FLAPS AND ANNUNCIATOR LIGHTS	CHECK OPERATION
5. FUEL QUANTITY.....	CHECK
6. BATTERY SWITCH	OFF
7. AIRCRAFT DOCUMENTS	CHECK AVAILABILITY ON BOARD
8. BAGGAGES.....	CHECK STOWING

01

1. FUEL FILLER CAP..... IN PLACE, LOCKED
2. STATIC VENT..... CLEAN, UNOBSTRUCTED
3. FUSELAGE MAIN TANK DRAIN VALVE ACTUATED

02

1. HORIZONTAL STABILIZER..... SURFACE CONDITION, HINGES WITHOUT CLEARANCE
2. RUDDER..... CHECK HINGES AND CLEARANCE

03

1. STATIC VENT..... CLEAN, UNOBSTRUCTED

04

1. FLAP AND AILERON CHECK CONDITION AND HINGES
2. WING TIP AND NAVIGATION LIGHT CHECK CONDITION

05

1. STALL WARNING CLEAN, CHECK DISPLACEMENT
2. RIGHT MAIN LANDING GEAR CHECK ATTACHMENT AND FAIRING CONDITION
..... NORMAL SHOCK ABSORBER COMPRESSION
..... TYRE INFLATED

06

1. FUEL DRAIN VALVE ACTUATED
2. OIL LEVEL CHECK, OIL CAP SECURED, PANEL CLOSED
3. ENGINE COWL ATTACHMENT CHECK
4. PROPELLER..... CLEAN, IN GOOD CONDITION
5. PROPELLER SPINNER NO PLAY
6. AIR INLETS..... CLEAN, UNOBSTRUCTED

07

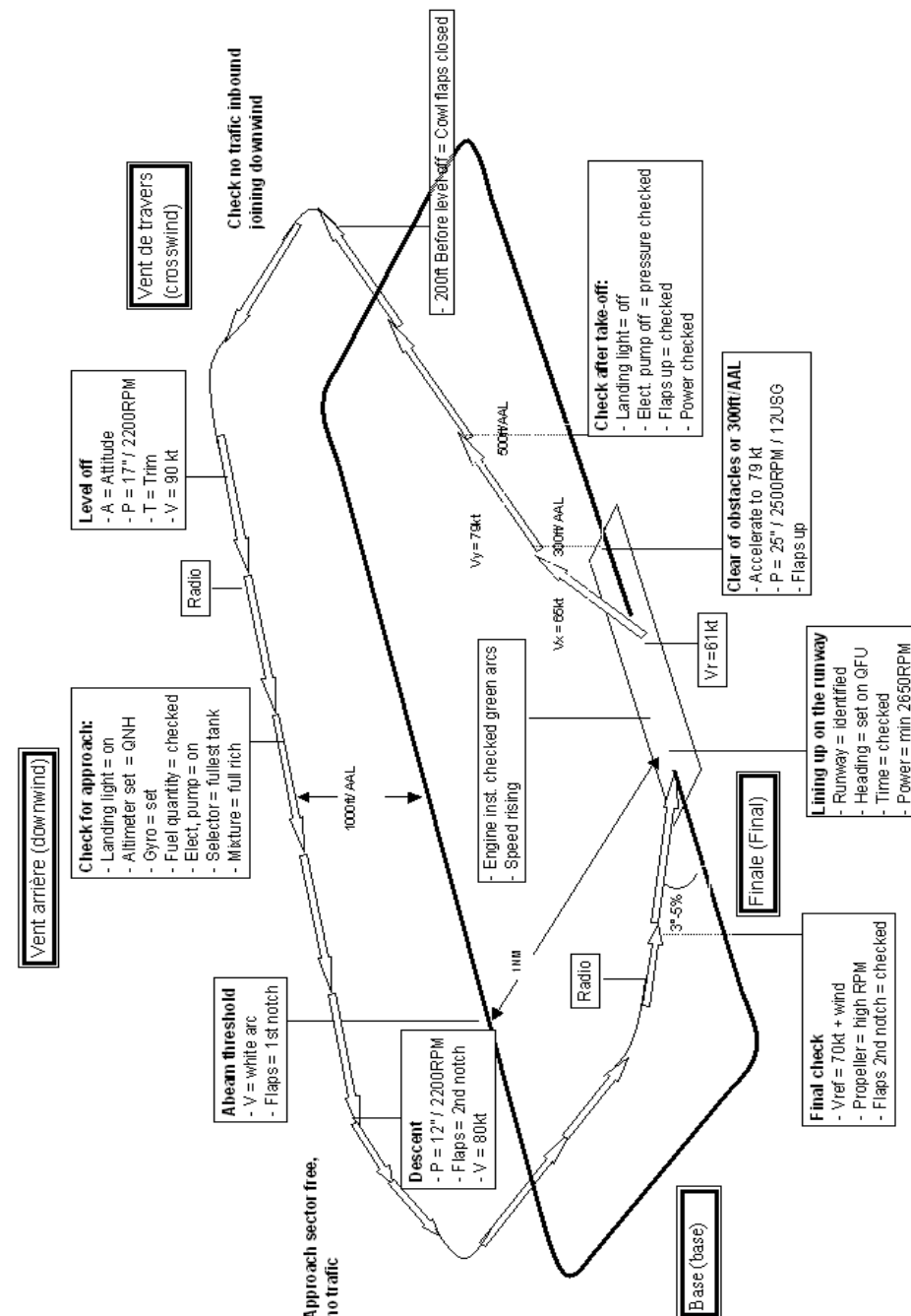
1. NOSE GEAR CHECK ATTACHMENT AND FAIRING CONDITION
..... NORMAL SHOCK ABSORBER COMPRESSION
..... TYRE INFLATED
..... TOW BAR REMOVED
2. EXHAUST PIPES..... RIGID
3. CANOPY CLEANLINESS CHECK

08

1. LEFT MAIN LANDING GEAR CHECK ATTACHMENT AND FAIRING CONDITION
..... NORMAL SHOCK ABSORBER COMPRESSION
..... TYRE INFLATED
2. PITOT..... CLEAN, UNOBSTRUCTED
3. LIGHTS..... GLASS CLEAN

09

1. WING TIP AND NAVIGATION LIGHT CHECK CONDITION
2. FLAP AND AILERON CHECK CONDITION AND HINGES



PREFLIGHT INSPECTION

1. OIL LEVEL BETWEEN 6 AND 8 US QUARTS
2. AIRCRAFT DOCUMENTS, AIRCRAFT LOGBOOK, CHECKLIST ON BOARD
3. EMERGENCY EQUIPMENTS FLASHLIGHT, MICRO,
..... FIRE EXTINGUISHER, EMERGENCY CHECKLIST

WINTER - START UP PROCEDURE : TEMPERATURE < 5°C

1. PROPELLER PITCH HIGH RPM
2. BOOST PUMP ON
3. THROTTLE 1 CM FORWARD
4. MIXTURE FULL RICH DURING 8 SEC
UNTIL SLIGHTLY "FUEL FLOW" IS NOTED THEN CUT OFF
5. STARTER ENGAGE
AS SOON AS THE ENGINE BEGIN TO START
6. MIXTURE ADVANCE SLOWLY TO FULL RICH

IF THE ENGINE DOESN'T START, DO AGAIN THE PROCEDURE AT POINT 4

BEWARE OF NOT INJECT FUEL IN THE SAME TIME OF STARTING THE ENGINE

KEEP YOUR HAND ON THE MAGNETOS

SUMMER - START UP PROCEDURE : TEMPERATURE >5°C

1. PROPELLER PITCH HIGH RPM
2. BOOST PUMP ON
3. THROTTLE 1 CM FORWARD
4. MIXTURE FULL RICH DURING 3-5 SEC MAX
UNTIL SLIGHTLY "FUEL FLOW" IS NOTED THEN CUT OFF
5. STARTER ENGAGE
AS SOON AS THE ENGINE BEGIN TO START
6. MIXTURE ADVANCE SLOWLY TO FULL RICH
IF THE ENGINE DOESN'T START, DO AGAIN THE PROCEDURE AT POINT 4

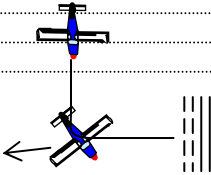
SUMMER- WINTER - HOT ENGINE START UP PROCEDURE

1. DO THE SAME THAT THE SUMMER PROCEDURE, EXCEPT DO NOT INJECT FUEL

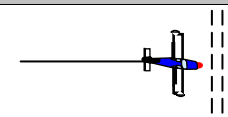
FLOODED ENGINE PROCEDURE

1. ELECTRIC PUMP OFF
2. MIXTURE LEAN
3. THROTTLE FULL POWER
4. STARTER ENGAGE
AS SOON AS THE ENGINE BEGIN TO START, ADVANCE THE MIXTURE TO FULL RICH
AND CONTINUE THE NORMAL PROCEDURE

TAXI

1. PARKING BRAKE RELEASED
2. POWER 1200RPM
3. BRAKES CHECK
4. FLIGHT INSTRUMENTS

 - AIRSPEED READ "0"
 - HORIZON STABLE
 - ALTIMETER QNH, CHECK ALTITUDE
 - TURN COORDINATOR TURN IN THE SIDE OF THE CURVE, BALL EXTERIOR
 - DIRECTIONAL GYRO INDICATION: INCREASE (R) AND DECREASE (L)
 - VERTICAL SPEED READ "0"
 - COMPASS FREE

RUN UP



1. WAIT THAT THE ENGINE WARM UP CYLINDER HEAD TEMPERATURE IN THE GREEN
..... OR TEMPERATURE OF OIL MINI 40°
..... OR IN THE WINTER, WAIT MINI 5-10 MIN

TAKE-OFF BRIEFING

1. SPEED Vr
..... Vx
..... Vy
2. ROUTING 1st HEADING
..... 1st ALTITUDE
3. EMERGENCY PROCEDURE:
ANY FAILURE BEFORE Vr POWER IDLE
..... BRAKE, MAINTAIN RUNWAY AXIS
..... ADVISE ATC
ENGINE FAILURE AFTER Vr
UP TO 1000FT/GROUND LAND STRAIGHT AHEAD, Vbest glide
FROM 1000FT/GROUND LAND STRAIGHT AHEAD OR BACK ON RUNWAY, Vbest glide

APPROACH BRIEFING

1. ENTRY POINT CHECKED
2. RUNWAY IN USE BRIEFED
3. ALTITUDE OF DOWNWIND BRIEFED
4. ALTITUDE OF AIRPORT BRIEFED
6. SPEED INITIAL
..... INTERMEDIATE
..... FINAL
7. GO AROUND PROCEDURE BRIEFED

01 - CHECK BEFORE STARTING ENGINE

1. OUTSIDE CHECKS PERFORMED
2. SEATS POSITION ADJUSTED & LOCKED
3. SEAT BELTS & SHOULDER HARNESS FASTENED & ADJUSTED
4. PARKING BRAKE SET
5. ELECTRICAL CONSUMERS OFF
6. MASTER SWITCH & ALTERNATOR ON
7. CIRCUIT BREAKERS IN
8. COWL FLAPS OPEN
9. ANNUNCIATOR LIGHTS TEST & DAY POSITION
10. ELT AUTO / ARMED
11. FUEL QUANTITY / ENDURANCE CHECKED
12. FUEL SELECTOR OPEN
13. AUXILIARY TANK AS REQUIRED

02 - STARTING ENGINE

1. NAV LIGHT & STROBE ON
2. PROPELLER PITCH HIGH RPM
3. BOOST PUMP ON
4. CANOPY CLOSED & LOCKED
5. THROTTLE 1 CM FORWARD
6. MIXTURE FULL RICH DURING 3 TO 5 SEC. MAX
UNTIL SLIGHTLY "FUEL FLOW" IS NOTED THEN CUT OFF
7. PROPELLER AREA CLEAR
8. STARTER ENGAGE
9. MIXTURE SLOWLY TO FULL RICH
10. POWER 1200 RPM
11. OIL PRESSURE CHECKED

03 - CHECK AFTER STARTING ENGINE

1. BOOST PUMP / PRESSURE OFF / CHECKED
2. AMMETER GREEN SECTOR
3. ANNUNCIATOR LIGHTS EXTINGUISHED EXCEPT FLAPS
4. STROBE LIGHT OFF

04 - BEFORE TAXI

1. FLAPS UP
2. VENTILATION, HEATER & DEFROSTER AS REQUIRED
3. AVIONICS ON, SET
4. ATIS RECEIVED
5. DIRECTIONAL GYRO SET

READY FOR TAXI

05 - TAXI

1. TAXI LIGHT ON
2. BRAKES & STEERING CHECKED
3. MAGNETIC COMPASS FREE, FULL OF FLUID
4. GYRO INSTRUMENTS CHECKED

06 - RUN-UP

1. PARKING BRAKE SET
2. POWER 1200RPM
3. TAXI LIGHT OFF
4. ENGINE INSTRUMENTS CHECKED
5. CANOPY CLOSED & SECURED
6. MIXTURE FULL RICH
7. POWER 2000 RPM
8. GYRO-SUCTION CHECKED
9. AMMETER CHECKED
10. MAGNETOS CHECKED L/R(175/50)THEN "BOTH"
11. PROPELLER PITCH / GOVERNOR 3x / DROP MAX 500RPM
12. MIXTURE CHECKED
13. IDLE 600-650RPM
14. POWER 1000-1200RPM

07 - CHECK BEFORE DEPARTURE

1. SEAT BELTS & SHOULDER HARNESSSES SECURED CHECKED
2. FUEL QUANTITY / ENDURANCE CHECKED
3. FUEL SELECTOR OPEN
4. AUXILIARY TANK AS REQUIRED
5. MIXTURE FULL RICH
6. PROPELLER PITCH HIGH RPM
7. MAGNETOS CHECKED BOTH
8. CONTROLS FREE ☐
9. ELEVATION & RUDDER TRIM T/O POSITION
9. FLAPS T/O POSITION
10. COWL FLAPS OPEN
11. FLIGHT INSTRUMENTS & AVIONICS CHECKED
12. SPEEDS, Vr 61 kt / Vx65 kt / Vy 79 kt (T/O), 86 kt BRIEFED
13. DEPARTURE ROUTING, 1st HDG 1st ALT BRIEFED
14. EMERGENCY PROCEDURES BRIEFED

READY FOR DEPARTURE

08 - BEFORE & LINE-UP

1. CANOPY CLOSED & SECURED
2. LANDING LIGHT & STROBE ON
3. AVIONIC & X-PANDER SET / ACCORDING ATC
4. BOOST PUMP ON
5. APPROACH SECTOR FREE
6. WIND CHECKED

09 - TAKE OFF & INITIAL CLIMB	
1. DIRECTIONAL GYRO	SET WITH RUNWAY HEADING
2. TIME	CHECK
3. BRAKES	RELEASED & FREE
4. T/O POWER	FULL POWER / 2650 RPM MIN CHECKED
5. SPEED RISE	CHECKED
6. T/O SPEED (Vr)	REACHED, ROTATION
7. ATTITUDE & CLIMB SPEED	ESTABLISHED
8. POWER	25"/ 2500 RPM
9. MIXTURE	12 USG/H SET
10. FLAPS	UP

10 - CLIMB CHECK	
1. FLAPS	CHECKED UP
2. LANDING LIGHT	OFF
3. BOOST PUMP / PRESSURE	OFF / FUEL FLOW & ANNUNCIATOR LIGHT CHECKED
4. POWER	25"/ 2500 RPM / 12 USG, CHECKED

11 - CRUISE CHECK	
1. COWL FLAPS	(200FT BEFORE ALTITUDE REACHING) CLOSED
2. POWER	SET
3. MIXTURE	SET

12 - CRUISE CHECK & EVERY 15 MINUTES	
1. ALTIMETER	SET
2. DIRECTIONAL GYRO	CHECKED
3. ENGINE INSTRUMENTS	CHECKED
4. CRUISE POWER SETTING	CHECKED
5. MIXTURE SETTING	CHECKED

FUEL MANAGEMENT

6. FUEL QUANTITY AND ENDURANCE REMAINING	CHECKED
7. AUXILIARY TANK	AS REQUIRED

13 - DESCENT FOR APPROACH	
1. ATIS	RECEIVED
2. APPROACH BRIEFING	BRIEFED
3. SEAT BELTS & SHOULDER HARNESSSES	CHECKED
4. FLIGHT INSTRUMENTS & AVIONICS	CHECKED
5. DESCENT POWER	SET
6. MIXTURE	ENRICH ACCORDING TO DESCENT

14 - APPROACH PREPARATION	
1. LANDING LIGHT	ON
2. ALTIMETER	SET
3. DIRECTIONAL GYRO	SET
4. FUEL QUANTITY & ENDURANCE	CHECKED
5. BOOST PUMP	ON
6. AUXILIARY TANK	AS REQUIRED
7. MIXTURE	FULL RICH (OR AS REQUIRED BY FIELD ELEVATION)

15 - FINAL CHECK	
1. FLAPS LDG POSITION	CHECKED
2. PROPELLER PITCH	HIGH RPM
3. FINAL SPEED (ACC AFM)	SET & TRIM

16 - BALKED LANDING - [GO AROUND]	
1. MIXTURE	CHECKED, FULL RICH
2. PROPELLER PITCH	CHECKED, HIGH RPM
3. POWER	FULL THROTTLE
4. ATTITUDE & SPEED	ESTABLISHED
5. FLAPS	T/O POSITION
6. COWL FLAPS	OPEN

17 - AFTER LANDING	
1. STROBE LIGHT	OFF
2. LIGHTS	LANDING OFF / TAXI ON
3. X-PANDER	STBY
4. BOOST PUMP	OFF
5. COWL FLAPS	OPEN
6. FLAPS	UP

18 - ENGINE SHUT DOWN	
1. PARKING BRAKE	SET
2. POWER	1000 RPM
3. TAXI LIGHT	OFF
4. EMERGENCY FREQUENCY 121.5	LISTENED
5. AVIONICS	OFF
6. ELEVATOR & RUDDER TRIM	T/O POSITION
7. FLAPS	FULL DOWN
8. CANOPY	CLOSED & SECURED
9. MIXTURE	CLOSED
10. THROTTLE	CLOSED
11. MAGNETOS	OFF
12. KEYS	REMOVED
13. NAVIGATION LIGHT	OFF
14. BATTERY & ALTERNATOR	OFF
15. FLIGHT TIME COUNTER (FTC)	NOTED

19 - PARKING	
1. KEYS	REMOVED, CHECKED
2. BATTERY & ALTERNATOR	OFF, CHECKED
3. AUXILIARY TANK	CLOSED
4. AIRCRAFT	CHOCKED & SECURED
5. CABIN & SEAT BELTS	TIDYED
6. CONTROLS (PIC SEAT)	LOCKED

BEST POWER SETTING							
PRESSURE ALTITUDE Zp ft	POWER		INLET PRESSURE in. Hg	FUEL FLOW		TRUE AIR SPEED	
	%	RPM		L/H	USG/H	Km/h	KT
0	75	2450	24.7	45.4	12.0	235	126
	65	2350	23.4	40.0	10.6	218	117
3000	75	2450	24.2	45.4	12.0	243	131
	65	2350	22.6	40.0	10.6	226	122
4500	75	2450	23.9	45.4	12.0	247	133
	65	2350	22.3	40.0	10.6	230	124
5500	75	2450	23.8	45.4	12.0	250	135
	65	2350	22.0	40.0	10.6	233	125
7500	70	2450	22.0	42.5	11.2	248	133
	65	2350	21.5	40.0	10.6	239	129
9500	65	2450	20.4	40.6	10.7	244	131
	61.8	2350	20.2	39.4	10.4	238	128

ECONOMY SETTING							
PRESSURE ALTITUDE Zp ft	POWER		INLET PRESSURE in. Hg	FUEL FLOW		TRUE AIR SPEED	
	%	RPM		L/H	USG/H	Km/h	KT
0	75	2450	24.7	37.8	10.0	233	126
	65	2350	23.4	34.0	9.0	216	116
3000	75	2450	24.2	37.8	10.0	241	130
	65	2350	22.6	34.0	9.0	224	121
4500	75	2450	23.9	37.8	10.0	245	132
	65	2350	22.3	34.0	9.0	228	123
5500	75	2450	23.8	37.8	10.0	248	133
	65	2350	22.0	34.0	9.0	231	124
7500	70	2450	22.0	36.2	9.6	246	132
	65	2350	21.5	34.0	9.0	237	128
9500	65	2450	20.4	34.7	9.2	242	130
	61.8	2350	20.2	33.0	8.7	236	127

EMERGENCY PROCEDURES

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ENGINE FAILURE DURING TAKEOFF (ROLL)

With sufficient runway remaining:

Throttle to idle, and stop in the runway axis using brakes as required.

Without sufficient runway remaining:

1. Throttle..... idle
2. Brakes..... apply heavily
3. Mixture..... idle cut-off
4. Fuel valve..... closed
5. Magnetos switch..... off
6. Battery switch..... off

ENGINE FAILURE IMMEDIATELY AFTER TAKE OFF

1. Glide speed..... (78 kt) 145 km/h
2. Mixture..... idle cut-off
3. Fuel valve..... off
4. Magnetos switch..... off
5. Battery switch..... off

NOTE CAREFULLY

Land straight head, with only small direction changes to avoid obstructions.

Never try to turn back to the runway, as altitude after take off is seldom sufficient.

ENGINE FAILURE IN FLIGHT

If altitude is evaluated to be sufficient to try an engine restart

Establish maximum glide speed, flaps up 150 km/h (81 kt). In these conditions, and without wind, the aircraft covers approximately 9.3 times its altitude.

1. Electric pumpon
2. Mixture fully rich
3. Throttle 1/4 travel forward
4. Magnetos switch L + R ("Both")

If the propeller still turns, the engine should restart.

If the propeller is stopped, operate the starter.

If the engine still does not start, prepare for a forced landing, following the procedure below.

POWER OFF FORCED LANDING OFF AIRFIELD

Look for a suitable landing area:

1. Belts and harness tight
2. Electric pump off
3. Mixture idle cut-off
4. Throttle to idle
5. Magneto switch off
6. Fuel valve off
7. Alternator switch off
8. Battery switch off

Final

Flaps full down
Canopy unlock

PRECAUTIONARY POWER LANDING ON AIRFIELD

Fly over the choose field several times at low speed (150 km/h - 81 kt) in order to locate the most suitable landing area, flaps in "takeoff" position (1st notch) then make a precautionary approach at 125 km/h (67 kt), flaps in landing configuration (2nd notch)
On final, unlock the canopy

Before touchdown:

1. Magneto switch off
2. Battery switch off

NOTE: IN CASE OF CANOPY JAMMING

Canopy handle in " open " position.

Free the two canopy release levers located on the arm rests, on both sides of the instrument panel, and place them in vertical position.

FIREEngine fire during starting:

Keep the engine turning with:

1. Fuel valve off
2. Electric pump off
3. Throttle full power
4. Mixture idle cut-off

The aim of this procedure is to make the engine "swallow" the accumulated fuel in the inlet pipes (generally following an excess of fuel injection during a difficult engine start).

If the fire continues

1. Magneto switch off
2. Battery switch off
3. Alternator switch off

Abandon the aircraft, and try to extinguish the fire with the aids available:
fire extinguishers, covers, clothing or sand.

Engine fire in flight

1. Fuel valve off
2. Throttle full power until engine stops
3. Mixture idle cut-off
4. Electric pump off
5. Alternator switch off
6. Cabin heat and ventilation off
7. Establish maximum glide speed 81 kt (150 km/h)

Prepare for a forced landing off airfield, following the procedures in the chapter

"Power off forced landing off airfield"

Do not attempt to restart the engine.

Cabin fire:

Extinguish the fire by means possible (optional extinguisher)

To eliminate smoke, apply maximum ventilation.

In case an electrical fire (fumes indicating insulation burning)

1. Cabin ventilation reduce
2. Alternator switch off
3. Battery switch off
4. Battery breaker pull out
5. Alternator breaker pull out

Land quickly if the fire continues.

VIBRATIONS AND ENGINE ROUGHNESS OPERATION

Vibrations and engine roughness operation are generally due to (verify in this order)

1. Mixture set too rich or lean: adjust the mixture (see section 4)
2. Contamination in the fuel system: verify fuel pressure. Switch on the fuel pump
3. Ignition failure: magneto switch on "L", then "R", then return to "BOTH".
Select the position proving best engine operation and fly to the nearest airfield,
reduced power, mixture on " full rich ".

LOW OIL PRESSURE

In case of fuel low oil pressure indication, check oil temperature,
and if it is too high (red arc)

1. Reduce power
2. Flight to the nearest airfield, and prepare for an off airfield landing

ICING

Proceed as follows when inadvertently encountering icing:

1. Increase power in order to reduce ice built-up to minimum
2. Switch on the PITOT heat (if installed)
3. Select maximum cabin heat, and direct the total output to the windscreen
(position "defrost") in order to remove the ice quickly
4. Turn back, or change altitude, to obtain an outside air
temperature less conducive to icing.
5. Plan to land at the nearest airfield.

With an extremely rapid ice built-up, carry out a forced landing.

Remember that a layer of 0.5 cm (0.2 in) on the wing leading edge fairly
increases stall speed. If needed, use a higher than normal approach speed:
145 km/h (78 kt)

ELECTRICAL POWER SUPPLY MALFUNCTION

Alternator failure is indicated when the amber "alternator failure" light on the warning panel is lit, and a progressive drop in voltage (show on the voltmeter).

If "alternator failure" is lit

Switch off the alternator, when back on.

This operation resets the overvoltage relay which may have cut-out due to a transient overvoltage.

If the failure continues

1. Switch off the alternator
2. Switch off all electrical equipment not essential for continuing the flight
3. Land as soon as possible, and have the electrical system inspected

NOTE

An alternator failure does not prevent the engine from operating normally

INADVERTENT SPIN

Should a spin occur, use the following procedure:

1. Throttle idle
2. Rudder maximum opposite to direction of rotation
3. Elevator neutral
5. Ailerons neutral
6. Once rotation stops, rudder to neutral position and recover within flight limitations.

NOTE

If flaps are down when spin begins, retract them immediately.

LOSS OF ELEVATION CONTROL

In the event of loss of elevator control (accidental disconnecting):

Stabilize the aircraft in level flight, flaps up, at 150 km/h (81 kt), using the elevator trim and throttle.

Do not change the elevator trim setting, and control the angle of descent only with throttle. Reduce power only on short final, and near to the ground.