

**SECTION 6
OPERATIONS**

6.1 Pilot Certification

The operational requirements relating to qualifications to pilots in command of hang gliders, paragliders and weightshift microlights are summarised in the following paragraphs.

6.1.1 Pilot in Command

No person shall act as a pilot-in-command of a hang glider, paraglider or weightshift microlight unless:

- (a) *He or she is a member of HGFA (or the AUF in the case of a weightshift microlight);*
- (b) *He or she has obtained the pilot certificate and endorsement(s) required for the flying activity intended to be performed; and*
- (c) *He or she is medically fit to the standard required for the flying activity intended to be performed.*

6.1.2 Pilot Instruction

No person shall give either ground or flight instruction relating to hang gliders, paragliders and/or weightshift microlights unless:

- (a) *He or she is the holder of a current Instructor Certificate issued by the HGFA that is valid for instruction on the type of aircraft being used;*
- (b) *He or she has attained the age of eighteen years; and*

- (c) *He or she conducts the instruction under the supervision of a Level 2 Instructor, Chief Flying Instructor or the Executive Committee of a HGFA Affiliated Club as appropriate.*

No person shall act in the capacity of Level 2 Instructor or Chief Flying Instructor unless approved to do so in writing by the Operations Manager of the Hang Gliding Federation of Australia.

6.1.3 Carriage of Passengers

No person shall carry passengers in a hang glider, paraglider or HGFA registered weightshift microlight unless:

- (a) *he or she is the holder of a valid passenger carrying endorsement for the aircraft type issued by HGFA; and*
- (b) *where the aircraft is a hang glider or paraglider, the aircraft used is certified in accordance with standards laid down in the HGFA Certification Standard for Foot Launched Hang Gliders and is rated, under this standard, to carry the combined weight of the pilot and passenger; and*
- (c) *where the aircraft is a weightshift microlight, the aircraft is approved for this purpose in accordance with CAO 95.32; and*
- (d) *the aircraft used has been maintained in accordance with the requirements of Section 9 of this Operations Manual; and*

- (e) *where the passenger is under 18 years of age, parental consent is granted.*

Passengers shall not be carried for hire or reward unless the flight is for bona fide instructional purposes. In this instance the pilot in command must be the holder of a valid Instructional Passenger Carrying Endorsement and the passenger must be a minimum of 14 years of age, with due regard to Section 6.1.3.(d).

6.1.4 Radio Operators Endorsement

No HGFA Pilot Certificate holder shall operate aeronautical frequency VHF radio equipment unless he or she has been issued with an appropriate licence or endorsement as detailed in Section 7.4.5 of this manual, or is undergoing training under the direct supervision and control of an appropriately qualified person for the purpose of gaining a radio operators endorsement.

6.1.5 Cross Country Operations – Hang Gliders and Paragliders

No pilot certificate holder shall act as pilot in command of a hang glider or paraglider at a distance greater than 25 nautical miles from the point at which the aircraft was launched unless:

- (a) *he or she is the holder of a valid Advanced Pilot Certificate issued by HGFA; or*
- (b) *the flight is conducted within a designated flight training area; or*
- (c) *the proposed flight path is approved in advance by a Safety*

Officer who is the holder of an Advanced Pilot Certificate.

6.1.6 Cross Country Operations – Weightshift Microlights

No HGFA pilot certificate holder shall act as pilot in command of a weightshift microlight:

- (a) *at a distance greater than 25 nautical miles from the airfield where the aircraft is normally operated; or*
- (b) *operating from or landing at an aerodrome established or licensed under Civil Aviation Regulations; unless*

he or she is the holder of a valid WM Cross Country Endorsement; or flight training exercises are being conducted under the supervision and control of a Chief Flying Instructor.

6.1.7 Formation Flying

No HGFA pilot certificate holder shall pilot a weightshift microlight which is flying closer than 100 feet to another weightshift microlight or ultralight unless he or she has been issued with a Formation Endorsement by the HGFA or AUF, or he or she is undergoing flight training under the direct supervision and control of a Chief Flying Instructor for the purpose of gaining a Formation Endorsement.

6.1.8 Aerotow Launch – Weightshift Microlights

No person shall pilot a weightshift microlight for the purpose of an aerotow launch unless:

- (a) *he or she has been issued with a HGFA Tugmaster Endorsement; or*
- (b) *he or she is undergoing training under the direct supervision and control of an appropriately endorsed HGFA Instructor for the purpose of gaining a Tugmaster Endorsement; and*
- (c) *all operations comply with all the requirements of the HGFA Towing Procedures Manual.*

6.1.9 Aerotow Launch – Hang Gliders

No person shall pilot a hang glider for the purpose of an aerotow launch unless:

- (a) *he or she has been issued with a HGFA Aerotow Endorsement; or*
- (b) *he or she is undergoing training under the direct supervision and control of an appropriately endorsed HGFA Instructor or Senior Safety Officer for the purpose of gaining an Aerotow Endorsement; and*
- (c) *all operations comply with all the requirements of the HGFA Towing Procedures Manual.*

The aerotow launch of paragliders is not permitted.

6.1.10 Ground Tow Launching – Hang Gliders and Paragliders

No person shall pilot a hang glider or paraglider for the purpose of a ground tow launch unless:

- (a) *he or she has been issued with a HGFA Ground Tow Endorsement; or*
- (b) *he or she is undergoing training under the direct supervision and control*

of an appropriately endorsed HGFA Instructor for the purpose of gaining a Restricted Pilot Certificate; or

- (c) *he or she is undergoing training under the direct supervision and control of an appropriately endorsed HGFA Instructor or Senior Safety Officer for the purpose of gaining a Ground Tow Endorsement; and*
- (d) *all operations comply with all the requirements of the HGFA Towing Procedures Manual.*

6.1.11 Motorised Endorsement – Hang Gliders and Paragliders

No person shall operate a hang glider or paraglider fitted with an auxiliary power unit unless:

- (a) *he or she has been issued with a HGFA Motorised Endorsement; or*
- (b) *he or she is undergoing training under the direct supervision and control of an appropriately endorsed HGFA Instructor or Senior Safety Officer for the purpose of gaining a Motorised Endorsement.*

Note: The Motorised Endorsement applies to the operation of a hang glider or paraglider with an optional and removable motor to enable self-launching or retrieval. Launching and/or landing on the pilot's feet should still be possible, and the weight of the aircraft must not exceed 70kg. If these conditions do not apply, a weightshift microlight pilot certificate is appropriate.

6.1.12 Air Displays

Pilots must hold an Advanced Pilot Certificate or WM Pilot Certificate with the relevant endorsements and gain the recommendation of the HGFA

Operations Manual before being permitted to fly in public displays.

Air displays require the approval of the Civil Aviation Safety Authority – written application for approval must be made not less than twenty-eight days prior to the proposed display.

6.1.13 Log Book Requirements

- (a) *Each member of the HGFA (other than non flying members) shall keep a personal log book. The personal log book shall contain the following particulars:*
- (i) *the full name, address and date of birth of the member;*
 - (ii) *a record of pilot qualifications; and*
 - (iii) *a record of the flights of the member.*

Flight information shall include:

- (a) *date and duration of flight;*
- (b) *if under instruction, state dual or solo, the nature of the flight training and the specify the name of the Pilot in Command;*
- (c) *particulars of the aircraft flown; and*
- (d) *aircraft registration number (if applicable).*
equivalent CAR 5.51 & 5.52

Note: HGFA log books which allow members to record details that satisfy these requirements are available from the HGFA Office (See Appendix 1). Other forms of log book that allow a record of information equivalent in detail to that shown in the HGFA Log book are acceptable.

6.1.14 Land Owner Rights and Pilot Responsibilities

Operations on or over private or public property must be conducted with due regard to the rights of the land owner.

Hang gliding, paragliding and microlighting operations rely on the good will of landowners. When outlanding, pilots should endeavour to contact the land owner to explain their situation and thank the land owner for use of their property; refrain from having retrieve vehicles drive across paddocks; and walk from the paddock taking care to leave fences, gates and any other property as found.

CAR 93 states: *“Nothing in these Regulations shall be construed as conferring on any aircraft, as against the owner of any land or any person interested therein, the right to alight on that land, or as prejudicing the rights or remedies of any person in respect of any injury to persons or property caused by the aircraft.”*

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

6.2 Control of Operations – Hang Gliding and Paragliding Sites

- (a) *Where the Operations manager or HGFA Affiliated Club is of the view that the conditions of a site are such as to require a Duty pilot; or when Restricted pilot Certificate holders are operating; or where “mixed operations” are being conducted, a Duty Pilot shall be elected from those Pilot Certificate holders present.*

Note: For further information on the nomination and responsibilities of Duty Pilots, refer to Section 5.4.3 of this Manual.

When necessary the Duty Pilot will wear a badge or armband for easy identification.

The Duty Pilot will have the authority to control, direct and co-ordinate operations that are conducted in accordance with Civil Aviation Orders, this manual, and in accordance with any conditions set down by the owner of the site.

Where aircraft or aeronautical operations other than hang gliding and/or paragliding are being conducted from the flying site then the hang glider/paraglider Duty Pilot shall co-ordinate with the other duty officers to ensure that all operations are conducted in a safe and orderly manner.

- (b) *Only appropriately certificated or endorsed pilots may fly from the site.*
- (c) *Pilots shall obey all directions and instructions given by a Duty Pilot*

or Safety Officer, including grounding of pilots and/or aircraft if necessary.

- (d) *When operating at a flying site where a Duty Pilot is appointed, that is not their home site pilots must report to the Duty Pilot prior to undertaking any operations, or further operations, from that site.*

*Visiting pilots **MUST** ensure they are properly briefed on local requirements and conditions. Log books should be produced on request by an Instructor, Safety Officer, Duty Pilot or member of HGFA.*

- (e) *Pilots must not consume any liquor, drugs or other intoxicating substance within EIGHT (8) hours immediately prior to flying a hang glider or paraglider.*

CAR 256 (2)

- (f) If it is intended to fly cross country it is recommended that a message be left with another person stating the intended direction of flight, destination and intended time of return.

- (g) Hang glider and paraglider pilots should be aware that when operating at airfields and in joint operations with sailplanes, ultralights and weightshift microlights that additional operating requirements can apply. Consult the Duty Pilot or Safety Officer controlling operations for details.

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

**6.3 Control of Operations –
Airfields**

**6.3.1 Weightshift Microlighting
Operations**

- (a) *Where weightshift microlights and ultralights are operating without radio carriage and use from a flying field, a Duty Pilot shall be elected from those Pilot Certificate holders present.*

The Duty Pilot will have the authority to control and direct operations that are conducted in accordance with Civil Aviation Orders, this manual and any conditions set down by the owner of the field.

Where aircraft or aeronautical operations other than hang gliding or weightshift microlighting are being conducted from the flying field then the weightshift microlight Duty Pilot shall co-ordinate with the other duty officers to ensure that all operations are conducted in a safe and orderly manner.

- (b) *Where aircraft operations are operating from a field that is a training field, the Chief Flying Instructor of the Training Facility will have the authority to control and direct weightshift microlighting operations.*
- (c) *Flying is to be conducted only in suitable Visual Meteorological Conditions (VMC).*
- (d) *Only legal aircraft are to operate from the airfield.*

- (e) *Only appropriately certificated or licensed pilots may fly aircraft from the field.*

- (f) *Pilots should obey all directions and instructions given by a Chief Flying Instructor or Duty Pilot, including grounding of pilots and/or aircraft if necessary.*

- (g) *When operating at a flying field that is not their home field, pilots must report to the Chief Flying Instructor or Duty Pilot prior to undertaking any operations, or further operations, from that field.*

*Visiting pilots **MUST** ensure they are properly briefed on local requirements and conditions. Log books should be produced on request by an Instructor, Safety Officer, Duty Pilot or member of HGFA.*

- (h) *Assemble and inspect all aircraft well clear of runways, taxiways and or other areas where aircraft are being moved under their own power.*

Vehicles and trailers should be parked well clear of the designated aircraft and associated equipment have been uploaded. All vehicles shall be kept clear of aircraft, particularly those aircraft being refuelled or moving under their own power.

- (i) *Engines must NOT be started in hangers, parking areas or in any other location that could present a danger to tother persons or property.*

Before starting the engine, the aircraft must be in an operational area and precaution must be taken to ensure that the propeller blast will not endanger any person or aircraft.

*Prior to starting an engine the call: “**CLEAR PROP**” must be made in a **loud** clear voice.*

Weightshift microlights with engines operating shall not be left unattended at any time.

- (j) Members of the public and people not directly associated with the operation of a weightshift microlight are not permitted within 15 metres of the aircraft whilst the engine is running.*
- (k) When ground testing and running-up aircraft engines, wheels must be adequately chocked and the aircraft tied down, if necessary.*
- (l) The aircraft should be correctly parked after flight. Ignition off, controls locked, wheels chocked and clear of active areas. Tie down as appropriate.*
- (m) Pilots must not consume any liquor, drugs or other intoxicating substance within EIGHT (8) hours immediately prior to flying a weightshift microlight. The consumption of liquor on the FLYING FIELD is not permitted.*
- (n) **NO SMOKING** or **NAKED FLAMES** are permitted within 15 metres of any aircraft or aircraft refuelling point.*

Adequate fire fighting equipment should be on hand during all refuelling operations.

6.3.2 Taxying and Taking Off

Aircraft must be taxied slowly. Fast taxi speed causes excessive wear on airframe components.

When moving in to the “movement area” any aircraft should give way to aircraft which are landing or taking off and shall conform to the rules regarding “right of way” (the same as in the air).

Aircraft should be taxied to the take off end of the strip and STOP at right angles to the strip so that the pilot can observe all traffic in the circuit.

Immediately before take off a pilot must check:

- (a) Harness – Fastened and firm.*
- (b) Instruments – Altimeter set and other instruments working.*
- (c) Fuel – “On” and sufficient (see note).*
- (d) Loading – Within limits of weight and centre of gravity (if applicable).*
- (e) Outside – Clear and wind acceptable.*
- (f) Controls – Movements clear over whole range of weight shift positions.*

*NOTE: It is important that **fuel quantity** be checked as being sufficient for the proposed flight, including an adequate safety margin. It is recommended that tank is topped up prior to **each** flight as changing conditions, eg., an unexpected head-wind, may increase*

the expected consumption.

6.3.2.1 Turning after Take-off

After take-off from an aerodrome, the pilot in command of an aircraft shall not alter heading from the take-off heading at a height less than 500' AGL unless the alteration is necessary due to terrain.

CAR 166 (1)

A turn in any direction other than the circuit direction can be made if the aircraft has:

- (a) climbed straight ahead to 1500' AGL; or*
- (b) is at least 3 nautical miles from the aerodrome.*

AIP OPS 46.1.1

Hang Gliding Federation of Australia OPERATIONS MANUAL

6.3.3 Circuits

An increasing number of approvals are being gained for hang gliding and paragliding operations at airports and airfields and therefore more hang glider and paraglider pilots are involved in joint operations with GA aircraft, ultralights and weightshift microlights (known as "mixed" operations). It is therefore important that all pilots understand the circuit procedures used by powered aircraft.

A standard left-handed circuit is to be observed unless impractical or otherwise specified.

AIP OPS 46.1.1

Aircraft may join the pattern of traffic in use for the landing direction in the upwind, crosswind or downward leg as the case may be (usually overflying the circuit area at a height of at least 1500' AGL).

The height at which aircraft join the

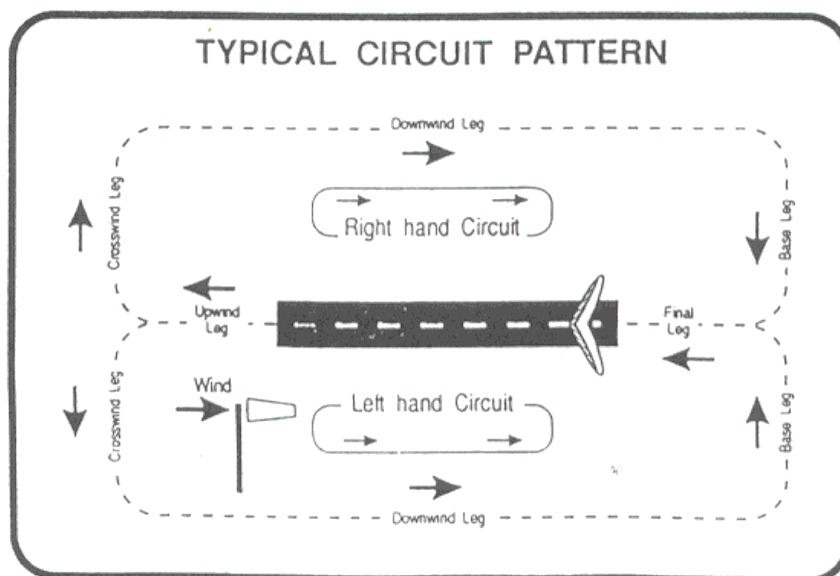
circuit depends on the type of operations and local operational procedures.

For general aviation the height is usually 1000 feet above ground level, whilst for ultralight, and weightshift microlight operations, the height is dependent on local rules set down by the airport owner/operator.

These rules may require ultralights and weightshift microlights to circuit at the same height as other aircraft, or sometimes at a lower height (such as 800' or 500' AGL).

*Weightshift microlights must conform with the standard circuit procedures set down, **flying the circuit no lower than 500' AGL.***

Special procedures for airports are published in ERSA (Enroute Supplement Australia) or can be determined by telephoning the airfield prior to operating at, or flying into the airfield.



Hang Gliding Federation of Australia OPERATIONS MANUAL

When mixed operations are being conducted a Duty Pilot should be nominated and specific procedures determined to ensure no conflict between aircraft.

Aircraft intending to land at an aerodrome must either conform with, or avoid, the pattern of aircraft within the circuit area.

CAR 166(1)(b)

To minimise the likelihood of conflict, it is recommended that hang gliders and paragliders approach the airport above circuit height (at least 2000' AGL), lose altitude on the "dead" side, and fly the "standard" circuit direction below and inside the general aviation circuit. Gliders should then land on the verge of the runway on the circuit side, thus never crossing low over the runway.

When it is not practicable to conform to the standard circuit direction, gliders and glider-tugs have an exemption from CAR 166 to allow a contra-circuit pattern.

The glider circuit is then made on the opposite side (or dead side) of the runway to that used by general aviation aircraft. (Landing on the verge of the runway and never crossing low over the runway).

NOTE: The "dead" side is the side of the runway which is not being used by powered aircraft in circuit, ie. the side opposite the circuit area.

Powered aircraft may use this side of the runway to lose altitude prior to joining circuit.

No aircraft may land on the runway unless it is clear of other aircraft.

After landing move clear of the runway as soon as possible.

equivalent to CAR 166

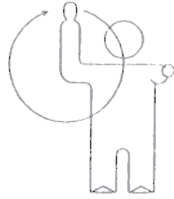
The "runway" includes the area inside the white gable markers surrounding the runway strip.

After landing adjacent the runway, the glider pilot must move the glider from the runway strip as soon as practicable, ie. outside the boundary formed by the gable markers.

6.3.4 Ground Marshalling Directions

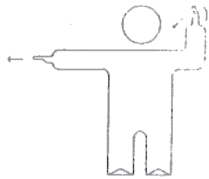
6.3.4.1 Start Engine

- Left hand pointing to specific aircraft.
- Right hand moving in a circular motion at head level.



6.3.4.2 Turns

- Arm pointing to the direction of turn.
- Other hand moved up and back.
- Speed of movement shows rate of turn.



6.3.4.3 Stop

- Arms repeatedly crossed above head.
- The rapidity of the arm movement shows the urgency of stop!



6.3.4.4 Move Ahead

- Arms a little to one side moved repeatedly upwards and backwards.



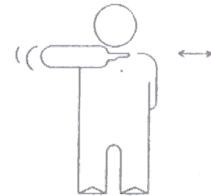
6.3.4.5 Slow Down

- Arms down close to side moved up and down several times.



6.3.4.6 Cut Engine

- Hand level with shoulder.
- Hand moved sideways across the throat.



**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

6.4 Equipment Requirements

6.4.1 Hang Gliders and Paragliders

It is strongly recommended that hang glider and paraglider pilots fly only aircraft models specifically designed to be flown by pilots with their level of experience and for the type of operation being conducted.

Hang gliders and paragliders operated in accordance with the Operations Manual shall:

(a) *Where operations:*

- (i) *Are being conducted by persons other than the manufacturer, his employee or bona fide representative, or*
- (ii) *involve tandem or training operations,*

the aircraft used shall be identical to a design that has satisfactorily demonstrated compliance to airworthiness requirements detailed in Section 9 of this manual.

Note: It is possible that aircraft or equipment required for certain operations and which have satisfactorily demonstrated compliance with the airworthiness requirements of Section 9, may not be commercially available. In this case the Operations Manager, after consultation with the Safety & Operations Committee, may approve other equipment for these operations. Any such equipment so approved must be used in accordance with any limitations specified by the Operations Manager.

(b) *When operating at a height in excess of 300 feet above ground level carry a serviceable altimeter which:*

- (i) *meets the standards specified in Civil Aviation Orders Section 103.3 (See Section 9.1.3 of this Operations Manual);*
- (ii) *is set to area QNH;*
- (iii) *is set to indicate height in feet;and*
- (iv) *is easily read by the pilot at all times whilst in flight.*
- (c) *Any ancillary equipment used either in flight, or during the launch or landing phase that directly affects the safety of the pilot, such as support harnesses, helmets, parachutes, suspension loops, release mechanisms, weak links and the like shall be of a type that is designed, manufactured in accordance with the standards adopted by the HGFA, as specified in the HGFA Towing Procedures Manual or Section 9 of this Operations Manual.*
- (d) *A parachute shall be worn by each occupant of a hang glider or paraglider taking part in a HGFA recognised contest.*
- (e) *The wearing of a parachute for all operations in excess of 300 feet above ground level is recommended.*
- (f) *A Reserve Parachute must be used in all tandem training flights.*

Note: Reserve parachutes must be of appropriate size for the combined weight of the aircraft, harness, pilot and passenger. Additionally a parachute must be fitted as specified by the manufacturer.

6.4.1a Helmets

Unless otherwise authorised in writing by the HGFA Operations Manager, the wearing of a helmet is recommended for all HGFA operations and is mandatory for all HGFA training operations.

6.4.2 Weightshift Microlights

6.4.2.1 Registration

Weightshift microlights operated in accordance with this manual are required to:

- (a) *have a current HGFA or AUF Registration Certificate (the period of validity is 12 months and is subject to the satisfactory completion of the relevant Periodic Inspections); and*
- (b) *display HGFA or AUF registration markings.*

6.4.2.2 Aircraft Registration Markings

Weightshift microlight registration markings are Arabic numerals and hyphen followed by the allocated registration number.

Weightshift microlights are registered with the HGFA under CAO 95.32 have the prefix T2 followed by a hyphen and the registered number; e.g. T2-2512.

Weightshift microlights registered with the HGFA under CAO 95.10 have the prefix T1 followed by a hyphen and the registered number; e.g. T1-2123.

For registration under CAO 95.32 or CAO 95.10, the HGFA has been allocated the series 2000 to 2999.

The HGFA is currently allocating numbers on from 2000 for CAO 95.10 registrations and on from 2200 for CAO 95.32 registrations.

The registration numbers allocated on the registration certificate shall be displayed as follows:

(a) Location of Marks:

Registration marks shall be affixed to the undersurface of the port wing midway between the keel and the wing tip and midway between the leading and trailing edges of the sail with the base of the numerals towards the trailing edge. The line made by the base of the numerals shall be parallel to the leading edge.

(b) Measurement of Markings:

- (i) *The letters in each group shall be of equal height;*
- (ii) *The width of each letter (except the letter 1) and the length of the hyphen shall be two-thirds of the height of the letter;*
- (iii) *The letters and hyphens are to be formed by solid lines the thickness of which shall be one sixth of the height of a letter and which shall be of a colour contrasting clearly with the background;*
- (iv) *Each letter shall be separated from that which it immediately preceded or immediately follows by a space not less than one quarter of the width of the letter (including the hyphen); and*
- (v) *The heights of the marks on the wings shall be at least 300 millimetres.*

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

**6.4.2.3 Instrumentation – Weightshift
Microlights**

Weightshift microlights operated in accordance with this Operations Manual shall:

- (a) *Carry a serviceable altimeter which:
 - (i) *meets the standards specified in Civil Aviation Orders Section 103.3 (See Section 9.1.3 of this Operations Manual);*
 - (ii) *is set to area QNH;*
 - (iii) *is set to indicate height in feet; and*
 - (iv) *is easily read by the pilot at all times whilst in flight; and**
- (b) *Be fitted with a serviceable airspeed indicator which can be easily read by the pilot at all times whilst in flight; and*
- (c) *If the microlight is to be operated at a public aerodrome or on a cross country flight, be fitted with a compass and reliable timepiece.*

Note: Some weightshift microlights may be required, as part of aircraft type certification, to be fitted with other aircraft instrumentation such as an engine hour meter.

6.4.3 Aircraft Maintenance and Pre-Flight Requirements

Hang gliders, paragliders and weightshift microlights operated in accordance with this Operations Manual shall:

- (a) *Be maintained in accordance with the maintenance procedures outlined in the flight manual applicable to the aircraft, or where the flight manual does not include maintenance standards, the maintenance standards specified in Section 9 of this manual; and*
- (b) *Be inspected after set up in accordance with the procedures outlined in the flight manual applicable to the aircraft, or where the flight manual does not include set up inspection standards, the standards specified in Section 9.2 of this manual; and*
- (c) *Be subject to a pre-flight inspection (by the prospective pilot in command prior to EACH AND EVERY flight operation) in accordance with the procedures outlined in the flight manual applicable to the aircraft, or where the flight manual does not include set up inspection standards, the standards specified in Section 9.2 of this manual.*

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

6.5 Flight Rules

6.5.1 Visual Flight Rules

Hang gliders, paragliders and weightshift microlights shall be flown under Visual Flight Rules (VFR) at all times, that is:

- (a) *with constant visual reference to the ground or water when within 2000 feet of the surface; and*
- (b) *in circumstances where the flight visibility is at least 5000 metres and the aircraft's distance from cloud is greater than 1500 metres horizontally and 1000 feet vertically above or below cloud.*

Visual Flight Rules for operation below 3000 feet AMSL or 1000 feet above terrain (whichever is the greater) allow for operation clear of cloud PROVIDED a VHF radio for communication on the applicable CTAF or MTAF area frequency is both carried and used. If such a radio is not carried then the limits specified in the preceding paragraph apply.

Visual Flight Rules for operations above 10000 feet require visibility of at least 8000 metres, and allow operations no closer vertically than 1000 feet above or below cloud.

CAR 171-174

In addition to these requirements hang gliders, paragliders and weightshift microlights shall not be flown at night.

CAR 236

6.5.2 Negligent Operation

Hang gliders, paragliders and weightshift microlights shall not be operated:

- (a) *in a reckless or negligent manner so as to endanger the life or property of others; or*
Civil Aviation Act Section 20A

- (b) *in such a manner, or in such circumstances as is or likely to cause avoidable danger to any person or property (including animals) on land or water or in the air.*

6.5.3 Towing of Articles

Nothing may be towed behind an aircraft in flight except:

- (a) *ropes and cables with the appropriate fittings used in launching; or*
- (b) *other items with the approval of the Civil Aviation Safety Authority.*
CAR 149

6.5.4 Dropping of Articles

Nothing may be dropped from a hang glider, paraglider or weightshift microlight in flight except:

- (a) *ballast in form of water or fine sand;*
- (b) *ropes and cables with the appropriate fittings used in launching; and*
- (c) *components designed to be jettisoned in flight, such as drag parachutes or jettisonable wheels; or*

- (d) *other items with the approval of the Civil Aviation Safety Authority.*
CAR 150 (1)

6.5.5 Parachute Descents

Parachute descents, other than necessary emergency descents shall only be made in a manner approved by the Civil Aviation Safety Authority.

CAR 152

Note: The Operational Regulations of the Australian Parachute Federation contain the written specification of the CASA for sport parachute descents made APF members.

6.5.6 Acrobatic Flight

An aircraft shall not be flown in acrobatic flight of a particular kind unless the flight manual for the aircraft specifies that the aircraft may perform that type of acrobatic flight.

CAR 155 (1)

6.5.7 Flying over Public Gatherings

Except with the permission, in writing, of the Civil Aviation Safety Authority and in accordance with the conditions specified in the permit, an aircraft shall not be flown at any regatta, race meeting or public gathering unless passing from place to place in the ordinary course of navigation.

CAR 156 (1)(2)

6.5.8 Low Flying – Hang Gliders and Paragliders

A hang glider or paraglider shall not be flown over a city, town or populous area below a height that enables the hang glider to land clear of the populous area and *not* *below*

1000 feet above terrain, except during the launch and landing phase of flight.

In the launch and landing phase of flight the hang glider or paraglider shall be able to be landed clear of the populous area.

CAR 157 (1)(2)

A hang glider or paraglider shall not be flown at a height lower than 100 feet within a horizontal distance of 25 metres from:

- (i) a public road;*
- (ii) persons other than those persons directly associated with the operation of hang gliders at the launch or landing sites except during the launching phase. Operation closer than a horizontal distance of 25 metres from persons other than those persons directly associated with the operation of hang gliders is permitted provided those other persons are behind a line passing through the launch point at right angles to the intended direction of flight; or*
- (iii) a dwelling except with the permission of the occupier.*

6.5.9 Low Flying – Weightshift Microlights

A weightshift microlight must not be flown over a city or town.

CAR 157 (1)

A weightshift microlight must not be flown at a height of less than 500 feet AGL unless one of the conditions specified in CAO 95.32 Section 6.2 are complied with.

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

6.5.10 Operation in the Vicinity of an Aerodrome – Hang Gliders and Paragliders

Except with the carriage and use of VHF airband radio, a hang glider or paraglider shall not be flown:

- (a) *below 3000' agl within 8 kilometres of an aerodrome used by regular public transport services; or*
- (b) *within a mandatory broadcast zone (MBZ).*

Prior to any gliding operations within the vicinity of an airport it must be determined if the airport is used by regular public transport services by contacting the airport owner/operator.

Details of MBZs are found on VTCs, ERCs and in ERSA.

6.5.11 Airspace Restrictions – Hang Gliders and Paragliders

Except with the permission, in writing, of the Civil Aviation Safety Authority and in accordance with the conditions specified in the permit, a hang glider or paraglider shall not be flown:

- (a) *within an area designated by the Civil Aviation Safety Authority or the HGFA Operations Manager as an area where the operation of hang gliders would constitute a hazard to other aircraft;*
- (b) *within 8 kilometres of a military aerodrome;*
- (c) *in controlled airspace within 16 kilometres of a controlled aerodrome;*

- (d) *subject to the provisions of paragraph 6.5.11(c) at a height in excess of 300 feet above ground level within controlled airspace;*
- (e) *at any height within a military control zone unless the prior approval of the appropriate military authority has been obtained;*
- (f) *within an area that has been designated by the Civil Aviation Safety Authority as a prohibited or restricted area at such times as any such prohibited or restricted area is active; and*
- (g) *at a height in excess of 10000 feet above mean sea level.*

Details of controlled airspace and restricted areas which are not permanently active are contained in ERSA.

6.5.12 Airspace Restrictions – Weightshift Microlights

Except with the permission, in writing, of the Civil Aviation Safety Authority and in accordance with the conditions specified in the permit, a weightshift microlight shall not be flown.

- (a) *within an area designated by the Civil Aviation Safety Authority or the HGFA Operations Manager as an area where the operation of weightshift microlights would constitute a hazard to other aircraft;*
- (b) *at a height in excess in 5000 feet above mean sea level unless one of the conditions set out in CAO 95.32 sub-paragraph 5.1 is complied with; and*
- (c) *within controlled airspace.*

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

Concessions to these requirements may be approved by the Civil Aviation Safety Authority as specified in CAO 95.32 Section 7.

6.6 Aircraft Radio

Use of aeronautical frequency VHF radio is recommended for HGFA operations where practical.

When operations are from an aerodrome or in airspace frequented by other aircraft, VHF radio use is strongly recommended. (Refer Sections 6.5.10 of this Operations Manual, CAO 95.8 & CAO 95.32.)

The CASA and the Australian Communications Authority have approved the following criteria when operating aeronautical frequency VHF radio equipment in conjunction with HGFA aircraft.

6.6.1 Radio Usage

A radio operated on an aeronautical VHF frequency must be used in accordance with established procedures. (Refer Sections 6.1.4, 7.4.5 and 8.5 of this Operations Manual)

6.6.2 Callsigns

6.6.2.1 Hang Gliders and Paragliders

As there is no requirement to register hang gliders or paragliders, where a radio is used on a hang glider or paraglider the callsign to be used is HG (broadcast as the words "hang glider") followed by the last four digits of the pilot's HGFA Membership Number.

For example a pilot with HGFA membership number 12345 would use the call sign:

"Hang Glider 2345".

Note that the words "hang glider" are used by both hang glider and paraglider pilots.

6.6.2.2 Weightshift Microlights

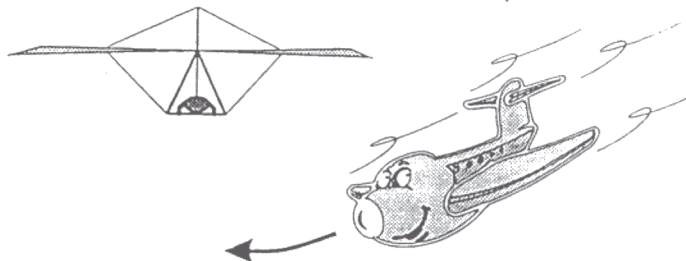
*Where a radio is used on a HGFA registered weightshift microlight, the callsign to be used is **Microlight** followed by the last four digits of the HGFA registration number.*

For example when operating a weightshift microlight with the registration number T2-2512, the callsign would be:

"Microlight 2512".

6.7 Rules of the Air

6.7.1 Give Way Rules



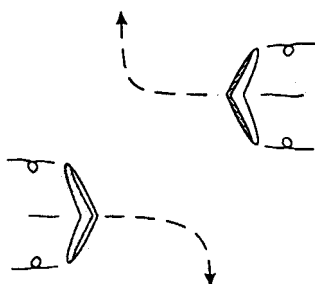
Do not pass over or under, or cross in front of other aircraft, unless vertical separation detailed in Section 6.7.3 can be maintained.

CAR 161 (1)

Give way to other aircraft on your right. Power driven aircraft are required to give way to gliders, balloons and aircraft that are seen to be towing other aircraft or objects.

CAR 162 (1)

6.7.2 Collision Avoidance



When two aircraft (in clear air) approach HEAD ON, or nearly so, both

shall alter course to the RIGHT

CAR 162 (2)

When approaching head on along a ridge the hang glider, paraglider or sailplane with its right wing towards the ridge shall have right of way. The aircraft that has the ridge to its left shall give way by turning away from the ridge.

When joining a thermal turn in the same direction as any hang glider, paraglider or sailplane already circling.

*When thermaling give way to the hang gliders and paragliders that are climbing up from **BELOW**.*

BE AWARE THAT THE RULES OF THE AIR FOR PILOTS OPERATING SAILPLANES REQUIRES THAT THEY GIVE WAY TO SAILPLANES ABOVE THEM IN THERMALS.

Take extra caution when operating in the same thermal as a sailplane. Remember that the UPWARD vision of

a hang glider or paraglider pilot is restricted by the sail, and that in many sailplanes the DOWNWARD vision of a sailplane pilot is restricted by the wing.

6.7.3 Operation in Proximity to other Aircraft

Maintain a good lookout at all times. Avoid abrupt changes in direction and speed when other aircraft are present. Be especially careful where other aircraft are displaying a red streamer indicating that the pilot in command holds a Restricted Pilot Certificate.

CAR 163 states "An aircraft shall not be flown so close to another aircraft as to create a collision hazard."

The following distances from other aircraft are suggested minimum for separations for hang gliders and/or paragliders where there is no prior arrangement to fly closer. Remain clear of:

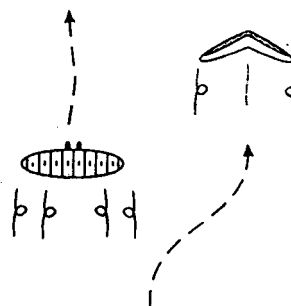
- (a) other hang gliders and/or paragliders by at least 20 metres horizontally and 50 feet vertically;
- (b) weightshift microlights, ultralights and/or tug aeroplanes towing hang gliders by at least 30 metres horizontally and 100 feet vertically;
- (c) sailplanes and from tug aeroplanes towing sailplanes by at least 60 metres horizontally and 200 feet vertically; and
- (d) other aircraft by at least 600 metres horizontally and 500 feet vertically.

6.7.4 Overtaking Rule

When overtaking another aircraft, that aircraft has right of way.

A hang glider or paraglider engaged in ridge soaring shall overtake by passing between the ridge and the other aircraft. Other than when ridge soaring the **OVERTAKING** aircraft shall alter course to the **RIGHT**.

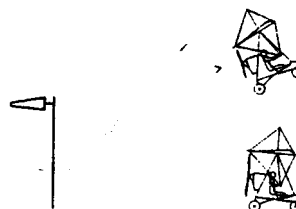
CAR 162 (3)



6.7.5 Landing Rule

When aircraft are approaching to land, the one **AHEAD** has the **PRIORITY**.

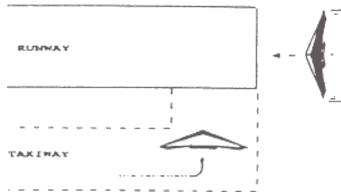
CAR 162 (6)



6.7.6 Take Off Rule

An aircraft which is about to take off shall not do so until there is no apparent risk of collision with other aircraft, an aircraft taxiing must give way to aircraft on or approaching the runway.

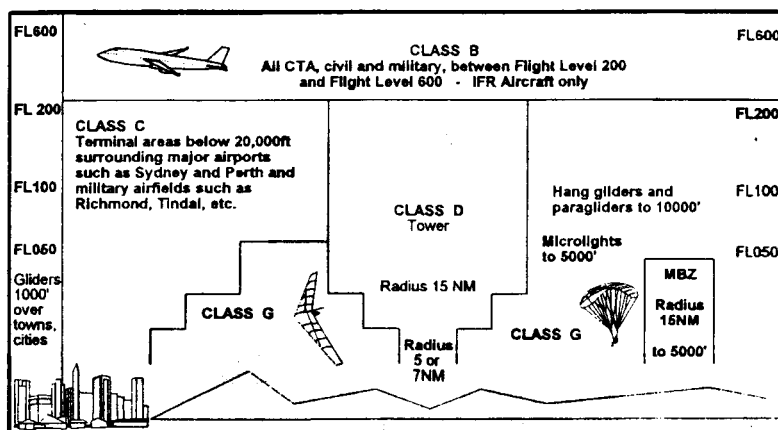
CAR 162(8)



Hang Gliding Federation of Australia OPERATIONS MANUAL

6.8 Airspace, Navigation, Weather and Flight Information

This Operations Manual requires that all pilots can keep within the operating limitations specified. When you start flying cross country you need to do more preparation before flight. Knowing where controlled and other airspace is located is only one of the many considerations.



From December 7, 1995, a system of airspace management based on recommended ICAO classifications will be progressively introduced into Australia by CASA. By June 20, 1996 Australian airspace will be categorised as shown in the above graphic and detailed in the following paragraphs.

The new system involves various categories of airspace, each providing a level of air traffic services believed to be appropriate to type, numbers and traffic complexity of aircraft using that airspace.

Class A airspace:

will be established between flight levels 245 and 460 over oceanic airspace. Procedures and separation standards in this airspace will remain unchanged

from present practice.

Class B airspace:

will be established over continental between flight levels 200 to 600. Procedures and separation standards in this airspace will also remain unchanged from present practice.

Class C airspace:

will exist around major radar airports up to the base of Class B airspace. Procedures and standards will be little changed from those currently used in controlled airspace. Class C airspace will be stepped to flight level 200 and is designed to capture high performance Regular Public Transport aircraft

flight profiles.

Class D airspace:

other airports with non-radar control towers and with lower traffic densities will be Class D airspace. All aircraft operating in this airspace will require an Air Traffic Control clearance.

Class G airspace:

will be the remainder.

All pilots in flight must be aware that they are members of the aviation community and maintain an awareness of what other airspace users expect and the requirements under which they operate is required.

AirServices Australia produces a number of publications that provide details of these requirements. The control of this documentation is summarised in the following pages. Much of the documentation relates to operations in controlled airspace, and flight under instrument flight rules. The relevance of such information to hang glider and paraglider pilots is minimal, however the information available is summarised below for completeness. Where the information in the documentation has direct relevance to HGFA members this is shown in **bold type**.

6.8.1 Aeronautical Information Publication

This is the basic aeronautical information document containing information essential to air navigation, published for Australia and its Territories. The Aeronautical Information Publication (AIP) was rewritten in 1990 and now contains the information previously included in the

Visual Flight Guide (VFG) and other publications. The text covers rules and operational information.

Copies of the AIP may be obtained from the AirServices Australia Publications Centre (See Appendix 1).

The AIP is in a number of sections as follows:

(a) General (GEN);

This section of the AIP includes the following information:

- (i) details of the Aeronautical Information Service and published aeronautical information;
- (ii) requirements for registration marks, documentation and equipment to be carried on aircraft;
- (iii) units of measurement and the time system to be used for aeronautical operations;
- (iv) requirements for accident reporting;
- (v) **definitions of terms** and abbreviations used in AIP and on associated charts.

(b) Aerodromes (AGA);

This section of the AIP includes details of the following systems used at aerodromes:

- (i) the system of markers and markings;
- (ii) the system of lighting;

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

(iii) the visual approach slope indicator system (VASIS); and

(iv) the system used to determine pavement strength limitations.

(c) Communications (COM);

This section of the AIP includes details of the radio navigation and communications systems used for aeronautical operations.

(d) Meteorology (MET);

Details of the meteorology services provided for aeronautical operations are included in this section of the AIP.

(e) Search and Rescue (SAR);

Details of the search and rescue services to provide assistance to aircraft in distress and to search for, provide aid to, and organise the rescue of survivors of aircraft accidents and forced landings included in this section of the AIP.

(f) Aeronautical Charts (MAP);

This section of the AIP includes details of the aeronautical charts intended for use in flight planning and navigation.

(g) Facilitation (FAL)

This section deals with international flights.

(h) Air traffic Rules and Services (RAC);

This section of the AIP includes details of:

(i) definitions of aircraft operations in prohibited, restricted and danger areas and controlled and uncontrolled airspace;

(ii) wake turbulence separation standards;

(iii) air traffic and flight information services;

(iv) Visual and Instrument flight rules;

(v) **definitions of Visual Meteorological Conditions (VMC);**

(vi) standards for the provision of separation between aircraft;

(vii) **requirements for the safe operations of aeroplanes, such as:**

- **diversions;**
- **suitability of aerodromes and alternate aerodromes;**
- **fuel to be carried;**
- **lowest safe altitude; and**
- **route specifications.**

(viii) **Radio communication and navigation requirements;**

(ix) requirements for the provision of information by pilots in flight including evidence of bush fires and volcanic activity; and

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

(x) requirements for flights over water.

(i) Operations (OPS)

This section of the AIP includes details of:

(i) requirements for flight planning and notification and in flight reporting (AIREP);

(ii) **graphs defining the beginning and end of daylight;**

(iii) the procedures required for the operation of aeroplanes in controlled airspace and general aviation aerodrome procedures (GAMP);

(iv) **operations at non controlled aerodromes;**

(v) radar procedures;

(vi) special requirements for such things as:

- Mercy flights;
- Training operations;
- Fuel dumping; and
- Police operations.

(vii) Gliding and Balloon Operations;

(viii) approved area navigation equipment; and

(ix) procedures for aircraft operating in an Air Defence Identification Zone (ADIZ).

(j) Departure and Approach Procedures (DAPS);

This section of the AIP includes details of:

(i) aerodrome departure and approach procedures applicable to Instrument Flight Rule (IFR) operations;

(ii) noise abatement procedures; and

(iii) curfews.

6.8.2 Enroute Supplement Australia

The Enroute Supplement Australia (ERSA) is a joint Military/Civil publication issued on a quarterly basis with amendments issued monthly. Copies of ERSA may be obtained from AirServices Australia Publications Centre (See Appendix 1). Each hang gliding club that is affiliated with the HGFA is required to maintain a current copy of the ERSA in the club library.

The ERSA contains:

(a) An Aerodrome and Facilities Directory

This directory within the ERSA lists in alphabetical order details of aerodromes, navigation aids, Air Traffic Services, Ground Services, public facilities available, special procedures and area radio frequencies (CTAF) or MBZ frequencies.

Most Aircraft Landing Areas (ALA) are included in ERSA, including Licensed and Unlicensed aerodromes.

(b) Prohibited, Restricted and Danger Areas (PRD)

This section within the ERSA lists in tabular form details of prohibited, restricted and danger (PRD) areas. The information includes:

- (i) The identification number of the prohibited, restricted and danger (PRD) area;**
- (ii) Height Limits;**
- (iii) Hours during which the area is active, (ie restrictions apply);**
- (iv) The authority which controls the area (either military or civil); and**
- (v) The activity for which the prohibited, restricted and danger (PRD) areas are defined.**

For details of the geographic extent of the prohibited, restricted and danger (PRD) areas see Enroute Charts (ERC) and Visual Terminal Charts (VTC).

(c) General Section

This section within the ERSA lists in tabular form information including:

- (i) Geographical Coordinates for position reporting;**
- (ii) Civil Instrument Flight Rules Operating Limitations;**
- (iii) Aircraft designations (encode of standard abbreviations for aircraft type/model);**

- (iv) Tables of conversion factors;**
- (v) Meaning of light signals at airfields;**
- (vi) Special procedures for flight over certain routes;**
- (vii) Checklist for Aircraft Landing Areas (ALA);**
- (viii) Pilot Briefing and Meteorological Forecast Telephone Numbers; and**
- (ix) AVFAX codes to obtain NOTAM information and Met forecasts.**

(d) Meteorology Forecast Code and Decode

This section within the ERSA lists information including:

- (i) Details of codes used in meteorological forecasts;**
- (ii) Meteorological minima associated with operations at certain aerodromes; and**
- (iii) Details of the format of meteorological forecasts issued.**

(e) Navigation Aids and High Frequency Communications

This section within the ERSA lists information including details of:

- (i) the RAAF and Civil Aviation air operations communications systems; and**

- (ii) locations and operating frequency of radio broadcasting stations.

(f) Emergency Procedures

This section within the ERSA details standard procedures for the following emergency situations:

- (i) Communications failure, and navigation aids failure including partial communications failure when the microphone of a radio is unserviceable, but the radio is still able to transmit;
- (ii) An urgent change of level whilst operating in controlled airspace;
- (iii) Actions to take prior to and after the impact of aircraft;
- (iv) Activation and operating characteristic of emergency locator beacons (ELB);
- (v) Patterns used in conducting air search operations including electronic searches where an ELB has been activated;
- (vi) Search and rescue signals for visual communications between parties on the ground and aircraft;
- (vii) Survival techniques; and
- (viii) Communications procedures for the interception of aircraft.

6.8.3 Departure and Approach Procedures

The Departure and Approach Procedures (DAP) document contains instrument approach, landing and departure procedures. Two packages are available:

- (a) DAP East covering Queensland, New South Wales, Australian Capital Territory, Victoria and Tasmania; and
- (b) DAP West covering Western Australia, South Australia and Northern Territory.

The operation of hang gliders and paragliders is not permitted within 10 kilometres of Aerodromes and Authorised Landing Areas where a Regular Public Transport service operates. For full details of the areas for which operational constraints or concessions apply refer to ERSA.

6.8.4 Designated Airspace Handbook

The Designated Airspace Handbook (DAH) contains detailed information relating to designated airspace such as prohibited, restricted, danger, control and flight information areas. Copies of DAH may be obtained from the AirServices Australia Publications Centre (See Appendix 1).

6.8.5 Maps and Charts

Copies of the following maps and charts may be obtained from the AirServices Australia Publications Centre (See Appendix 1). Each hang gliding club that is affiliated with the HGFA is required to maintain a current copy of charts covering operations

under their direct control in the club library.

6.8.5.1 Enroute Chart (ERC)

Enroute Charts (ERC) cover a large area and show controlled airspace, PRD areas, aerodromes, radio navigation aids, air routes and area VHF radio frequencies.

However they show little topographical detail and are not suitable for visual navigation in flight. Familiarity with a ERC is essential for any pilot going cross country.

Details of available communications services, radio navigation aids and prohibited, restricted and danger areas are tabulated in ERSA.

6.8.5.2 Visual Terminal Chart (VTC)

A Visual Terminal Chart (VTC) is issued to show the area surrounding a Controlled Aerodrome in greater detail than is possible on a ERC. When operating in the vicinity of any Control Zone the VTC should be used for navigation, and the pilots must be completely familiar with the features on the VTC.

VTC, at a scale of 1:250,000, provide both aeronautical and topographical information for VFR operations in the vicinity of major aerodromes.

In addition to full topographical information, the VTC shows the information listed above for ERC and also the following additional information;

- (a) Prohibited, restricted and danger areas within terminal areas;
- (b) Control zones and associated control areas at an enlarged scale;
- (c) Lanes on entry;
- (d) Air Traffic Control (ATC) check points;
- (e) VFR approach points.

6.8.5.3 World Aeronautical Chart (WAC)

The World Aeronautical Chart (WAC) is the "standard" plotting and navigational chart for General Aviation. The scale is 1:1,000,000 i.e. ONE millimetre on the chart represents ONE kilometre on the ground.

WAC are suitable for visual navigation, but may be too large a scale for the slower speeds of hang gliders.

6.8.5.4 Legends and Symbols

Legends are the DECODE of symbols used on the respective Maps and Charts. Each has a legend printed on the chart.

On ERCs and VTCs several RED symbols are used to indicate aeronautical activity, these are:-

- (a) DOUBLE CROSS – Gliding activity. If there is a "W" above the symbol, winch cables may be in the air or on the ground.
- (b) PARACHUTE–Self explanatory, but avoid the areas if you are not familiar with Drop Zones and the

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**

operation. Drop zones often look like airfields to passers-by. If you need to use a parachuting field, telephone first, and take great care.

- (c) **HANG GLIDER** – is shown as a hang gliding symbol with an “H” beneath it. The approved operating height (AGL), or band altitude (AMSL) may also be shown.
- (d) **ULTRALIGHT AEROPLANES** (including weightshift microlights) – are shown as a hang gliding symbol with a “U” beneath it on VTC and ERC at locations where ultralight training facilities operate. Areas where **MODEL AIRCRAFT** operate above 300 feet AGL may be shown by a hang gliding symbol with an “M” beneath it.
- (e) **RESTRICTED AREAS** – are shown as a **RED** outline containing a red “R” and a three digit number. Some Restricted Areas are active 24 hours per day, but others are not. Details of the hours for which operations are restricted are included in ERSA. Variations to these hours are advised by NOTAM. Check NOTAMs if you intend to operate in these areas.
- (f) **DANGER AREAS** – are shown as a **RED** outline containing a “D” and a three digit number. You may operate in Danger Areas, but beware of the special purpose for the area, usually flying training, may be **LOW FLYING** training. Details of the purpose, and the hours of operation for the danger area are included in ERSA.

(g) **CONTROL ZONE** – a Control Zone is controlled airspace which goes down to ground level, surrounding a controlled aerodrome. On ERC and VTC, Control Zones are shown as a dotted outline (red for military and blue for civil). You must **NOT** enter this airspace. See also requirements for use of Military Control Zones.

(h) **CONTROL AREAS** – other than in Control Zones, controlled airspace is called ...Control Areas. Control areas all have a **LOWER** limit, which is shown as a height **ABOVE MEAN SEA LEVEL**, not above ground level. A marking “LL 3000” means aircraft operating at an altitude of 3000 feet AMSL, are **OUTSIDE** controlled airspace. **HOWEVER**, if you are operating at 500 feet above **GROUND LEVEL** and the ground is **HIGHER** than 2500 feet AMSL you are **IN** controlled airspace, that it, at an altitude of more than 3000 feet.

On ERCs, controlled areas are unshaded areas with the boundaries shown as green lines and with the lower levels marked in green. Military controlled areas are marked with boundaries shown as red lines and lower levels also marked in red.

(i) **GOVERNMENT/LICENSED AERODROMES** – are shown on ERCs as a sun shaped symbol (see Legend). On VTCs they are shown with a blue runway outline.

6.8.6 Weather and Flight Information

AirServices Australia has established an aviation weather and flight information service using facsimile machines. This service is known as AVFAX. Registered users of the service are provided with a catalogue of available information which can be requested by telephone and received by fax. Aviation users are not charged for the use of AVFAX facilities.

Details of registration can be obtained from:

Air Services Australia
AVFAX
PO Box 389
Hamilton Central
Queensland 4007

Help Desk (07) 866 3573

6.8.6.1 Weather Forecasts

- (a) AREA FORECASTS – (called ARFORs). The country is divided up into many Forecast Areas to enable the Bureau of Meteorology to give forecasts on a regional basis. Each AREA has a number reflecting the State postcode, eg., Victoria comprises Areas 30, 31, 32.

An Area Forecast contains forecast wind direction and speed at various altitudes, the lowest being 2000 feet. It also details expected weather conditions, including cloud, thunderstorm, frontal weather, rain, etc. Information about fronts should be interpreted in conjunction with a Met Situation.

- (b) AERODROME FORECASTS – are available, routinely for many aerodromes. They can be of great use for weather expectation if you intend to pass close by or land at an airfield nearby. They reflect surface weather conditions on a more localised basis than the ARFOR.

6.8.6.2 Actual Weather Reports

- (a) MET SITUATIONS – is a short statement of the current trend of weather over the whole region, and particularly contains information on whereabouts of any FRONTS which may be approaching. So that you can get an indication of WHEN the weather on the vicinity of your flight path may change per the area forecast.

- (b) METAR – is an actual Aerodrome Weather Observation and is invaluable in assessing the ACTUAL weather in the vicinity of your flight path or destination. METARS are issued every hour at many Government and Licensed Aerodromes.

6.8.6.3 Sigmet and Airmet

Sigmets and Airmets - advise pilots of SIGNIFICANT WEATHER phenomenon, including information on actual, or forecast, severe turbulence, thunderstorms, cyclones, heavy hail storms, etc.

6.8.6.4 Flight Information

- (a) FLIGHT INFORMATION – is the name given to a range of facts and forecasts used for Flight Planning. Aside from weather

information an AirServices Australia Briefing Office (and AVFAX) can provide information on other aviation (and associated) activities that may affect what you want to do, and where you want to go.

- (b) NOTAMS – aviation activities of an abnormal nature, are publicised in written form as NOTices to AirMen, “NOTAMSs”.

Notam information includes notification of unusual intensity of everyday activities, for example, details of Hang Gliding Championships, notification of a change of facilities, e.g., the change of a Briefing office phone number, or promulgating activities of a periodic nature, e.g., Low Jet Routes, and Military exercises.

- (c) LOW JET ROUTES – our military conduct training missions all over the country at LOW level. L.J.R.s are those planned flight paths where jets fly at high speed and low level, that is often BELOW 500 FEET ABOVE GROUND LEVEL. Active Low Jet Routes (LJR) are notified to Briefing Offices by NOTAM. Make sure you check for them.

6.8.6.5 Use of Weather and Pre-Flight Information

Care must be exercised when using weather information supplied by any source. Conditions are rarely exactly as forecast. All flight planning should allow for early checking of planned progress, with a view to abandoning any task/flight if a suitable rate of progress is not achievable.

**Hang Gliding Federation of Australia
OPERATIONS MANUAL**
