

AVIATION STATE ENGAGEMENT FORUM	
Northern Territory	Submission date: 23/04/2021

TITLE	Proposed military RPAS operations and Temporary Restricted Area near Nhulunbuy 14 – 18 Jun 2021
SUBMITTED BY	SQNLDR Simon Hanison HQNORCOM: simon.hanison@defence.gov.au
CONSULTATION SUMMARY	To raise awareness of proposed military RPAS operations and seek feedback on establishing a Temporary Restricted Area (TRA) in the vicinity of Nhulunbuy in support of military unmanned aerial vehicle activities.
KEY ISSUES	<ul style="list-style-type: none"> • TRA is within 6NM of Gove airport • TRA may impact Gove airport approach corridor for RWY 13. Actual aircraft operating heights will be >1000ft below approach path.
FEEDBACK TO	SQNLDR Simon Hanison Headquarters Northern Command Simon.hanison@defence.gov.au
CLOSE DATE	07 May 2021
ATTACHMENTS	Nil

OVERVIEW

Elements of the Australian Defence Force (ADF) and United States (US) will be conducting Exercise Darrandarra over the period 14 – 18 Jun 2021 in vicinity of Nhulunbuy, East Arnhem, Northern Territory. During the exercise, the US Marines, Marine Rotational Force – Darwin (MRF-D) will conduct unmanned aerial system (UAS) operations including the following small UAS platforms:

RQ-20 Puma: RQ-20 Puma is a small military, battery-powered, hand-launched UAS. Primary mission is surveillance and intelligence gathering using an electro-optical and infrared camera.

General characteristics

Length: 4 ft 7 in (1.4 m)

Wingspan: 9 ft 2 in (2.8 m)

Max takeoff weight: 13 lb (5.9 kg)

Performance

Maximum speed: 52 mph (83 km/h, 45 kt)

Minimum control speed: 23 mph (37 km/h, 20 kt)

Range: 9.3 mi (15 km, 8.1 nm)

Endurance: 2 hours



Instanteye MK3: InstantEye Robotics is an all-weather small military VTOL UAS system.

General characteristics

Quadcopter

Max takeoff weight: 6 lb (2.7 kg)

Performance

Range: 7.5 km

Endurance: 50 mins



Skyranger R60: The SkyRanger R60 is a VTOL reconnaissance quadcopter:

General characteristics

Length: 0.6 m (2 ft 0 in)

Height: 0.3 m (1 ft 0 in)

Gross weight: 3.3 kg (7 lb)

Performance

Maximum speed: 50 km/h (31 mph, 27 kt)

Cruise speed: 40 km/h (25 mph, 22 kt)

Range: 5.0 km (3.1 mi, 2.7 nm)

Endurance: 30-50 minutes

Service ceiling: 5,000 m (16,000 ft)



Wasp III: The AeroVironment Wasp III is a miniature UAV providing a small, light-weight vehicle to provide beyond-line-of-sight situation awareness.

General characteristics

Length: 1 ft 3.0 in (0.38 m)

Wingspan: 2 ft 4.50 in (0.723 m)

Gross weight: 14.4 lb (6.53 kg)

Performance

Maximum speed: 40 mph (65 km/h, 35 kt)

Cruise speed: 25–40 mph (40–65 km/h, 22–35 kt)

Range: 5.0 km

Endurance: 45 minutes

Service ceiling: 50–1,000 ft (15–333 m) AGL; 10,000 ft (3,333 m) MSL



Raven RQ-11: The AeroVironment RQ-11 Raven is a small hand-launched remote UAS developed for the United States military.

Wing Span: 4.5 ft (1,372 mm)

Length: 3 ft (915 mm)

Weight: 4.2 lb (1.9 kg)

Cruising speed: approx. 18.64 mph (30.00 km/h)

Range: 10 km

Endurance: 60–90 min



PROPOSAL

Exercise Darrandarra will be conducted at the discontinued Nhulunbuy Liquid Natural Gas facility. The area will be classified as a Non-Defence Training Area for the duration of exercise activities. Headquarters Northern Command on behalf of the MRF-D proposes the establishment of Temporary Restricted Area (TRA-Darra) be established to allow for the safe and deconflicted conduct of numerous, concurrent UAS operations in support of the exercise.

The TRA dimensions proposed include a 1NM buffer from the edge of the operating area. Operations will occur from surface to 500FT, however an upper limit of 1500FT for the TRA will be requested to include necessary CASA tolerances.

Exercise planners are also in contact with Gove Airport. Airport operators have indicated that they will arrange a consultation session for local operators and stakeholders to provide feedback on this proposal in addition to this consultation submission.

Proposed Airspace

TRA-DARRA

Conditional Status: RA2

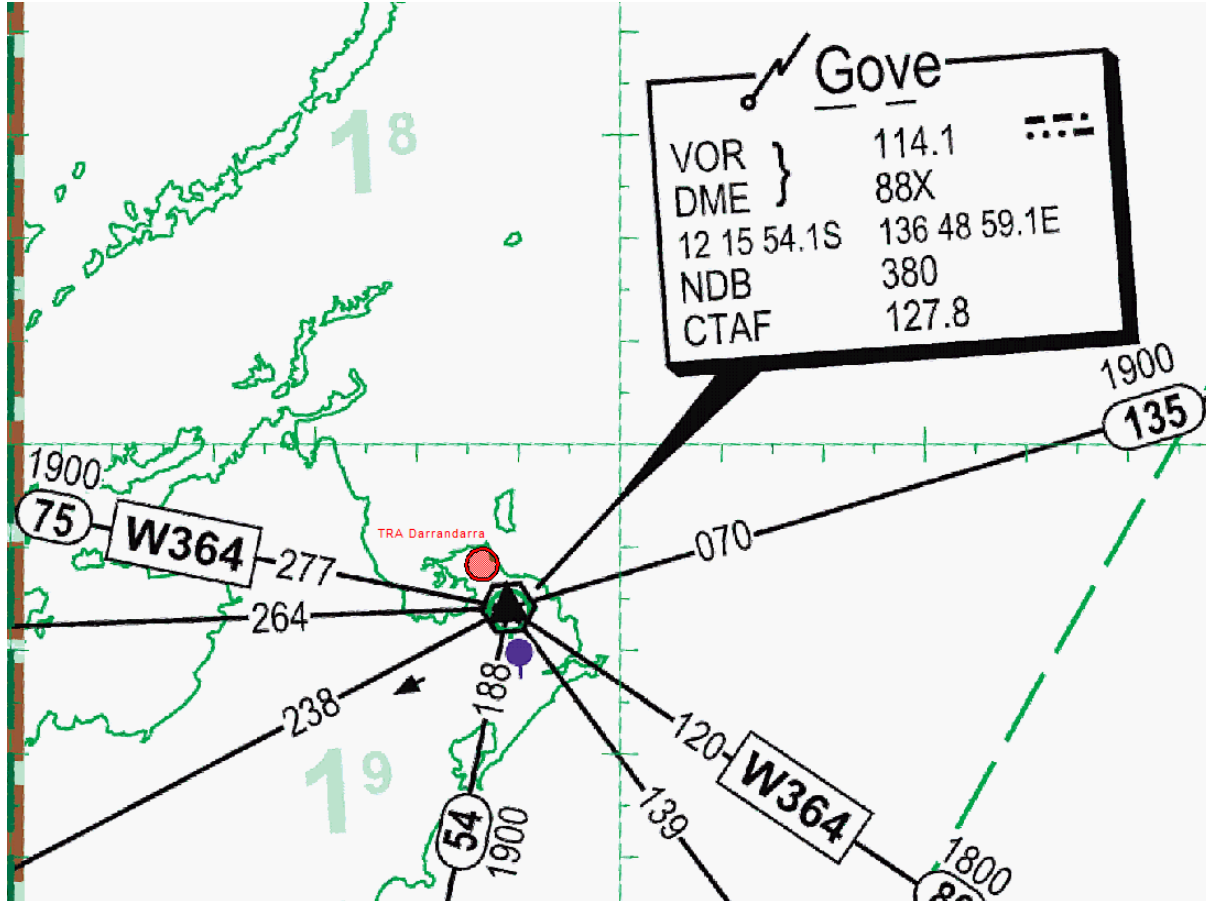
Military Flying

Lateral Limits: Circle 1.5NM radius centre 121138S 1364622E (Nhulunbuy, East Arnhem)

Vertical Limits: SFC – 1500FT

Hours of Activity: NOTAM

Controlling Authority: Department of Defence/MRF-D Command Element



HQNORCOM seeks feedback from stakeholders on this proposed TRA and will provide feedback to CASA OAR to assist with their considerations of this airspace change proposal.

Members are invited to provide input to simon.hanison@defence.gov.au by 07 May 2021.