REDSKY CHECKLISTS

NORMAL CHECKLIST

Cruise
Power/Prop.....SET
Elevator/Rudder trim.....ADJUST
Mixture.....LEAN FOR ALTITUDE
Cowl Flaps.....CLOSED/AS REQ'D

Descent
Fuel .....CORRECT TANK, QTY CHECKED
Radios.....SET
Engine Instruments.....CHECKED
DI.....ALIGNED
Approach Briefing.....COMPLETE
Altimeter.....SET
Mixture.....SET
Cowl Flaps.....CLOSED
Lights.....ON/AS REQ'D

Downwind
Seats / Seatbelts.....CHECK SECURE
Fuel.....FULLER TANK
Brakes.....CHECK
Landing Gear.....DOWN, GREEN LIGHT
Mixture.....SET

Final
Cowl Flaps.....OPEN
Mixture.....SET FOR GO ROUND
Landing Gear....DOWN, ONE GREEN LIGHT
Propeller Pitch.....FULL FINE

After Landing
Cowl Flaps.....OPEN
Wing Flaps.....RETRACT
Land, Strobe lights.....OFF
Transponder.....STANDBY

Shutdown and Securing
Power.....IDLE
Avionics and Electrics.....OFF
Mixture.....IDLE CUTOFF
Magnetos.....OF
Master.....O

REFERENCE INFORMATION

Speeds
NORMAL OPERATION
Unless otherwise stated the following speeds are for MAUW, Sea Level , ISA conditions.
$V_{T/O\ 50ft}$ Flap 10 (max perf.) .....69 KIAS
V_X – Best Angle of Climb .....80 KIAS
V_Y – Best Rate of Climb.....Vy_{sl} 96 KIAS
V_Y – Best Rate of Climb..... $Vy_{10,000ft}$ 89 KIAS
V_{ref} – Minimum Approach Speed.....72 KIAS
V_A – Maneuvering Speed.....125-101 KIAS
Maximum demonstrated crosswind.....21kts

PLACARD/ASI LIMITATIONS
V_{NO} – Top of Green Arc .....165 KIAS
V_{NE} – Red Line (Never Exceed).....200 KIAS
V_S – Stall Clean .....69 KIAS
V_{SO} – Stall landing configuration.....57 KIAS
V_{FE} – Max. Flap Extn 0-30°.....115 KIAS
V_{FE} – Max. Flap Extn 0-10 °.....150 KIAS
V_{LO} – Max. Gear Extension.....165 KIAS
V_{LR} – Min. Flap Retraction .....80 KIAS

EMERGENCY OPERATION
Best glide Speed.....75-85 KIAS
Precautionary Landing:
-Slow Safe Cruise.....90-110 KIAS
-Approach (flap up).....85 KIAS
-Approach (flap full).....75 KIAS
Ditching (full flap).....75 KIAS
Engine failure after takeoff (flap up)...85 KIAS
Engine failure A.T.O(flap down).....80 KIAS
Engine Failure in flight .....85 KIAS
Landing without power (flap up).....90 KIAS
Landing without power (flap down)....80 KIAS

Operating performance
...ing..... 65lt/hr
...ruise speed..... 145KTAS

Other Information
...r Codes:
...erence.....7500
...ication 7600
.....7700
.....2000

21.5/243
....126.9
....124.8
....124.4

1979
VERSION 2

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only.
The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft.
The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.
I certify this checklist has been reviewed for accuracy.

_____1/1/06__
Director of Maintenance Date

Checklists Notes

ABOUT CHECKLISTS

Standard operating practices in aviation have advanced somewhat since the first Cessna was sold commercially. So much so that the latest Cessna's are equipped with glass cockpits! It is a great tribute to Clyde Cessna that we are still flying the early models in General Aviation today, however the procedures issued with the aircraft are no longer enough for the complex environment and in striving towards the ultimate aviation goal of zero accident rate.

Standard accepted practices now define the use and application of checklists for normal, abnormal, and emergency operations. This introduction attempts to explain these concepts to those not familiar with checklist operation in the attempt to prevent misuse.

A checklist is used to confirm completion of vital actions, AFTER completion of all required actions, on each critical stage of the flight. As such checklists attempt to include critical items only, especially where inflight operation is concerned. Acronyms and flow patterns provide useful memory aids for completion of the required actions prior to reading the checklist, and for this purpose generic acronyms and standard flow patterns are highly recommended on light aircraft, especially if operating on more than one type.

A checklist, however, should not be generic, and needs to be modified for your aircraft type and serial number, which is why this document is free. If you wish to obtain a personalised checklist for your aircraft, see more details below.

When reading a normal checklist, the item should be read, followed by a glance at the item (eyes normally but follow through with touch is ok), and the *required* response. To keep track of where you are on the checklist normally the checklist is read with thumbs on each side of the item being checked, or one thumb next to the item being checked. Single column checklists are normally easier for this, but we found the A5 format easiest for reference in a single pilot environment. Users can choose customise layout to suit their own purposes.

In the early days of checklist use, they were often used incorrectly as 'do-lists'. Do-lists are where a pilot read the item, then completed the action required and read the response. Do-lists should normally only be used for emergencies and abnormal operations. A Do-list contains BOLD items, or boxed items, which must be memorised. The philosophy of BOLD memory recall items has only been introduced in Cessna aircraft in the 1980s. Checklists from manuals produced prior to this, and updated, have been included BOLD items based on common sense application of later models requirements. Early flight manuals complicate this concept by listing 'DO-lists' only in the normal operating procedures. The easy way to see if this is the case, is by the appearance of items such as 'Starter.....ENGAGE'.

This is clearly not an item that needs to be checked but an action that should be accomplished, and this makes the process rather confusing. Common sense application of later checklists and standad practises must be used in this case.

CHECKLISTS IN A SINGLE CREW OPERATION

It may not always be practical to read a checklist in flight for a single pilot aircraft. If checklists are used in flight, it is recommended that a 'control column' type checklist is used, whereupon the critical in flight checks are attached (either

permanently with glue or temporarily with press-stick for example) to the control column or similar location where they can be read easily without distraction from flying duties. A velcro dot can be used if the whole checklist is to be placed in a relevant position, so that you can position the checklist in the desired position for takeoff and landing and stow the checklist at other times.

MODIFICATION
to modify this document to make it useable in an aircraft:
(open office version)

- Remove the unwanted pages
- Review and audit all the speeds and checklists according to the aircraft's POH;
- ensure all operating supplements and additional equipment are included;
- review the checklist for any local or operator differences (frequences, cold/hot weather, high altitudes, ATC);
- Change the model type, year and include the serial number on each page
- Change the aircraft registration and type in the footer, include the operator if required;
- Include the operating note on the last page with a signature from the responsible person in your organisation, as required;
- Print, lamin adsxt eds da nddxc dxc
- Where required submit the checklist to t he civil aviation authority with your POH for approval

SERVICES
If you require help with your checklist customisation, email the author, this service is available by providing your aircraft type and serial number, a scanned copy of the POH, and a photograph of the aircraft operating panels.

DISCLAIMER

The checklists provided in this document are based on standard international training practices. And they have been compiled from the information contained in the C210 Pilot's Operating Handbooks.

These checklists must be used by an appropriately licensed pilot, and may not be used in any manner that contradicts the manufacturers Pilot's Operating Handbook. Content of the checklist must be checked for compliance with your aircraft's serial number specific Manufacturer's Pilot's Operating Handbook.

The author accepts no liability for incorrect use of these checklists.

CONTACT THE AUTHOR:

Contact the author on
email: redskyventures@gmail.com
PO Box 11288 Windhoek
Ph +264 081 244 6336
or +971 50 563 7448

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only.
The applicable Pilot Operating Handbook and STC installations Remain the official documentation for this aircraft.
The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.
I certify this checklist has been reviewed for accuracy.

_____
Signature Responsible Person

_____
Title

_____
Date (dd-mmm-yy)

CESSNA
NORMAL CHECKLIST

Pre Start

Tach/Hobbs/Time.....RECORDED
Passenger Briefing.....COMPLETE
Preflight Inspection.....COMPLETE
Seats / Seatbelts.....ADJUST, LOCK
Brakes.....SET/HOLD
Cowl Flaps.....OPEN
Avionics.....OFF
Electrical Equipment.....OFF
Landing Gear .....DOWN
Fuel Selector Valve.....FULLER TANK
Mixture..... RICH
Propeller.....HIGH RPM
Rotating Beacon.....ON
----------MASTER ON, READY TO START----------
Landing Gear Horn.....PRESS TO TEST
Circuit Breakers.....CHECK IN
Prime.....AS REQ'D
Throttle.....½ CENTIMETER
Prop Area.....CLEAR

After Start

Oil Pressure.....GREEN
Mixture.....SET FOR TAXI
Engine Instruments.....CHECK
Taxi, Nav. Lights.....AS REQUIRED
Flaps.....RETRACTED
Transponder.....STANDBY

Taxi

Brakes.....RELEASE, CHECK
Alternate Tank.....CHECKED
Flight Instruments.....TEST AND CHECK
Nav instruments .....TEST

Pre-Run Up

Parking Brake.....SET
Cabin Doors/Windows .....CLOSED/LOCKED
Cowls.....OPEN
Fuel Selector.....FULLER TANK
Mixture .....SET
Engine Instruments.....GREEN

C210N 1979

NORMAL CHECKLIST

Pre Takeoff

Flight Controls.....FREE AND CORRECT
Trims .....SET FOR TAKEOFF
Mixture.....CHECKED, SET FOR TAKEOFF
Power.....1700RPM CHECKED
Engine Instruments...CHECKED AT 1700rpm
Magnetos.....CHECKED
Propeller Governor .....CYCLED
Ammeter.....CHECKED UNDER LOAD
Suction Gauge.....CHECKED
DI .....SET TO COMPASS
Throttle friction lock.....SET
Idle.....CHECKED
Magnetos .....BOTH
Propeller Pitch .....FULL FINE
Fuel.....CORRECT TANK, QTY CHECKED
Flaps.....SET FOR TAKEOFF
Radios.....SET FOR DEPARTURE
Navigation / GPS.....SET FOR DEPARTURE
Flight Instruments.....CHECKED AND SET
Seats and Seatbelts.....SECURE
Electrics.....CB's CHECKED
Emergency & Dep. Brief.....COMPLETED
Takeoff Power Setting/Fuel Flow.....NOTED
Park Brake.....RELEASED

Line Up

(REmember What To Do Last)
Runway Area.....CLEAR
Engine Parameters.....GREEN
Wind.....CHECK
Transponder.....SET TO ALTITUDE
DI.....ALIGNED WITH COMPASS
.....CORRECT RWY HEADING
Landing light, strobes.....ON

After Takeoff (above 1000' AGL)

Brakes.....CHECK
Undercarriage.....UP, ORANGE LIGHT
Power/Pitch.....SET
Mixture.....ADJUST
Fuel.....CHECKED
Flaps.....UP
Engine Parameters.....GREEN
Lights.....AS REQUIRED

NORMAL CHECKLIST

Cruise

Power/Prop.....SET
Elevator/Rudder trim.....ADJUST
Mixture.....LEAN FOR ALTITUDE
Cowl Flaps.....CLOSED/AS REQ'D

Descent

Fuel .....CORRECT TANK, QTY CHECKED
Radios.....SET
Engine Instruments.....CHECKED
DI.....ALIGNED
Approach Briefing.....COMPLETE
Altimeter.....SET
Mixture.....SET
Cowl Flaps.....CLOSED
Lights.....ON/AS REQ'D

Downwind

Seats / Seatbelts.....CHECK SECURE
Fuel.....FULLER TANK
Brakes.....CHECK
Landing Gear.....DOWN, GREEN LIGHT
Mixture.....SET

Final

Cowl Flaps.....OPEN
Mixture.....SET FOR GO ROUND
Landing Gear....DOWN, ONE GREEN LIGHT
Propeller Pitch.....FULL FINE

After Landing

Cowl Flaps.....OPEN
Wing Flaps.....RETRACT
Land, Strobe lights.....OFF
Transponder.....STANDBY

Shutdown and Securing

Power.....IDLE
Avionics and Electrics.....OFF
Mixture.....IDLE CUTOFF
Magnetos.....OFF
Master.....OFF
Control Lock.....INSTALLED
Tach/Hobbs/Time.....RECORDED

C210N 1979

REFERENCE INFORMATION

Speeds

NORMAL OPERATION

Unless otherwise stated the following speeds are for MAUW, Sea Level , ISA conditions.

$V_{T/O\ 50ft}$ Flap 10 (max perf.) .....69 KIAS
V_X – Best Angle of Climb .....80 KIAS
V_Y – Best Rate of Climb.....Vy_{sl} 96 KIAS
V_Y – Best Rate of Climb..... $Vy_{10,000ft}$89 KIAS
V_{ref} – Minimum Approach Speed.....72 KIAS
V_A – Maneuvering Speed.....125-101 KIAS
Maximum demonstrated crosswind.....21kts

PLACARD/ASI LIMITATIONS

V_{NO} – Top of Green Arc .....165 KIAS
V_{NE} – Red Line (Never Exceed).....200 KIAS
V_S – Stall Clean .....69 KIAS
V_{SO} – Stall landing configuration.....57 KIAS
V_{FE} – Max. Flap Extn 0-30°.....115 KIAS
V_{FE} – Max. Flap Extn 0-10 °.....150 KIAS
V_{Lo} – Max. Gear Extension.....165 KIAS
V_{LR} – Min. Flap Retraction .....80 KIAS

EMERGENCY OPERATION

Best glide Speed.....75-85 KIAS
Precautionary Landing:
-Slow Safe Cruise.....90-110 KIAS
-Approach (flap up).....85 KIAS
-Approach (flap full).....75 KIAS
Ditching (full flap).....75 KIAS
Engine failure after takeoff (flap up)…85 KIAS
Engine failure A.T.O(flap down).....80 KIAS
Engine Failure in flight .....85 KIAS
Landing without power (flap up).....90 KIAS
Landing without power (flap down)….80 KIAS

Operating performance

Planning..... 65lt/hr
Plan Cruise speed..... 145KTAS

Other Information

Transponder Codes:
Unlawful Interference.....7500
Loss of Communication 7600
Emergency 7700
Unassigned.....2000

Radio Frequencies
Emergency Frequencies.....121.5/243
All Africa TIBA.....126.9
Uncontrolled/Unmanned: 124.8
Training Areas:.....124.4

EMERGENCY PROCEDURES
Engine Failure

TAKEOFF

NOTE: Bold Items are immediate recall Items, other times may be followed up by the use of the AFM checklist.

Throttle.....IDLE
Brakes.....APPLY
Flaps.....UP
Mixture.....CUTOFF
Ignition.....OFF
Master switch.....OFF

AFTER TAKEOFF

Airspeed.....85KIAS
Mixture .....CUTOFF
Fuel Selector Valve.....OFF
Ignition.....OFF
Gear .....AS REQUIRED
Flaps .....AS REQUIRED
Master switch.....OFF

DURING FLIGHT

IMMEDIATE ACTIONS
Airspeed 85KIAS
Field.....SELECT
Approach.....PLAN

FAULT FINDIND/RESTART
Fuel Quantity .....CHECK
Fuel Selector Valve..... ON FULLER TANK
Mixture.....RICH
Fuel Pump.....ON 3-5 SECONDS
Ignition.....BOTH
(or START if not windmilling)
Throttle.....ADVANCE
If no start obtained proceed with Forced Landing Procedure

COMMUNICATE
Mayday.....Transmit Active or 121.5
Transponder.....7700
Passengers.....BRIEF

SECURE
Mixture .....CUTOFF
Fuel SelectoR.....OFF
Ignition.....OFF

FINAL
Airspeed.....90KIAS (flap up)
.....80KIAS (flap down)
Gear.....AS REQUIRED
Flaps.....AS REQUIRED
Master switch.....OFF
Doors .....UNLATCH
Touchdown.....TAIL LOW

Engine Fire

During Start

Starter.....CRANK
To draw away flames, If Engine Starts:
Power.....1700RPM
For a few minutes until flames appear to be extinguished, or if engine does not start:
Mixture .....CUT-OFF
Ignition.....OFF
Master .....OFF
Inspect damage

During Flight

Mixture .....CUT-OFF
Fuel .....OFF
Master .....OFF
Cabin Heat and Air.....OFF
Airspeed.....140MPH/120KIAS
If fire is not extinguished Increase Speed and/or Sideslip as required to obtain an incombustible mixture.
Proceed with Engine Failure in Flight Actions

Cabin Fire

On the Ground

Master Switch.....OFF
Cabin Vents/Air/Heat.....CLOSED
Fire Extinguisher.....ACTIVATE
Cabin Vents/Windows.....OPEN

During flight

Follow Above Procedure, Once Fire is extinguished:
Electrics/Avionics.....OFF
Master .....ON
Avionics/Electrics.....On, one at a time
Land at the nearest Suitable Airfield

C210N 1979

Electrical Fire

Unknown Source

Master Switch.....OFF
All Avionics and Electrics.....OFF
Circuit Breakers.....PULL
If Smoke Ceases:
Cabin.....VENTILATE
Master Switch.....ON
Essential Electrical/Avionics ON, ONE at a time to isolate cause.

Known Source

Faulty Equipment.....OFF
Cabin.....Ventilate
Reassess continued flight functionality without faulty equipment.

Spin Recovery

Ailerons.....NEUTRAL
Throttle.....IDLE
Confirm direction:
RUDDER.....FULL OPPOSITE
Elevator.....FORWARD TO BREAK STALL
When Spinning Stops:
Rudder.....NEUTRALISE
Pitch.....EASE OUT OF DIVE

Main Fuel Pump Failure

After Takeoff

Fuel Pump.....HI
Hold Fuel Pump in High Position until reaching a safe altitude and power can be reduced to cruise.
Fuel Pump.....ON

During Cruise

Mixture.....RICH
Fuel Pump.....HI
Select HI to restore fuel flow, once fuel flow is restored
Fuel Pump.....ON
HI may be needed momentarily for situations with excessive fuel demand.

C210N 1979

Electrical Failure/Overload

Load.....REDUCE TO MINIMUM
Alternator .....OFF
Alternator CB.....TRIP&RESET
Alternator.....ON
Load/Power.....OK?
If Not:
Master .....OFF
Master .....ON
IF LOAD still not does not return to normal:
PLAN To land at nearest suitable airfield,
Conserve Battery as much as possible,
All non essential electrics off, if necessary
Inform ATC and turn master off until approaching circuit. Be prepared for implications of electrical failures on systems(flaps/gear/avionics).

Engine Roughness

Magnetos.....CHECK
Mixture.....ADJUST
Temperatures/Pressures.....CHECK
If roughness continues, plan to land at nearest suitable airfield.

Ditching

Follow forced landing procedure with the following differences:
Heavy Objects from baggage....JETTISON
Gear.....UP
Flaps 30
With Power:
Approach.....300ft/min ROD, 75KIAS
Land-High Winds.....INTO WIND
-Light winds. .PARALLEL TO SWELL
If no power approach at 85KIAS flap up, or 80KIAS flap 10.
Cabin Doors.....UNLATCH
Face.....CUSHION FOR IMPACT
Aircraft.....EVACUATE

Inadvertent Icing Encounter

Pitot heat.....ON
Icing conditions.....VACATE
turn back or change level to avoid icing.

Refer to POH Emergencies for full procedure

CESSNA
NORMAL CHECKLIST

Pre Start

Tach/Hobbs/Time.....RECORDED
Passenger Briefing.....COMPLETE
Preflight Inspection.....COMPLETE
Seats / Seatbelts.....ADJUST, LOCK
Brakes.....SET/HOLD
Cowl Flaps.....OPEN
Avionics.....OFF
Electrical Equipment.....OFF
Landing Gear .....DOWN
Fuel Selector Valve.....FULLER TANK
Mixture..... RICH
Propeller.....HIGH RPM
Rotating Beacon.....ON
----------MASTER ON, READY TO START----------
Landing Gear Horn.....PRESS TO TEST
Circuit Breakers.....CHECK IN
Prime.....50-60lbs/AS REQ'D
Throttle.....½ CENTIMETER
Prop Area.....CLEAR

After Start

Oil Pressure.....GREEN
Mixture.....SET FOR TAXI
Engine Instruments.....CHECK
Taxi, Nav. Lights.....AS REQUIRED
Flaps.....RETRACTED
Transponder.....STANDBY

Taxi

Brakes.....RELEASE, CHECK
Alternate Tank.....CHECKED
Flight Instruments.....TEST AND CHECK
Nav instruments .....TEST

Pre-Run Up

Parking Brake.....SET
Cabin Doors/Windows .....CLOSED/LOCKED
Cowls.....OPEN
Fuel Selector.....FULLER TANK
Mixture .....SET
Engine Instruments.....GREEN

C210L 1973

NORMAL CHECKLIST

Pre Takeoff

Flight Controls.....FREE AND CORRECT
Trims .....SET FOR TAKEOFF
Mixture.....CHECKED, SET FOR TAKEOFF
Power.....1700RPM CHECKED
Engine Instruments...CHECKED AT 1700rpm
Magnetos.....CHECKED
Propeller Governor .....CYCLED
Ammeter.....CHECKED UNDER LOAD
Suction Gauge.....CHECKED
DI .....SET TO COMPASS
Throttle friction lock.....SET
Idle.....CHECKED
Magnetos .....BOTH
Propeller Pitch .....FULL FINE
Fuel.....CORRECT TANK, QTY CHECKED
Flaps.....SET FOR TAKEOFF
Radios.....SET FOR DEPARTURE
Navigation / GPS.....SET FOR DEPARTURE
Flight Instruments.....CHECKED AND SET
Seats and Seatbelts.....SECURE
Electrics.....CB's CHECKED
Emergency & Dep. Brief.....COMPLETED
Takeoff Power Setting/Fuel Flow.....NOTED
Park Brake.....RELEASED

Line Up

(REmember What To Do Last)

Runway Area.....CLEAR
Engine Parameters.....GREEN
Wind.....CHECK
Transponder.....SET TO ALTITUDE
DI..... .ALIGNED WITH COMPASS, RWY
Landing light, strobes.....ON

After Takeoff (above 1000' AGL)

Brakes.....CHECK
Undercarriage.....UP, ORANGE LIGHT
Power/Pitch.....SET
Mixture.....ADJUST
Fuel.....CHECKED
Flaps.....UP
Engine Parameters.....GREEN
Lights.....AS REQUIRED

NORMAL CHECKLIST

Cruise

Power/Prop.....SET
Elevator/Rudder trim.....ADJUST
Mixture.....LEAN FOR ALTITUDE
Cowl Flaps.....CLOSED/AS REQ'D

Descent

Fuel .....CORRECT TANK, QTY CHECKED
Radios.....SET
Engine Instruments.....CHECKED
DI.....ALIGNED
Approach Briefing.....COMPLETE
Altimeter.....SET
Mixture.....SET
Cowl Flaps.....CLOSED
Lights.....ON/AS REQ'D

Downwind

Seats / Seatbelts.....CHECK SECURE
Fuel.....FULLER TANK
Brakes.....CHECK
Landing Gear.....DOWN, GREEN LIGHT
Mixture.....SET

Final

Cowl Flaps.....OPEN
Mixture.....SET FOR GO ROUND
Landing Gear....DOWN, ONE GREEN LIGHT
Propeller Pitch.....FULL FINE

After Landing

Cowl Flaps.....OPEN
Wing Flaps.....RETRACT
Land, Strobe lights.....OFF
Transponder.....STANDBY

Shutdown and Securing

Power.....IDLE
Avionics and Electrics.....OFF
Mixture.....IDLE CUTOFF
Magnetos.....OFF
Master.....OFF
Control Lock.....INSTALLED
Tach/Hobbs/Time.....RECORDED

C210L 1973

REFERENCE INFORMATION

Speeds

NORMAL OPERATION

Unless otherwise stated the following speeds are for MAUW, Sea Level , ISA conditions.

$V_{R\ (nml)}$.....70-80 mph
$V_{T/O\ 50ft}$.....82mph
V_X – Best Angle of Climb .....Vx_{sl} 85 mph
..... $Vx_{10,000ft}$ 90 mph
V_Y – Best Rate of Climb.....Vy_{sl} 109 mph
..... $Vy_{10,000ft}$ 102 mph
Normal approach (Flap 30).....85-95mph
V_{ref}.....82 mph
V_A – Maneuvering Speed.....115-135 mph

PLACARD/ASI LIMITATIONS

V_{NO} – Top of Green Arc .....190 mph
V_{NE} – Red Line (Never Exceed).....225 mph
V_S – Stall Clean .....75 mph
V_{SO} – Stall landing configuration.....65 mph
V_{FE} – Max. Flap Extn 0-30º.....120 mph
V_{FE} – Max. Flap Extn 0-10 º.....160 mph
V_{LE} – Max. Gear Extension.....160 mph
V_{LR} – Min. Gear and Flap Retraction…90 mph

EMERGENCY OPERATION

Best glide Speed.....85-95 KIAS
Precautionary .....90-110 mph
Field Inspection.....10º flap, 100 mph
Approach (flaps full).....85-95 mph
Engine failure after takeoff.....100 mph
Engine Failure in flight flap up.....100 mph
Engine Failure in flight flap down.....90 mph

Operating performance

Planning..... 65lt/hr
Plan Cruise speed..... 145KTAS

Other Information

Transponder Codes:

Unlawful Interference.....7500
Loss of Communication 7600
Emergency 7700
Unassigned.....2000

Radio Frequencies

Emergency Frequencies.....121.5/243
All Africa TIBA.....126.9
Uncontrolled/Unmanned: 124.8
Training Areas:.....124.4

EMERGENCY PROCEDURES
Engine Failure

TAKEOFF

NOTE: Bold Items are immediate recall Items, other times may be followed up by the use of the AFM checklist.

Throttle.....IDLE
Brakes.....APPLY
Flaps.....UP
Mixture .....CUT-OFF
Ignition.....OFF
Master switch.....OFF

AFTER TAKEOFF

Airspeed.....100 MPH/85KIAS
Mixture .....CUT-OFF
Fuel Selector Valve.....OFF
Ignition.....OFF
Gear .....AS REQUIRED
Flaps .....AS REQUIRED
Master switch.....OFF

DURING FLIGHT

IMMEDIATE ACTIONS
Airspeed .....100MPH/85KIAS(Flaps UP)
.....90MPH/80KIAS (Flaps DOWN)
Field.....SELECT
Approach.....PLAN

FAULT FINDIND/RESTART
Fuel Quantity .....Check
Fuel Selector Valve..... ON FULLER TANK
Mixture.....RICH
Fuel Pump.....ON 3-5 Seconds
Ignition.....BOTH
(or START if not windmilling)
Throttle.....Advance
If no start obtained proceed with Forced Landing Procedure

COMMUNICATE
Mayday.....Transmit Active or 121.5
Transponder.....7700
Passengers.....BRIEF

SECURE
Mixture .....CUTOFF
Fuel Selector.....OFF
Ignition.....OFF

FINAL
Gear.....As Required
Flaps.....As Required
Master switch.....Off
Doors .....UNLATCH
Touchdown.....TAIL LOW

Engine Fire

During Start

Starter.....CRANK
To draw away flames, If Engine Starts:
Power.....1700rpm
For a few minutes until flames appear to be extinguished, or if engine does not start:
Mixture .....CUTOFF
Ignition.....OFF
Master .....OFF
Inspect damage

During Flight

Mixture .....CUTOFF
Fuel .....OFF
Master .....OFF
Cabin Heat and Air.....OFF
Airspeed.....140MPH/120KIAS
If fire is not extinguished Increase Speed and/or Sideslip as required to obtain an incombustible mixture. Proceed with Engine Failure in Flight Actions

Cabin Fire

On the Ground

Master Switch.....OFF
Cabin Vents/Air/Heat.....CLOSED
Fire Extinguisher.....ACTIVATE
Cabin Vents/Windows.....OPEN

During Flight

Follow Above Procedure, Once Fire is extinguished:
Electrics/Avionics.....OFF
Master .....ON
Avionics/Electrics.....On, one at a time
Land at the nearest Suitable Airfield

C210L 1973

Electrical Fire

Unknown Source

Master Switch.....OFF
All Avionics and Electrics.....OFF
Circuit Breakers.....PULL
If Smoke Ceases:
Cabin.....VENTILATE
Master Switch.....ON
Essential Electrical/Avionics ON, ONE at a time to isolate cause.

Known Source

Faulty Equipment.....OFF
Cabin.....Ventilate
Reassess continued flight functionality without faulty equipment.

Spin Recovery

Ailerons.....NEUTRAL
Throttle.....IDLE
Confirm direction
RUDDER.....FULL OPPOSITE
Elevator.....FORWARD TO BREAK STALL
Rudder.....Neutralise when spinning stops
Pitch.....EASE OUT OF DIVE

Main Fuel Pump Failure

After Takeoff

Fuel Pump.....HI
Hold Fuel Pump in High Position until reaching a safe altitude and power can be reduced to cruise.
Fuel Pump.....ON

During Cruise

Mixture.....RICH
Fuel Pump.....HI
Select HI to restore fuel flow, once fuel flow is restored
Fuel Pump.....ON
HI may be needed momentarily for situations with excessive fuel demand.

Electrical Failure/Overload

Load.....VERIFY
.....REDUCE TO MINIMUM
Alternator .....OFF
Alternator CB.....TRIP&RESET
Alternator.....ON
Load/Power.....OK?
If Not:
Master .....OFF
Master .....ON
IF LOAD still not does not return to normal:
PLAN To land at nearest suitable airfield,
Conserve Battery as much as possible,
All non essential electrics off, if necessary
Inform ATC and turn master off until approaching circuit. Be prepared for implications of electrical failures on systems(flaps/gear/avionics).

Engine Roughness

Magnetos.....CHECK
Mixture.....ADJUST
Temperatures/Pressures.....CHECK
If roughness continues, plan to land at nearest suitable airfield.

C210L 1973

NORMAL CHECKLIST

Pre Start

Tach/Hobbs/Time.....RECORDED
Passenger Briefing.....COMPLETE
Preflight Inspection.....COMPLETE
Seats / Seatbelts.....ADJUST, LOCK
Brakes.....SET/HOLD
Cowl Flaps.....OPEN
Avionics.....OFF
Electrical Equipment.....OFF
Landing Gear .....DOWN
Fuel Selector Valve.....FULLER TANK
Mixture..... RICH
Propeller.....HIGH RPM
Rotating Beacon.....ON
----------MASTER ON, READY TO START----------
Landing Gear Horn.....PRESS TO TEST
Circuit Breakers.....CHECK IN
Prime.....50-60lbs/AS REQ'D
Throttle.....½ CENTIMETER
Prop Area.....CLEAR

After Start

Oil Pressure.....GREEN
Mixture.....SET FOR TAXI
Engine Instruments.....CHECK
Taxi, Nav. Lights.....AS REQUIRED
Flaps.....RETRACTED
Transponder.....STANDBY

Taxi

Brakes.....RELEASE, CHECK
Alternate Tank.....CHECKED
Flight Instruments.....TEST AND CHECK
Nav instruments .....TEST

Pre-Run Up

Parking Brake.....SET
Cabin Doors/Windows .....CLOSED/LOCKED
Cowls.....OPEN
Fuel Selector.....FULLER TANK
Mixture .....SET
Engine Instruments.....GREEN

C210L 1974

NORMAL CHECKLIST

Pre Takeoff

Flight Controls.....FREE AND CORRECT
Trims .....SET FOR TAKEOFF
Mixture.....CHECKED, SET FOR TAKEOFF
Power.....1700RPM CHECKED
Engine Instruments...CHECKED AT 1700rpm
Magnetos.....CHECKED
Propeller Governor .....CYCLED
Ammeter.....CHECKED UNDER LOAD
Suction Gauge.....CHECKED
DI .....SET TO COMPASS
Throttle friction lock.....SET
Idle.....CHECKED
Magnetos .....BOTH
Propeller Pitch .....FULL FINE
Fuel.....CORRECT TANK, QTY CHECKED
Flaps.....SET FOR TAKEOFF
Radios.....SET FOR DEPARTURE
Navigation / GPS.....SET FOR DEPARTURE
Flight Instruments.....CHECKED AND SET
Seats and Seatbelts.....SECURE
Electrics.....CB's CHECKED
Emergency & Dep. brief.....COMPLETED
Takeoff Power Setting/Fuel Flow.....NOTED
Park Brake.....RELEASED

Line Up

(REmember What To Do Last)

Runway Area.....CLEAR
Engine Parameters.....GREEN
Wind.....CHECK
Transponder.....SET TO ALTITUDE
DI..... .ALIGNED WITH COMPASS, RWY
Landing light, strobes.....ON

After Takeoff (above 1000' AGL)

Brakes.....CHECK
Undercarriage.....UP, ORANGE LIGHT
Power/Pitch.....SET
Mixture.....ADJUST
Fuel.....CHECKED
Flaps.....UP
Engine Parameters.....GREEN
Lights.....AS REQUIRED

NORMAL CHECKLIST

Cruise

Power/Prop.....SET
Elevator/Rudder trim.....ADJUST
Mixture.....LEAN FOR ALTITUDE
Cowl Flaps.....CLOSED/AS REQ'D

Descent

Fuel .....CORRECT TANK, QTY CHECKED
Radios.....SET
Engine Instruments.....CHECKED
DI.....ALIGNED
Approach Briefing.....COMPLETE
Altimeter.....SET
Mixture.....SET
Cowl Flaps.....CLOSED
Lights.....ON/AS REQ'D

Downwind

Seats / Seatbelts.....CHECK SECURE
Fuel.....FULLER TANK
Brakes.....CHECK
Landing Gear.....DOWN, GREEN LIGHT
Mixture.....SET

Final

Cowl Flaps.....OPEN
Mixture.....SET FOR GO ROUND
Landing Gear....DOWN, ONE GREEN LIGHT
Propeller Pitch.....FULL FINE

After Landing

Cowl Flaps.....OPEN
Wing Flaps.....RETRACT
Land, Strobe lights.....OFF
Transponder.....STANDBY

Shutdown and Securing

Power.....IDLE
Avionics and Electrics.....OFF
Mixture.....IDLE CUTOFF
Magnetos.....OFF
Master.....OFF
Control Lock.....INSTALLED
Tach/Hobbs/Time.....RECORDED

C210L 1974

REFERENCE INFORMATION

Note: ASI in mph, POH in KIAS both speeds included where important

Speeds

NORMAL OPERATION

Unless otherwise stated the following speeds are for MAUW, Sea Level , ISA conditions.

$V_{R\ (nml)}$.....65-70KIAS/70-80 mph
$V_{T/O\ 50ft}$.....72KIAS/83mph
V_X – Best Angle of Climb Vx_{sl} 75KIAS/87mph
..... $Vx_{10,000ft}$ 80KIAS/92mph
V_Y – Best Rate of Climb..Vy_{sl} 97KIAS/111 mph
..... $Vy_{10,000ft}$92KIAS/106 mph
Normal approach (Flap 30).....75-85KIAS
V_{ref}.....71 KIAS/82 mph
V_A – Maneuvering Speed.....96-119KIAS

PLACARD/ASI LIMITATIONS

V_{NO} – Top of Green Arc 168KIAS
V_{NE} – Red Line (Never Exceed).....199KIAS
V_S – Stall Clean .....68KIAS/79 mph
V_{SO} – Stall landing.....55KIAS/64 mph
V_{FE} – Max. Flap Extn 0-30º. 105KIAS120 mph
V_{FE} – Max. Flap Extn 0-10 º140KIAS160 mph
V_{LE} – Max. Gear Extension..140KIAS160 mph
V_{LR} – Min. Gear/Flap Retrn . . .80KIAS/90mph

EMERGENCY OPERATION

Best glide Speed.....75-85 KIAS/85-95mph
Precautionary .....75-85 KIAS
Field Inspection....10º flap, 85KIAS/100 mph
Approach (flaps full).....75KIAS/90 mph
Engine failure after takeoff. . .85KIAS/100 mph
Engine Failure flap up.....90KIAS/105 mph
Engine Failure flap down.....80KIAS/95 mph

Operating performance

Planning..... 65lt/hr
Plan Cruise speed..... 145KTAS

Other Information

Transponder Codes:

Unlawful Interference.....7500
Loss of Communication 7600
Emergency 7700
Unassigned.....2000

Radio Frequencies

Emergency Frequencies.....121.5/243
All Africa TIBA.....126.9
Uncontrolled/Unmanned: 124.8
Training Areas.....124.4

EMERGENCY PROCEDURES
Engine Failure

TAKEOFF

NOTE: Bold Items are immediate recall Items, other times may be followed up by the use of the AFM checklist.

Throttle.....IDLE
Brakes.....APPLY
Flaps.....UP
Mixture .....CUT-OFF
Ignition.....OFF
Master switch.....OFF

AFTER TAKEOFF

Airspeed.....100 MPH/85KIAS
Mixture .....CUT-OFF
Fuel Selector Valve.....OFF
Ignition.....OFF
Gear .....AS REQUIRED
Flaps .....AS REQUIRED
Master switch.....OFF

DURING FLIGHT

IMMEDIATE ACTIONS
Airspeed .....100MPH/85KIAS(Flaps UP)
.....90MPH/80KIAS (Flaps DOWN)
Field.....SELECT
Approach.....PLAN

FAULT FINDIND/RESTART
Fuel Quantity .....Check
Fuel Selector Valve..... ON FULLER TANK
Mixture.....RICH
Fuel Pump.....ON 3-5 Seconds
Ignition.....BOTH
(or START if not windmilling)
Throttle.....Advance
If no start obtained proceed with Forced Landing Procedure

COMMUNICATE
Mayday.....Transmit Active or 121.5
Transponder.....7700
Passengers.....BRIEF

SECURE
Mixture .....CUTOFF
Fuel Selector.....OFF
Ignition.....OFF

FINAL
Gear.....As Required
Flaps.....As Required
Master switch.....Off
Doors .....UNLATCH
Touchdown.....TAIL LOW

Engine Fire

During Start

Starter.....CRANK
To draw away flames, If Engine Starts:
Power.....1700rpm
For a few minutes until flames appear to be extinguished, or if engine does not start:
Mixture .....CUTOFF
Ignition.....OFF
Master .....OFF
Inspect damage

During Flight

Mixture .....CUTOFF
Fuel .....OFF
Master .....OFF
Cabin Heat and Air.....OFF
Airspeed.....140MPH/120KIAS
If fire is not extinguished Increase Speed and/or Sideslip as required to obtain an incombustible mixture. Proceed with Engine Failure in Flight Actions

Cabin Fire

On the Ground

Master Switch.....OFF
Cabin Vents/Air/Heat.....CLOSED
Fire Extinguisher.....ACTIVATE
Cabin Vents/Windows.....OPEN

During Flight

Follow Above Procedure, Once Fire is extinguished:
Electrics/Avionics.....OFF
Master .....ON
Avionics/Electrics.....On, one at a time
Land at the nearest Suitable Airfield

C210L 1974

Electrical Fire

Unknown Source

Master Switch.....OFF
All Avionics and Electrics.....OFF
Circuit Breakers.....PULL
If Smoke Ceases:
Cabin.....VENTILATE
Master Switch.....ON
Essential Electrical/Avionics ON, ONE at a time to isolate cause.

Known Source

Faulty Equipment.....OFF
Cabin.....Ventilate
Reassess continued flight functionality without faulty equipment.

Spin Recovery

Ailerons.....NEUTRAL
Throttle.....IDLE
Confirm direction
RUDDER.....FULL OPPOSITE
Elevator.....FORWARD TO BREAK STALL
Rudder.....Neutralise when spinning stops
Pitch.....EASE OUT OF DIVE

Main Fuel Pump Failure

After Takeoff

Fuel Pump.....HI
Hold Fuel Pump in High Position until reaching a safe altitude and power can be reduced to cruise.
Fuel Pump.....ON

During Cruise

Mixture.....RICH
Fuel Pump.....HI
Select HI to restore fuel flow, once fuel flow is restored
Fuel Pump.....ON
HI may be needed momentarily for situations with excessive fuel demand.

Electrical Failure/Overload

Load.....VERIFY
.....REDUCE TO MINIMUM
Alternator .....OFF
Alternator CB.....TRIP&RESET
Alternator.....ON
Load/Power.....OK?
If Not:
Master .....OFF
Master .....ON
IF LOAD still not does not return to normal:
PLAN To land at nearest suitable airfield,
Conserve Battery as much as possible,
All non essential electrics off, if necessary
Inform ATC and turn master off until approaching circuit. Be prepared for implications of electrical failures on systems(flaps/gear/avionics).

Engine Roughness

Magnetos.....CHECK
Mixture.....ADJUST
Temperatures/Pressures.....CHECK
If roughness continues, plan to land at nearest suitable airfield.

C210L 1974