

VELIS Electro CHECK LIST / QUICK REFERENCE HANDBOOK



G-OFWD

General Information

Aircraft Type:	Pipistrel Velis Electro
ICAO Designator:	PIVE
MTOW:	600 kg / 1322 lbs
Empty Weight:	423 kg / 932 lbs (G-OFWD Sep21)
Useful Load:	172 kg / 380 lbs (POH Limitation)
Operations:	DAY / VFR Only
Maximum Crosswind:	15 kts (Take-Off and Landing)

G-OFWD - Checklist/QRH

Take-Off (Normal)

- Flaps: ONE Stage;
- Power Lever: **Max Take Off (> 50 kW, < 66 kW)**;
- Rotate (V_R): 50 - 55 kts;
- Climb (V_{X+}): 60 - 65 kts;

At 300 ft AAL (Safe & Stable):

- Flaps: UP;
- Power lever: **Reduce to Max Continuous (Green Arc, < 50 kW)**;
- Climb (V_Y): 70 - 75 kts.

Climb / Descent

- Climb (V_Y): 75 kts;
- **Best Glide Speed (Flaps UP): 70 kts.**

Straight & Level Flight

- Pipistrel Recommends: 25 kW (80 kts);
- **Best Endurance: 20 kW (70 kts).**

Approach (Normal)

- Power Lever: ZERO;
- Airspeed: <82 kts;
- Flaps: ONE Stage;
- Airspeed: 65 kts.

Landing (Normal)

- Power Lever: As Required;
- Airspeed: <65 kts;
- Flaps: TWO Stages;
- Airspeed: 60 kts.

G-OFWD - Checklist/QRH

ENGINE START		
1)	EXTERNAL INSPECTION	Complete
2)	PARKING BRAKE	ON (Chocks Removed)
3)	RUDDER PEDALS	Check
4)	HATCHES / HARNESES	Secure
5)	SWITCHES (4)	OFF
6)	FLIGHT CONTROLS	Full, Free & Correct Sense
7)	POWER LEVER	CUT OFF
8)	CIRCUIT BREAKERS	All Engaged
9)	ELT	Arm/Off
10)	MASTER SWITCH	ON / Self Test OK (8-3-4)
11)	AVIONICS SWITCH	ON
12)	SOC (EPSI)	> 50% / Record
13)	AUX BATTERY (EPSI)	> 13V
14)	SOH (EPSI)	Check / Record
15)	RADIO	ON / Set
16)	TRANSPONDER	ON / Set / STANDBY
17)	BATTERY STATUS (EPSI)	READY
18)	POWER LEVER	CUT OFF (Seen Zero Position)
19)	BATT EN SWITCH	ON
20)	HOBBS	Record
21)	PROPELLER AREA	Check / "CLEAR PROP"
22)	PWR EN SWITCH	ON
23)	BATTERY STATUS (EPSI)	ACTIVE
24)	RPM	Set Approx 200
25)	TAXY CLEARANCE	Obtain

TAXY		
1)	BRAKES	Check
2)	DIRECTIONAL CONTROL	Check
3)	FLIGHT INSTRUMENTS	Check

G-OFWD - Checklist/QRH

POWER CHECK		
1)	POSITION	Into Wind
2)	PARKING BRAKE	ON
3)	POWER LEVER	FULL (> 50kW)
4)	POWER LEVER	CUT OFF
5)	BATTERY STATUS (EPSI)	ACTIVE
6)	TEMPERATURES (EPSI)	Check
7)	WARNINGS/CAUTIONS	Check

BEFORE TAKE-OFF		
1)	HATCHES / HARNESES	Secure
2)	PITOT COVER	Removed
3)	FLAPS	ONE STAGE
4)	TRIM	NEUTRAL
5)	POWER LEVER	CUT OFF
6)	SWITCHES (4)	ON
7)	TEMPERATURES (EPSI)	Check
8)	FLIGHT INSTRUMENTS	Check
9)	WARNINGS/CAUTIONS	Check
10)	SOC (EPSI)	Check
11)	FLIGHT CONTROLS	Full, Free & Correct Sense
12)	TRANSPONDER	ON / A-C-S

FREDA (Cruise / Airfield Approach)		
F	FUEL:	Battery: State of Charge
R	RADIO:	Frequency / Service / XPDR / Next
E	ENGINE:	EPSI Indications
D	DIRECTION INDICATOR:	Synchronised / Heading
A	ALTIMETER / ALTITUDE:	Setting / Level

G-OFWD - Checklist/QRH

ABCD (Be Aware Of / Remain Clear Of)			
A	ACTIVE AIRFIELDS	C	CONTROLLED AIRSPACE / CLOUDS
B	BUILT UP AREAS	D	DANGER, PROHIBITED, RESTRICTED AREAS
TAKE TWO: Plan 2 nautical miles Horizontally and 200 feet Vertically from Controlled Airspace			

HASELL (Pre-Stalling / Manoeuvring)		
H	HEIGHT:	Sufficient
A	AIRFRAME:	Flaps / Brakes
S	SECURITY:	Hatches / Harnesses / Loose Objects
E	ENGINE:	Battery: State of Charge
L	LOCATION:	A / B / C / D
L	LOOKOUT:	Undertake

HELL (Repeat Stalling / Manoeuvring)		
H	HEIGHT:	Sufficient
E	ENGINE:	Battery: State of Charge
L	LOCATION:	A / B / C / D
L	LOOKOUT:	Undertake

ESTABLISHING EN-ROUTE SERVICE	
<i>station callsign, Golf Oscar Foxtrot Whiskey Delta, Request...</i>	
[Basic Service, Traffic Service, Zone Transit, ATZ Transit, MATZ Penetration, Join, etc]	
<i>followed by:</i>	
Golf Oscar Foxtrot Whiskey Delta, Pipistrel Electric Aircraft,	
<i>from / to</i>	
<i>position / level</i>	
VFR	
<i>intention / request</i>	

G-OFWD - Checklist/QRH

BEFORE LANDING		
1)	PARKING BRAKE	OFF
2)	HATCHES / HARNESSSES	Secure
3)	TEMPERATURES (EPSI)	Check
4)	FLIGHT INSTRUMENTS	Check
5)	WARNINGS/CAUTIONS	Check
6)	SOC (EPSI)	Check

AFTER LANDING		
1)	FLAPS	UP
2)	TRANSPONDER	STANDBY

SHUTDOWN		
1)	POWER LEVER	CUT OFF
2)	PARKING BRAKE	ON
3)	ELT	Check Not Transmitting
4)	PWR EN SWITCH	OFF
5)	HOBBS	Record
6)	BATT EN SWITCH	OFF
7)	SOC (EPSI)	Record
8)	SOH (EPSI)	Record
9)	FLIGHT TIME	Record
10)	AVIONICS SWITCH	OFF
11)	MASTER SWITCH	OFF
12)	CHOCKS / PITOT COVER	As Required

POST FLIGHT ACTIONS: Book In, Complete Tech Log,
Clean and Secure Aircraft as required

PREFLIGHT WALK-AROUND

(Check POH for inspections to be carried out before the first flight of the day)

CABIN

Doors	UNLOCK/OPEN/ CLOSE/SECURE
ALL switches	CHECK OFF
Parking brake	ENGAGE
Wing spars and connectors	CHECK
Instrument panel, EPSI and all other instruments	CHECK condition, displays OK, EPSI USB cap present
Headphones/microphones	Connected
Required documents	ON BOARD
ELT switches (remote sw. and transmitter)	CHECK both switches in ARM/OFF position (armed)
Flight Controls and flap handle	CHECK free and correct
MASTER switch	ON
Batt overtemp warning lights - Annunciator - Haptic stall warning	CHECK SELFTEST
AVIONICS switch	ON
Circuit breakers	CHECK ENGAGED
Instruments	CHECK functional
Elevator trim	Centered
Power lever	CUT OFF
BAT EN switch	ON
PWR EN switch	ON
EPSI570C display / annunciator	Flight/System page ok, CHECK no warn/cautions

Continue →

CABIN (continue)

AUX BATT Voltage on EPSI570C	CHECK > 13V
Battery %SOC, SOH, temp, status "ACTIVE" (system page)	CHECK
Engine temperatures	CHECK
BAT EN switch	OFF
PWR EN switch	OFF
AVIONICS switch	OFF
MASTER switch	OFF

LEFT FUSELAGE

COM antenna (top)	Condition and attachment
Wing / fuselage seal	CHECK
XPDR antenna (underside)	Condition and attachment
Static pressure port	CHECK for blockage
Battery cooling system inlet and outlet	CHECK no obstructions
Rear battery compartment access panel	CHECK closed



EMPENNAGE	
Tie down rope	remove
Horizontal and vertical stabilizers	CHECK condition
Elevator and elevator U-piece	Condition and movement
Rudder	Condition and movement
Attachment bolts, hinges, nuts	CHECK condition - Secured
RIGHT FUSELAGE	
Static pressure port	Check for blockage
Wing / fuselage seal	CHECK
Door lock	CHECK Unlocked
Battery exhaust outlet	CHECK no thermal runaway
ELT antenna (top)	Condition and attachment
RIGHT WING	
Flaperon	Condition, security and movement
Flaperon gap seal	Security, no wrinkles
Hinges, nuts	CHECK condition - Secured
Tip	CHECK condition
Leading edge	CHECK condition
Pitot tube	Cover removed, attachment, tube clear



RIGHT MAIN LANDING GEAR

Landing gear	General condition
Tire	Condition, inflation, and wear
Wheel and brakes	Fluid leaks, evidence of overheating, general condition and wear
Chocks and tie down rings/ropes	Remove

PROPELLER AND COWLINGS AREA

Cowlings	Attachment secured
Propeller	CHECK condition
Hub and blades	CHECK condition and blade pitch marker paint at blade roots
Spinner	CHECK condition
Propeller/spinner bolts and screws	CHECK
Air inlets, outlets	Unobstructed
Charging port door	Closed and latched

MOTOR and NOSE LANDING GEAR AREA

Strut	CHECK condition
Nose landing gear	CHECK condition
Wheel and tire	CHECK condition
Shock absorber	CHECK/TEST
Front battery compartment access panels	CHECK closed
Battery exhaust outlet	CHECK no thermal runaway

LEFT MAIN LANDING GEAR

Landing gear	General condition
Tire	Condition, inflation, and wear
Wheel and brakes	Fluid leaks, evidence of overheating, general condition and wear
Chocks and tie down rings/ropes	Remove

LEFT WING

Leading edge	CHECK condition
Tip	CHECK condition
Flaperon	Condition, attachment, movement
Flaperon gap seal	Condition, no wrinkles
Hinges, nuts	CHECK condition - Secured

G-OFWD - Checklist/QRH

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GROUND EMERGENCIES

ENGINE SYSTEM FIRE ON THE GROUND

Come to a complete standstill	-
MASTER switch	OFF
BATT EN switch	OFF
PWR EN switch	OFF
BATT REAR/BATT FRONT circuit breakers	DISENGAGE
PWR CTRL circuit breaker	DISENGAGE
Emergency ground egress procedure	PERFORM

BATTERY FIRE ON THE GROUND

Come to a complete standstill	-
MASTER switch	OFF
BATT EN switch	OFF
BATT REAR/BATT FRONT circuit breakers	DISENGAGE
Emergency ground egress procedure	PERFORM

EMERGENCY ENGINE SHUTDOWN ON GROUND

Power Lever	CUT OFF
MASTER Switch	OFF
BATT EN Switch	OFF
PWR EN Switch	OFF
PWR CTRL Circuit breaker	DISENGAGE

EMERGENCY GROUND EGRESS

Engine	SHUTDOWN
Parking brake	ENGAGE
Seat belts	RELEASE
Airplane	EXIT
Vicinity of airplane	EVACUATE

MASTER
CAUTION

MASTER
WARNING

ANY CAUTION / WARNING MESSAGE AT TAKE OFF

If take off run is not initiated yet:

DO NOT TAKE OFF

-

*If the take off run is initiated and conditions (speed,
available runway) permit safe aircraft stoppage:*

**Come to a complete
standstill**

PERFORM

MASTER switch

OFF

**Affected battery circuit
breaker (if message is
battery-related)**

DISENGAGE

**Taxi off the runway
(using low power setting)**

PERFORM

**Emergency shutdown
procedure**

PERFORM

If conditions do not permit safe aircraft stoppage:

Take off

CONTINUE

Land

**AS SOON AS
PRACTICAL**

POWER LEVER / ENGINE COMMUNICATION FAILURE



CAUTION:

POWER LEVER COMMUNICATION FAILURE (amber)

or

ENGINE COMMUNICATION FAILURE (amber)

If take off run is not initiated yet:

PWR CTRL circuit breaker	DISENGAGE
Power lever	CUT OFF
Shutdown procedure	PERFORM
Parking procedure	PERFORM

*If take off run is initiated and there is enough runway to stop the aircraft
or power/speed is not sufficient for lift off and climb*

PWR CTRL circuit breaker	DISENGAGE
Power lever	CUT OFF
Come to a complete standstill	PERFORM
Shutdown procedure	PERFORM
Push the aircraft off the runway	PERFORM
Parking procedure	PERFORM

If there is not enough runway available to stop, and power/speed is sufficient for lift off and climb:

perform Engine / power lever communication failure (in flight) procedures

IN FLIGHT EMERGENCIES

COMPLETE POWER LOSS AFTER TAKE OFF

Best Glide or Landing Speed (as appropriate)	ESTABLISH (70 - 60 KIAS)
BATT REAR/BATT FRONT circuit breakers	DISENGAGE
PWR CTRL Circuit breaker	DISENGAGE
Flaps	AS REQUIRED
Land (emergency landing)	PREPARE TO LAND

COMPLETE IN-FLIGHT POWER LOSS

Best Glide speed (flaps 0)	70 KIAS
<i>If time/altitude permits:</i>	
Motor restart in flight procedure	ATTEMPT
<i>If restart is not effective:</i>	
Emergency landing procedure	PERFORM

MOTOR RESTART IN FLIGHT

Power lever	CUT OFF
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PWR EN Switch	OFF
---------------	-----

MASTER Switch	OFF
---------------	-----

PWR CTRL Circuit breaker	DISENGAGE
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After 3 seconds:

PWR CTRL Circuit breaker	ENGAGE
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MASTER switch	ON
---------------	----

PWR EN switch	ON
---------------	----

Power lever	Slowly increase
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If restart is not effective:

Emergency landing procedure	PERFORM
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PARTIAL POWER LOSS (at take off)

If it is not possible to stop the aircraft before the end of the runway, lift off and:

Power available	ASSESS (at least 35 kW for safe climb)
Airspeed	V_x (57 KIAS)
Climb over obstacles	PERFORM
Propulsion system parameters (EPSI)	CHECK/MONITOR
Land	AS SOON AS PRACTICAL

PARTIAL POWER LOSS (in flight)

EPSI570C/annunciator	CHECK for Caution/ Warning messages
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If conditions do not permit safe level flight:

Emergency landing procedure (use partial power as necessary)	PERFORM
--------------------------------------------------------------	----------------

If conditions permit safe level flight:

EPSI570C and instruments	MONITOR
Land	AS SOON AS PRACTICAL

BATTERY DISCONNECTED (single battery)



OR



WARNING:

***BATTERY F/R DISCONNECTED DUE TO:
OVERVOLTAGE / UNDERVOLTAGE
/ INTERLOCK ERROR
/ INTERNAL HARDWARE FAILURE (red)***

Affected battery circuit breaker	DISENGAGE
Other EPSI messages subsequent to disconnection	ACKNOWLEDGE
SOC, RFT, battery temperature	MONITOR
Reduce power	AS MUCH AS POSSIBLE
Land	AS SOON AS PRACTICAL
DOUBLE BATTERY DISCONNECTION	
Emergency landing procedure	PERFORM

BATTERY HIGH TEMPERATURE (temperature in caution range)



OR



CAUTION:

BATTERY F/R HIGH TEMPERATURE (amber)

followed by (if temperature increases more):

BATTERY F/R ABOUT TO DISCONNECT (amber)

Power lever	Reduce <30 kW
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Battery temperature	MONITOR
---------------------	---------

If battery temperature remains in the caution range:

Land	AS SOON AS PRACTICAL
------	----------------------

BATTERY OVERTEMPERATURE (temperature in warning range)



OR



WARNING:

**BATTERY F/R DISCONNECTED DUE TO:
OVERTEMPERATURE (red)**

Reduce power	AS MUCH AS POSSIBLE
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Affected battery circuit breaker	DISENGAGE
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Other EPSI messages subsequent to disconnection	ACKNOWLEDGE
-------------------------------------------------	-------------

SOC and RFT	MONITOR
-------------	---------

*If battery overtemperature is signalled by Warning light
AND EPSI caution message:*

Land	IMMEDIATELY
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Airplane	EVACUATE
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*If battery overtemperature is signalled by on system
only (Warning light **OR** EPSI caution message):*

Land	AS SOON AS POSSIBLE
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BATTERY NOT PRESENT (single batt)



OR



CAUTION:

BATTERY F/R NOT PRESENT (amber)

Affected battery circuit breaker	DISENGAGE
Other EPSI messages subsequent to disconnection	ACKNOWLEDGE
SOC, RFT, battery temperature	MONITOR
Reduce power	AS MUCH AS POSSIBLE
Land	AS SOON AS PRACTICAL

BATTERY NOT PRESENT (double batt)



+



CAUTION:

BATTERY F NOT PRESENT (amber)

and

BATTERY R NOT PRESENT (amber)

Reduce power	AS MUCH AS POSSIBLE
Annunciator/ batt warning lights	MONITOR
Land	AS SOON AS PRACTICAL
<i>A power-off precautionary landing is recommended (SOC not available)</i>	

ENGINE HIGH TEMPERATURE
(temperature in caution range)



CAUTION:

ENGINE HIGH TEMPERATURE (amber)

Reduce power AS MUCH AS POSSIBLE

Engine temperature MONITOR

Engine cooling pump status (EPSI messages) CHECK EPSI for failure messages

If engine temperature remains in caution range:

Land AS SOON AS PRACTICAL

ENGINE OVERTEMPERATURE
(temperature in warning range,
continues from Engine High Temperature)



WARNING:

ENGINE OVERTEMPERATURE (red)

CAUTION: POWER DERATING ACTIVE

If partial power is still available and the engine coolant pump is functional, perform the following:

Land AS SOON AS POSSIBLE

*If also coolant pump is not functional
(caution message - engine coolant pump failure):*

Power lever CUT OFF
(use residual power on final)

Best Glide Speed 70 KIAS (flaps 0)

Land (emergency landing) PREPARE TO LAND

If power is derated to zero:

Emergency landing procedure PERFORM

BATTERY OVERCURRENT



OR



CAUTION:

BATTERY F/R OVERCURRENT (amber)

Reduce power	AS MUCH AS POSSIBLE
Battery status/current (of both batteries)	CHECK <i>if both batteries are still connected (current of both batteries \neq 0 A):</i>
Battery temperatures and currents	MONITOR
Land	AS SOON AS PRACTICAL <i>if one battery is disconnected (current = 0A), and caused overcurrent to the other:</i>
Circuit breaker of battery delivering 0 A	DISENGAGE
Single Battery disconnection procedure	PERFORM

LOW STATE OF CHARGE (SOC)



+



CAUTION:

SOC < 30% (amber)

Reduce power	AS MUCH AS POSSIBLE
Remaining SOC and RFT	MONITOR
Land	PREPARE TO LAND

NO GO-AROUND AVAILABLE

MASTER
CAUTION

CAUTION:

NO GO-AROUND AVAILABLE (amber)

Land

PREPARE TO LAND

WARNING: If SOC < 15%, applying full power may cause battery voltage to drop and eventual battery disconnection

BATTERY SOC ADJUSTED

MASTER
CAUTION



OR



CAUTION:

BATTERY F/R SOC ADJUSTED (amber)

Updated SOC value

CHECK

SOC and RFT

MONITOR

BATTERY CELL LOW VOLTAGE

MASTER
CAUTION



OR



CAUTION:

BATTERY F/R LOW CELL VOLTAGE (amber)

Reduce power

AS MUCH AS POSSIBLE

SOC and RFT

MONITOR

If affected battery is disconnected due to undervoltage:

Battery disconnected
(single batt) procedure

PERFORM

BATTERY COOLANT PUMP FAILURE

MASTER
CAUTION

CAUTION:

BATTERY COOLANT PUMP 1/2 FAILURE (amber)

If a single coolant pump fails (pump 1 or pump 2):

Battery temperatures	MONITOR
Flight	Continue normally

If both coolant pumps fail (two caution messages):

Reduce power	AS MUCH AS POSSIBLE
Battery temperatures	MONITOR
Land	AS SOON AS PRACTICAL

ENGINE COMMUNICATION FAILURE

MASTER
CAUTION



CAUTION:

ENGINE COMMUNICATION FAILURE (amber)

Power available	ASSESS
-----------------	--------

When at gliding distance from the elected landing site and when ready for a power-out approach:

PWR CTRL circuit breaker (motor will quit)	DISENGAGE
Emergency landing procedure	PERFORM

ENGINE COOLANT PUMP FAILURE



CAUTION:

ENGINE COOLANT PUMP FAILURE (amber)

Power lever	CUT OFF
Best glide speed	70 KIAS (flaps 0)
Engine temperatures	CHECK
Land (emergency)	PREPARE TO LAND (use residual power for obstacle avoidance only)

ELECTRICAL SYSTEM INSULATION FAILURE



CAUTION:

SYSTEM ISOLATION FAILURE (amber)

Land	AS SOON AS PRACTICAL
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CAUTION: Any inspection/troubleshooting by the pilot shall be avoided as it could lead to lethal electrical shock.

DC/DC CONVERTER FAILURES



CAUTION:

DC/DC COMMUNICATION FAILURE (amber)

or, if RPM >300:

DC/DC NOT WORKING (amber)

AUX BATTERY Voltage	MONITOR
Land	AS SOON AS PRACTICAL

POWER LEVER COMMUNICATION FAILURE

MASTER
CAUTION

CAUTION:

POWER LEVER COMMUNICATION FAILURE (amber)

Power available	ASSESS
-----------------	--------

Engine and Battery temperatures	MONITOR
---------------------------------	---------

*When at gliding distance from the elected landing site
and when ready for a power-out approach:*

PWR CTRL circuit breaker (motor will quit)	DISENGAGE
-----------------------------------------------	-----------

Emergency landing procedure	PERFORM
--------------------------------	---------

BATTERY CURRENT NOT EQUAL

MASTER
CAUTION

CAUTION:

BATTERY CURRENT NOT EQUAL (amber)

Reduce power	AS MUCH AS POSSIBLE
--------------	------------------------

Land	AS SOON AS PRACTICAL
------	-------------------------

AUXILIARY BATTERY FAILURE

MASTER
CAUTION

CAUTION:

AUXILIARY BATTERY FAILURE (amber)

Land	AS SOON AS PRACTICAL
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FIRE IN FLIGHT

ENGINE FIRE IN FLIGHT

PWR EN switch	OFF
MASTER switch	OFF
BATT EN switch	OFF
BATT REAR & BATT FRONT circuit breakers	DISENGAGE
Door windows	OPEN
Side-slip - direction opposite to the fire	IF POSSIBLE
Land (emergency)	AS SOON AS POSSIBLE
Airplane	EVACUATE

BATTERY SYSTEM FIRE

Affected battery circuit breaker	DISENGAGE
Land	IMMEDIATELY
Airplane	EVACUATE
Long range water type fire extinguisher (if available)	ACTIVATE

COCKPIT FIRE

ALL Switches	OFF
Fire Extinguisher (if available)	ACTIVATE
Door vents	OPEN
Land (emergency)	IMMEDIATELY

SPIN

Power lever	CUT OFF
Rudder	Full deflection, direction opposite to the spin
Control stick	Push forward
<i>As rotation stops:</i>	
Rudder	Neutralize
Horizontal flight	Resume, careful not exceeding speed/g limits

LANDING EMERGENCIES

EMERGENCY LANDING

Best Glide Speed	70 KIAS (flaps 0)
PWR CTRL circuit breaker	DISENGAGE
BATT FRONT & BATT REAR circuit breakers	DISENGAGE
Seat Belts	SECURED
Flaps (when landing is assured)	+2

If time permits:

Radio	Transmit (121.5 MHz) MAYDAY
Transponder	SQUAWK 7700
ELT Switch	ON (if necessary)

DITCHING

Best Glide Speed	70 KIAS (flaps 0)
Power lever	CUT OFF
BATT FRONT & BATT REAR circuit breakers	DISENGAGE
Life vests	CHECK
Loose items in cabin	Secure
Seat belts	CHECK SECURED AND TIGHTEN
Radio	Transmit (121.5 MHz) MAYDAY
Transponder	SQUAWK 7700

Continue →

DITCHING (continue)

ELT switch	ON
Approach direction	High seas, high wind: into the wind. Light wind, heavy swells: parallel to the swells
Doors	OPEN
AUX BATT circuit breaker	DISENGAGE
Flaps	+2
Landing at the lowest possible speed	PERFORM
Seat belts	Release immediately
Airplane	EVACUATE
Life vest and raft	Inflate when outside the cabin
Flotation Devices	INFLATE WHEN CLEAR OF AIRPLANE

LANDING WITH DEFECTIVE BRAKES

Seat belts	CHECK FASTENED AND TIGHTENED
Master Switch	OFF
PWR CTRL circuit breaker	DISENGAGE
Steer gently	-

Once the aircraft has stopped:

Engine	Re-start
Vacate runway at low speed/low power setting	PERFORM

EPSI570C DISPLAY FAILURE

Display failure (black screen, hardware malfunction):

Reduce power	AS MUCH AS POSSIBLE
EPSI Circuit Breaker	DISENGAGE
Annunciator/ Batt Overtemp warning lights	MONITOR
Land	AS SOON AS PRACTICAL

EPSI570C communication failure:

Reduce power	AS MUCH AS POSSIBLE
Annunciator/ Batt Overtemp warning lights	MONITOR
Land	AS SOON AS PRACTICAL

RADIO COMMUNICATION FAILURE

Switches, Controls	CHECK
Frequency	CHANGE
COM Circuit Breaker	CHECK
Headset	CHANGE
Transmission	ATTEMPT

If unsuccessful:

Transponder	SQUAWK 7600
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PITOT STATIC MALFUNCTION

Refer to GPS for flying:

Ground speed indicator	+10 KTS for procedures, observe winds
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ELECTRIC TRIM FAILURE

Airplane Control

GRASP STICK,
MAINTAIN MANUALLY

TRIM Circuit Breaker

DISENGAGE

Power Lever

AS REQUIRED

Control Stick

Manually hold pressure

Land

AS SOON AS PRACTICAL



5.5 STALL SPEED

Conditions

Power: MTOM

NOTE: The recovery altitude necessary is very dependent on the tempo of recovery.

Typical loss of altitude for recovery:	
Slow recovery without power:	150-250 ft
Normal recovery with power:	100 ft
Aggressive recovery	less than 100 ft

Depending on pilot skill, the altitude loss during wing level stall may be 250 feet or more.

NOTE: KIAS values may not be accurate at stall.

WEIGHT - POWER	BANK ANGLE	STALL SPEED					
		Flaps (+0)		Flaps (+1)		Flaps (+2)	
kg	Degrees	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
600 POWER OFF	0°	53	51	46	46	46	45
600 POWER ON	0°	50	48	44	43	43	42

NOTE: The aircraft is equipped with an aural and haptic stall warning system installed in the control stick handles.

2.2 AIRSPEED LIMITATIONS

All speeds in the table below are KIAS.

Speed	KIAS	Remarks
V_{NE}	108	Never Exceed Speed is the speed limit that may not be exceeded at any time. Maximum speed for all operations.
V_{NO}	98	Maximum Structural Cruising Speed is the speed that should not be exceeded except in smooth air.
V_A	100	Operating Maneuvering Speed is the maximum speed at which full control travel may be used.
V_{FE}	81	Maximum Flap Extended Speed is the highest speed permissible with wing flaps extended at (+1) stage, 65 KIAS for (+2) stage.
V_{SO}	46	Stall speed in landing configuration. Stall speed for flaps (+2) stage.
V_S	53	Stall speed clean. Stall speed for flaps (0) stage.

2.7 OCCUPANCY

Max. Occupancy	Pilot and 1 Passenger
Minimum weight solo pilot	34 kg
Maximum weight per seat	110 kg
Maximum pilot and occupant weight	172 kg
Maximum baggage weight	No baggage

2.12 TEMPERATURE LIMITS

Do not fly when the temperature of the aircraft's surface is at risk of exceeding 55 °C.

Aircraft can be operated between $-20\text{ °C} < \text{OAT} < +35\text{ °C}$

Batteries should be stored between $0\text{ °C} < \text{OAT} < +30\text{ °C}$
(recommended %SOC range 30-80 %SOC)

Minimum battery temperature before engine start is 0 °C
(Protected by automatic self test at start up)

Maximum battery temperature at take off is +45 °C *

Charging temperature range is $0\text{ °C} < \text{battery temperature} < +45\text{ °C}$



2.15 OPERATIONAL RESTRICTIONS

Flight under Instrument Flight Rules (IFR) is not permitted.

NVFR Flight is not permitted.

Minimum SOC at take off = 50%.

Standard mission planning must consider 30% SOC as minimum value at landing.

Do not initiate a go-around procedure if SOC < 15%.
(Remaining energy will not be sufficient for another safe circuit pattern)

MTOP must be limited to 90 seconds.

Flight into known icing conditions is prohibited.

No flights in heavy rainfall or blizzard conditions.

Areas with risk of thunderstorms should be avoided.

Smoking is prohibited.

Do not fly when the temperature of the aircraft's surface is at risk of exceeding 55 °C.

Aircraft can be operated only when $-20\text{ °C} < \text{OAT} < +35\text{ °C}$.

Maximum battery temperature at take off is +45 °C *

Avoid applying more than 75% rudder deflection during cruise/climb/approach as this may cause a pitch-down moment.

The USB power outlets are not approved to supply power to flight-critical communication or navigation devices.

No intentional spins.

AHRS (Kanardia Horis) and GPS is for information only and should not be used for primary navigation as well as attitude and heading references.

***CAUTION:** when battery temperatures are above 40 °C, prolonged high-power application (circuit patterns or prolonged climb at MCP) may lead to battery high temperature.



5.8 CRUISE PERFORMANCE

Conditions Mass: 600 kg
Flaps: (0)
Altitude: Sea Level - ISA

The table presents cruise speeds at different power settings between minimum power for level flight (20 kW) and maximum continuous RPM power (36 kW).

POWER SETTING (EPSI)	RPM	KIAS	KCAS
[kW]	[1/min]	[kts]	[kts]
20	1780	71	69
25	1950	79	78
30	2120	87	86
35	2270	92	92
36	2300	93	93

NOTE: 36 kW power setting corresponds to 2300 RPM, max continuous RPM. The airspeed at this power setting is considered maximum cruise speed (93 KIAS).

$V_H = 93 \text{ KIAS (=93 KCAS) @2300 RPM}$

NOTE: Expect a 2% CAS decrease every 1000 ft of altitude increase, at the same RPM setting.



5.9.1 LOCAL FLIGHT (A-A FLIGHT)

A local flight is defined as a flight starting from and landing at the same airfield (A to A flight). Typical flight profile is illustrated in Section 5.9.

NOTE: in the following table initial SOC is 100%. The energy used to climb to cruise altitude and for descent is already included in the calculation.

A-A FLIGHT ENDURANCE in minutes (+ 10 min reserve @20 kW)							
Cruise altitude [ft]	Cruise power [kW]	Battery State of Health - SOH [%]					
		100	80	60	40	20	0
1500	20	52 min	45 min	39 min	32 min	25 min	18 min
	25	42 min	37 min	32 min	26 min	21 min	15 min
	30	36 min	32 min	27 min	23 min	18 min	14 min
	35	31 min	28 min	24 min	20 min	16 min	13 min
2000	20	52 min	45 min	38 min	31 min	25 min	18 min
	25	43 min	37 min	32 min	26 min	21 min	16 min
	30	36 min	32 min	28 min	23 min	19 min	14 min
	35	32 min	28 min	25 min	21 min	17 min	13 min
4000	20	51 min	44 min	37 min	30 min	24 min	17 min
	25	44 min	38 min	33 min	27 min	22 min	16 min
	30	39 min	34 min	30 min	25 min	21 min	16 min
	35	35 min	31 min	28 min	24 min	20 min	16 min
6000	20	50 min	43 min	36 min	29 min	-	-
	25	45 min	39 min	34 min	28 min	-	-
	30	41 min	36 min	32 min	27 min	-	-
	35	38 min	34 min	31 min	27 min	-	-

CAUTION: the endurance values in the table above do not include the additional 10 min reserve at 20 kW. After using reserve, SOC = 0%.



5.9.2 CRUISE FLIGHT (A-B FLIGHT)

A cruise/cross-country flight is defined as a flight starting from airfield A and landing at a different airfield (A to B flight). Typical flight profile is illustrated in Section 5.9.

NOTE: in the following tables initial SOC is 100% The energy used to climb to cruise altitude and for descent is already included in the calculation.

A-B FLIGHT ENDURANCE in minutes (+ 30 min reserve @20 kW)							
Cruise altitude [ft]	Cruise power [kW]	Battery State of Health - SOH [%]					
		100	80	60	40	20	0
1500	20	32 min	25 min	19 min	12 min	-	-
	25	27 min	21 min	16 min	10 min	-	-
	30	23 min	19 min	14 min	10 min	-	-
	35	20 min	17 min	13 min	9 min	-	-
2000	20	32 min	25 min	18 min	11 min	-	-
	25	27 min	22 min	16 min	11 min	-	-
	30	24 min	19 min	15 min	10 min	-	-
	35	21 min	17 min	14 min	10 min	-	-
4000	20	31 min	24 min	17 min	-	-	-
	25	28 min	23 min	17 min	-	-	-
	30	26 min	21 min	17 min	-	-	-
	35	24 min	20 min	17 min	-	-	-
6000	20	30 min	-	-	-	-	-
	25	29 min	-	-	-	-	-
	30	28 min	-	-	-	-	-
	35	27 min	-	-	-	-	-

CAUTION: the endurance values in the table above do not include the additional 30 min reserve at 20 kW. After using reserve, SOC = 0%.



A-B FLIGHT RANGE in Nm (+ 30 min reserve @20 kW / 35 Nm) WIND = 0							
Cruise altitude [ft]	Cruise power [kW]	SOH [%]					
		100	80	60	40	20	0
1500	20	37 Nm	29 Nm	21 Nm	12 Nm	-	-
	25	33 Nm	26 Nm	19 Nm	12 Nm	-	-
	30	31 Nm	24 Nm	18 Nm	11 Nm	-	-
	35	28 Nm	23 Nm	17 Nm	11 Nm	-	-
2000	20	37 Nm	29 Nm	21 Nm	12 Nm	-	-
	25	33 Nm	26 Nm	19 Nm	12 Nm	-	-
	30	31 Nm	24 Nm	18 Nm	11 Nm	-	-
	35	29 Nm	23 Nm	17 Nm	11 Nm	-	-
4000	20	35 Nm	27 Nm	18 Nm	-	-	-
	25	33 Nm	26 Nm	18 Nm	-	-	-
	30	32 Nm	25 Nm	18 Nm	-	-	-
	35	30 Nm	24 Nm	18 Nm	-	-	-
6000	20	33 Nm	-	-	-	-	-
	25	33 Nm	-	-	-	-	-
	30	32 Nm	-	-	-	-	-
	35	31 Nm	-	-	-	-	-

CAUTION: the range values in the table above do not include the additional 30 min reserve at 20 kW. After using reserve, SOC = 0%.

CAUTION: the table above is valid when wind is 0.

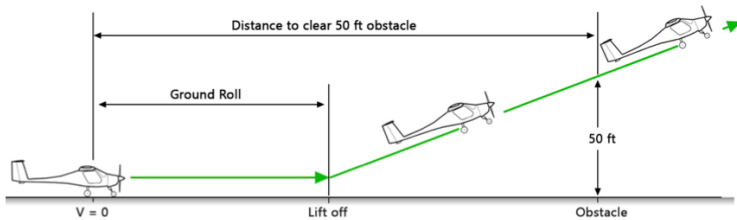
Example: A-B flight, battery SOH = 60%, expected range and endurance for a 4000 ft cruise flight @30 kW power setting are: 18 Nm range and 17 min endurance, with 30 minutes of reserve (in accordance with Ops.125).



5.6 TAKE OFF DISTANCE

Conditions	Power:	MPTOP (50kW)
	Flaps:	(+1)
	Wind:	Calm
	Mass:	600 kg
	Runway condition:	dry
	Speed at lift off:	50 KIAS
	Speed over the obstacle:	57 KIAS (V_x)

Take off performance data included in this POH are extrapolated from flight test results. These extrapolated values serve as an estimation of actual take off roll and total distance to clear a 50 ft obstacle (ground roll plus climb distance to clear obstacle).



Correction Factors

- Headwind: Subtract 10% for each 12 knots headwind.
- Tailwind: Add 10% for each 2 knots tailwind up to 10 knots.
- Wet Grass: Add 18% to ground roll on dry grass.

Runway Slope

- Increase table distances by 22% of the ground roll distance at sea level for each 1% of upslope.
- Decrease table distances by 7% of the ground roll distance at sea level, for each 1% of downslope.

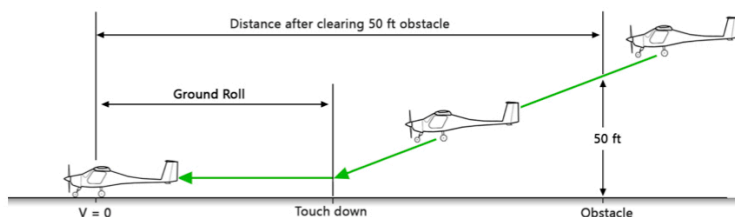
PRESSURE Altitude [ft]	DISTANCE [m]	Runway Surface	TEMPERATURE				
			ISA -15°C	ISA -5°C	ISA	ISA +5°C	ISA +15°C
SL	Ground roll	Asphalt	208	230	240	250	268
	50 ft obst.		391	430	448	466	499
	Ground roll	Grass	236	260	272	283	304
	50 ft obst.		476	507	517	526	555



5.10 LANDING DISTANCE

Conditions	Wind:	zero
	Runway:	dry and leveled
	Flaps:	(+2)
	Power:	CUT OFF
	Airspeed:	60 KIAS at 50 ft height
	Mass:	600 kg
	Brakes:	applied 1s after touch down

The landing performance data included in this POH are extrapolated from flight test results. These extrapolated values serve as an estimation of actual landing roll and total landing distance after clearing 50 ft obstacle (ground roll included).



Correction Factors

Headwind:	Subtract 10% from table distances for each 13 knots of headwind.
Tailwind:	Add 10% to table distances for each 2 knots of tailwind up to 10 knots.

Wet grass runway: Add 30% to ground roll distance for dry grass runway.

Sloped Runway

Increase table distances by 27% of the ground roll distance for each 1% of downslope.

Decrease table distances by 9% of the ground roll distance for each 1% of upslope.

PRESSURE Altitude [ft]	DISTANCE [m]	Runway Surface	TEMPERATURE				
			ISA -15°C	ISA -5°C	ISA	ISA +5°C	ISA +15°C
SL	Ground roll	Asphalt	170	180	183	186	196
	50 ft obst.		516	526	537	553	569
	Ground roll	Grass	180	190	193	196	207
	50 ft obst.		552	564	575	592	610



Training sortie

The following table provides information about percentage of SOC needed for each flight phase.

FLIGHT PHASE		Battery State of Health (%SOH)					
		100	80	60	40	20	0
Take off and initial climb to 300 ft AGL	%SOC	4	4	5	6	7	8
1000 ft climb at V_Y - 48 kW	%SOC	7	7	8	10	12	14
10 min cruise - 20 kW (69 KCAS)	%SOC	15	17	19	22	26	32
10 min cruise - 25 kW (78 KCAS)	%SOC	19	22	25	28	34	41
10 min cruise - 30 kW (86 KCAS)	%SOC	24	26	30	35	41	50
10 min cruise - 35 kW (92 KCAS)	%SOC	28	31	36	41	49	59
Touch and go and climb to 300 ft AGL	%SOC	3	3	4	4	5	6
Energy for the first traffic pattern	%SOC	10	11	13	15	18	22
Energy for a generic traffic pattern	%SOC	9	10	12	13	16	20
Aborted landing and climb to 1000 ft AGL at V_Y - 64 kW	%SOC	7	8	9	10	12	15



PNR SOC = usable SOC x GS homebound / (GS homebound + GS outbound).
In this example: $70\% \times 70 \text{ kts} / (100 \text{ kt} + 70 \text{ kts}) = 28\%$, that is the SOC used to reach PNR. So, in this example, PNR is $100\% - 28\% = 72\%$, where 100% is the initial SOC.

This is very important. When flying with a tailwind it is necessary to turn back to the point of origin much sooner.

PNR REFERENCE TABLES

The following tables provide quick reference for PNR calculation, depending on cruise power/speed and wind. PNR SOC is the SOC value at which the return to the initial cruise point is possible, with 30% SOC remaining.

20 kW		Tailwind outbound, headwind inbound (kts)				No wind	Headwind outbound, tailwind inbound (kts)			
69 KCAS		-20	-15	-10	-5	0	5	10	15	20
INITIAL SOC:	90	69	67	64	62	60	58	56	53	51
	80	62	60	59	57	55	53	51	50	48
	70	56	54	53	51	50	49	47	46	44
	60	49	48	47	46	45	44	43	42	41

25 kW		Tailwind outbound, headwind inbound (kts)				No wind	Headwind outbound, tailwind inbound (kts)			
78 KCAS		-20	-15	-10	-5	0	5	10	15	20
INITIAL SOC:	90	68	66	64	62	60	58	56	54	52
	80	61	60	58	57	55	53	52	50	49
	70	55	54	53	51	50	49	47	46	45
	60	49	48	47	46	45	44	43	42	41

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Interception procedures

It is a requirement for Part 21 aircraft flying under Part-NCO and for all aircraft flying internationally to carry the interception procedures specified in ICAO Annex 2 (Rules of the Air) and the SERA. These are reproduced below.

SERA.11015 Interception

- > **(a)** Except for intercept and escort service provided on request to an aircraft, interception of civil aircraft shall be governed by appropriate regulations and administrative directives issued by Member States in compliance with the Convention on International Civil Aviation, and in particular Article 3(d) under which ICAO Contracting States undertake, when issuing regulations for their State aircraft, to have due regard for the safety of navigation of civil aircraft.
- > **(b)** The pilot in command of a civil aircraft, when intercepted, shall:
 - > **(1)** immediately follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Tables S11-1 and S11-2;
 - > **(2)** notify, if possible, the appropriate air traffic services unit;
 - > **(3)** attempt to establish radio-communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;
 - > **(4)** if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit;
 - > **(5)** if equipped with ADS-B or ADS-C, select the appropriate emergency functionality, if available, unless otherwise instructed by the appropriate air traffic services unit.

Table S11-1: Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT — Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left (or to the right in the case of a helicopter) on the desired heading.	You have been intercepted. Follow me.	DAY or NIGHT — Rocking aircraft, flashing navigational lights at irregular intervals and following.	Understood, will comply.

Note 1 Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.

Note 2 If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.

EMERGENCIES

Interception procedures

Table S11-1: Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
2	DAY or NIGHT — An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT — Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT — Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT — Lowering landing gear, (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

Table S11-2: Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	INTERCEPTED Aircraft Responds	Meaning	INTERCEPTING Aircraft Signals	Meaning
4	DAY or NIGHT — Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft)) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT — If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me. Understood, you may proceed.
5	DAY or NIGHT — Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT — Irregular flashing of all available lights.	In distress.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.

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Interception procedures

- > **(c)** If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.
- > **(d)** If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.
- > **(e)** If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table S11-3 and transmitting each phrase twice:

Table S11-3

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	Pronunciation ¹	Meaning	Phrase	Pronunciation ¹	Meaning
CALL SIGN	<u>KOL</u> SA-IN	What is your call sign?	CALL SIGN (call sign) ²	<u>KOL</u> SA-IN (call sign)	My call sign is (call sign)
FOLLOW	<u>FOL</u> -LO	Follow me	WILCO	<u>VILL</u> -KO	Understood, will comply
DESCEND	DEE- <u>SEND</u>	Descend for landing			
			CAN NOT	<u>KANN</u> NOTT	Unable to comply
YOU LAND	<u>YOU</u> LAAND	Land at this aerodrome	REPEAT	REE- <u>PEET</u>	Repeat your instruction
			AM LOST	<u>AM</u> LOSSI	Position unknown
PROCEED	PRO- <u>SEED</u>	You may proceed			
			MAYDAY	MAYDAY	I am in distress
			HIJACK ³	<u>HI</u> -JACK	I have been hijacked
			LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	DEE-SEND	I require descent

1 In the second column, syllables to be emphasised are underlined.

2 The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.

3 Circumstances may not always permit, nor make desirable, the use of the phrase 'HIJACK'.

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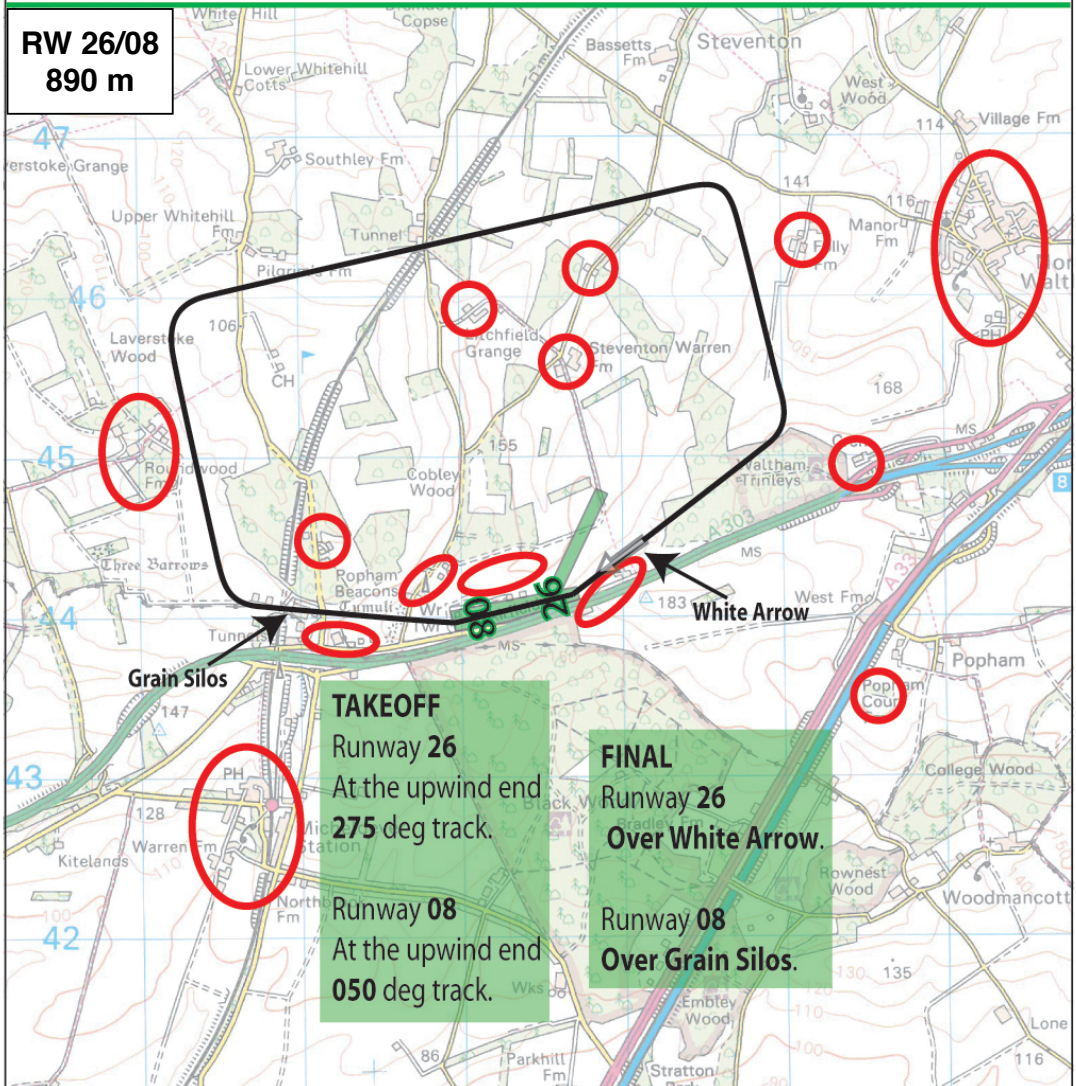
Interception procedures

- > **(f)** As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:
 - > **(1)** attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121.5 MHz, unless such communication already exists;
 - > **(2)** inform the pilot of the intercepted aircraft of the interception;
 - > **(3)** establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft;
 - > **(4)** relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;
 - > **(5)** in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft;
- > **(g)** As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:
 - > **(1)** inform the air traffic services unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with (f);
 - > **(2)** relay messages between the intercepted aircraft and the appropriate air traffic services unit, the intercept control unit or the intercepting aircraft.

POPHAM RADIO: 129.805
Circuit Height 800' AGL (Elevation 550' AMSL)

POPHAM AIRFIELD

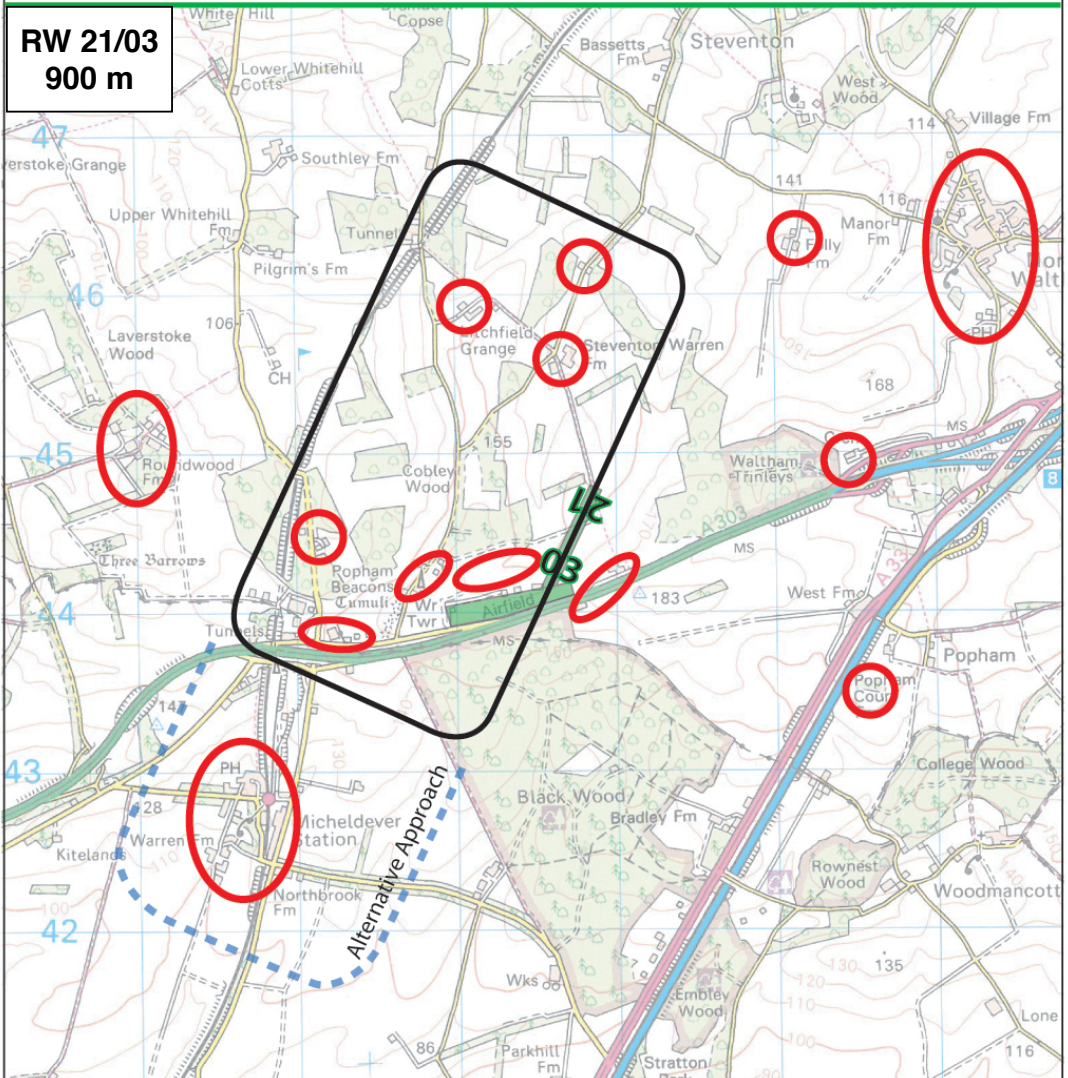
RW 26/08
890 m



SAM (113.35) 019°, 14.9 nm / CPT (114.35) 185°, 17.8 nm
Overhead Join 2,000' AGL (2,500' AMSL)

POPHAM RADIO: 129.805
Circuit Height 800' AGL (Elevation 550' AMSL)

POPHAM AIRFIELD



SAM (113.35) 019°, 14.9 nm / CPT (114.35) 185°, 17.8 nm
Overhead Join 2,000' AGL (2,500' AMSL)