

## **Economics**

National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 [Provisions] – 30 June 2020

### **ANSWER TO QUESTION ON NOTICE**

Department of Defence

**Topic:** Senate Economics Legislation Committee – 30 June 2020 – Q5 - Woomera Airfield Operations - Brockman

**Question reference number:** 5

**Senator/Member:** Slade Brockman

**Type of question:** Written

**Date set by the committee for the return of answer:** 31 July 2020

#### **Question:**

1. In relation to missiles, projectiles, ballistic weapons, air vehicles, spacecraft, etc. to be deployed in testing to land on a specific target or area, how many times in the past five years has a safety template overlapped the Woomera Airfield, Technical Area and Village – please provide the details that gave rise to such a safety template.
2. Please update Senate Question on Notice #1130 of the 45th Parliament.
3. In each of the unmanned aerial systems accidents mentioned in Senate QON #1130 (and the update) please provide details of the airfield of departure and the safety template in force during the flight.
4. What safety processes are put in place in relation to aircraft taking off/landing:
  - a. Over the Woomera Village
  - b. Over the Technical Area that lies between the Airfield and the Village
  - c. Over the Airbase hanger and other facility
  - d. Over the Explosive Ordinance Storage Area
  - e. Over fuel storage present for ground, air and power
5. What safety processes are put in place in relation to aircraft taking off/landing with missiles and bombs:
  - a. Over the Woomera Village
  - b. Over the Technical Area that lies between the Airfield and the Village
  - c. Over the Airbase hanger and other facility
  - d. Over the Explosive Ordinance Storage Area
  - e. Over fuel storage present for ground, air and power
  - f. Does this differ if the munitions are live or inert? If so how?

6. What safety processes are put in place in relation to unmanned aerial systems taking off/landing:
  - a. Over the Woomera Village
  - b. Over the Technical Area that lies between the Airfield and the Village
  - c. Over the Airbase hanger and other facility
  - d. Over the Explosive Ordinance Storage Area
  - e. Over fuel storage present for ground, air and power
7. What safety processes are put in place in relation to an unmanned aerial systems taking off/landing with missiles and bombs:
  - a. Over the Woomera Village
  - b. Over the Technical Area that lies between the Airfield and the Village
  - c. Over the Airbase
  - d. Over the Explosive Ordinance Storage Area
  - e. Over fuel storage present for ground, air and power
  - f. Does this differ if the munitions are live or inert? If so how?
8. Noting there are space launch facilities at the Lake Hart launch complex, please confirm that no space launches take place from the Woomera Airfield?
9. Do weapons loaded onto aircraft/unmanned aerial systems have safety interlocks that prevent detonation/explosions for unintended impact?
10. What is the criteria for flight termination systems to be used?

**Answer:**

1. To date Woomera Village has not been overlapped by a safety template.

In the last five years, Woomera Airfield and Technical Area have had a safety template overlay on one occasion in support of a solar powered high altitude long endurance unmanned aerial vehicle.

Although templates have not extended to those areas they may in the future for new capability testing.

2. Since the previous answer, there have been no further incidents with aircraft or unmanned aerial systems, missiles or weapons as requested in Senate Question on Notice #1130.

In terms of the unmanned aerial targets in previous answer, these systems did not crash. Through contracted operation and delivery arrangements, the targets are utilised by the ADF across various ranges in support of weapon test and training activities. The events identified in the previous answer refer to deliberate recovery action taken by the contractor.

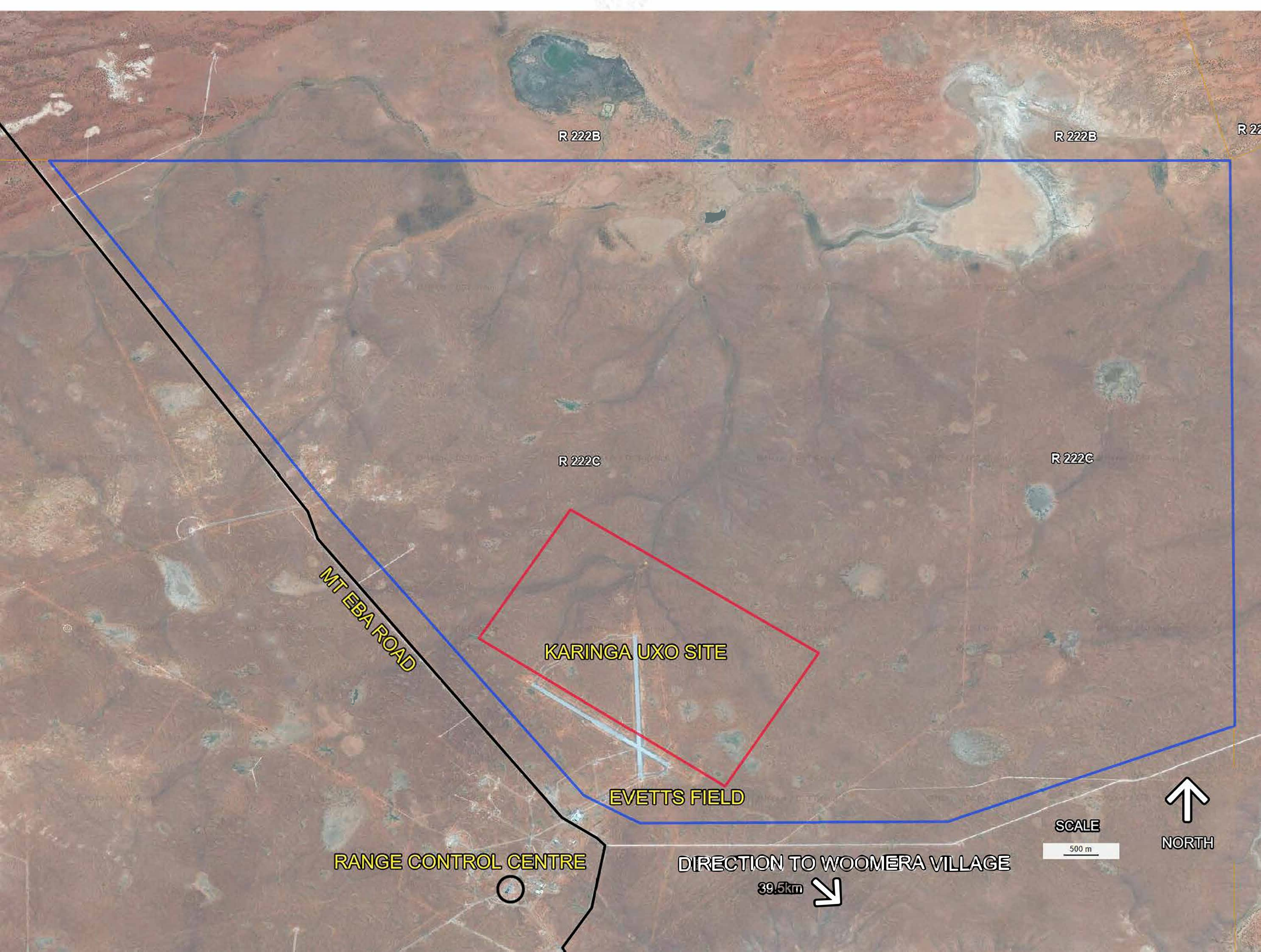
3. The unmanned aerial system (UAS) departed Evetts Field.

All unmanned aerial targets (UAT) were rail launched vehicles and therefore do not require an airfield to get airborne.

The safety templates for each event are attached. The UAS safety template outline is depicted by the blue line. The UAT safety templates are depicted by the coloured red areas.

4. Defence uses the same safety processes for aircraft taking off/landing at Woomera as other operating airfields. Defence promulgates airfield safety information on aircraft landing and take off at Woomera Aerodrome in the Airservices Australia managed Aeronautical Information Package. Any restrictions required to manage the operation of aircraft beyond those published in the standard Airservices Australia data are coordinated by an Air Services Australia promulgated Notice to Airman (NOTAM). These processes are applicable to all sub-element questions.
5. Defence uses the same safety processes for aircraft taking off/landing with missiles and bombs at Woomera as other operating airfields. Prior to any flying operations, deliberate and detailed risk assessments are performed which include hazards associated with overflight of specified areas with weapons (both live and inert). These risk assessments identify all credible risks, then document and implement the controls to eliminate, or where elimination is not reasonably practicable, minimise risks to protect workers and other persons against harm to their health, safety and welfare, as required by the *Work Health and Safety Act 2011*. These processes are applicable to all sub-element questions.
6. Defence uses the same safety processes for unmanned aerial systems taking off/landing at Woomera as other operating airfields. Defence owned or operated UAS are mandated to operate in accordance with the limitations stipulated in their operating permit, issued by the Defence Aviation Safety Authority. Defence Aviation Safety Regulations define the operation of Defence Unmanned Aerial Systems (UAS); which includes operations under the Defence Ranges and Exercise Areas Scenarios. These regulations prescribe the safety outcomes that must be achieved. These regulations require management of airspace that enables exclusion of other aircraft and is performed in accordance with standard processes, certified Weapon Danger Area Safety Traces and NOTAMs. These processes are applicable to all sub-element questions.
7. To date, Defence has not operated unmanned aerial systems taking off/landing with missiles and bombs at Woomera.
8. No ground based space launch activities have occurred at Woomera Airfield.
9. Weapons are designed with safety interlocks to prevent unintended initiation of explosive train if inadvertently dropped from an aircraft or unmanned aerial system.
10. The requirement to use a flight termination system is based on a safety risk assessment for the activity. Where the safety template of an activity can be encompassed by the range boundaries without compromising the outcomes of the activity, a flight termination system is not required. If the safety template cannot be encompassed by the range boundaries without compromising the outcomes of the activity, a flight termination system is required. If a flight termination system is not required but one is available and its use will not compromise the outcomes of the activity, Defence will use the flight termination system to reduce the safety risk as far as reasonably practicable.





R 222B

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MT EBA ROAD

KARINGA UXO SITE

EVETTS FIELD

RANGE CONTROL CENTRE

DIRECTION TO WOOMERA VILLAGE

39.5km

SCALE

500 m



NORTH



