AUSTRALIA

AIP SUPPLEMENT (SUP)

H47/25

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AERONAUTICAL INFORMATION SERVICE,
AIRSERVICES AUSTRALIA, GPO BOX 367,
CANBERRA ACT 2601

For DISTRIBUTION queries, contact:
Email: aim.editorial@airservicesaustralia.com

For CONTENT queries regarding this SUP, contact:
Email: rangesafety@gspace.com **Phone:** 07 5618 9043

GILMOUR SPACE - ERIS MSN001 ORBITAL ROCKET LAUNCH

1. INTRODUCTION

1.1 This SUP cancels and replaces SUP H31/25 with a change to the effective date and section 5.

1.2 From 18 March 2025, Gilmour Space Technologies will attempt to launch its Eris orbital rocket over the Coral Sea from the Bowen Orbital Spaceport (BOS), located in Queensland.

1.3 Two Temporary Restricted Areas (TRA) and four Temporary Danger Areas (TDA) will be activated to alert airspace users to potential hazards posed by the activity.

2. OPERATIONAL INFORMATION - AIRSPACE

2.1 The Eris orbital rocket is a 3-stage vehicle that disposes of spent stages throughout its mission profile.

2.2 Stages 1 and 2 are intended for disposal over the Coral Sea in scheduled debris drop zones corresponding to TDA STAGE 1 and TDA STAGE 2 (section 3.3 refers).

2.3 Between these TDA there is a significant region of airspace which, under nominal launch conditions, will not be exposed to any hazard. However, an off-nominal launch condition could result in the presence of hazardous debris between the scheduled debris drop zones.

2.4 The non-scheduled debris drop zone between TDA STAGE 1 and TDA STAGE 2 straddles the FIR boundary between Brisbane (YBBB) and Honiara (AGGG) and has therefore been split into two Debris Recovery Areas (DRA). These DRA correspond to TDA DRA-YBBB and TDA DRA-AGGG (section 2.3 refers).

2.5 A graphic demonstrating the nominal mission profile is provided in Figure 1.

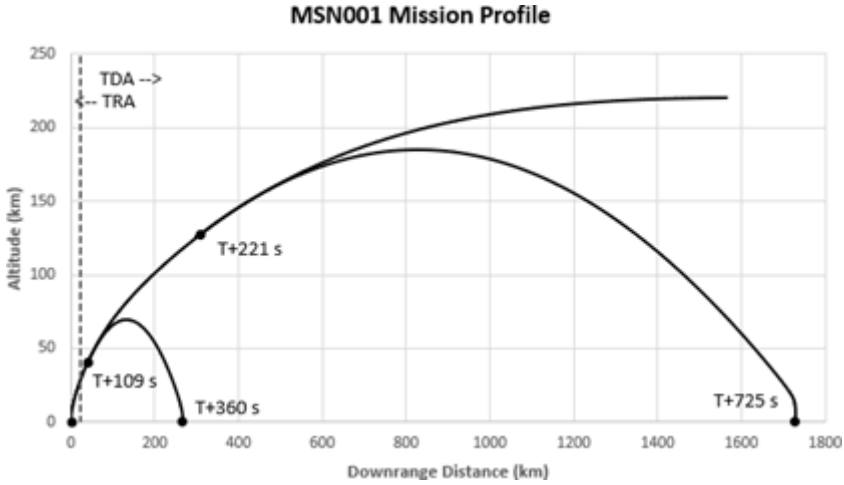

Figure 1: MSN001 nominal mission profile

3. RESTRICTED AIRSPACE FOR ERIS LAUNCH

3.1 Two TRA will be activated via NOTAM to segregate airspace users from airspace risks associated with the attempted launch of the Eris vehicle.

a) **TRA FILLING**

TRA FILLING separates airspace users from an area within which an explosive hazard exists while the launch vehicle is undergoing filling operations.

YBBB/TRA FILLING

EXPLOSIVE HAZARD

LATERAL LIMITS: Within 2NM radius of PSN 195728S 1480646E

VERTICAL LIMITS: SFC – 5000FT AMSL

HOURS OF ACTIVITY: NOTAM

CONTROLLING AUTHORITY: Gilmour Space, PH: 07 5618 9043

b) **TRA LAUNCH**

TRA LAUNCH is for the land and ocean segments up to 12NM from the coastline overflown by the Eris first stage.

YBBB/TRA LAUNCH

ROCKET LAUNCH

LATERAL LIMITS: 195448S 1480219E – 193118S 1482031E – 194712S 1483415E – 195042S 1485657E – 200007S 1481425E – 200226S 1480725E – 200231S 1480545E – 200133S 1480322E – 195903S 1480129E – 195618S 1480128E – 195448S 1480219E

VERTICAL LIMITS: SFC - UNL

HOURS OF ACTIVITY: NOTAM

CONTROLLING AUTHORITY: Gilmour Space, PH: 07 5618 9043

3.2 Stage 1 and 2 Returns

3.3 The areas within which there is debris scheduled to return are declared as two distinct TDA.

a) **TDA STAGE 1**

TDA STAGE 1 (Brisbane FIR) corresponds to the area beyond 12NM from the Australian coastline intended to capture Stage 1 scheduled debris return.

YBBB/TDA STAGE 1

LAUNCH DEBRIS

LATERAL LIMITS: 193118S 1482031E – 185732S 1484620E – 180713S 1501907E – 191317S 1505639E – 195620S 1493429E – 195042S 1485657E – 194712S 1483415E – 193118S 1482031E

VERTICAL LIMITS: SFC - UNL

HOURS OF ACTIVITY: NOTAM

CONTACT: Gilmour Space, PH: 07 5618 9043

b) **TDA STAGE 2**

TDA STAGE 2 (Honiara FIR) is designed to capture Stage 2 scheduled debris return.

TDA STAGE 2

LAUNCH DEBRIS

LATERAL LIMITS: 123310S 1594943E – 103241S 1631224E – 113543S 1635240E – 133756S 1603109E – 123310S 1594943E

VERTICAL LIMITS: SFC - UNL

HOURS OF ACTIVITY: NOTAM

CONTACT: Gilmour Space, PH: 07 5618 9043

3.4 Debris Response Areas (DRA)

3.5 The Debris Response Areas correspond to areas within which there is a risk of unscheduled debris following a failure of the launch vehicle during the Stage 2 burn. The DRA are declared as two distinct TDA.

a) TDA DRA-YBBB

TDA DRA-YBBB is defined as a polygon 80NM wide up to the boundary of the Brisbane FIR.

YBBB/TDA DRA-YBBB

LAUNCH DEBRIS

LATERAL LIMITS: 191317S 1505639E – 180713S 1501907E – 140000S 1572821E – 140000S 1595515E – 191317S 1505639E

VERTICAL LIMITS: SFC - UNL

HOURS OF ACTIVITY: NOTAM

CONTACT: Gilmour Space, PH: 07 5618 9043

b) **TDA DRA-AGGG**

TDA DRA-AGGG is defined as a polygon 80NM wide from the southern boundary of the Honiara FIR to the western boundary of TDA STAGE 2.

TDA DRA-AGGG

LATERAL LIMITS: 140000S 1572821E – 123310S 1594943E – 133756S 1603109E – 140000S 1595515E – 140000S 1572821E

VERTICAL LIMITS: SFC - UNL

HOURS OF ACTIVITY: NOTAM

CONTACT: Gilmour Space, PH: 07 5618 9043

4. ACTIVATION TIMES AND HAZARD DURATIONS

4.1 Expected NOTAM activation times (other than TRA FILLING) are presented as follows:

Daily NOTAM Activation Period(s) 1 –

2130 to 0115 UTC daily as per NOTAM

Daily NOTAM Activation Period(s) 2 –

0330 to 0730 UTC daily as per NOTAM

4.2 TRA FILLING will activate prior to all other TRA/TDA.

4.3 All other TRA/TDA will be activated simultaneously.

4.4 All NOTAM will be published 14 days prior to an identified launch window.

4.5 Should a launch delay occur, NOTAM will be reviewed as required.

4.6 The maximum duration of the TRA/TDA activations is detailed below.

	TRA FILLING	TRA LAUNCH, ALL TDA
Nominal	36 hours (18 hours before activity to 18 hours after activity)	90 MIN
Delay/Hold	Per published active period	5 hours
Failure	Per published active period	90 MIN (no delays) 5 hours (with delays)
Scrub	Per published active period	30 MIN (no delays) 5 hours (with delays)

5. DIVERSION TRACKS

5.1 Orbital Rocket Launch Activity (refer Appendix 1).

5.2 Pilots should be aware that flight is restricted when operating in the vicinity of ERIS MSN001 Orbital Rocket Launch Temporary Restricted Areas (TRA).

5.3 The following routes are restricted during ERIS MSN001 Orbital Rocket Launch TRA activation:

- Q67 YBBN-YBCS
- B462
- V153 YBTL–YBMK
- Q141
- W112
- W387
- Z17
- Z25

The following routes are affected during ERIS MSN001 Orbital Rocket TDA activation:

- B220
- G591
- G205
- Aircraft requesting User Preferred Routes (UPR) in the YBBB FIR in the vicinity of the TRA.

5.4 Pilots intending to operate on these routes are advised to plan in accordance with the diversion tracks specified in the following tables.

5.5 The diversion tracks below are also available for pilots intending to operate on routes impacted by the ERIS MSN001 Orbital Rocket Launch Temporary Danger Areas (TDA).

5.6 Diversion Track Tables

Affected Route	Q67 YBBN - YBCS
Use diversion track	RUNLA – BITAS – WALTA – RUMKA
Purpose	Separation from activity airspace

Affected Route	B462 (southbound)
Use diversion track	NONIR – WALTA – BITAS – MK VOR
Purpose	Separation from activity airspace

Affected Route	B462 (northbound)
Use diversion track	MK VOR – BITAS – WALTA – NONIR
Purpose	Separation from activity airspace

Affected Route	V153 YBTL - YBMK
Use diversion track	WALTA – BITAS – DAGSI
Purpose	Separation from activity airspace

Affected Route	Q141 (joining B462 northbound)
Use diversion track	NITIT-BITAS-WALTA then; track to NONIR to join B462 or; track to PIPPA to join G205
Purpose	Separation from activity airspace

Affected Route	W387 (southbound)
Use diversion track	LINBO-WALTA-BITAS-PN VOR rejoin W387
Purpose	Separation from activity airspace

Affected Route	W387 (northbound)
Use diversion track	PN VOR-BITAS-WALTA-LINBO rejoin W387
Purpose	Separation from activity airspace

Affected Route	Z17 (southbound)
Use diversion track	AKROM-WALTA-BITAS-DAGSI then to a position to join next air route
Purpose	Separation from activity airspace

Affected Route	Z17 (northbound)
Use diversion track	DAGSI-BITAS-WALTA-AKROM then join next air route
Purpose	Separation from activity airspace

Affected Route	Z25 (southbound)
Use diversion track	AKROM-WALTA-BITAS-DAGSI then a position to join next air route
Purpose	Separation from activity airspace

Affected Route	Z25 (northbound)
Use diversion track	DAGSI-BITAS-WALTA-AKROM then join next air route
Purpose	Separation from activity airspace

5.7 Diversion Track Tables (TDA)

Affected Route	B220 (southbound)
Use diversion track	DOTOD – WALTA – BITAS – KELPI
Purpose	Separation from activity airspace

Affected Route	B220 (northbound)
Use diversion track	KELPI – BITAS – WALTA – DOTOD
Purpose	Separation from activity airspace

Affected Route	G205 (southbound)
Use diversion track	PIPPA-WALTA-BITAS-DAGSI to a position to join next air route
Purpose	Separation from activity airspace

Affected Route	G205 (northbound)
Use diversion track	From a position (prior to OVRON), DAGSI-BITAS-WALTA-PIPPA
Purpose	Separation from activity airspace

Affected Route	G591 (eastbound)
Use diversion track	CS-WALTA-BITAS-DAGSI-PUGEL join G591
Purpose	Separation from activity airspace

Affected Route	G591 (westbound)
Use diversion track	PUGEL-DAGSI-BITAS-WALTA-CS to join J151
Purpose	Separation from activity airspace

Affected Route	UPR (northbound – tracking west of the activity airspace)
Use diversion track	DAGSI – BITAS – WALTA
Purpose	Separation from activity airspace

Affected Route	UPR (southbound – tracking west of the activity airspace)
Use diversion track	WALTA – BITAS – DAGSI
Purpose	Separation from activity airspace

5.8 Please direct all enquiries relating to Diversion Tracks to atm.director@airservicesaustralia.com

6. CONTACT DETAILS

6.1 TRA Controlling Authority is the Gilmour Space Range Safety Officer.

VHF Radio – CTAF: 126.7 MHz.

Phone: 07 5618 9043

Email: rso@gspace.com

7. CANCELLATION

7.1 This SUP self-cancels at 202506121400 UTC.

8. DISTRIBUTION

8.1 Airservices Australia website only.

Appendices

1. Temporary SUA Overview
2. TRA FILLING
3. TRA LAUNCH
4. TDA STAGE 1 – Brisbane FIR
5. TDA STAGE 2 – Honiara FIR
6. TDA DRA-YBBB – Brisbane FIR
7. TDA DRA-AGGG – Honiara FIR

Appendix 1 to
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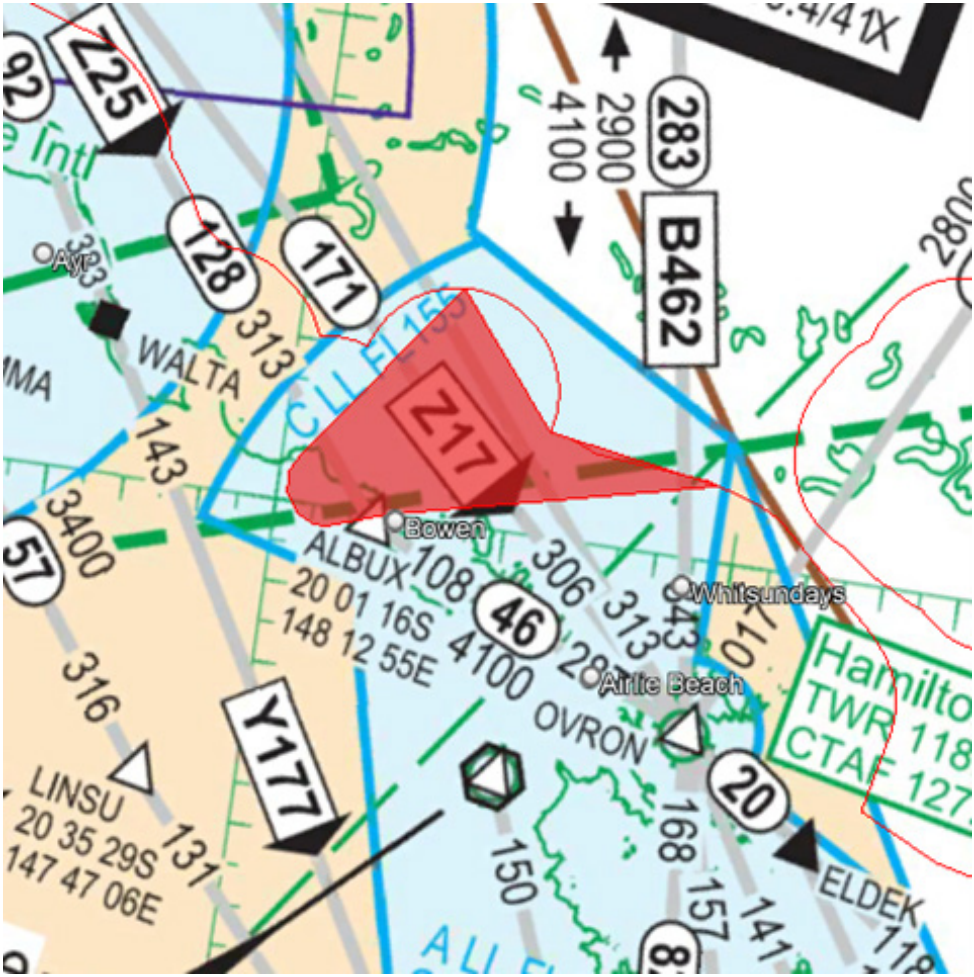
1. Temporary SUA Overview

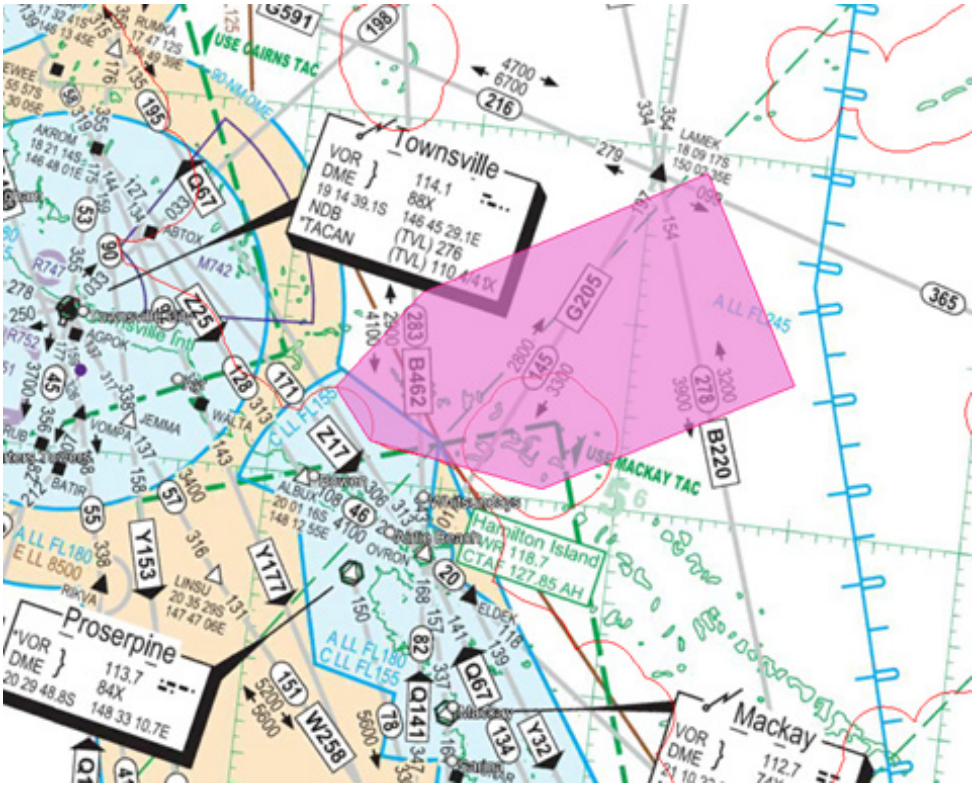
(Red-TRA FILLING & LAUNCH / Light Pink – TDA STAGE 1 / Dark Green – TDA DRA-YBBB / Light Green – TDA DRA-AGGG / Dark Pink - TDA STAGE 2)

2. TRA FILLING

3. TRA LAUNCH


Z25
92
Intl
128
171
313
WALTA
143
3400
57
316
LINSU
20 35 29S
147 47 06E
131
Y177
283
B462
2900
4100
Z17
Bowen
ALBUX
20 01 16S
148 12 55E
108
306
46
4100
313
Whitsundays
Airlie Beach
OVRON
20
ELDEK
168
150
157
141

4. TDA STAGE 1 – Brisbane FIR



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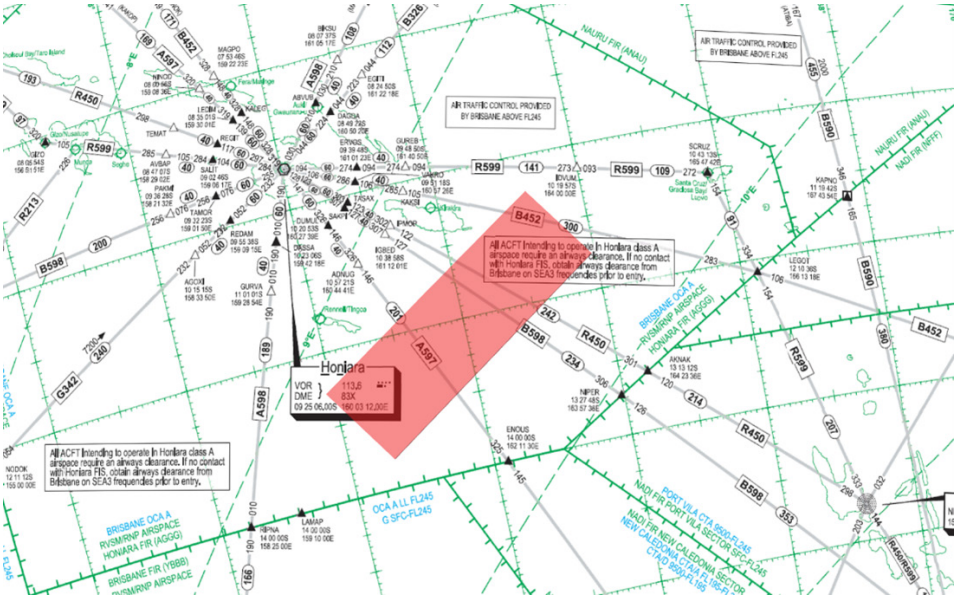
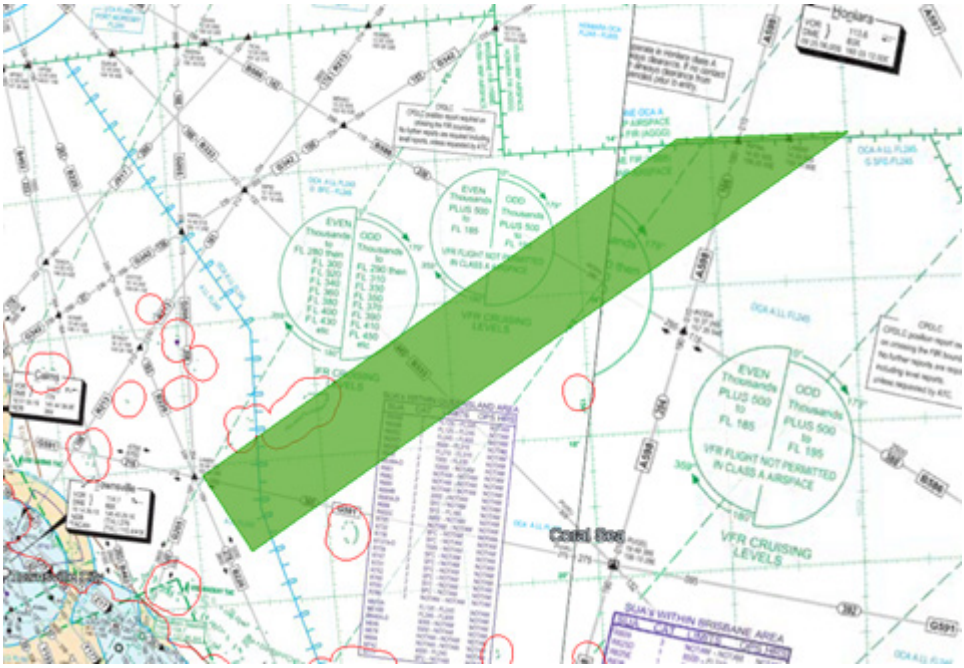
5. TDA STAGE 2 – Honiara FIR



6. TDA DRA-YBBB – Brisbane FIR



7. TDA DRA-AGGG – Honiara FIR