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Preliminary Airspace Review of Port Macquarie

May 2018

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1.0	Final	May 2018
1.1	Revised to include stakeholder comments	August 2018

1 EXECUTIVE SUMMARY

1.0.1 The *Airspace Act 2007* (Act)[1] provides the Civil Aviation Safety Authority (CASA) with the authority to administer and regulate Australian-administered airspace and obligates CASA to conduct regular reviews of the existing classifications of Australian–administered airspace. The Office of Airspace Regulation (OAR) conducted a review of the airspace arrangements and classifications within a 20 nautical mile (nm) radius of Port Macquarie Airport (Port Macquarie) from the surface to 8,500 feet (ft) above mean sea level (AMSL) to determine if the airspace remains "fit for purpose".

1.0.2 This review applies CASA's regulatory philosophy which considers the primacy of air safety but also takes account of all relevant considerations including cost.

1.0.3 An assessment of airspace incidents and feedback from stakeholders concluded there were no risks that required changes to the existing airspace. However, the review has noted areas where improvements that would benefit safety could be made.

1.0.4 The OAR has determined that the current airspace architecture is fit for purpose.

1.0.5 Airspace users identified the need for targeted education about frequency congestion and correct radio calls and procedures. Stakeholder feedback also focussed on the need for additional infrastructure such as a full length, parallel taxiway.

Recommendations:

The following recommendations have been made:

- CASA Flying Operations Inspectors should conduct a safety assessment and thorough stakeholder consultation to determine whether the broadcast area should be retained or dis-established.
- The Port Macquarie – Hastings Council should continue with plans to construct a parallel taxiway.
- The Port Macquarie – Hastings Council should investigate the very high frequency (VHF) 'black spot' at the southern end of the runway and identify and implement appropriate mitigators.

[1] A full list of acronyms and abbreviations used within this report can be found at Annex A.

CONTENTS

2 INTRODUCTION

2.0.1 Under Section 11 and 12 of the *Airspace Act 2007 (*Act), the Civil Aviation Safety Authority (CASA) has responsibility for the administration and regulation of Australian-administered airspace. In carrying out these responsibilities CASA must give primacy to aviation safety and must:

- foster efficient use of Australian-administered airspace,
- foster equitable access to that airspace for all users of that airspace,
- take into account national security, and
- take into account protection of the environment.

2.0.2 CASA previously conducted a review of airspace around Port Macquarie Airport (Port Macquarie) in July 2014[2].

2.1 Purpose

2.1.1 The purpose of this review is to assess the airspace architecture within 20 nautical miles (nm) of Port Macquarie between the surface and 8,500 feet (ft) above mean sea level (AMSL) to determine if the airspace is fit for purpose and complies with the requirements of the Act for safe operations, efficiency and equitable access. The review provides findings and recommendations about matters that impact aviation safety, efficiency or equitable access for airspace users.

2.2 Process

2.2.1 The review process included:

- Analysis of aircraft movement data;
- Analysis of the mix of aircraft operations in the area;
- Assessment of current aircraft movement levels and mix of aircraft operations to determine the suitability of existing airspace;
- Assessment of the appropriateness of the current airspace classifications and architecture;
- Assessment of any issues related to aircraft operators seeking equitable access;
- Assessments of the appropriateness of the Air Traffic Services (ATS) provided in each class of airspace;
- Identification of any threats or risks to the safety of aircraft operations; and
- Consultation and consideration of feedback from airspace users.

3 BACKGROUND

3.1 Overview of Australian airspace classifications

3.1.1 Australian airspace classifications accord with Annex 11 of the International Civil Aviation Organization (ICAO) and include Class A, C, D, E, and G depending on the level of service required to safely and effectively manage aviation activity. Class B and Class F airspace is not currently used in Australia. Each class of airspace determines the type and nature of aviation operations permitted in that airspace. Annex B provides details of the classes of airspace used in Australia.

3.1.2 The airspace within 20 nm of Port Macquarie is Class G airspace from the surface to 8,500 ft AMSL with ATS provided by Airservices Australia (Airservices). Refer to Figure 1.

2 The report is available on the CASA website: https://www.casa.gov.au/operations/standard-page/papers-and-reports

Figure 1: Extract of Newcastle Visual Navigation Chart (VNC)
(Airservices: Effective date 9 November 2017).

3.2 Aerodromes

3.2.1 Port Macquarie shares a broadcast area utilising a single Common Traffic Advisory Frequency (CTAF) with other aerodromes in the area (see Figure 1). The area includes aerodromes at:

- The Lakes (YLKS);
- Camden Haven (YCMH);
- Bexfield Park.

3.2.2 Taree Airport (Taree) is approximately 33 nm south west of Port Macquarie and shares the broadcast area with Port Macquarie, however it is outside the scope of this Review. Kempsey Airport (Kempsey) is approximately 22 nm north-north west of Port Macquarie and is also outside the scope of this Review.

3.3 Air Navigation Service Providers in the Port Macquarie area

3.3.1 The airspace around Port Macquarie is Class G (non-controlled) airspace from the surface to 8,500 ft AMSL and no Air Traffic Control (ATC) service is provided in this area. A flight information service (FIS) and traffic information service is provided by the Brisbane Air Traffic Services Centre (Brisbane Centre) to aircraft operating under the instrument flight rules (IFR). Aircraft operating under the visual flight rules (VFR) are provided with a FIS and may receive a surveillance information service (SIS) subject to ATC work load, the level of surveillance in the area and aircraft equipage.

3.3.2 Brisbane Centre also provides an air traffic control service in the overlying Class E airspace above 8,500 ft AMSL and in the overlying Class C and Class A airspace.

3.3.3 The aerodromes within the vicinity of Port Macquarie operate on a shared CTAF and are subject to non-controlled aerodrome procedures[3]. All aircraft are required to carry a serviceable very high frequency (VHF) radio and transmit position information to enable situational awareness and self-separation for other airspace users.

3.4 Surveillance

3.4.1 There is radar surveillance above approximately 4,500 ft AMSL in the area surrounding Port Macquarie. An Automatic Dependent Surveillance-Broadcast (ADS-B) ground station at Point Lookout (approximately 60 nm north-north-west of Port Macquarie) provides additional surveillance coverage for suitably equipped aircraft in the area.

3.5 Port Macquarie Airport

3.5.1 Port Macquarie is a certified aerodrome operated by the Port Macquarie-Hastings Council. Commercial aviation activity at Port Macquarie includes passenger, freight and medical transport operations. Port Macquarie also supports parachute operations, flying training, warbird flights and a growing recreational aviation sector.

3.5.2 Port Macquarie currently supports over 247,226 passengers annually. This is an increase on the previous 12 months (246,848). Refer to Figure 2. Passenger numbers spiked in 2014, with 264,568 passengers passing through the airport in the previous 12 months to November.

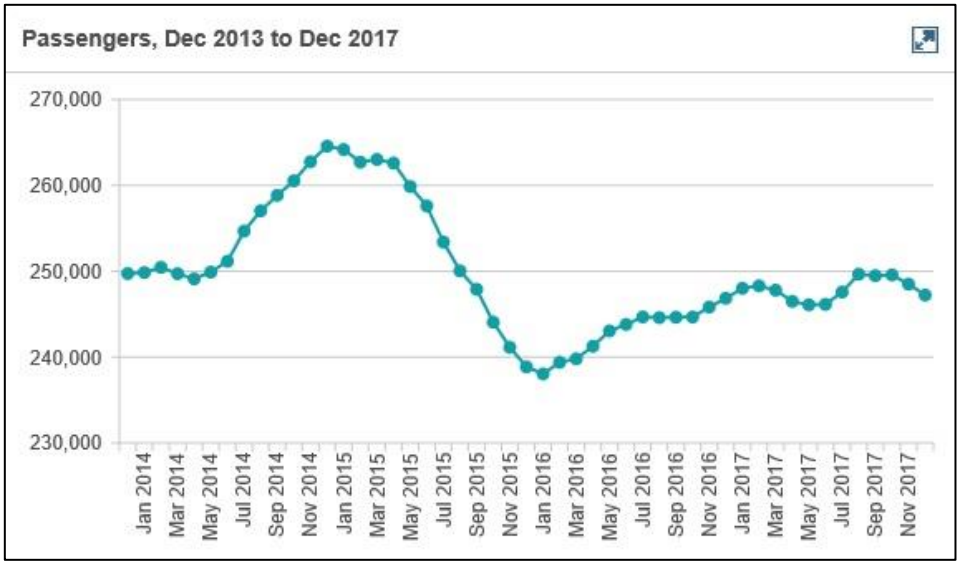

Figure 2: Passenger numbers at Port Macquarie (1 December 2013 – 31 December 2017).

3.5.3 The Port Macquarie-Hastings Council published an Airport Master Plan in June 2010 which included planning considerations to 2030. An Addendum to the Master Plan was published in December 2013. The Master Plan and Addendum are available on the Port Macquarie website: http://www.portmacquarieairport.com.au/About-the-Airport/Airport-Master-Plan

[3] Civil Aviation Regulation (CAR) 1988 – 166 Operating on and in the vicinity of non–controlled aerodromes.

3.6 Aircraft movements

3.6.1 Total aircraft movements at Port Macquarie have increased from 26,067 for the 12 months to the end of December 2013 to 36,575 for the 12 months to the end of December 2017. During the same period, there has been a reduction in Air Transport Movements from 9,216 to 8,200. Refer to Figure 3.

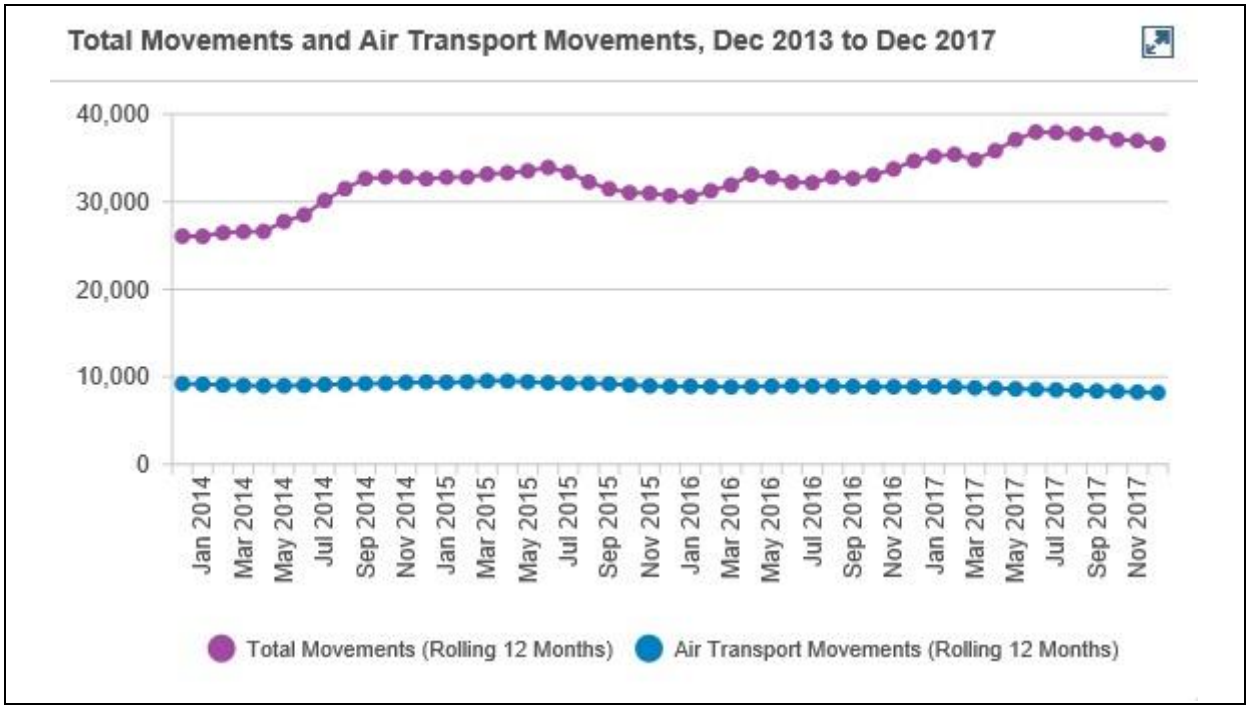

Figure 3: Aircraft movements at Port Macquarie (December 2013 – December 2017).

3.7 Restricted and Danger Areas

3.7.1 There are two Restricted Areas (RAs)[4] within 20 nm of Port Macquarie which are used by aircraft from the Royal Australian Air Force (RAAF) base Williamtown (R587B and R574) Refer to Figure 1. R587B is activated by a Notice to Airmen (NOTAM) and is used by Defence for military flying. R587B is established from Flight Level (FL) 125 to FL 600 and is outside the scope of this review. R574 is activated by NOTAM and is used by Defence for military flying. R574 is established between the surface and FL 600.

3.7.2 There are no Danger Areas (DAs) within 20 nm of Port Macquarie.

3.7.3 All Restricted Areas have been allocated an 'RA Status'. Refer to Annex C.

[4] Refer to Annex C – Restricted and Danger Areas within 20 nm of Port Macquarie.

4 AVIATION INCIDENTS

4.1 Aviation safety incident reports

4.1.1 Any accident or incident involving Australian registered aircraft or foreign registered aircraft in Australian airspace must be reported to the Australian Transport Safety Bureau (ATSB). Every aviation safety incident report (ASIR) is available to the Office of Airspace Regulation (OAR). Defence incidents are also included in these reports.

4.1.2 An assessment of incidents in the Port Macquarie region determined there were six accidents and 115 incidents between 1 January 2013 and 25 January 2018.

4.1.3 A review of the airspace attributed incidents determined that most are related to:

- Errors in pilot procedures;
- Failures in see and avoid procedures; and
- Communication failures.

4.1.4 Analysis of reported airspace incidents and feedback received during consultation indicated that most were caused by pilot error. There was no indication of issues with airspace architecture that would justify changes to the airspace or changes to airspace procedures.

4.1.5 CASA will continue to monitor incident reports for the Port Macquarie area to determine the need for further action or reviews. The CASA Aviation Safety Advisor will continue to provide further education and information to Port Macquarie airspace users through the annual safety seminar program and targeted education programs.

5 FEEDBACK FROM STAKEHOLDERS

5.01 The OAR conducted consultation with internal and external stakeholders and other interested parties. Stakeholders that provided feedback are listed in Annex D.

5.02 OAR representatives also sought input through stakeholder meetings at Port Macquarie, Kempsey and through interviews with airline operators, charter operators, airport management and emergency service providers.

5.1 Port Macquarie – Taree broadcast area

5.1.1 Local stakeholders raised the issue of frequency congestion and over-transmission of calls between Port Macquarie and Taree traffic. This affects operations at both Port Macquarie and Taree. Aircraft on the ground at Port Macquarie cannot hear radio calls from aircraft on the ground at Taree (and vice versa).

5.1.2 Disestablishing the Port Macquarie - Taree broadcast area may address the congestion issue, however, it may reduce the situational awareness of pilots in the area. Local stakeholders were divided on whether the broadcast area should be disestablished. It was interesting that different local operators and different airlines had opposing views on whether to retain or disestablish the broadcast area.

5.1.3 Reasons to disestablish the broadcast area:

- High volume of radio traffic. Pilots have reported conducting multiple circuits without being able to make a radio broadcast.
- Over-transmissions. People on the ground at Taree over transmit people on the ground at Port Macquarie (and vice versa) as they are unable to hear aircraft on the ground at the other aerodrome. Pilots in the air hear the over transmissions.
- The broadcast area uses the same frequency as the Archerfield Tower. This becomes an issue when pilots tune into the CTAF during the initial descent, still in the flight levels, to get an idea of the traffic at Port Macquarie. Transmissions will at times

occur simultaneously, meaning crew will not clearly be able to identify an aircraft at Port Macquarie.

5.1.4 Reasons to retain the broadcast area:

- The two aerodromes are only 33 nm apart. This places the Port Macquarie southern initial approach fixes and the Taree northern initial approach fixes in close proximity to each other. Given the area has regular VFR aircraft operating between the two aerodromes, often students, the common frequency improves situational awareness of traffic operating south of Port Macquarie. The additional radio traffic is minimal for the benefit in situational awareness.
- The Port Macquarie southern initial approach fixes and the Taree northern initial approach fixes are in close proximity to each other. Having the aerodromes on different frequencies would impair situational awareness of IFR aircraft.

  [CASA comment: Airservices stated that it is rare to have IFR aircraft conducting an instrument approach into Taree from the north at the same time as an IFR aircraft was conducting an instrument approach into Port Macquarie from the south. If the situation did occur, both aircraft would be passed traffic on each other, thereby maintaining situational awareness and safety.]
- General aviation aircraft operating in the area often only have one radio and are unable to monitor two frequencies whilst travelling between the two aerodromes.

5.1.5 A safety assessment and thorough stakeholder consultation should be conducted to determine whether the broadcast area should be retained or dis-established. The assessment should be conducted by the Flying Operations Inspectors who are responsible for operators in the Port Macquarie – Taree area.

5.2 Aerodrome infrastructure

5.2.1 The lack of a full length parallel taxiway at Port Macquarie affects operations. Local pilots are reporting departure delays of up to 30 minutes. Some aircraft have been observed taking off from the taxiway Charlie intersection on runway 21, at the same time as an aircraft is established on a straight in approach on runway 03.

5.2.2 A full length, parallel taxiway will reduce runway occupancy times and increase the efficiency of the aerodrome. In the case that runway 21 is in use by general circuit traffic, airline aircraft will typically join the circuit. The challenge that operations on this particular runway creates, is the need to backtrack after landing, as no parallel taxiway exists. This impacts aircraft operations due to the increased runway occupancy time by aircraft. Large aircraft, such as the Dash 8 Q400, must use runway end turning nodes only, as per En Route Supplement Australia (ERSA) requirements.

5.2.3 A parallel taxiway at Port Macquarie is being considered by Council and a tender should be released in the new financial year. The taxiway is expected to be constructed in three phases. Timeframes for the construction of each Phase have not been finalised:

- Phase 1: A taxiway built to 1,200 metres (from the northern end of the runway) to accommodate light aircraft.
- Phase 2: Upgrade the taxiway to accommodate jets and heavy aircraft.
- Phase 3: A full length taxiway built to accommodate light aircraft.

5.2.4 Local stakeholders have reported to Council that there is a VHF ‘black spot’ at the southern end of the runway (RWY 03 threshold) when aircraft are taxiing down or in the line-up position. It is a known issue to most pilots who operate at Port Macquarie. General aviation operators have observed and heard a number of aircraft including QantasLink and Virgin Australia Regional Airlines on the Runway 03 end, make broadcasts that appear to go unnoticed. It has been reported that one aircraft can be lined up on the threshold at Runway 03, whilst another is holding on Taxiway Charlie (at holding point Charlie). Whilst each aircraft is visible to one another (clear line of sight – no obstructions between the two aircraft), neither can communicate with each other.

5.3 Grass runway

5.3.1 Local stakeholders would like Council to re-open the grass cross strip. The strip, which previously provided an emergency landing location for incidents such as engine failures and was often used during strong cross winds, was decommissioned in 2012. Parking aircraft on the strip has made it unsuitable for use during an emergency. Cross-winds are frequently experienced at Port Macquarie, rendering low time students in sport aircraft particularly vulnerable to a loss of directional control during take-off and landing. Any closure of the main runway may result in aircraft having to divert to non-familiar airfields like Camden Haven or Dexfield Park.

5.4 Other issues

5.4.1 Stakeholders reported that airline pilots have requested that local pilots extend downwind to accommodate their non-conforming straight in approach.

5.4.2 Aircraft are given a gradual descent from CTA. This can increase the workload when crew are trying to listen and communicate on the busy CTAF, while being given clearance to leave CTA and traffic at the same time. Stakeholders suggested that ATC provide aircraft with traffic at Port Macquarie earlier in the descent, so that when the aircraft is closer to Port Macquarie the radio calls are shorter and allow the crew to focus on separating from traffic within the circuit.

5.4.3 Clearance to track to the waypoint PQQNE for the RNAV-Z 21 can sometimes be delayed despite an early request. Tracking early to this position is beneficial for crews, as it increases separation with aircraft conducting instrument approaches at Kempsey. It also gives the crew greater situational awareness and the ability to separate with coastal northbound traffic. Aircraft requesting tracking from Coffs Harbour to the waypoint PQQNE are using the track to assist with separation closer to Port Macquarie. Stakeholders suggested that this should be highlighted to controllers. Note: Alliance Airlines is discussing proposed alternate routing between Coffs Harbour and Port Macquarie.

5.4.4 There are multiple centre frequency changes while aircraft are on descent into Port Macquarie, from the north, which increases the crew's workload. It was suggested that where possible, the centre frequencies should be combined to reduce frequency change overs and therefore crew work load.

5.4.5 Kempsey instrument approaches overlap the Port Macquarie northern instrument approaches. This creates a traffic conflict on a different CTAF frequency. One stakeholder suggested combining CTAF frequencies of Port Macquarie, Taree and Kempsey. They also suggested considering mandating all aircraft operating within this area require an operational transponder.

[CASA comment: Kempsey, Port Macquarie and Taree aerodromes previously shared the same CTAF. Kempsey's CTAF was changed to reduced frequency congestion. Local stakeholders stated that Kempsey should remain with a discrete CTAF. If IFR aircraft were operating into Kempsey at the same time as an IFR aircraft was operating into Port Macquarie, both aircraft would be passed traffic on each other by ATC, thereby maintaining situational awareness and safety.]

5.4.6 Clarity of communications between airspace users (especially clear and accurate reporting of position and intentions). Local stakeholders have commented that effective communication is one of the most challenging aspects at Port Macquarie. Significant VFR and IFR flight training operations are undertaken, which includes persons for whom English may not be the first language, on some occasions resulting in unfamiliar sounding broadcasts whilst the students become accustomed to the language.

5.4.7 Another aspect related to communications is the difficulty understanding the intentions of pilots who either do not use standard radio phraseology, use colloquialisms, idioms or the radio communication is simply poor. It has been reported that local and itinerant pilots at times make radio calls that fail to follow the standard radio phraseology format and, in some instances, use non-standard phraseology which can confuse other airspace users particularly students. Concise, clear and accurate radio calls are vital at this

aerodrome due to the very high volume of traffic. Further education, collaboration and shared learning programs for all airspace users would be beneficial.

[General observation from stakeholder feedback: Local and itinerant pilots should be aware that communications, according to ICAO Standards and Recommended Practices, is a 'two way' process being a shared responsibility between pilots who are native English speaking as well as non-native English-speaking. All operators have an equal responsibility and obligation to ensure their communications are as comprehensible as possible and be cognisant of the challenges faced by non-native English-speaking pilots/students by adopting language and communications that will facilitate improved communications.]

5.4.8 Multiple aircraft are often operating in the Port Macquarie circuit. Airlines have suggested, if possible, that operations within the circuit including skydiving be limited during airline movements. Port Macquarie is a non-controlled aerodrome, and as result the airlines recognise the challenges in achieving this.

6 OVERVIEW OF CHANGES SINCE 2014 PORT MACQUARIE AERONAUTICAL STUDY

- Total aircraft movements at Port Macquarie have increased from 26,053 for the 12 months to the end of January 2014 to 36,575 for the 12 months to the end of December 2017. During the same period, there has been a reduction in Air Transport Movements from 9,216 to 8,264.
- The number of incidents occurring in the vicinity of Port Macquarie have decreased from 35 in 2013, to 15 in 2017.

6.1 Update of the Recommendations from the 2014 Port Macquarie Aeronautical Study:

- Recommendation 1: That the Port Macquarie aerodrome operator should consider the introduction of a Certified Air/Ground Radio Service[5] (CA/GRS) prior to the commencement of B737 or A320 aircraft operations or the significant influx of foreign student pilots.

  Update: Council acknowledges the recommendation and is continuing to monitor aircraft movements at Port Macquarie with consideration to the possible future need for a CA/GRS facility.

- Recommendation 2: That the Port Macquarie – Taree broadcast area be dis-established and that the two aerodromes be given discrete CTAFs.

  Update*: Local stakeholders could not agree where the broadcast area boundary should be, if it was to be disestablished. Local stakeholders are in disagreement as to whether the broadcast area should be dis-established. This Review has a recommendation to progress the matter.*

- Recommendation 3: That the Port Macquarie – Hastings Council and the Kempsey Shire Council should consider constructing parallel taxiways as part of future developments to increase aerodrome efficiency.

  Update: *The Port Macquarie – Hastings Council has prepared a Tender document for the construction of a parallel taxiway at Port Macquarie.*

- Recommendation 4: Stakeholders should submit an Airspace Change Proposal for a corridor through R574 between Port Macquarie and Lord Howe Island.

  Update: *Stakeholders have not submitted an ACP. Defence have stated that aircraft travelling between Port Macquarie and Lord Howe Island are given a clearance through the Restricted Area*.

- Recommendation 5: Airservices should investigate redesigning the RNAV approaches to runway 22 at Taree and runway 03 at Port Macquarie to assist

[5] Refer to Annex C for a more detailed description of the CA/GRS.

separating IFR operations.

Update: *Airservices have reviewed the RNAV approaches. Aircraft using the approaches are being provided a service from ATC and the approaches do not need to be redesigned*.

- Recommendation 6: Airservices should address the charting errors and omissions.

  Update: *Airservices have addressed the majority of charting errors and omissions*.

7 KEY ISSUES AND FINDINGS

- Issue: Local stakeholders raised the issue of frequency congestion and over-transmission of calls between Port Macquarie and Taree traffic.
- Finding: Due to the distance between the Port Macquarie and Taree aerodromes, and the geographical features in between, pilots on the ground at Taree over transmit pilots on the ground at Port Macquarie (and vice versa). Pilots are unable to hear aircraft on the ground at the other aerodrome. Pilots in the air hear the over transmissions.
- Recommendation: CASA Flying Operations Inspectors should conduct a safety assessment and thorough stakeholder consultation to determine whether the broadcast area should be retained or dis-established.
- Issue: The lack of a full length parallel taxiway at Port Macquarie affects operations and reduces the efficiency of the aerodrome.
- Finding: A full length, parallel taxiway will reduce runway occupancy times and increase the efficiency of the aerodrome. A parallel taxiway at Port Macquarie is being considered by Council and a tender should be released in the new financial year.
- Recommendation: The Port Macquarie – Hastings Council should continue with plans to construct a parallel taxiway.
- Issue: Local stakeholders have reported to Council that there is a VHF ‘black spot’ at the southern end of the runway (RWY 03 threshold) when aircraft are taxiing down or in the line-up position.
- Finding: Initial assessments could not identify the cause of the ‘black spot’.
- Recommendation: The Port Macquarie – Hastings Council should investigate the VHF ‘black spot’ at the southern end of the runway and identify and implement appropriate mitigators.

ANNEX A – ACRONYMS AND ABBREVIATIONS

Acronym/abbreviation	Explanation
Act	*Airspace Act 2007*
AIAC	Australian International Aviation College
Airservices	Airservices Australia
AIP	Aeronautical Information Publication
AMSL	above mean sea level
ASIR	Aviation Safety Incident Report
ATC	Air Traffic Control
ATS	Air Traffic Services
ATSB	Australian Transport Safety Bureau
AWIS	Automatic weather information service
Brisbane Centre	Brisbane Air Traffic Services Centre
CASA	Civil Aviation Safety Authority
CTR	Control Zone
DA	Danger Area
Defence	Department of Defence
DME	Distance Measuring Equipment
ERSA	En Route Supplement Australia
EPBC	Environment Protection and Biodiversity Conservation Act
ft	feet
FL	Flight Level
H24	24 Hours per day
ICAO	International Civil Aviation Organization
IFP	Instrument Flight Procedure
IFR	instrument flight rules
IMC	instrument meteorological conditions
Kempsey	Kempsey Airport
kt	Knots
LOA	Letter or Agreement
MOS	Manual of Standards
NDB	Non Directional Beacon
nm	nautical miles
NOTAM	Notice to Airmen
OAR	Office of Airspace Regulation
Port Macquarie	Port Macquarie Airport
PT	Passenger Transport
RAAF	Royal Australian Air Force
RA	Restricted Area
RAPAC	Regional Airspace and Procedures Advisory Committee
SEG	Stakeholder Engagement Group
SID	Standard Instrument Departure
SVFR	Special Visual Flight Rules
SSR	Secondary Surveillance Radar
TAR	Terminal Area Radar
Taree	Taree Airport
TCU	Terminal Control Unit
VFR	visual flight rules
VMC	visual meteorological conditions
VNC	Visual Navigation Chart

ANNEX B – AUSTRALIAN AIRSPACE STRUCTURE

Class	Description	Summary of Services/Procedures/Rules
A	All airspace above Flight Level (FL) 180 (east coast) or FL 245	Instrument Flight Rules (IFR) only. All aircraft require a clearance from Air Traffic Control (ATC) and are separated by ATC. Continuous two-way radio and transponder required. No speed limitation.
B	Not currently used in Australia.	
C	In control zones (CTRs) of defined dimensions and control area steps generally associated with controlled aerodromes	All aircraft require a clearance from ATC to enter airspace. All aircraft require continuous two-way radio and transponder. IFR separated from IFR, VFR and Special VFR (SVFR) by ATC with no speed limitation for IFR operations. VFR receives traffic information on other VFR but is not separated from each other by ATC. SVFR are separated from SVFR when visibility (VIS) is less than visual meteorological conditions (VMC). VFR and SVFR speed limited to 250 knots (kt) indicated air speed (IAS) below 10,000 feet (ft) above mean sea level (AMSL)*.
D	Towered locations such as Bankstown, Parafield, Archerfield, Parafield and Alice Springs.	All aircraft require a clearance from ATC to enter airspace. For VFR flights this may be in an abbreviated form. As in Class C airspace all aircraft are separated on take-off and landing. All aircraft require continuous two-way radio and are speed limited to 200 kt IAS at or below 2,500 ft within 4 NM of the primary Class D aerodrome and 250 kt IAS in the remaining Class D airspace**.IFR are separated from IFR, SVFR, and are provided with traffic information on all VFR. VFR receives traffic on all other aircraft but are not separated by ATC. SVFR are separated from SVFR when VIS is less than VMC.
E	Controlled airspace not covered in classifications above	All aircraft require continuous two-way radio and transponder. All aircraft are speed limited to 250 kt IAS below 10,000 ft AMSL*, IFR require a clearance from ATC to enter airspace and are separated from IFR by ATC, and provided with traffic information as far as practicable on VFR. VFR does not require a clearance from ATC to enter airspace and are provided with a Flight Information Service (FIS). On request and ATC workload permitting, a Surveillance Information Service (SIS) is available within surveillance coverage.
F	Not currently used in Australia.	
G	Non-controlled	Clearance from ATC to enter airspace not required. All aircraft are speed limited to 250 kt IAS below 10,000 ft AMSL*. IFR require continuous two-way radio and receive a FIS, including traffic information on other IFR. VFR receive a FIS. On request and ATC workload permitting, a SIS is available within surveillance coverage. VHF radio required above 5,000 ft AMSL and at aerodromes where carriage and use of radio is required.

* Not applicable to military aircraft.
**If traffic conditions permit, ATC may approve a pilot's request to exceed the 200 kt speed limit to a maximum limit of 250 kt unless the pilot informs ATC a higher minimum speed is required.

ANNEX C – RESTRICTED AREAS WITHIN 20 NM OF PORT MACQUARIE

RA/DA NUMBER	LOCATION	PURPOSE AS STATED IN THE DESIGNATED AIRSPACE HANDBOOK	CONTROLLING AUTHORITY OR CONTACT	RA STATUS
R587B	Williamtown	Military Flying	FLT CDR 453 SQN Williamtown	RA 2
R574	Williamtown	Military Flying	FLT CDR 453 SQN Williamtown	RA 2

Conditional Status RA 1: Pilots may flight plan through the RA and under normal circumstances they can expect a clearance from ATC.

Conditional Status RA 2: Pilots must not flight plan through the RA unless they designate a route specified in ERSA GEN FPR or by agreement with Defence. Clearance from ATC is not assured. Other tracking may be offered through the RA.

Conditional Status RA 3: Pilots must not flight plan through the RA and clearances will not be available.

NOTAMs are issued to indicate changes to the RA conditional status. Defence has advised that if an aircraft declares an emergency, every effort will be made to approve transit of an active RA, irrespective of its conditional status. However, there may be occasions where Defence is unable to suspend or limit military activity in a RA to provide safe transit to an emergency aircraft.

ANNEX D – STAKEHOLDER CONSULTATION LIST

The following stakeholders were contacted to contribute to this review.

Position	Organisation
Executive Director	Aircraft Owners and Pilots Association (AOPA)
Aviation Regulatory Performance Specialist	Airservices Australia
General Manager - Safety	Alliance Airlines
Chief Executive Officer	Australian Airports Association (AAA)
President	Australian and International Pilots Association (AIPA)
Victorian & Tasmanian Delegate	Australian Balloon Federation (ABF)
Technical Consultant	Australian Federation of Air Pilots
Senior Instructor	Australian International Aviation College
Chief Pilot and Chief Flying Instructor	Australian International Aviation College
APF Director - Aircraft Operations	Australian Parachute Federation (APF)
Team Leader, Notifications and Confidential Reporting	Australian Transport Safety Bureau (ATSB)
Chief Pilot	Aviation Charters
Operator	Camden Haven Airfield
Aviation Safety Advisor	Civil Aviation Safety Authority - Canberra / Sydney
Aerodrome Inspector	Civil Aviation Safety Authority - Sydney
Flying Operations Inspector	Civil Aviation Safety Authority - Sydney
Chief Instructor	Coastal Skydivers
Chief Instructor	Coffs City Skydivers
Defence / CASA Liaison Officer	Department of Defence
Chief Pilot	Eastern Air Services
Chief Executive Officer	Edwards Aviation Australia
Victorian Airfields and Airspace Officer	Gliding Federation of Australia (GFA)
President	Hang Gliding Federation of Australia (HGFA)
President	Hastings District Flying Club
Chief Flying Instructor	Hastings District Flying Club
Chief Flight Instructor	High Adventure
Chief Pilot	Jet Fighter
President	Kempsey Flying Club
Manager, Economic Sustainability	Kempsey Shire Council
Chief Pilot	Macquarie Air
Virgin Australia	Manager Flight Ops, Fokker/Airbus
Virgin Australia	Manager, ATM and Meteorology
Chief Flying Instructor	Mid Coast Flying
Vice President	Mid North Coast Flyers Inc.
Chief Pilot	Port Macquarie Seaplanes
Business Enterprise Manager - Airport	Port Macquarie-Hastings Council
Business Manager	Port Macquarie-Hastings Council
Chief Pilot	Qantas Airways Limited
A/Manager, Safety, Qantas Domestic Airways	QantasLink Airways
Operations Manager	Recreational Aviation Association of Australia
Chief Executive Officer	Regional Aviation Association of Australia (RAAA)
Flight Operations Manager - Sydney	Regional Express Airlines
Quality and Safety Manager	Royal Flying Doctor Service South Eastern Section
Chief Pilot and Head of Flying Operations	Toll Helicopters
Chief Executive Officer	Toll Priority

ANNEX E – REFERENCES

- Aeronautical Information Publication – 9 November 2017
- *Airspace Act 2007*
- Airspace Regulations 2007
- Australian Airspace Policy Statement – 2015
- DAP East – 9 November 2017
- Designated Airspace Handbook – 9 November 2017
- En Route Supplement Australia – 9 November 2017