BRISBANE VALLEY FLYER

JULY- 2019

BRISBANE VALLEY SPORT AVIATION CLUB INC

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One of the Few (see page 2)

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The O'Sullivan Spitfire

By Kev Walters

As I recall Mike O'Sullivan was always mad on Spitfires and in September 2000 his fascination led him to complete the prototype of the O'Sullivan Spitfires that we see today. This prototype, I recall, flew like a dream, and the only criticism I had was that with full flap, the nose tended to pitch down on late flair. This was rectified by simply eliminating the 4th stage of flap.
Basically laid out on his shed floor and built up to flying condition, the construction was commercial grade aluminium and consequently was built like a tank. This initial aircraft was powered by a Rotax 618 with bigger bearings than the 582 and ran a little faster to produce about 70 bhp and had fixed undercarriage.

Eighteen years later I am now reintroduced to the O'Sullivan Spitfire in the form of the Mark 26B. In construction this was an entirely different aeroplane. Mike used traditional methods of construction and I must say he did a splendid job. The shape has improved dramatically and this model is powered by the Jabiru 6 cylinder of around 120 bhp. It's a long story as to how it got to our strip but I was privileged to do the test flying in June 2019. It also was equipped with a fully retractable undercarriage.

The replica Mk 26B
R. J. Mitchell's design – still being copied in the 21st century, alive and well in the Lockyer valley, QLD.

After a thorough pre-flight inspection and a nervous visit behind the hangar, one enters the cockpit from the left wing, being careful not to step on the flap. The cockpit is snug and for a large pilot would probably be a tight fit. Normal pre-start checks apply with the exception that you ensure that the U/C switches are in the down position and the U/C levers are in the locked position. After starting, the Jabiru purrs like a kitten, and when warmed you can taxi out to the run-up area.

Taxying is very straight forward and visibility is good with small changes in direction to see ahead. Brake is not needed for taxying. After normal pre-take-off checks completed, look out to see if the runway is clear and line up. Visibility is a little restricted straight ahead by the high nose so, looking to the side, smoothly open the throttle. After a short run the tail comes up and visibility straight ahead improves. Hold the attitude for lift off and the aircraft becomes airborne when it's ready. Once your knees have stopped shaking, raise the gear and set the aircraft in a steady climb at 80 knots. Any slower and the engine tends to get hot after an extended climb.

The climb is absolutely normal. Just the usual rudder to keep the ball centred and a running watch on temperatures and pressures. The rate of climb is around 1200 feet per minute. In cruise, likewise, the in-flight performance is like any other aircraft with a similar power to weight ratio. It is very sweet to fly and has a comfortable cruise of 115 knots IAS. With judicious use of rudder, the stall is benign and a non-event. On the other end of the scale, the POH lists the Vne as 120 knots.

There is no trim misbehaviour throughout the speed range and U/C position. The fuel consumption of the 120 horse power motor is around 20 litres/hour.

I used Watts Bridge for my first attempts at landing. The POH calls for an approach at 70 Knots but this I found to be way too fast. With the small span flap on this model, it floats half way up the airstrip before touching down. So I tried an approach at 60 knots. It still floated too far so I reduced the approach speed down to 50 knots and that was more comfortable, giving a bit of float before touching down. To get into my strip I experimented with 45 knots and it still flew well but I now use 50 kts as standard. At 50 kts the aircraft is fully controllable albeit with a high nose attitude obscuring visibility over the nose. Flair to the 3 point attitude is achieved by making sure the rear exhaust stub is just above the horizon. The narrow track undercarriage produces good rudder control on landing with no braking required throughout except to pull up.

All in all the aircraft is a delight to fly with no vices. RA Aus made the process on getting it back on the register streamlined but missing out on nothing. It was treated like a new model in the registration process and after completing the Aircraft Data and Weight and Balance a permit to fly was issued. To fly the aircraft in RA AUS you will need a tailwheel endorsement and a retractable undercarriage endorsement. I would say if you have the ability to land an aircraft like a Chipmunk from the back seat without assistance the aircraft should be a breeze.

This particular Aircraft:

Was constructed and first flown by George Stewart in around 2002 at Clifton where he flew it around there and Toowoomba for several years until 2005. It sat in a hangar at Clifton until it was purchased by David (Davo) Watson in about 2017. David disassembled it and transported it to Lynfield in the Lockyer Valley where he reassembled it ready for going through the process of returning it to the air.

Kev has done 8 hours of recent test flying and, as he tells above, finds it a pilot's dream to fly.

This notable aircraft is for Sale. See details further on in this magazine.

The cockpit (left side) showing stick and silver flap lever

The cockpit right side showing the two undercarriage retraction levers

Lesson for the Day

By Rob Knight

When I checked the dipstick after I got my Genesis, I found it a little hard to read so decided to manufacture a bright and shiny, easy to read, new one.

I drained the port tank and replaced the fuel 10 litres at a time measuring the fuel depth each time with a standard tape measure, checking and recording each measurement to ensure accuracy. With a set of robustly checked measurements, I annotated the logbook so I can make a new dipstick at any time.

I then looked around for a good material from which to make a new dipstick. Other aircraft use materials such as wood, plastic tube, even silicon spark plug high tension lead that has been engraved. I settled for the traditional hard wood and subsequently made up a masterpiece and engraved it accordingly.

However, after using it for a couple of months I could see it too was prone to issues; the petrol soaked into the wood and any sort of a worthwhile reading was lost as capillary action drew the petrol up the surface of the dipstick and above the dip line too quickly to be sure of an accurate reading. Having less fuel that I expected is far worse than more, so I went on the internet to find a paint that wasn't affected by petrol and found little information that I could be confident with.

I contacted an Industrial Chemist that I had met in a past employment circumstance and he suggest using ceramic paint and baking it onto the dipstick as the exhaust system on which such paint is designed to be used does. He suggested I paint the stick and give it a week to dry, and then bake it for 20 minutes over a hot gas stove burner ring, I did this, singing the hairs on my wrists several times and, just as he depicted, the paint became so hard it rang when I tapped it with a screw driver.

Delighted and grossly over confident with my foray into chemical engineering, I couldn't wait to road-test it but, instead of getting a cup of petrol and trying it, I removed the fuel cap on my port tank and dipped the stick into 33 litres of top quality MOGAS. After a minimal time, perhaps 2 seconds at most, I withdrew the stick and saw a black glob of gunky dissolving ceramic paint plop off the end of the stick and into the dark confines of my precious tank.

The down side - 2 hours to drain and flush the tank, purchase 40 litres of replacement fuel to flush the tank and replenish it, an hour to restore the fuel line, and an extended ground run to ensure fuel system integrity and recheck for no fuel line leaks. The up side – 33 litres of A1 fire starter, or illegal ant retardant or herbicide. Not a good balance sheet result.

Here endeth the lesson for the day.

Epilogue

I have now replaced the dipstick with another I have manufactured. This replacement is made from black, polyethylene, low pressure irrigation pipe that I purchased from Bunnings Aerospace Supplies. I marked the pipe using a circular PVC pipe cutter to deepen the groves so to more clearly mark the measurements, and got Mr Minute to engrave the litres corresponding to the markings. It is perfect. It is lightweight, the petrol shines on the plastic surface making reading easy and accurate, and it should last forever.

----- ooOOoo ------

Teenagers steal plane after driving tractor on to airstrip in Utah, USA

Aircraft 'witnessed flying very low' over major road

The aircraft stolen by the two teenagers

US police have arrested two teenagers who stole a plane after driving a tractor on to an airport runway.

Authorities in eastern Utah said the boys, aged 14 and 15, were seen “flying very low” over a major road after taking off in the small aircraft from a private airstrip.

The pair stole the plane near the village of Jensen and later landed 13 miles away at a public airport in the city of Vernal.

In a statement, the sheriff’s office added: “The teens gained access to a tractor and drove it to the air strip in Jensen, where they stole a fixed-wing, single-engine light sport aircraft.”

The plane “was witnessed flying very low” over the Route 40 highway, which stretches from east to west US, about 30 miles way from the airstrip.

“Based on information obtained by investigators, the teens mentioned flying back towards the Wasatch Front, but decided not to and returned to Vernal where they landed at the airport,” the sheriff’s office said.

Both teens were being held in a youth detention centre in Vernal on multiple charges.

Authorities said an investigation was ongoing.

This is in keeping with a topdressing pilot (Cropduster in Australia) who was startled to see his aircraft take-off and crash without him as he drove to the airfield to start a day’s operations. He arrived to find a local farm labourer starting the engine on his other Fletcher, which he immediately blocked with his ute and called the police.

The young labourer had been given a recent flight around his employer’s farm and had since purchased a copy of the Ken Fenwick Flight Training manual which, he believed, made it easy enough to fly without lessons. *He was awarded five years in prison for interfering with an aeroplane*.

LOCK YOUR AEROPLANE

Boeing's 737 MAX software outsourced to $12.80-an-hour engineers

By Peter Robison

June 29, 2019

It remains the mystery at the heart of Boeing's 737 MAX crisis: how did a company renowned for meticulous design make seemingly basic software mistakes leading to a pair of deadly crashes?

Longtime Boeing engineers say the effort was complicated by a push to outsource work to lower-paid contractors.

The MAX software -- plagued by issues that could keep the planes grounded months longer after US regulators this week revealed a new flaw -- was developed at a time Boeing was laying off experienced engineers and pressing suppliers to cut costs.

Were cost cuts ultimately behind the Boeing 737 MAX disasters? Increasingly, the iconic American plane-maker and its subcontractors have relied on temporary workers making as little as $US9 ($12.80) an hour to develop and test software, often from countries lacking a deep background in aerospace -- notably India.

In offices across from Seattle's Boeing Field, recent college graduates employed by the Indian software developer HCL Technologies occupied several rows of desks, said Mark Rabin, a former Boeing software engineer who worked in a flight-test group that supported the MAX.

The coders from HCL were typically designing to specifications set by Boeing. Still, "it was controversial because it was far less efficient than Boeing engineers just writing the code," Rabin said. Frequently, he recalled, "it took many rounds going back and forth because the code was not done correctly."

Boeing's cultivation of Indian companies appeared to pay other dividends. In recent years, it has won several orders for Indian military and commercial aircraft, such as a $US22 billion one in January 2017 to supply SpiceJet.

That order included 100 737-MAX 8 jets and represented Boeing's largest order ever from an Indian airline, a coup in a country dominated by Airbus.

Based on resumes posted on social media, HCL engineers helped develop and test the MAX's flight-display software, while employees from another Indian company, Cyient, handled software for flight-test equipment.

In one post, an HCL employee summarised his duties with a reference to the now-infamous model, which started flight tests in January 2016: "Provided quick workaround to resolve production issue which resulted in not delaying flight test of 737-MAX (delay in each flight test will cost very big amount for Boeing)."

Boeing said the company did not rely on engineers from HCL and Cyient for the Maneuvering Characteristics Augmentation System, which has been linked to the Lion Air crash last October and the Ethiopian Airlines disaster in March.

The Chicago-based plane-maker also said it didn't rely on either firm for another software issue disclosed after the crashes: a cockpit warning light that wasn't working for most buyers.

"Boeing has many decades of experience working with supplier/partners around the world," a company spokesman said. "Our primary focus is on always ensuring that our products and services are safe, of the highest quality and comply with all applicable regulations."

In a statement, HCL said it "has a strong and long-standing business relationship with The Boeing Company, and we take pride in the work we do for all our customers. However, HCL does not comment on specific work we do for our customers. HCL is not associated with any ongoing issues with 737 MAX."

It makes you wonder why they wonder why there is a problem!

FLY-INS Looming

13 July 2019	YRED Redcliffe QLD	Redcliffe Aero Club 50th Anniversary BBQ and 50th Birthday Celebration
20 July 2019	YWCK Warwick	QRAA Jumpers & Jazz Fly-in Brekky
10 August	YMRG Murgon	Brekkie with the Burnett Flyers

Mystery Aircraft (This Issue)

What's this?

Mystery Aircraft (Last Issue)

The Cerva CE.43 Guépard (English: Cheetah) is an all-metal version of the Wassmer WA.4/21. The prototype Guépard was first flown in May 1971 and was exhibited at the 1971 Paris Air Show. The aircraft was certified on 1 June 1972 and the French government ordered five aircraft for the Service de la Formation Aéronautique (SFA) and 18 aircraft for the Centre D'Essais en Vol (CEV) of the French Air Force

If you get an email telling you that you can catch swine flu from tins of ham then delete it ..... it's spam.

Keeping up with the Play (Test yourself – how good are you, really?)

1. Which one of the following factors below is most likely to increase an aeroplane's take-off distance?
   A. Rising air temperature.
   B. Rising QNH.
   C. Finer pitched propeller.
   D. Lower take-off weight.

2. A sea breeze is caused by:
   A. The prevailing wind blowing inland off the sea.
   B. The land heating up more that the water and drawing air off the sea.
   C. The land heating up more than the water causing the air pressure to rise and the air to flow from the land to the sea.
   D. An anabatic flow of air from low pressure over the sea to high pressure over the land.

3. Which are the ideal conditions for radiation fog to form
   A. Low cloud base and a very high relative humidity.
   B. Clear skies and calm wind.
   C. A cold wind blowing across a warmer, moist surface.
   D. Cold night, clear skies, and a light breeze of 2 to 8 knots.

4. A pilot fails to notice a loose mass balance weight on the starboard wing of his aeroplane. If the mass falls free in flight, which of the following is the most likely?
   A. The aircraft will fly port wing low because the starboard wing is lighter.
   B. The ailerons will become heavy as their mass balance has been reduced.
   C. The aeroplane will roll better to port that starboard because the port wing is now heavier
   D. The ailerons might flutter and the wings separate from the aeroplane.

5. A METAR lists the cloud cover at an aerodrome as, "SCT". What does this mean?
   A. 8 oktas of cloud cover.
   B. 3 to 4 okras of cloud cover.
   C. 5 to 7 oktas of cloud cover.
   D. 1 to 2 oktas of cloud cover

ANSWERS: 1. A, 2. B, 3. D, 4. D, 5. B.

If you have any problems with these questions, call me (in the evening) and let's discuss it. Rob Knight.

Aircraft Parts and Tools for Sale

Item	Condition	Price
SAAP Oil Pressure Gauge &Dedicated Sender	Brand New (in original box	**$100.00**
VDO Volt Readout instrument	Brand New	**$70.00**
EGT sensors (2 of)	Brand New	**$30.00 (each)**
Skystrobe Strobe light for Ultralight	NEW – IN BOX	**$75.00**
Propeller spacer (45 mm) with bolts	Never used	**Make an Offer**
~~Airspeed Indicator~~ **SOLD**	~~Brand New~~	~~**$60.00**~~
Altimeter – non-sensitive with subscale in "Hg.	Brand new	**$50.00**
Brand New ¼ drive Torque Wrench (SCA)	Brand New 60.00	**$60.00**
~~ASA brand, Pilot's headset (functions perfectly)~~	~~Near new~~ **SOLD**	~~**$80.00**~~

NEW Addition

~~Twist Pliers, 9 Inch~~ **SOLD**	~~Excellent condition~~	~~**$30.00**~~

Contact Rob Knight at:

kni.rob@bigpond.com, or

Phone 0400 89 3632

Got a new Jack Russell pup today. He's mainly black and brown with just a small white area ... I've called him 'England'.

Aircraft for sale (See article on page 2)

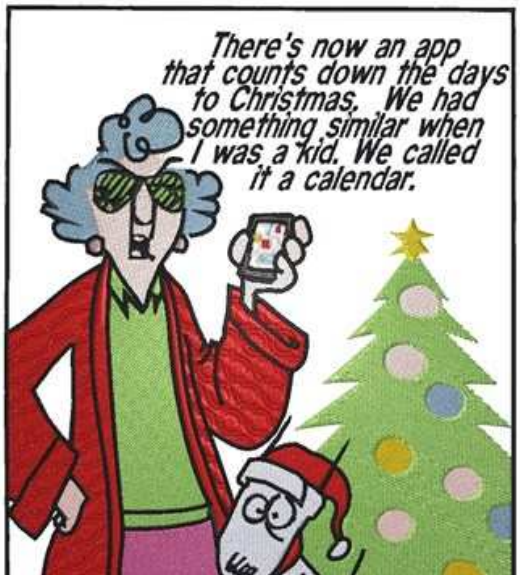
¾ scale replica Spitfire

Powered by a 6 cylinder engine, this delightful aircraft has good performance and low hours. Available for quick delivery.

It comes with a low flight time, excellent handling qualities, superb charisma, a brand new mechanical fuel pump and two jack stands.

For details contact Bill Watson. Tel., 0447186336

$60,000



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AIP SUPPLEMENT (SUP)

H39/19

Effective: 201907101600 UTC

MILITARY EXERCISE 'JOINT WARFIGHTING SERIES' AMBERLEY AND CORAL SEA 11–24 JULY 2019

1. INTRODUCTION

1.1 Elements of Australian and International military forces will be conducting a series of exercises associated with the Joint Warfighting Series (JWS) over the period 11-24 July 2019.

1.2 The JWS involves a Large Force Employment (LFE) air exercise involving a wide range of tactical flying exercises in the vicinity of Amberley and the Coral Sea.

1.3 A high number of military fixed and rotary wing aircraft will operate from RAAF Base Amberley and maritime platforms. There will also be a smaller volume of aircraft operating from RAAF Base Williamtown and Brisbane Airport.

1.4 This AIP SUP describes the airspace, diversion routes, access and procedures associated with this activity.

2. AIRSPACE

2.1 Airspace users should refer to both local area (AEX) NOTAM to confirm activation timings for permanent restricted areas and Brisbane FIR (YBBB) NOTAM to confirm temporary restricted/danger areas.

2.2 During the exercise period all, or some, of the following will be activated, with vertical limits published by NOTAM.

2.3 **Amberley Permanent Restricted Areas (AEX)**

AREA	VERTICAL LIMIT	HOURS
R637ABCD AMBERLEY	5,000FT AMSL – NOTAM	NOTAM
R644 AMBERLEY	5,000FT AMSL – NOTAM	NOTAM
R650AB AMBERLEY	5,000FT AMSL – NOTAM	NOTAM
D617ABCD AMBERLEY	SFC – 5,000FT AMSL	NOTAM

2.4 **Temporary Airspace**

YBBB/TRA TS Evans Head
Conditional Status: RA2
Military Flying
Lateral Limits: 301227S 1533025E, 294900S 1525300E, 290612S 1530518E, 285621S 1533128E, 285213S 1534939E, 290129S 1540705E, 301227S 1533025E
Vertical Limits: 5,000FT AMSL - NOTAM
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/TRA TS South
Conditional Status: RA2
Military Flying
Lateral Limits: 285213S 1534939E, 283215S 1535636E, 283312S 1540749E, 294816S 1555922E, 305929S 1571049E, 315237S 1552727E, 301227S 1533025E, 290129S 1540705E, 285213S 1534939E
Vertical Limits: 5,000FT AMSL - FL600
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/TRA TS Marshall High
Conditional Status: RA2
Military Flying
Lateral Limits: 315237S 1552727E, 305929S 1571049E, 314418S 1575552E, 322321S 1560209E, 315237S 1552727E
Vertical Limits: FL350 - FL600
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/TRA TS Marshall Low
Conditional Status: RA2
Military Flying
Lateral Limits: 315237S 1552727E, 305929S 1571049E, 314418S 1575552E, 322321S 1560209E, 315237S 1552727E
Vertical Limits: 5,000FT AMSL - FL320
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/AIR-RES NORTH EAST HIGHWAY
Military Flying
Lateral Limits: 254025S 1555245E, 261605S 1562906E, 262034S 1561807E, 254557S 1554312E, 254025S 1555245E
Vertical Limits: FL190 - FL250
Hours of Activity: NOTAM (activated for transit when R644 not activated)
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/AIR-RES SOUTH WEST HIGHWAY
Military Flying
Lateral Limits: 274628S 1544429E, 275257S 1545613E, 284119S 1541956E, 283312S 1540749E, 274628S 1544429E
Vertical Limits: FL160 - FL220
Hours of Activity: NOTAM
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/SOUTH EAST HIGHWAY
Military Flying
Lateral Limits: 284354S 1562647E, 285010S 1563753E, 294816S 1555922E, 294052S 1554836E, 284354S 1562647E
Vertical Limits: FL200 - FL240
Hours of Activity: NOTAM
Contact: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/NORTH WEST HIGHWAY
Military Flying
Lateral Limits: 262700S 1543000E, 262113S 1544000E, 265840S 1550705E, 270525S 1545655E, 262700S 1543000E
Vertical Limits: FL140 - FL180
Hours of Activity: NOTAM
Contact: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/AIR-RES OCEAN HIGHWAY
Military Flying
Lateral Limits: 241540S 1535900E, 223600S 1513000E, 221907S 1513000E, 240443S 1540600E, 241540S 1535900E
Vertical Limits: FL170 - FL320
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

YBBB/AIR-RES COASTAL HIGHWAY
Military Flying
Lateral Limits: 252047S 1531927E, 230000S 1510512E, 230000S 1512200E, 250926S 1532617E, 252047S 1531927E
Vertical Limits: FL170 - FL320
Controlling Authority: Joint Airspace Control Cell (02) 6128 4857/4858

3. AIRSPACE ACTIVATION

3.1 Airspace shall be activated in defined blocks as follows:

3.1.1 **Coral Sea Airspace 1.** Shall consist of R637ABCD, R644, R650AB and D617ABCD. Expected activation periods are as follows, noting that these times may be varied and airspace users should refer to NOTAM for confirmation of activation periods.

Airspace	Level	Date	Time Local	Time Zulu
R637ABCD R644 R650AB D617ABCD	A050 - FL600 SFC - A050	12 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
		13 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
		16 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
		17 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
		19 Jul 19	0900 - 1300	2300 - 0300
		20 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900

3.1.2 **Coral Sea Airspace 2.** Shall consist of R637ABCD, D617ABCD, R650B, TRA TS South, TRA TS Evans Head, TRA TS Marshall High and Low, AIR-RES North East Highway, North West Highway, AIR-RES South West Highway and South East Highway. Expected activation periods are as follows, noting that these times may be varied and airspace users should refer to NOTAM for confirmation of activation periods.

Airspace	Level	Date	Time Local	Time Zulu
TRA TS South	A050 - FL600	14 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
TRA TS Marshall High	FL350 - FL600	18 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
TRA TS Marshall Low	A050 - FL320	19 Jul 19	1500 - 1900	0500 - 0900
R637ABCD	A050 - FL320	22 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
D617ABCD	SFC - A050	23 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
R650B	A050 - FL320	24 Jul 19	0900 - 1300 1500 - 1900	2300 - 0300 0500 - 0900
AIR-RES North East Highway	FL190 - FL250			
North West Highway	FL140 - FL180			
AIR-RES South West Highway	FL160 - FL220			
South East Highway	FL200 - FL240			

Airspace	Level	Date	Time Local	Time Zulu
TRA TS Evans Head	A050 - FL160 A050 - FL600 A050 - FL160 A050 - FL600	14 Jul 19	0900 - 0930 0930 - 1300 1500 - 1530 1530 - 1900	2300 - 2330 2330 - 0300 0500 - 0530 0530 - 0900
	A050 - FL160 A050 - FL600 A050 - FL160 A050 - FL600	18 Jul 19	0900 - 1100 1100 - 1300 1500 - 1700 1700 - 1900	2300 - 0100 0100 - 0300 0500 - 0700 0700 - 0900
	A050 - FL160 A050 - FL600	19 Jul 19	1500 – 1700 1700 - 1900	0500 – 0700 0700 - 0900
	A050 - FL160 A050 - FL600 A050 - FL160 A050 - FL600	22 Jul 19	0900 - 1100 1100 - 1300 1500 - 1700 1700 - 1900	2300 - 0100 0100 - 0300 0500 - 0700 0700 - 0900
	A050 - FL160 A050 - FL600 A050 - FL160 A050 - FL600	23 Jul 19	0900 - 1100 1100 - 1300 1500 - 1700 1700 - 1900	2300 - 0100 0100 - 0300 0500 - 0700 0700 - 0900
	A050 - FL160 A050 - FL600 A050 - FL160 A050 - FL600	24 Jul 19	0900 - 1100 1100 - 1300 1500 - 1700 1700 - 1900	2300 - 0100 0100 - 0300 0500 - 0700 0700 - 0900

3.2 Outside of the above activation periods AIR-RES Ocean Highway, AIR-RES Coastal Highway, R637ABCD, D617ABCD or R650B may be activated independently throughout the exercise period between 0800-2300 Local (2200-1100 Zulu) up to FL320.

3.3 The ADF Joint Airspace Control Cell is available for airspace enquiries during normal business hours on (02) 6128 4857/4858 or by emailing: adf.airspace@defence.gov.au.

4. DIVERSION ROUTES

4.1 **Coral Sea Airspace 1.** Standard routes may not be available during the activation of Coral Sea Airspace 1. In particular the following routes will be affected:

A598	YBBN Departures:	SCOTT ELLAS PADDY PUGEL A598
	YBBN Arrivals:	via A598 PUGEL PADDY ELLAS Q39 SAVER
R587	YBBN Departures:	SCOTT ELLAS PADDY B474 MEPAB R587
	YBBN Arrivals:	via R587 MEPAB B474 PADDY ELLAS Q39 SAVER
B578	YBBN Departures:	SCOTT ELLAS TEBUR B578
	YBBN Arrivals:	via B578 TEBUR ELLAS SCOTT
G329		As per ERSA
User Preferred Routes:		to remain on or East of a line PUGEL PADDY ELLAS

4.2 **Coral Sea Airspace 2.** Standard routes may not be available during the activation of Coral Sea Airspace 2. In particular the following routes will be affected:

A598		As per ERSA
R587	YBBN Departures:	SCOTT ELLAS PADDY B474 MEPAB R587
	YBBN Arrivals:	via R587 MEPAB B474 PADDY ELLAS Q39 SAVER
B578	YBBN Departures:	SCOTT ELLAS TEBUR B578
	YBBN Arrivals:	via B578 TEBUR ELLAS Q39 SAVER
G329		As per ERSA
P880	YBBN Departures:	SCOTT Y76 SIFRA NATLI 3149S15831E JUMPA P880
	YBBN Arrivals:	via P880 JUMPA 3149S15831E NATLI SIFRA L503 SAVER
	YBCG Departures:	CG LAMSI N584 SIFRA NATLI 3149S15831E JUMPA P880
	YBCG Arrivals:	via P880 JUMPA 3146S15831E NATLI SIFRA N784 LAMSI

B474	YSSY Departures:	TESAT G595 GUTIV ABARB 3149S15831E ISTEM B474
	YSSY Arrivals:	via B474 ISTEM 3149S15831E ABARB RIKNI N774 TESAT
B580	YSSY Departures:	TESAT G595 GUTIV ABARB 3149S15831E VESUN B580
	YSSY Arrivals:	via B580 VESUN 3149S15831E ABARB RIKNI N774 TESAT
A579	YSSY Departures:	TESAT G595 GUTIV ABARB 3149S15831E UBLIN A579
	YSSY Arrivals:	via A579 UBLIN 3149S15831E ABARB RIKNI N774 TESAT
YMML – YBBN:		ML H66 MUDGI NBR RACHL SUKTU Y19 PARRY Y195 BN
YSSY – YBBN:		ENTRA Y245 BANDA VEGAH GAMBL CG DCT
User Preferred Routes:		to remain on or East of a line LEEAM PADDY 3149S15831E ABARB NOBAR

5. AIRCRAFT OPERATIONS

5.1 High-speed military jet aircraft, without communications, will be operating within Danger Areas during NOTAM activation periods. Traffic information will not be provided to or about JWS19 aircraft operating in danger areas.

5.2 Military aircraft will monitor, and when necessary broadcast on, the appropriate Area, CTAF or Broadcast Area frequency relative to their location.

5.3 **Fly Neighbourly Advice (FN22 NAVY WARSHIPS).** In order to maintain safe operations, pilots of civil aircraft and helicopters should avoid warships by 5NM laterally above 2,000FT vertically wherever possible. Pilots are not to circle the warships at any time. Refer to *ERSA GEN SP – 24, paragraph 33*.

5.3.1 Traffic alerts and warnings may be passed to aircraft operating in close proximity to warships on FREQ 121.5MHz.

6. PRIORITIES

6.1 Non-exercise aircraft with a declared emergency, radio failure or participating in activities for the preservation of life or property (SAR, MED, POL or FFR) will be afforded priority for access to the exercise airspace.

6.2 Clearances shall be issued to Customs aircraft on priority tasks, irrespective of the status of the airspace involved, such that these flights are subject to minimum delay.

7. CANCELLATION

7.1 Unless modified by NOTAM, this SUP self–cancels at 201907241400 UTC.

8. DISTRIBUTION

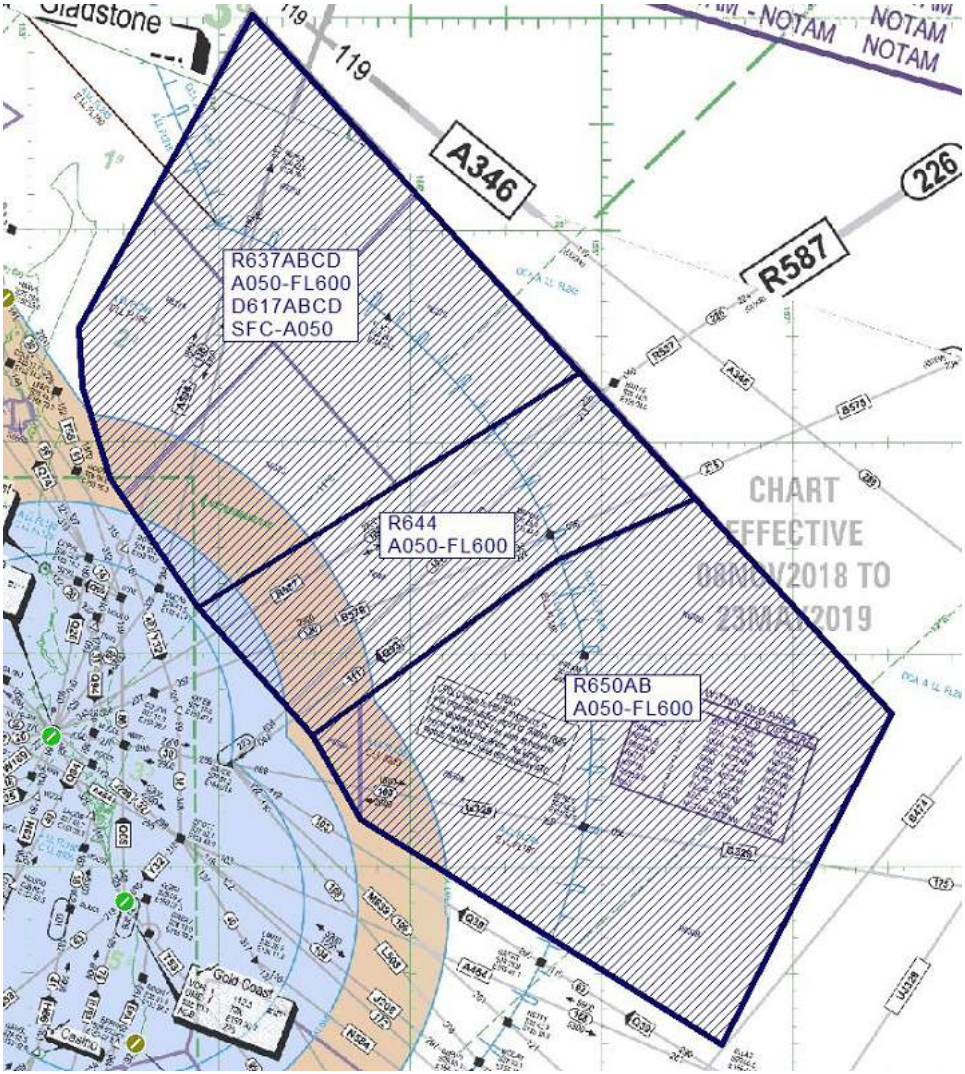
8.1 Airservices Australia website only.

Appendices

1. Coral Sea Airspace 1
2. Coral Sea Airspace 2
3. AIR-RES Coastal and Ocean Highways

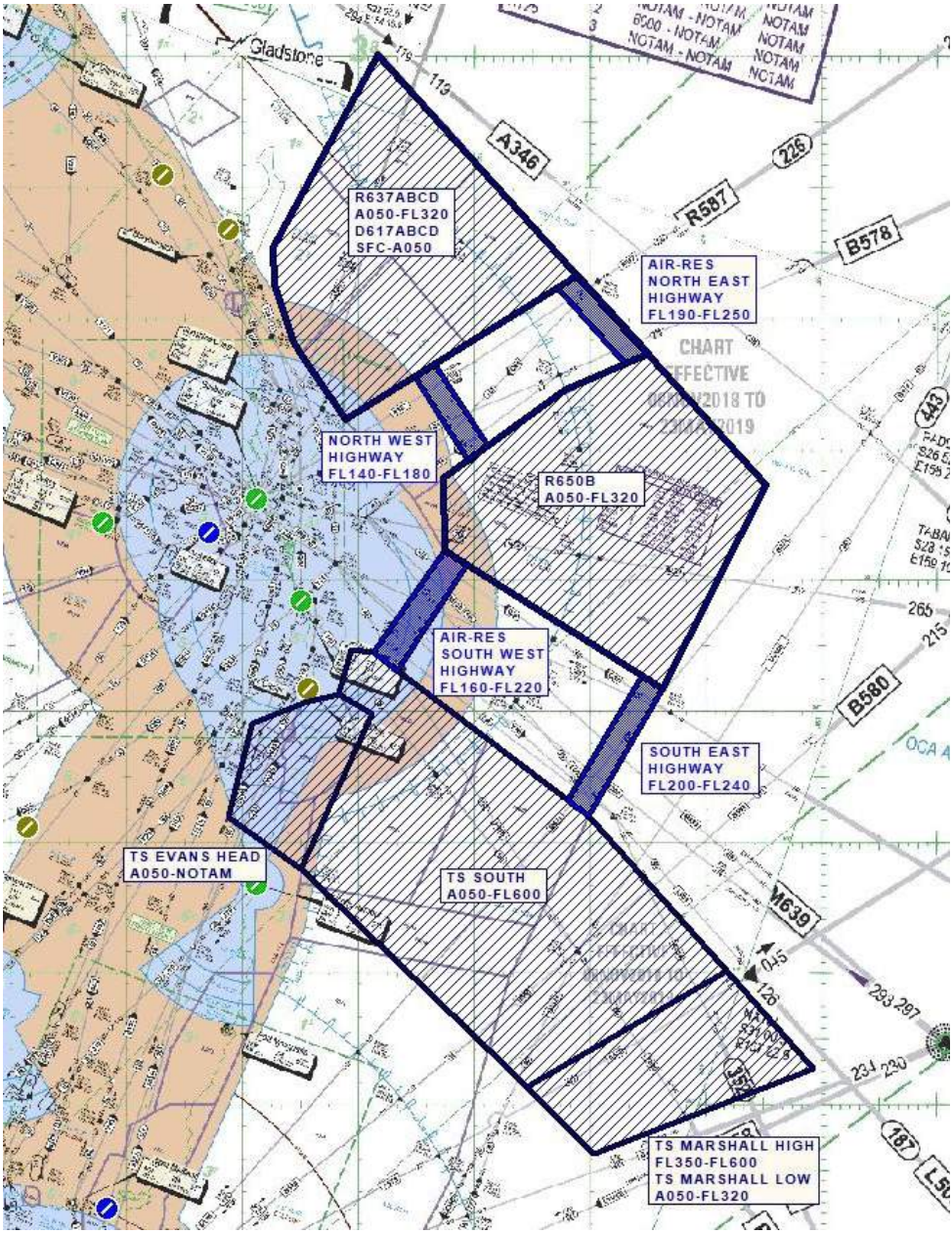
Appendix 1 TO
(SUP H39/19)

1. Coral Sea Airspace 1



Appendix 2 TO
(SUP H39/19)

2. Coral Sea Airspace 2



Appendix 3 TO
(SUP H39/19)

3. AIR-RES Coastal and Ocean Highways