SOUTH GRAFTON AERODROME

SAFETY MANAGEMENT PLAN

October 2024

The Safety Management Plan for South Grafton Aerodrome serves to promote safety awareness and behaviours by identifying and assessing the impact of hazards and risks present to airport infrastructure, aircraft parked at the airfield, manoeuvring on the ground, and in flight.

It also provides airport management with a standard set of procedures for dealing with aerodrome and aircraft accidents and incidents.

1. CONTEXT

South Grafton Aerodrome (YSGR) is an Aircraft Landing Area (ALA) in the City of Grafton in NSW.

It is operated by the South Grafton Aerodrome Aircraft Hangar Owners (SGAAHO). The Airfield was previously operated by the Clarence Valley Council.

The Airfield is used for General Aviation (GA) by recreational pilots, the Grafton Aero Club, gliders and gyrocopter pilots, and also used by model aircraft enthusiasts. It is not a certified or registered aerodrome, with no air transport passenger movements and less than 20,000 aircraft movements per year.

It has a single sealed 1000m runway (08-26) which is prone to ponding in wet weather.

The airfield is surrounded by grassy fields that require regular mowing and are vulnerable to grass fires.

At the present time there is no fuel availability at the Aerodrome.

2. INCIDENT MANAGEMENT

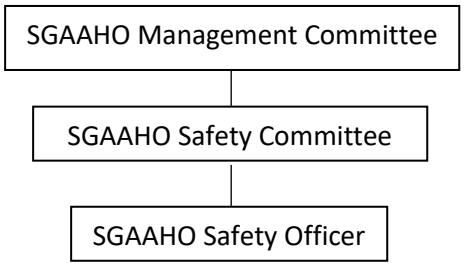
Effective incident management requires a set of procedures and clearly defined roles and responsibilities to identify and respond to an incident or emergency.

Key responsibilities include coordination of necessary resources for incident response, including personnel, equipment, and supplies, and clear communication that keeps stakeholders informed and up-to-date with accurate information.

NO person is to release information to the media or any other person, unless that person is lawfully conducting their duty as an emergency service or authority.

Accidents involving damage or injury, fatal or otherwise, are to be dealt with in accordance with AIP ENR 1.14 (see Attachment 1).

Roles and Responsibilities



The role of the SGAAHO Management Committee includes:

- Responsibility for managing the affairs of the association, in accordance with its constitution.
- Appointment of a Safety Committee and Safety Officer.

The role of the SGAAHO Safety Committee includes:

- Promoting safety awareness and behaviours at the airfield;
- Developing and maintaining the Risk Management Plan documentation;
- Carrying out hazard identification and risk assessment;
- Developing risk treatments/controls;
- Reviewing and acting on Airside Hazard Reports;
- Arrangement of periodic safety presentations, informing airfield users about the Risk Management Plan.

The role of the SGAAHO Safety Officer includes:

- Provide up to date contact information, prominently displayed on the Grafton Aero Club Notice Board.
- In the event of an incident occurring at the airport, being the sole point of contact on behalf of the SGAAHO for the initial communication and coordination of resources until replaced by the relevant emergency services and/or the management committee.
- Notification of appropriate organizations, agencies and individuals.
- Liaison with emergency services, police, organizations, agencies and individuals.
- Direction and coordination of onsite recovery efforts as required.

The role of the South Grafton Aerodrome users In relation to aircraft accidents or incidents includes:

- Contact in the order shown below and give a brief appraisal of the situation:
  i) SGAAHO Safety Officer
  ii) SGAAHO President
- Record ALL decisions made and reports taken from other personnel in the occurrence log (see Appendix 2).
- Deal with media and other enquiries until Safety Officer arrives.
- Make decisions and carry out actions to promote safety of aerodrome users, the committee, aircraft, equipment and personal effects; and also to protect private and or confidential information.
- Other duties as directed by Safety Officer.

The reporting of incidents or accidents to the appropriate authorities, including CASA, within the prescribed time shall remain the responsibility of the pilot.

NOTE: In the case of serious injuries or fatalities, the police will inform the Next of Kin. Names of those involved are not to be released, or confirmed with the media until the police have officially released the names.

Incident Management contact requirements:

• CASA/ATSB	1 800 011 034
• Joint Rescue Coord. Centre (JRCC)	1 800 815 257
• RAAus Duty Officer	02 6280 4700
• Emergency Services	000
• Next-of-kin	***
• Media	Clarence Valley Independent: (02) 6646 9466 The Northern Rivers Times (Casino): 02 6662 6222 (Tweed Heads): 07 5551 4161 email jeff@heartlandmedia.com.au The Daily Telegraph: (02) 9288 3000
• Insurer	Aviation Insurance Australia: Clayton Stephens phone 07 3274 4732
• Clarence Valley Council	After hours emergency contact 02 6626 6858 Switchboard 02 6643 0200
• Crown Lands	1300 886 235

3. IDENTIFICATION OF HAZARDS

Hazards are conditions that could cause or contribute to an aviation safety incident or damage to airport infrastructure.

- Wildlife – kangaroos/cows
- Grass Mowing activities
- General Field Maintenance Activities
- Airstrip condition (asphalt/potholes, water/weather, obstructions – temp (e.g. vehicle/log) or permanent (e.g. cones closing runway))
- Glider Operations
- Model Aircraft operations
- Operators without radios
- Airside aircraft movements and parking
- Airside vehicle traffic and parking
- Flooding
- Wild fires

4. AIRMANSHIP:

- Behaviour or operation of an aircraft on the ground shall be in accordance with the Civil Aviation Regulations.
- A high standard of airmanship must prevail with due consideration for the safety of fellow airmen.
- A good Lookout is essential when entering or operating in the circuit area.
- *It is a condition of use that all aircraft carry and use radios at YSGR.* **Pilots shall use standard radio procedures** (see below)**, clearly and accurately stating their position on CTAF 126.7**. Request a "radio check" from other aircraft prior to taxiing to the holding position of a runway - NO RADIO - NO FLY! If no available aircraft are in the vicinity, radio check can also be done via the Grafton Airport auto response system once in the air, as there is no Air Services or airport reception at ground level.
- Standard circuit entry procedures (see below) shall be applied, and aircraft shall join in such a manner so as not to interfere with any traffic in the pattern. Aircraft shall observe the traffic pattern/wind direction overhead the Airfield and then descend on the "dead side" so as to join the circuit at 1000' AGL.
- Respect and practice noise abatement towards our neighbours.

5. SYSTEM REVIEW and COMMUNICATION

- The SGAAHO Safety Committee will arrange an annual Safety presentation (preferably in conjunction with CASA) to inform all aerodrome tenants and users of the Safety Management Plan.
- The SGAAHO Safety Committee will review the SMS annually.
- The SGAAHO Safety Committee will give all aerodrome tenants and users an opportunity to be involved in the evaluation of the SMS.
- The SGAAHO Safety Committee will advise all aerodrome staff, tenants and contractors of the outcome of any review by email.

6. STANDARD AERODROME PROCEDURES

6.1 Radio Procedures

Purpose of Standard Radio Procedures is to help traffic see and avoid each other.

The standard broadcast format to follow for all radio calls is:

- [Location Traffic] (e.g. 'South Grafton Traffic').
- [Aircraft type] (e.g. 'Cessna 172').
- [Call sign] (e.g. 'Zulu Tango Quebec').
- [Position/level] (e.g. 'One-zero miles north inbound on descent through 4,200', OR 'Overhead XYZ on descent through 4,200')
- [Intentions] (e.g. 'Estimating circuit at three six for full stop').
- [Location] (e.g. South Grafton).

Standard Radio procedures at non-controlled aerodromes are required within 10 NM of the aerodrome.

Legislation stipulates that radio calls need to be as many as required to avoid a collision. CASA has published recommended radio procedures in non-controlled airspace.

South Grafton Aerodrome has GA, RAAus, gliding, model aircraft, and ongoing mowing operations at the aerodrome. Effective radio procedures are therefore essential to maintaining a safe flying environment.

There are some critical times when it is highly recommended appropriate radio communication is maintained:

When calls **must** <u>always</u> be made:

- *Before taxi*:
  e.g. 'South Grafton Traffic, C172 ZTQ, taxiing to hold short the runway, South Grafton'
- *Inbound*: At 10 miles (further for high performance aircraft):
  e.g. 'South Grafton Traffic, C172 ZTQ one-zero miles north, Inbound, passing through 4000 feet on descent, estimate circuit at time 08, for Full Stop, South Grafton'

The reason for these calls is to establish the presence of other traffic either when about to depart or about to arrive at the aerodrome.

When calls **must** be made <u>when there is traffic</u>:

- *Before takeoff, entering runway*:
  e.g. 'South Grafton Traffic, C172 ZTQ (lining up Runway 26) or (backtracking 08) for departure to the north, climbing to 4500 feet, South Grafton'
- *Joining the Circuit:*
  e.g. 'South Grafton Traffic, C172 ZTQ, joining crosswind runway 08, for full stop, South Grafton'

When calls are **recommended** to be made <u>when there is traffic</u>:

- *Circuit Calls:*
  - Overhead, if joining crosswind
  - Downwind call (if traffic in vicinity)
  - Turning Base Call (if traffic in vicinity)
  - On Final (if traffic in vicinity)

6.2 Circuit Procedures

OPERATIONS IN THE VICINITY OF NON-CONTROLLED AERODROMES

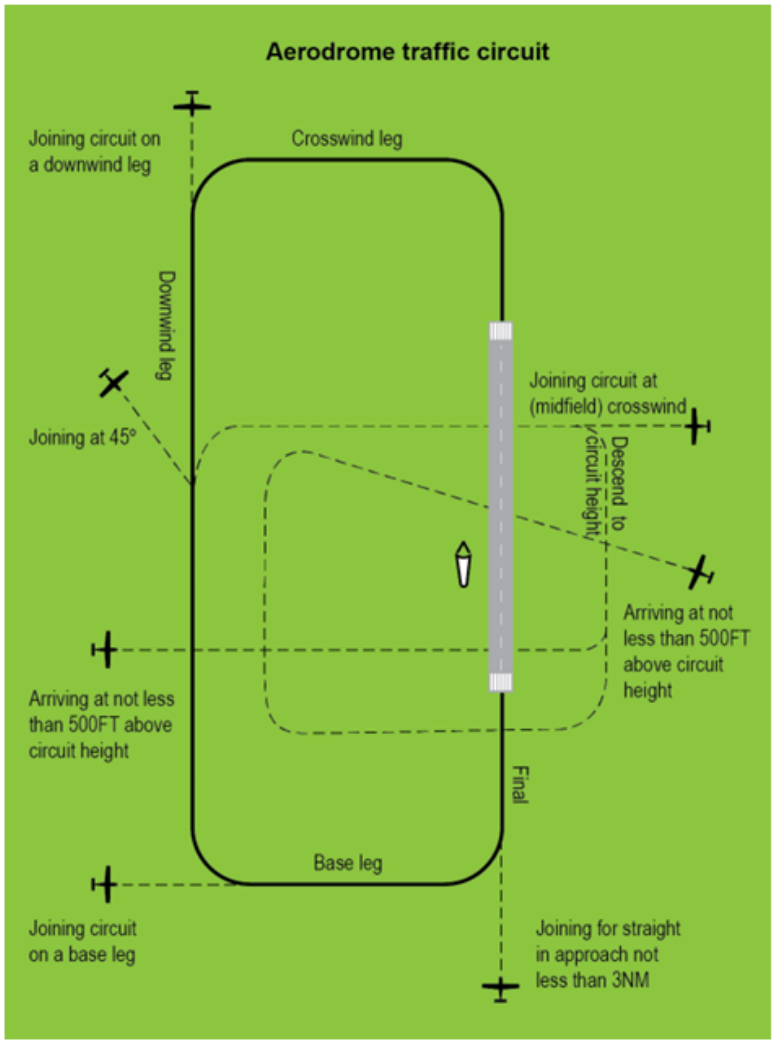
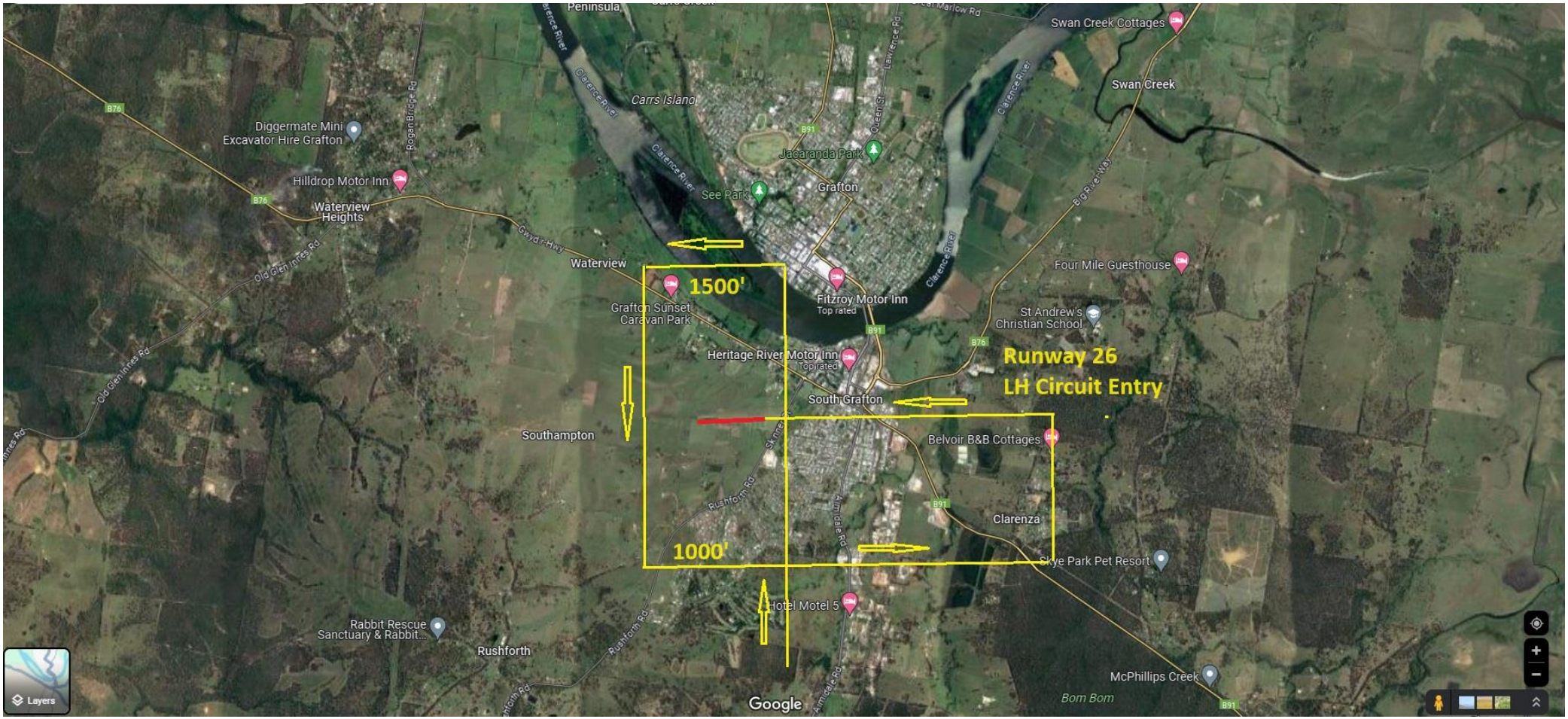


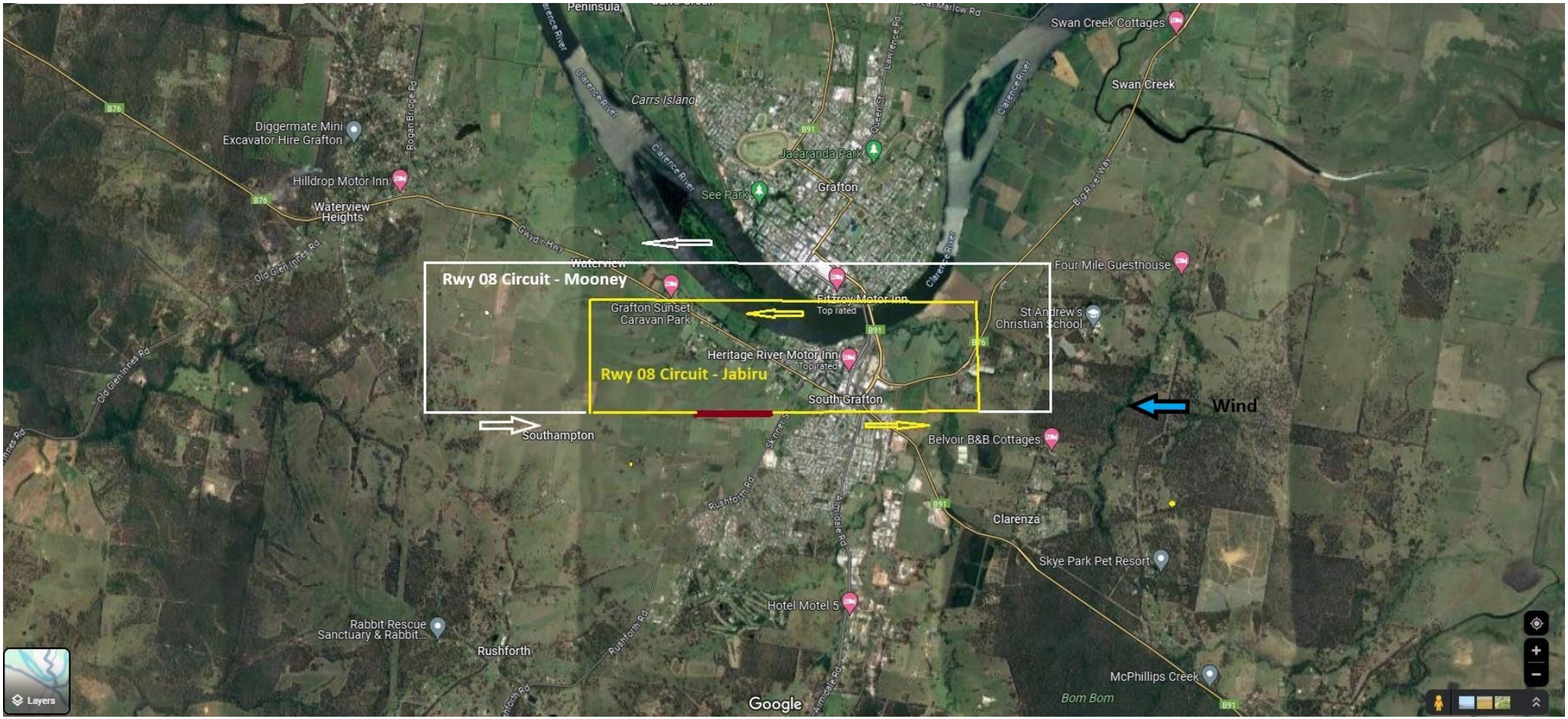
Figure 3 – Aerodrome standard traffic circuit, showing arrival and joining procedures

The whole idea of having a standard joining procedure for unmanned airfields is to reduce the risk of a mid-air collisions whilst setting the aircraft up for landing.
The basic premise is simple: You want to join overhead the airfield above any other possible traffic, decide on the runway in use, descend to circuit altitude in an area where it is unlikely that there will be any other air traffic below you, and then join the circuit in a way that other possible traffic can be easily spotted.

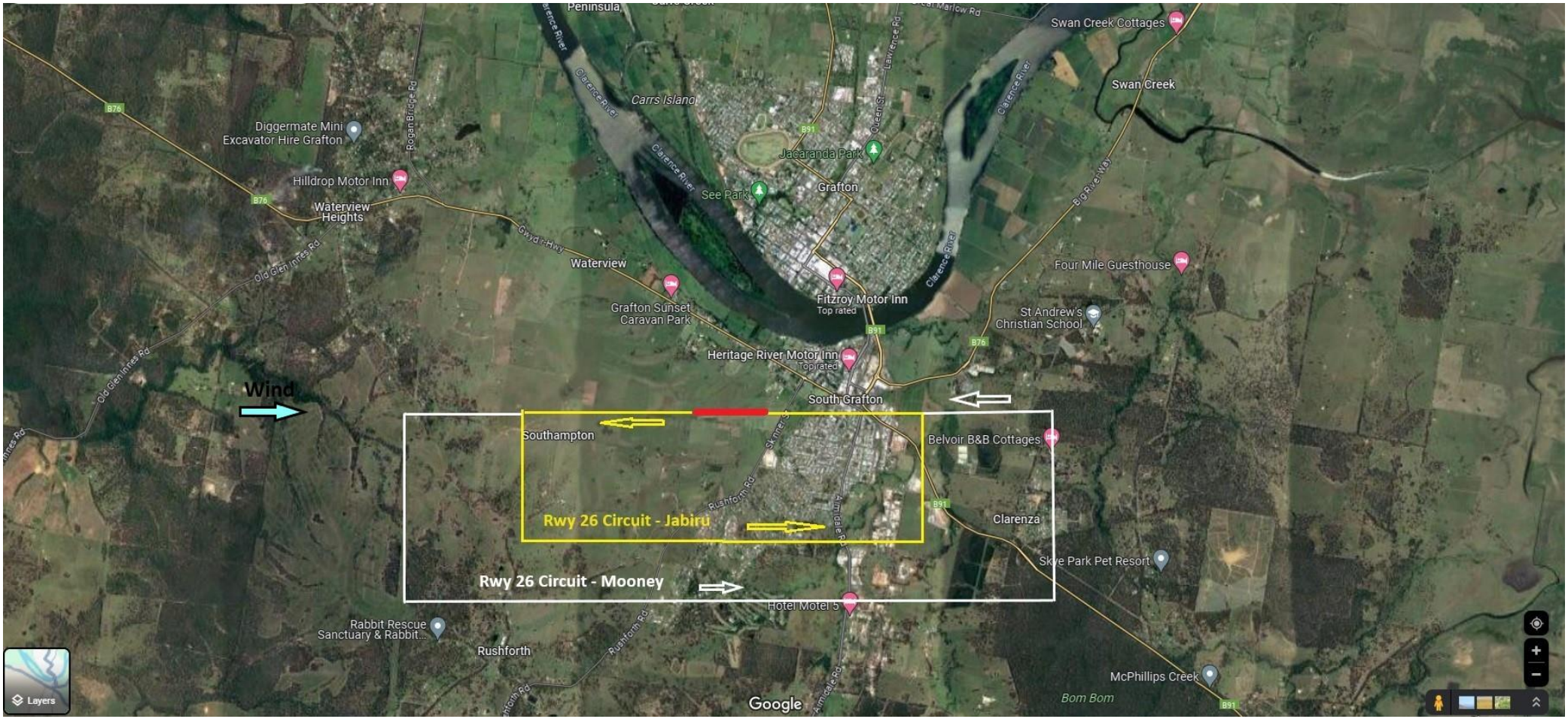
a. Recommended Runway 08 LH Cross Wind Circuit Entry



b. Recommended Runway 26 LH Cross Wind Circuit Entry



c. Typical Runway 08 LH Circuit



d. Typical Runway 26 LH Circuit

6.3 Grafton Gliding Club YSGR Operations and Safety Protocols

Grafton Gliding Club (GGC) has been operating successfully at YSGR since 2018. The Club's nominated flying days are the first and third Saturdays of the month, the first and third Tuesdays, and the second and fourth Sundays. The Club has a website www.graftongliding.com.au

The Club uses a drum-based winch launch system to get its gliders airborne. The winch is V8 powered and is placed at one end of the strip with the launch point at the other end and 1200m of rope between, usually laid just outside the southern runway markers. Gliders typically launch to 1200 feet with lows of 1000 feet and to almost 2000 feet on rare occasions

The Launch point, winch and two retrieve vehicles are fitted with VHF and UHF radios. Both vehicles are fitted with orange roof-top flashing lights as does the winch.

The GGC holds an ACMA licence to operate ground-based VHF air-band radios at YSGR. All the Club's gliders are equipped with VHF radios. Ground crew monitor the CTAF and the main taxiway.

When operating, the Club places a large white double cross symbol on the ground adjacent to the windsock and a sandwich board sign advising aircraft of glider operations. The sign is placed on the north-east edge of the main taxiway just before the northern side of the bridge over the main drain. The sign asks pilots intending to proceed to the runway to ensure they have given a CTAF call so as to alert the glider crew.

The glider base station and the gliders themselves always give a **CTAF departure** call and also give **circuit joining** calls.

The Club monitors the effect of crosswind drift on the fall of the rope after a launch. If drift is considered to be excessive by the duty pilot or instructor then operations are suspended.

Occasionally the winch rope will break during a launch. The glider will either land ahead or perform a modified circuit. A CTAF call will be made to alert traffic of the non-standard situation. The ground crew will remove the rope from the runway as first priority. The removal of the rope and glider from the runway may take a few minutes. Another CTAF call will inform traffic when the runway has been cleared.

Potential Hazards:

- Aircraft proceeding from the GGC warning sign at the main drain while a winch launch is in progress – impact with falling launch rope or with a glider could occur.
- Inbound aircraft failing to give 10 nm calls – gliders typically fly close to YSGR and may have to land at short notice.
- Aircraft attempting to land or entering the runway before a cable break incident has been finalised.

Powered aircraft operators are to pay particular attention to appropriate radio procedures when glider operations are in progress.

Safety is everyone's responsibility and requires sound airmanship, good communication and situational awareness.

Appendix 1: RISK MATRIX

RISK MATRIX

		Consequences				
		Insignificant (1) (no injuries, minimal financial loss)	**Minor (2)** (first aid treatment, minor financial loss)	**Moderate (3)** (medical treatment, medium financial loss)	**Major (4)** (hospital, large financial loss)	**Catastrophic (5)** (death, massive financial loss)
Likelihood	**Almost Certain (5)** (regularly)	Moderate [5]	High [10]	High [15]	**Catastrophic [20]**	**Catastrophic [25]**
	Likely (4) (any time)	Moderate [4]	Moderate [8]	High [12]	**Catastrophic [16]**	**Catastrophic [20]**
	Possible (3) (sometimes)	Low [3]	Moderate [6]	Moderate [9]	High [12]	High [15]
	Unlikely (2) (rarely)	Low [2]	Moderate [4]	Moderate [6]	Moderate [8]	High [10]
	Rare (1) (conceivable)	Low [1]	Low [2]	Low [3]	Moderate [4]	Moderate [5]

(*) Level of Consequence and Likelihood

[**] Level of Total Risk

Step 1 – Consider the consequences.	**Step 2 – Consider the likelihood**.
How severely could it hurt or affect someone?	*How likely is it to be that bad?*
1. **No Injuries**, minimal financial loss	5. **Almost certain** – likely to happen regularly
2. **First aid needed**, minor financial loss	4. **Very likely** – could happen any time
3. **C. Medical attention and several days off work,** medium financial loss	3. **Likely** – could happen, sometime
4. **B. Long term illness or serious injury requiring hospital,** large financial loss	2. **Unlikely** – could happen, but very rarely
5. **Death or permanent disability or ill health,** massive financial loss	1. **Very unlikely** – could happen, but probably never will

Risk Level	**16 - 25** **Extreme -** Immediate action and controls required **10 – 15** **High -** Action in timely manner. Response time & measures specified. SWMS developed **4 – 9** **Moderate -** Action in timely manner. Response time & measures specified. SWMS developed **1 – 3** **Low -** Manage by routine procedures and controls	**Hierarchy of Controls**	**Most Effective** ↕ **Least Effective** • **Eliminate –** Remove the risk/ hazard • **Substitute –** Use a different process / substance / method to make safer • **Engineer/Isolate –** Ensure by design that likelihood and consequences are limited, isolate people from hazard • **Administration -** Use of policies, procedures, training and supervision • **PPE –** Use of PPE (reduces consequence only)

Appendix 2: RISK REGISTER

Category	Risk	Likelihood	Consequence	Risk Rating (l*c)	Control Action/Mitigation Strategy	Owner	Likelihood	Consequence	Risk Rating (l*c)
		Pre- Control Actions					Post- Control Actions		
Maintenance Activities	Aircraft collision due to runway incursion or obstruction by grass mowing activities	2	5	10	Pilot lookout and approach radio procedures. Prepare safe mowing operation protocols and safe work method statements (SWMS). Safety induction for all airside equipment operators. Mower operator lookout and radio monitoring.	Pilot-in-Command Safety Committee Maintenance Supervisor Mower operator	1	5	5
	Aircraft go-round due to runway incursion or obstruction by grass mowing activities	4	1	4	Pilot lookout and approach radio procedures. Prepare safe mowing operation protocols and safe work method statements (SWMS). Safety induction for all airside equipment operators. Mower operator lookout and radio monitoring.	Pilot-in-Command Safety Committee Maintenance Supervisor Mower operator	2	1	2
	Aircraft collision with debris or obstacles on runway or environs from maintenance activities	3	3	9	Pilot lookout. Prepare safe mowing operation protocols and safe work method statements (SWMS). Regular inspections of runway surface for debris during mowing operations.	Pilot-in-Command Safety Committee Mower operator	1	3	3
General Field Maintenance Activities	Aircraft collision due to pedestrian or vehicular Incursion on runway	2	5	10	Pilot lookout. Prepare safe vehicle operation protocols. Implement vehicle operator radio procedures.	Pilot-in-Command Safety Committee	1	5	5

						Airside vehicle operator			
	Aircraft go-round due to pedestrian or vehicular Incursion on runway	4	1	4	Pilot and driver lookout. Prepare safe vehicle operation protocols. Implement vehicle operator radio procedures.	Pilot-in-Command /Airside vehicle operator Safety Committee Airside vehicle operator	2	1	2
Aerodrome General	Airside vehicles	5	1	5	Develop safe airside vehicle operations protocols. Install adequate safety signage posted around airfield.	Safety Committee	5	1	5
	Collision between taxiing aircraft and parked or moving vehicles	2	4	8	Pilot and driver lookout. Educate hangar owners, operators and guests on safe airside vehicle operations. Install adequate safety signage posted around airfield. Post airside vehicle operations protocols on Aero Club noticeboard.	Pilot-in-Command /Airside vehicle operator Safety Committee Safety Committee Airside vehicle operator	1	4	4
	Collision between taxiing aircraft and pedestrians	2	5	10	Pilot and pedestrian lookout. Develop safe airside pedestrian movement protocols. Educate hangar owners, operators and guests on safe airside pedestrian movement.	Pilot-in-Command /Airside pedestrians /Hangar owners and guests. Safety Committee Safety Committee	1	5	5

					Install adequate safety signage posted around airfield. Post airside pedestrian movement protocols on Aero Club noticeboard.	Safety Committee Safety Committee			
	Mid-air collision in the Circuit area	4 (3?)	5	20	Develop and implement Standard CCt procedures Define landmarks for CCt Education for local pilots re Pilot lookout, appropriate radio procedures. ,	Safety Committee Safety Committee / Pilots-in-Command	2	5	10
	Aircraft damage due to potholes or airfield surface damage	3	3	9	Regular landing strip inspections by Aerodrome maintenance supervisor, timely maintenance of defects	Aerodrome maintenance supervisor	1	2	2
	Aircraft damage due to uneven aerodrome surfaces, drainage ditches or potholes	4	3	12	Regular aerodrome inspections by Aerodrome maintenance supervisor, timely maintenance of defects. Adequate marking of obstructions.	Aerodrome maintenance supervisor	3	2	6
	Marker/windsock visibility	3	2	6	Aerodrome maintenance program – regular grass slashing, Windsock circle maintenance Aerodrome daily inspection	Aerodrome maintenance supervisor	2	1	2
	Unauthorised entry to airfield – vandalism, theft	4	2	8	CCTV, adequate security locks, remove valuables from site	Hangar Owners	4	1	4
Weather Related	Aircraft go-round or diversion due to water, debris or obstacles on runway or environs from heavy rain events	5	1	5	Close runway, Issue NOTAM Pilot lookout	Aerodrome maintenance supervisor Pilot-in-Command	3	1	3

	Aircraft collision with water, debris or obstacles on runway or environs from heavy rain events	3	3	9	Close runway, Issue NOTAM Pilot lookout	Aerodrome maintenance supervisor Pilot-in-Command	2	3	6
Glider Operations	Powered aircraft collisions with gliders on landing or take-off	2	5	10	Glider and powered pilot lookout. Appropriate radio procedures.	Pilot-in-Command/ Supervisor of Glider Operations	1	5	5
	Powered aircraft collisions with gliders in circuit area or airport environs	3	5	15	Glider and powered pilot lookout. Appropriate radio procedures. Fly Standard Cct procedures by powered aircraft	Pilot-in-Command	2	5	10
	Powered aircraft go-round due to runway incursion or obstruction by glider operations during powered aircraft approach	3	1	3	Glider and powered pilot lookout. Appropriate radio procedures.	Pilot-in-Command / Supervisor of Glider Operations	2	1	2
	Runway incursion or obstruction by powered aircraft during glider approach	3	3	9	Glider and powered pilot lookout. Appropriate radio procedures. Monitoring of powered aircraft movements by Supervisor of Glider Operations. Provision of adequate temporary warning signs of ongoing glider operations in progress along taxiways during glider operations.	Pilot-in-Command / Supervisor of Glider Operations	2	3	6
Model Aircraft Operations	Powered aircraft collisions with model aircraft on landing or take-off	2	3	6	Pilot and Model Aircraft Operator lookout. Model Aircraft Operator Radio protocols and procedures. Monitoring of powered aircraft movements by Model Aircraft Operator.	Pilot-in-Command / Model Aircraft Operator	1	3	3

					Cessation of Model Aircraft operations during powered aircraft movements in the vicinity of the runway. Provision of adequate temporary warning signs of ongoing model aircraft operations in progress along taxiways during model aircraft operations.				
	Powered aircraft collisions with model aircraft in circuit area or airport environs	3	5	15	Model Aircraft Operator Radio protocols and procedures. Monitoring of powered aircraft movements by Model Aircraft Operator. Cessation of Model Aircraft operations during powered aircraft movements in the circuit area.	Model Aircraft Operator	1	5	5
	Runway incursion or obstruction by model aircraft operations during powered aircraft approach	3	3	9	Model Aircraft Operator Radio protocols and procedures. Monitoring of powered aircraft movements by Model Aircraft Operator. Cessation of Model Aircraft operations during powered aircraft movements in the circuit area. Pilots follow inbound radio call procedures	Model Aircraft Operator	1	3	3
Animal Control	Aircraft collisions with kangaroos or cattle	4	3	12	Prepare animal strike avoidance protocol: (1) Identification of high-risk periods (2) Safe low circuit inspection fly-by procedure Pilot Lookout	Safety Committee Pilot-in-Command	3	3	9
	Aircraft bird strikes on take-off or approach	4	3	12	Pilot lookout	Pilot-in-Command	3	3	9

	Cattle within airport perimeter	3	2	6	Notify SGAAHO Safety Officer (or Dave Mackey 0410 075 631) to contact neighbouring famers re errand cattle	Safety Officer	3	2	6
Wild Fires	Bush/Grass Fires	4	4	**16**	Develop and implement a Fire Safety-Management Plan using expert advice. Regularly slash airport taxiways and grassed areas Regularly slash grass and weeds min. 2m adjacent to hangars	Safety Committee Aerodrome maintenance supervisor Hangar owners	4	3	12

Appendix 2: ON SCENE REPORT

SOUTH GRAFTON AERODROME

AIRCRAFT ACCIDENT AND INCIDENT REPORT

Name(s) of on-scene personnel _____

_____ _____

Date_____Time_____Location_____

Details of person(s) involved

Name_____ Injuries_____

Name_____ Injuries_____

Name_____ Injuries_____

Details of aircraft

Type_____ Rego_____

Description of damage to aircraft and/or property

Aircraft_____

Property_____

Land Owner Name_____

Address_____ Phone_____

Details of Emergency Services Contacted

Police Name_____Station_____

Fire Service Name_____Station_____

Ambulance Name_____Station_____

Hospital _____

BASI Name(s)_____ _____

CASA Name(s)_____ _____

Miscellaneous _____

OCCURRENCE LOG

TIME	DETAILS
	Nature of Incident/Accident:
……	**Time reported: Date:**
	Reporter/Reporting Authority:
	Persons, injuries, aircraft involved:
	Location:
……	**Flight & Safety Manager notified**
……	
……	**Race Manager notified**
……	
……	
……	
……	**Log media calls:**
……	**Log ATSB (BASI)/CASA calls and notification:**
	MISCELLANEOUS:
TIME	**DETAILS**

ATTACHMENT 1

AIP ENR 1.14

AIP ENR 1_14.pdf