



BOURNEMOUTH FLYING CLUB

This document is intended as an aide to the pilot. The information it contains is not a replacement for the Flight Manual (which takes precedence in all cases) and is not a substitute for adequate pre-flight planning.

Bulldog B120

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Out Brief

This is a non-exclusive list of items to consider before each flight. Please ask an instructor for advice if you have any doubts or questions – advice is free!

1. Health, Medication & Fatigue
2. Medical: current and valid
3. Currency of Licence and ratings
4. Operating currency: club, legal & personal requirements
5. Planning: route, diversion, fuel, daylight, bad weather plan, chart prepared, PLOG prepared
6. Destination: opening times & PPR
7. Weather: departure, en-route, destination, diversion, freezing level
8. Equipment: checklists, fuel sampler, sick bags, torch, spare spectacles, aircraft documents, headsets, aircraft covers
9. NOTAMs
10. Red Arrows & temporary restrictions (0500 354802)
11. Mass & Balance
12. Aircraft Performance
13. Customs
14. Special Branch
15. Flight Plan
16. Safety equipment (condition, serviceability, knowledge)
17. Passengers briefed & temporary memberships in place
18. Special briefs (aerobatic floor, etc.)
19. Booking out
20. Flight authorisation
21. Aircraft serviceability

Preliminary Checks

1. Parking brakeOn; working
2. ChocksRemoved; stowed
3. Tie-downs.....Removed; stowed
4. Towing armRemoved; stowed
5. Pitot head coverRemoved; stowed
6. Control locksRemoved; stowed
7. Aircraft documentsChecked; stowed
8. Fire extinguisherSecure; serviceable
9. Turn indicatorWarning flag displayed
10. Mixture controlIdle cut off
11. ThrottleClosed
12. Fuel cock.....On
13. Magneto switchesOff
14. Battery Master.....On
15. FlapsDown; check indicator
16. Pitot heaterOn; check pitot head warm; Off
17. Instrument & cabin lights.....Working (Night only)
18. Navigation lights.....Working (Night only)
19. Anti-collision lightsOn; check; Off
20. Landing & taxi lights.....On; check; Off
21. Stall warningWorking
22. All electrical services.....Off
23. Battery Master.....Off
24. Elevator Trim.....Full & free; correct sense
25. Rudder TrimFull & free; correct sense
26. WindscreenUndamaged; clean
27. OAT probeUndamaged; secure
28. Canopy.....Undamaged; clean
29. Canopy jettison system.....Handle & pins wire-locked
30. First aid kit.....Condition; security
31. Check cockpit for loose objects, security of seats, security of any baggage, condition of harnesses, etc

... continue to external checks

External Checks

Carry out a systematic check of the aircraft for serviceability, signs of damage, snow ice, leaks, loose panels or fairings. In particular:

1. Fuel tanksContents; security of caps
2. Fuel drains & gascolatorSample all 5 drains
3. Fuel breather pipeUndamaged; unblocked
4. Left flapCondition; linkage; hinges;
.....bonding wires; static wicks
5. Left aileronCondition; linkage & hinges;
.....bonding wires; static wicks;
.....free movement
6. Left nav light & strobeCondition; security
7. Pitot static headCondition; unobstructed
8. Left wing surfacesCondition; panels; screws; rivets
9. Left undercarriage fairingCondition; security
10. Left brake & pipesCondition; leaks
11. Left wheel & tyreCondition; creep; pressure
12. Engine cowlingFasteners secure (“pull” check)
13. Intakes & ductsClear; air filter & baffles secure
14. Alternator beltCondition; tension
15. Propeller & spinnerCondition; screws
16. ExhaustSecure
17. Oil level5-8; inspection flap closed
18. Torque linkConnected
19. Nose oleoMinimum “3 fingers” extension
20. Nose wheel & tyreCondition; creep; pressure
21. Right wheel & tyreCondition; creep; pressure
22. Right brake & pipesCondition; leaks
23. Right undercarriage fairingCondition; security
24. Right wing surfacesCondition; panels; screws; rivets
25. Landing & taxi lightsCondition
26. Right nav light & strobeCondition; security
27. Right aileronCondition; linkage; hinges;
.....bonding wires; static wicks;
.....free movement

... continued

External Checks continued

- 28. Right flapCondition; linkage; hinges;
.....bonding wires; static wicks
- 29. Right fuselageCondition; access panels secure
- 30. Fuselage under surfaceCondition: access panels secure;
.....Battery vents unblocked
- 31. Tailplane & elevatorCondition; linkage; hinges;
.....bonding wire; free movement
- 32. Trim tabCondition; hinges; screw jack
- 33. Fin and rudder.....Condition; hinges; trim tab;
.....linkage; bonding wires
- 34. Tail bumperUndamaged
- 35. Aerials & access panelsSecure
- 36. Left fuselageCondition; access panels secure

Pre-Start Checks

1. SeatsBacks adjusted; lock pins engaged
2. Control locksRemoved; stowed
3. Loose articlesNone
4. Rudder pedals.....Adjusted; locked
5. Parking brakeRe-Set On
6. HarnessesFitted; adjusted
7. Canopy.....As required
8. Canopy jettisonIndicator aligned; rail pins secure
9. Ailerons & elevatorCorrect movement; full; free
10. Control columnsSecure
11. Electrical services & radiosAll Off
12. Volt/amp selectorSet "AMPS"
13. Alternator.....Off
14. Magneto switchesOff
15. Battery master.....Set On
16. Alternator warning lampCheck On
17. Starter warning lampTest
18. Circuit breakersAll "made"
19. InstrumentsCondition & indications
20. Fuel gaugesCorrect indications
21. Cabin air controlsClosed

... continue to Starting checks

Starting Engine

1. Anti-collision light "BEACON"
 2. Engine friction locksAs required
 3. Induction airExercise; Set Cold
 4. Propeller.....Exercise; Set Max RPM
 5. Fuel selectorSet lowest tank
 6. Priming
- Only prime if engine is cold, or if several attempts to start without priming have been unsuccessful.**

- a. Throttle: Open
 - b. Mixture: Rich
 - c. Fuel pump: On for 4 seconds; check pressure; Off
 - d. Throttle lever: Closed
 - e. Mixture: Idle Cut-off
7. ThrottleExercise then:
 - a. Engine cold: Set 1cm open
 - b. Engine hot or hard to start: Set 4-5cm open
 8. Propeller areaCall "clear prop"; check clear
 9. MagnetosSet Left
 10. StarterEngage
 11. MixtureSet Rich when engine fires
 12. MagnetosSet Both
 13. ThrottleSet 1000 RPM
 14. Starter warning lightCheck Off
 15. Oil PressureCheck 25 PSI within 30 secs
 16. MagnetosCheck L & R
 17. Alternator.....Set On
 18. Alternator warning lightCheck Off
 19. ThrottleSet 1200 RPM

Note: do not exceed 1200 RPM until Oil Temperature reaches 30°C & CHT reaches 100°C

20. Vacuum gaugeIndicating
21. Ammeter.....Charging
22. FlapsSet UP; indicating correctly
23. RadiosSet On
24. AltimeterIndicating within +/- 50 feet
25. Gyro instruments.....Erect; Set
26. Fuel selectorSet fullest tank

... continue to Taxying checks

Taxying Checks

1. BrakesWorking
2. RudderFull and free
3. Flight instruments.....Indicating correctly

Power Checks

1. Aircraft into wind; clear all around
2. Parking brakeOn
3. Fuel selectorSet Both
4. Oil temp.....30°C min
5. Oil pressure.....25 PSI min
6. Cylinder head temp.....100°C min
7. MixtureFully rich
8. Propeller.....Max RPM
9. Throttle.....Set 1800 RPM
10. Brakes.....Check holding
11. Propeller (3 times).....Exercise (not below 1300 RPM);
.....check indications; RPM restored
12. Throttle.....Set 2100 RPM
13. Brakes.....Check holding
14. Ignition (L, both, R, both)Max drop 175 RPM;
.....Max difference 50 RPM.
15. Induction Air (Hot, Cold).....Check 50 RPM decrease & restored
16. Vacuum.....4½-5"
17. CHT.....125-180°C
18. Throttle.....Check idling 500-800 RPM
.....Set 1200 RPM

... continue to Pre-takeoff checks

Pre-takeoff Checks

1. Rudder trimSet T/O
2. Elevator trimSet in T/O band
3. FlapSet "INTER"
4. Engine frictionsAs required
5. Propeller.....Max
6. MixtureFully rich
7. Induction airCold
8. Ignition.....Both
9. Fuel contentsSufficient
10. Fuel selectorBoth
11. Alternator light.....Out
12. Ammeter.....2-5 amps
13. VacuumIndicating
14. Navigation aidsAs required
15. HarnessesAdjusted
16. Canopy.....Latched
17. Engine instrumentsWithin limits
18. Pump.....Set On
19. Take-off emergenciesBrief complete

Line-up Checks

1. Strobes.....Set "BEACON & STROBES"
2. Landing light.....As required
3. Flight instrumentsAll set
4. TimeNoted
5. Transponder.....As required
6. Pitot heater.....As required
7. Ailerons & elevator.....No restrictions

After Take-Off Checks

1. BrakesOn/off
2. FlapsUp at 100-200 feet
3. PowerSet 25"/2500
4. AltimeterIndicating & set correctly
5. InstrumentsEngine instruments within limits
6. Navigation aidsAs required
7. Landing light.....Set Off
8. Pump.....Set Off above 1000 feet agl
9. Lean (best power)**At 1500 feet:**
 - i. RPM: Set Max
 - ii. Throttle: Set Max
 - iii. Mixture: Set 6.5 PSI
 - iv. Throttle & RPM: Set 25"/2500

Pre-Aerobatic Checks

1. TransponderSet 7004 unless allocated squawk
2. AccelerometerReset
3. Height.....Sufficient to recover above base
4. Airframe.....Flaps up; canopy latched
5. Straps.....Tight
6. SecurityNo loose items; **Extinguisher!**
7. Engine.....
 - a. Pump: Set On
 - b. Fuel: both (balanced within 3 gallons for spinning)
 - c. RPM: 2500
 - d. Mixture: set for best power, or set Rich
 - e. Engine instruments within limits
8. Location.....Airspace; built-up areas; cloud
9. Lookout360° or 2 x 180° turns

Cruise and Pre-Descent Checks

1. FuelSufficient; correct tank selected
2. Radio.....As required
3. EngineEngine instruments within limits
4. Direction indicatorSet
5. AltimeterSet as required
6. Pitot heatAs required

Pre-Landing Checks

1. BrakesOff
2. MixtureRich
3. Propeller.....Set 2400 RPM
4. Pump.....Set On
5. FuelSufficient; correct tank selected
6. FlapAs required
7. Landing light.....As required
8. InstrumentsEngine instruments within limits;
.....altimeter & DI set
9. HatchesCanopy latched
10. HarnessesTight
11. Short final checks
 - a. MixtureFully rich
 - b. Propeller.....Max RPM

After Landing Checks

1. Strobes.....Set "Beacon"
2. Pump.....Set Off
3. Landing light.....Set Off
4. Transponder.....Set Off
5. TimeNoted
6. Pitot heat.....Set Off
7. FlapsSet Up

Shut Down Checks

1. Parking brake.....Set On
2. Throttle.....Set 1000 RPM
3. CHTBelow 180°C
4. Ignition.....Check L & R
5. RadiosSet Off
6. MixtureSet ICO
7. Ignition.....Set Off when engine stops
8. Alternator.....Set Off
9. Anti-collision lightsSet Off
10. Fuel selectorSet L or R (**not Both or Off**)
11. Battery master.....Off
12. ChocksAs required
13. Control locksAs required

Engine Fire During Start

1. StarterContinue to Crank Engine
2. Fuel selectorOff
3. Fuel pumpOff
4. ThrottleOPEN
5. MixtureI.C.O.
6. Cabin heatOff
7. MagnetosOff
8. Battery masterOff
9. BrakesOff (if level ground)
10. Abandon aircraft taking fire extinguisher

Cabin Fire On Ground

1. Battery master/AlternatorOff
2. Fuel selectorOff
3. VentsOpen
4. MagnetosOff
5. BrakesOff (if level ground)
6. Evacuate the aircraft, taking fire extinguisher

Electrical Fire or Smoke In Cabin During Flight

1. Battery masterOff
2. AlternatorOff
3. Cabin heaterOff
4. VentsOpen
5. Fire extinguisherAs required
6. CanopyOpen if required (below 120kts)
7. Land as soon as possible
8. Prepare for non-radio airfield join

Engine Fire During Flight

1. Fuel selectorOff
2. ThrottleClosed
3. MixtureI.C.O.
4. Fuel pumpOff
5. HeaterOff
6. Carry out forced landing procedure

Engine Power Loss During Take Off

1. Maintain a safe speed (Ideal 75kts, Minimum 65kts)
2. If sufficient runway remains, land straight ahead.
3. If insufficient runway remains:
 - a. Maintain safe speed
 - b. Make only shallow turns to avoid obstacles
 - c. Flaps as required
4. If sufficient altitude has been gained to attempt a restart, proceed with the *Engine Power Loss in flight* procedure

Engine Power Loss In Flight (non-mechanical failure)

1. Maintain safe speed (Ideal 75kts)
2. Fuel pumpOn
3. Fuel selectorChange to tank containing fuel
4. MixtureRich
5. Alternate airOn
6. PropellerMax
7. ThrottleSlightly open
8. If propeller stationaryEngage starter
Note: the propeller can be made to windmill by diving to at least 120kts but this incurs a significant height loss
9. If power not regained, proceed with the *Forced Landing* procedure

Forced Landing

1. Trim for 75kts
2. Locate suitable field
3. Plan and initiate pattern into field
4. RadioMayday call
5. Passenger brief
6. Seat belts & harnessTight
7. MagnetosOff
8. Fuel selectorOff
9. MixtureI.C.O.
10. BrakesOff
11. CanopyUnlatched
12. FlapsAs required
13. Battery masterOff before touchdown

Propeller Overspeed

1. Throttle Retard
2. Oil pressure Check within limits
3. Airspeed Reduce
4. Throttle Set to keep below 2700 RPM
5. Propeller Determine whether any control is
..... available and set accordingly
6. Land as soon as possible

Note: ≤2755 no action; 2755-2915 maintenance
inspection/rectification; >2915 engine overhaul

Low Oil Pressure; High Oil Temperature

1. Check other gauges to confirm oil pressure indication
2. Divert to nearest airfield & be prepared for a power off landing

Loss of Fuel Pressure

1. Fuel pump On
2. Fuel selector Change tank
3. Divert to nearest airfield & be prepared for a power off landing

Alternator Failure (Low Voltage Light On)

1. Check Ammeter to confirm a discharge
2. Alternator CB Reset if tripped
3. Alternator Recycle off/on
4. If fault not corrected:
 - a. Reduce electrical load to minimum
 - b. Land as soon as practicable
 - c. Prepare for non-radio airfield join

Airframe Icing

1. Alternate air Open
2. Pitot heat On
3. Cabin heat Set defrost
4. Exit icing level or area as soon as possible
5. If static blocked, consider breaking VSI glass in emergency

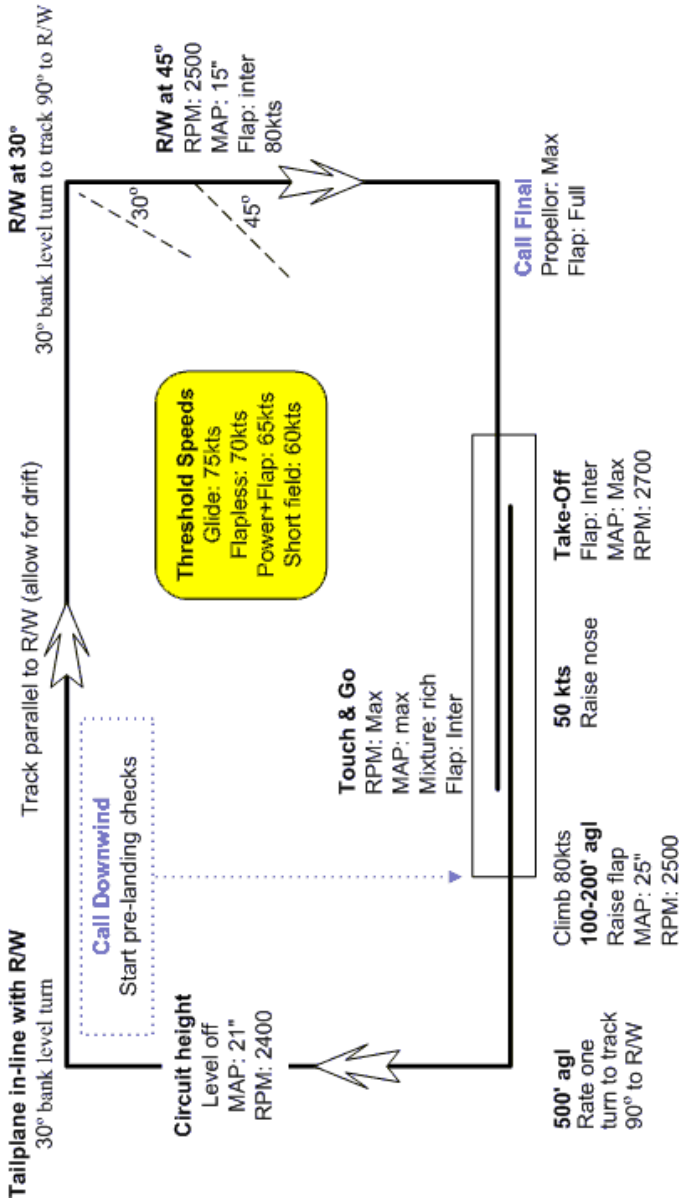
Spin Recovery

1. Throttle Closed
2. Control column Full rear; ailerons neutral
3. Rudder Fully applied opposite to turn needle
4. Control column Quickly forwards with ailerons neutral
5. When rotation stops:
 - a. Centralise Rudder
 - b. Level wings & ease out of dive

Emergency evacuation in Flight

1. Magnetos Off
2. Canopy Undo front latch;
..... Pull jettison handle; push canopy
3. Undo harness & abandon aircraft

Recommended Circuit



Aircraft Data

Speeds (KIAS @ MAUW)

Vx 65	Vne 185	Loop 140
Vy 80	Vno 135	ROT 145
Vglide 75	Vs1 53	SplitS 85
Vtoss 65	Vs0 50	Stall turn 120
Rough air 85	Va 142	Slow roll 120
Vfe(inter) 135		Barrel roll 120
Vfe(full) 100		Flick roll do not exceed 80
Max canopy open 120		
Max demonstrated crosswind 35		
Max demonstrated wind for taxiing 50		

Take-off

Conditions: MAUW, ISA, Sea level, nil wind, level, dry, paved

Technique: Full power, induction air cold, flaps inter, 65kts to 50'

TODR: 530m (includes a factor of 1.25)

TORR: 360m (includes a factor of 1.15)

Cruise – 2500 ft, MAUW

Power	MAP/RPM	Fuel			TAS (kts)
		Pressure	UK G/h	Litre/h	
50%	21/2100	1.5-2.1	6.0-6.5	27.3-30.0	100
70%	24/2400	2.8-3.9	8.4-9.8	38.3-44.6	110
80%	25/2500	4.6	10.6	48.3	120

Landing

Conditions: MAUW, ISA, Sea level, nil wind, level, dry, paved

Technique: Idle power, Propeller fine, induction air cold, flaps full, 65 kts at 50'

LDR: 510m (includes a factor of 1.43)

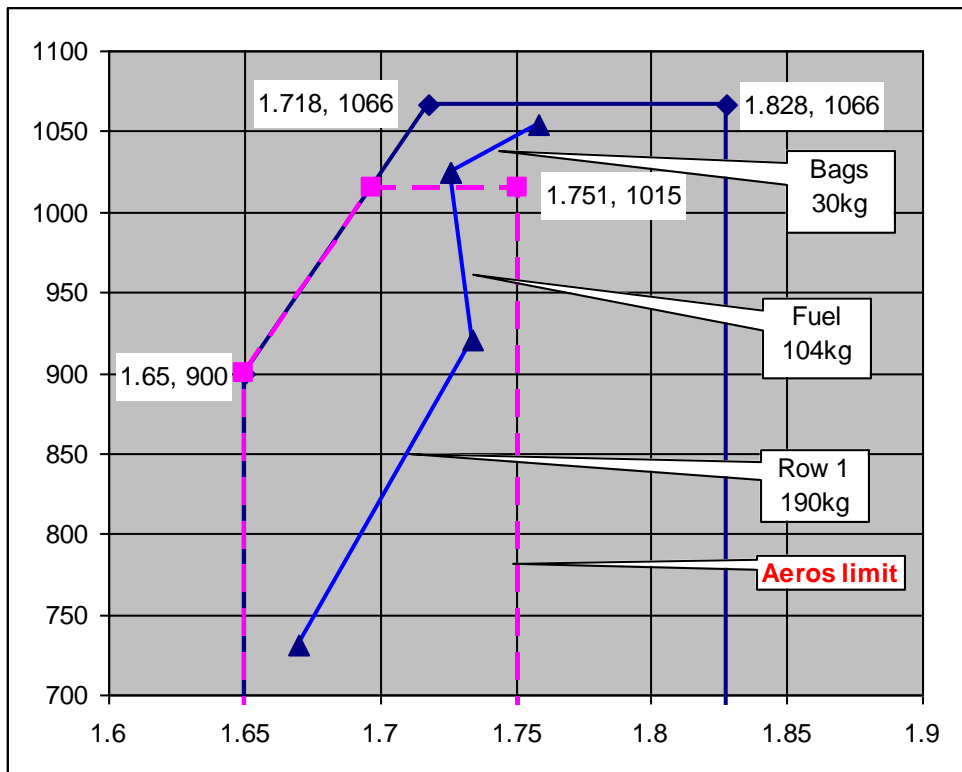
General Notes

- Electrics: 24V
- Side slipping: no restrictions
- Limits: +3.8/-1.52 with flap; +4.4/-1.8 outside aero CG & mass range; +6/-3 inside aerobatic range

- Sustained inverted prohibited

Mass and Balance

MTOW: 1066kg
 MLW: 1066kg
 MZFW: 1066kg
 Fuel arm: 1.653m
 Seat arm: 1.98m
 Baggage arm: 2.87m



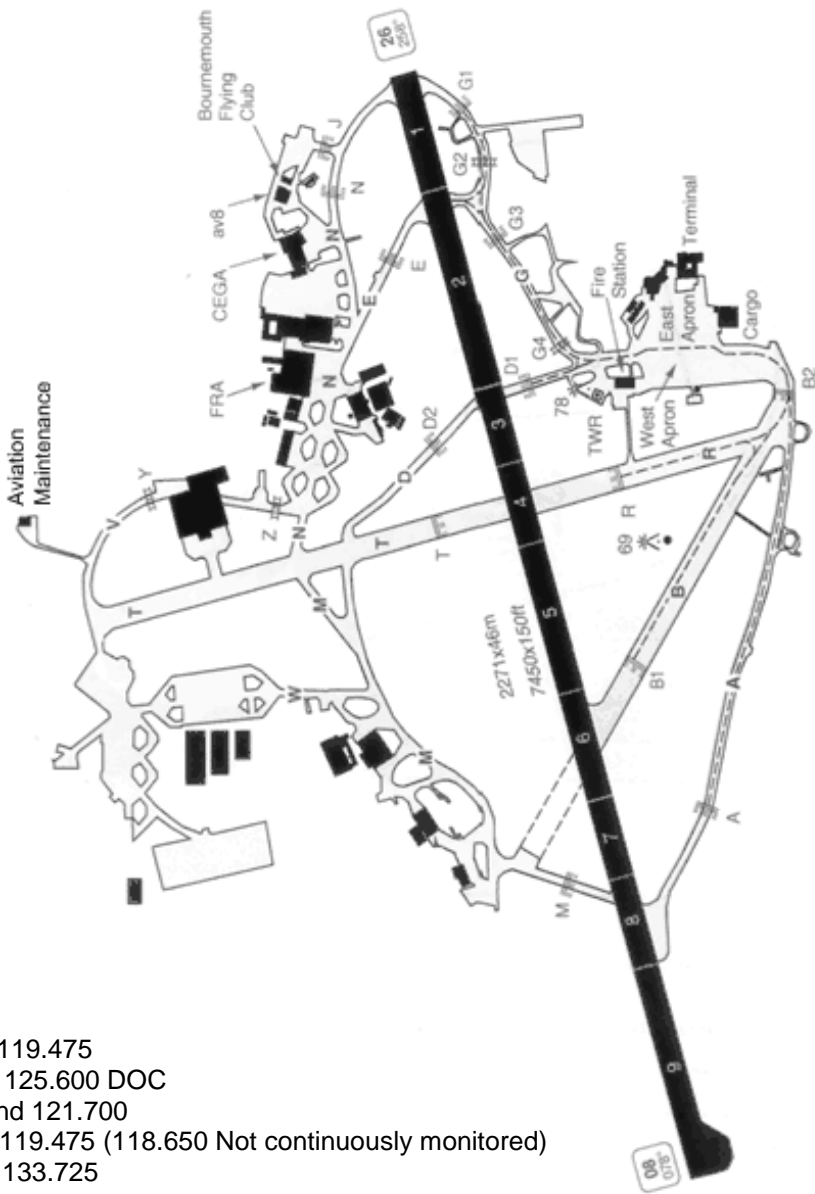
*G-BCUV: 730.45kg, 1.67m, 1219.86kg.m (17/Aug/2004)

Performance Factors, etc.

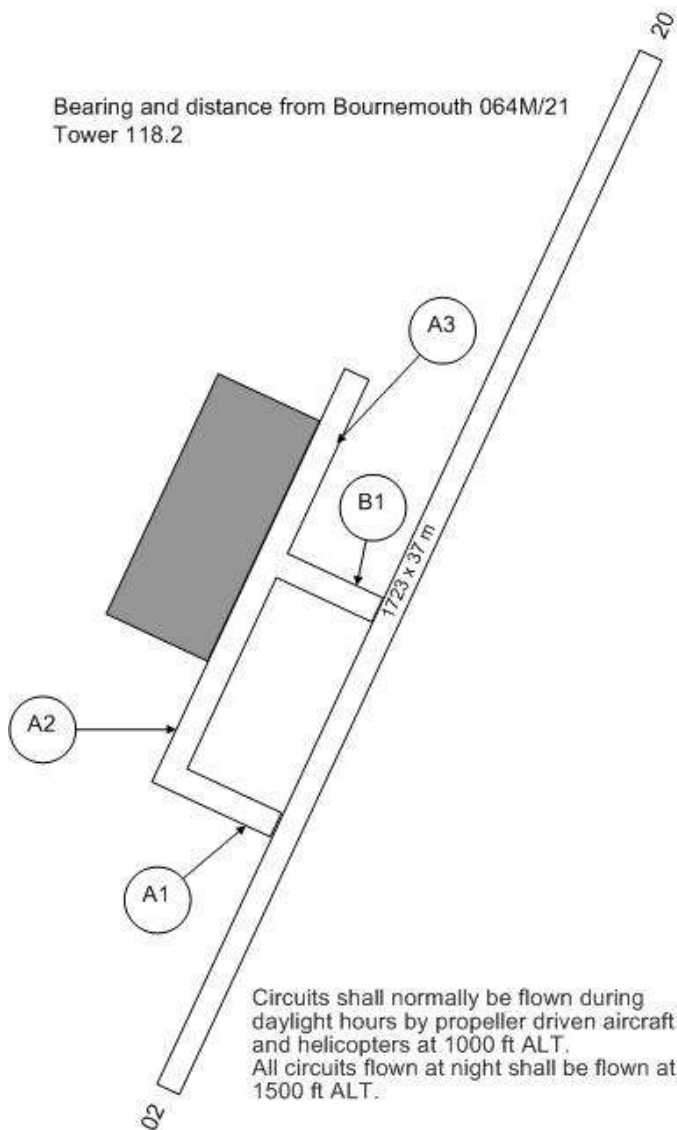
CAA Performance Factors		
Condition	Factor	
	Take-off	Landing
Weight +10%	1.2	1.1
Elevation +1000ft	1.1	1.05
Temperature +10°	1.1	1.05
Grass: dry <20cm	1.2	1.15
Grass: wet <20cm	1.3	1.35
Wet paved	1.0	1.15
Slope 2%	1.1 (up)	1.1 (down)
Tailwind (10% of Vr)	1.2	1.2
Soft ground or snow	>1.25	>1.25
Public Transport	1.33	1.44

Conversion				
Litres	Gallons		SG=0.72	
	Imp.	US	kg	lbs
-	-	-	1	2
5	1	1	4	8
6	-	-	5	10
10	2	3	7	16
14	3	4	10	22
20	4	5	14	32
30	7	8	22	48
40	9	11	29	63
50	11	13	36	79
63	14	17	45	100
69	15	18	50	110
88	19	23	64	140
100	22	26	72	158
133	29	35	95	210
200	44	53	144	317
300	66	79	216	475

Bournemouth



APP 119.475
TWR 125.600 DOC
Ground 121.700
RAD 119.475 (118.650 Not continuously monitored)
ATIS 133.725

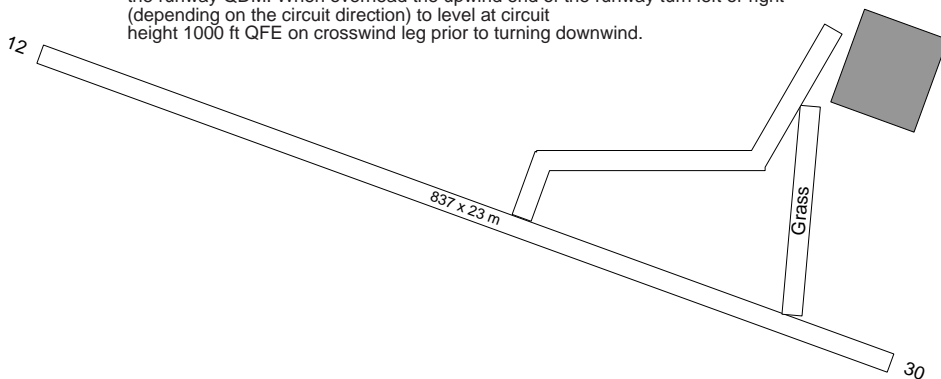


Bearing and distance from Bournemouth 105M/29

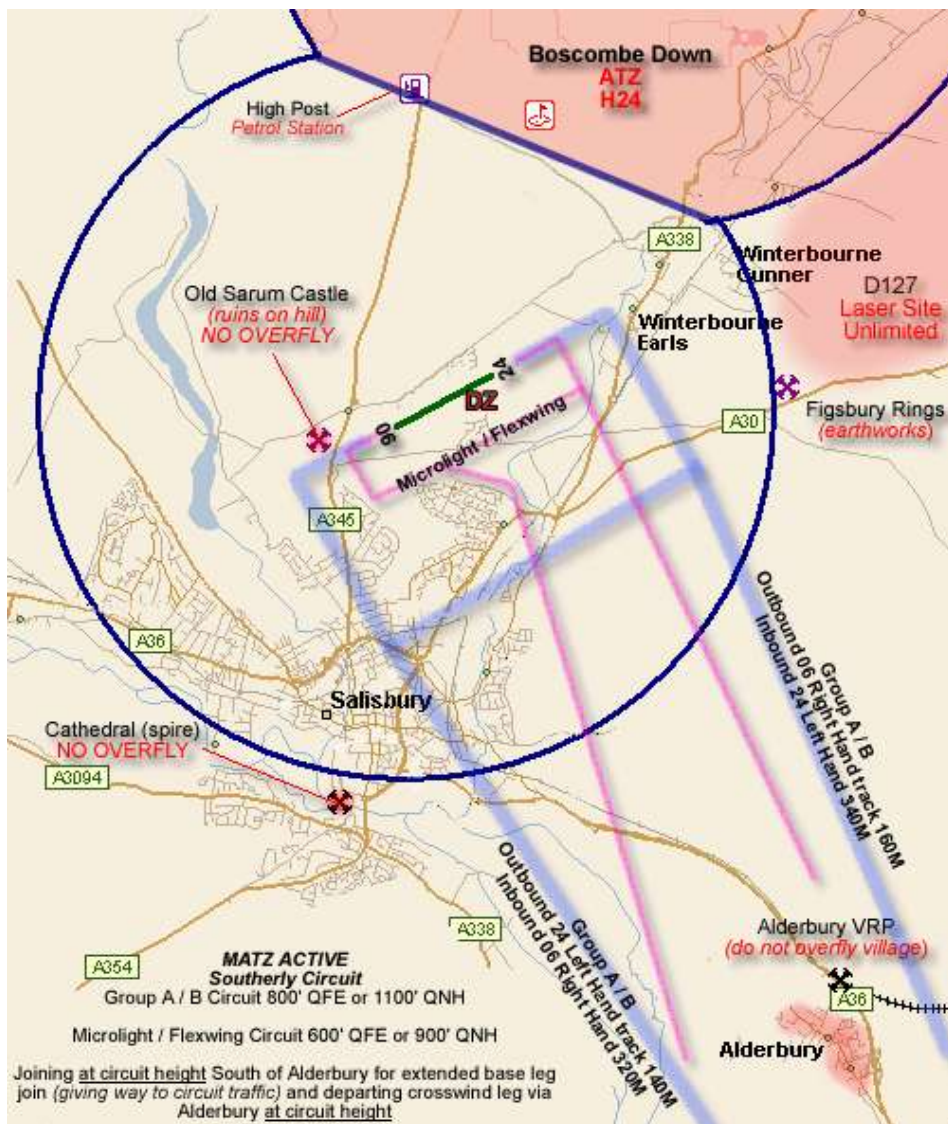
Tower 123.25

(a) Circuit directions for powered aircraft: Runway 12 - LH; Runway 30 - RH. Gliders will be flying a circuit opposite to that in use by powered aircraft.

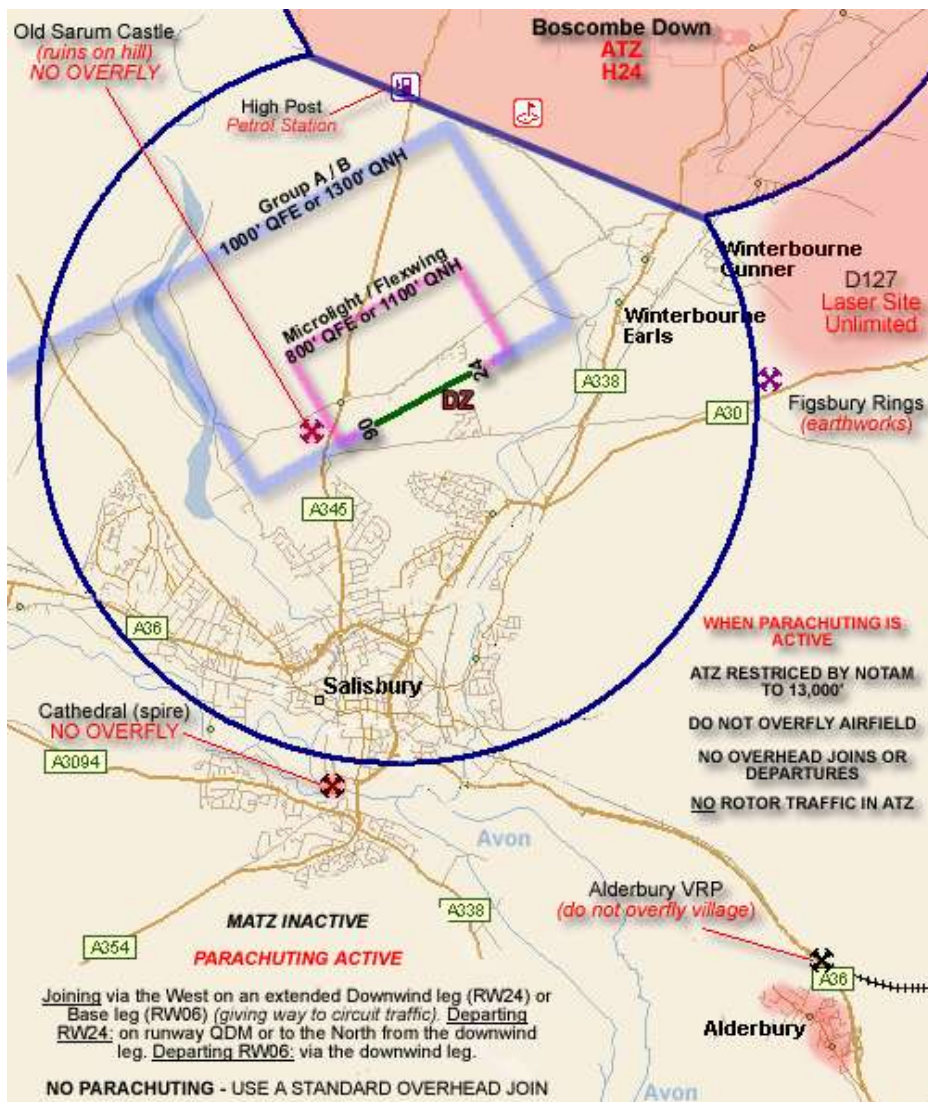
(b) When gliders are operating there is no dead side join available. Joining aircraft are to position to overfly the aerodrome at 1500 ft QFE on the runway QDM. When overhead the upwind end of the runway turn left or right (depending on the circuit direction) to level at circuit height 1000 ft QFE on crosswind leg prior to turning downwind.



Old Sarum - MATZ active



Old Sarum - MATZ inactive



Personal Notes