SAMPLE	ABNORMAL CHECKLIST	
VERSION 1.0		DA40-D

DODAR PROCESS

Diagnosis / Options / Decide / Assign tasks and Action / Review decision

NITS MEMONIC

Nature / Intentions / Time / Special Instructions

TAKE-OFF FROM A SHORT GRASS STRIP

BRAKES _____ APPLY
FLAPS _____ T/O
POWER LEVER _____ MAX
ELEVATOR _____ FULLY AFT
BRAKES _____ RELEASE
HOLD DIRECTION _____ USING RUDDER

In strong crosswinds steering can be augmented by use of the toe brakes. It should be noted, however, that this method increases the take-off roll, and should not generally be used.

ELEVATOR _____ RELEASE SLOWLY
Allow airplane to lift off as soon as possible and increase speed at low level.

AIRSPEED _____ 66 KIAS (1150 kg)
FLAPS _____ UP
AIRSPEED _____ 75KIAS
LANDING LIGHT _____ AS REQD

INDICATIONS OUTSIDE OF GREEN RANGE (RPM)

HIGH RPM _____ REDUCE POWER
RPM _____ GREEN RANGE
An RPM in the yellow range is permissible for a short time if required, e.g. for go-around. If the available power is too low to continue a safe flight, perform a precautionary landing on the nearest airfield in accordance with 4B.1 - PRECAUTIONARY LANDING.

INDICATIONS OUTSIDE OF GREEN RANGE (COOLANT)

HIGH COOLANT TEMP _____ CHECK COOLANT (WATER LEVEL)
CAUTION LIGHT (WATER LEVEL) _____ OFF
DURING CLIMB _____ REDUCE POWER
INCREASE AIRPSEED _____ +10KIAS
DURING CRUISE _____ REDUCE POWER
INCREASE AIRPSEED _____ +10KIAS
If the coolant temperature does not return to the green range, perform a precautionary landing on the nearest airfield in accordance with 4B.1 - PRECAUTIONARY LANDING.
CAUTION LIGHT (WATER LEVEL) _____ ON
POWER LEVER _____ REDUCE
Expect loss of coolant. A further increase in coolant temperature must be expected. Prepare for an emergency landing in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF

LOW COOLANT TEMP _____ CHECK COOLANT (WATER LEVEL)
During an extended descent from high altitudes with a low power setting coolant temperature may decrease.
POWER LEVER _____ REDUCE
Expect loss of coolant. A further decrease in coolant temperature must be expected. Prepare for an emergency landing in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF.

INDICATIONS OUTSIDE OF GREEN RANGE (OIL TEMP)

HIGH OIL TEMP _____ CHECK OIL PRESSURE
OIL PRESSURE _____ LOW
POWER LEVER _____ REDUCE
Expect loss of oil with engine failure. Prepare for an emergency landing in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF.

If the oil pressure is within the green range
POWER LEVER _____ REDUCE
AIRSPEED _____ INCREASE
MONITOR _____ OIL TEMP

If the oil temperature is low
POWER LEVER _____ INCREASE
AIRSPEED _____ REDUCE
MONITOR _____ OIL TEMP

INDICATIONS OUTSIDE OF GREEN RANGE (OIL PRESS.)

HIGH OIL PRESSURE _____ CHECK OIL TEMP
COOLANT _____ CHECK COOLANT TEMP

If the temperatures are within the green range: - Expect wrong oil pressure indication. Keep monitoring temperatures. If the temperatures are not within the green range

POWER LEVER _____ REDUCE
Expect engine failure. Prepare for an emergency landing in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF.

LOW OIL PRESSURE _____ REDUCE POWER
POWER LEVER _____ REDUCE
MONITOR _____ CHECK OIL TEMP
Expect loss of oil with engine failure. Prepare for an emergency landing in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF.

INDICATIONS OUTSIDE OF GREEN RANGE (GEARBOX)

GEARBOX TEMP _____ HIGH
POWER LEVER _____ REDUCE
AIRSPEED _____ INCREASE

FUEL TEMPERATURE

FUEL TEMP _____ HIGH
POWER LEVER _____ REDUCE
AIRSPEED _____ INCREASE
Increased fuel temperature can occur when the fuel quantity in the main tank is low. The fuel temperature can be decreased by transferring fuel from the auxiliary to the main tank.
FUEL TEMP _____ LOW
POWER LEVER _____ INCREASE
AIRSPEED _____ REDUCE

If the fuel cooler is in operation (baffle removed): - Select lower flight altitude, if possible.

FAILURE IN FLAP OPERATING SYSTEM

FAILURE _____ CHECK FLAP POSITION
AIRSPEED _____ WHITE ARC
RECHECK _____ SWITCH POSITION

ONLY UP AVAIL _____ 73 KIAS
Land at a flat approach angle, use power lever to control airplane speed and rate of descent.
ONLY TO AVAIL _____ 73 KIAS
Land at a flat approach angle, use power lever to control airplane speed and rate of descent.
ONLY LDG AVAIL _____ PEFORM NORMAL LANDING

POST-FLIGHT REVIEW AIDE-MEMOIRE

What happened and why / Was the outcome positive or not / How do we repeat or avoid / Impact on Safety / Were SOP's followed / What are the learning points / Further action require

CERTAIN AIRSPEEDS (IN EMERGENCIES)

Engine failure after take-off (FLAPS T/O)	850kg – 59KT 1000kg – 66KT 1150kg –72KT
Airspeed for best glide angle (FLAPS UP)	850kg – 60KT 1000kg – 68KT 1150kg –73KT
Emergency Landing with ENG OFF (FLAPS UP)	850kg – 60KT 1000kg – 68KT 1150kg –73KT
Emergency Landing with ENG OFF (FLAPS T/O)	850kg – 59KT 1000kg – 66KT 1150kg –72KT
Emergency Landing with ENG OFF (FLAPS LDG)	850kg – 58KT 1000kg – 63KT 1150kg –71KT

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ELECTRICAL SYSTEM – LOW VOLTS

LOW VOLTAGE_____ON GROUND
CIRCUIT BREAKERS_____CHECK
POWER LEVER _____ INCREASE
CAUTION LIGHT ON_____TERMINATE FLIGHT

This caution is indicated when the normal on-board voltage (14 V) drops below 12.6 V. Possible reasons are: - A fault in the power supply. - RPM too low.

LOW VOLTAGE_____ IN AIR
CIRCUIT BREAKERS_____CHECK
ELECTRICAL EQUIPMENT _____NON ESSENTIAL OFF
CAUTION LIGHT ON_____CONSIDER ALTERNATOR FAILURE

'Low Voltage' Caution During Landing - Follow LOW VOLTAGE (ON GROUND) after landing.

ELECTRICAL SYSTEM – ECU A

ON GROUND_____TERMINATE FLIGHT
ECU A DURING FLIGHT _____PRESS ECU TEST
Hold for more than 2 seconds to reset the caution message. If reset, continue the flight.
ECU A CAUTION _____LAND ASAP
The engine must be serviced after landing.

ELECTRICAL SYSTEM – ECU B

ON GROUND_____TERMINATE FLIGHT
ECU B DURING FLIGHT _____PRESS ECU TEST
Hold for more than 2 seconds to reset the caution message. If reset, continue the flight.
ECU B CAUTION _____LAND ASAP
The engine must be serviced after landing.

ELECTRICAL SYSTEM – ALTERNATOR

ALTERNATOR CAUTION_____ILLUMINATED/BLINKING
CIRCUIT BREAKERS_____CHECK
ESSENTIAL BUS_____ON
ELECTRICAL EQUIPMENT _____NON ESSENTIAL OFF
LAND_____ASAP

ELECTRICAL SYSTEM – ENGINE

ENGINE FAILURE_____ CHECK
CED 125_____ CHECK
AED 125 _____CHECK
If an indication either on the CED 125 or AED 125 is near the end of the green range, it may happen that it switches over to the yellow or red range for a short time. This will also cause the ENGINE caution light to illuminate

If an indication either on the CED 125 or AED 125 is outside of the green range, proceed in accordance with 4B.2 - INSTRUMENT INDICATIONS OUTSIDE OF THE GREEN RANGE.

ELECTRICAL SYSTEM – PITOT

PITOT_____CHECK ON

If In icing conditions EXPECT LOSS OF static INSTRUMENTS.

ALTERNATE STATIC_____OPEN

The Pitot heating caution message is displayed when the Pitot heating is switched off, or when there is a failure of the Pitot heating system. Prolonged operation of the Pitot heating on the ground can also cause the Pitot heating caution message to be displayed. In this case it indicates the activation of the thermal switch, which prevents overheating of the Pitot heating system on the ground. This is a normal function of the system. After a cooling period, the heating system will be switched on again automatically.

LOW FUEL

FUEL TRANSFER PUMP_____ON
FUEL QUANTITY_____CHECK
As soon as the amount of usable fuel in the main tank is less than 3 US gal (+2/-1 US gal), a caution message is displayed.

If the caution light does not extinguish: Expect loss of fuel. - Be prepared for an emergency landing. - Proceed in accordance with 3.5.1 - EMERGENCY LANDING WITH ENGINE OFF.

FAILURES ON AUX ENGINE DISPLAY

HIGH ELECTRICAL LOAD _____REDUCE CONSUMPTION
ELECTRICAL EQUIPMENT_____NON ESSENTIAL OFF
If the problem does not clear itself
LAND_____ASAP

LOW VOLTAGE _____CHECK CIRCUIT BREAKERS
ELECTRICAL EQUIPMENT_____NON ESSENTIAL OFF
If 'Low voltage' is still indicated on the AED 125 - Follow procedure in 4B.3.4 - ALTERNATOR FAILURE (ALTERNATOR)

HIGH VOLTAGE _____LAND ASAP

PRECAUTIONARY LANDING

SYSTEM FAILURE/WEATHER/MEDICAL OR OTHER _____ DODAR PROCESS
OCCURRENCE IN FLIGHT_____NITS MEMONIC
RADIO _____ADVICE ATC
NORMAL OPS_____ REFER CHECKLIST

A landing of this type is only necessary when there is a reasonable suspicion that due to fuel shortage, weather conditions, or at nightfall the possibility of endangering the airplane and its occupants by continuing the flight cannot be excluded.

POST-FLIGHT REVIEW AIDE-MEMOIRE

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