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## **Rocket Launch Hazard Areas and Warnings**

Former Annual New Zealand Notice to Mariners, No. 19, published 1 July 2023 is cancelled. Additions and amendments to the former notice are indicated by sidelines.

Authority: Rocket Lab Limited

### Introduction

- Rocket launches to outer space are regularly conducted by Rocket Lab Limited (Rocket Lab) in the vicinity of the southern end of Māhia Peninsula.
- 2. In view of Rocket Lab's responsibilities to ensure public safety during launch operations, Launch Hazard Areas will be temporarily established for each launch in accordance with its trajectory.
- 3. Appropriate warnings will be issued through official government and civilian channels or by other methods as Rocket Lab may direct. Such warnings will specify the location, time, and duration of launch operations, and give specific details of the hazard areas. Other pertinent information may be included in the interest of safety.

#### **Notification of Rocket Launches**

- 4. <u>www.rocketlabusa.com/missions/launch-safety</u> provides up-to-date launch timings and Launch Hazard Area information, and details various means of contacting Rocket Lab Range Safety.
- 5. For the information of ships at sea, warnings of scheduled launches will be notified by:
  - (a) Continuous automated broadcast on VHF Channel 79 in the vicinity of Māhia Peninsula; and
  - (b) Napier Harbour Radio as part of scheduled hourly navigational warnings on VHF Channel 12.
- 6. To further promulgate the temporary hazard areas, warnings will be transmitted as NAVAREA XIV and New Zealand Coastal Navigation warnings (see Annual New Zealand Notices to Mariners, No. 9, paragraphs 4 9).
- 7. Rocket Lab Range Control can be contacted during launch operations on VHF Channel 07 when in VHF range of Māhia Peninsula.

### **Precautionary Rocket Launch Area**

- 8. A Precautionary Rocket Launch Area, within which temporary Launch Hazard Areas (see paragraphs 11 15 below) will be established, is shown on nautical charts and at the end of this notice.
- Vessels approaching the Precautionary Rocket Launch Area shall report to Rocket Lab Range Control on VHF Channel 07 during active Launch periods.
- 10. Note: All coordinates are given in terms of WGS84 datum, expressed in degrees, minutes and seconds.

Area	Limits
Precautionary Rocket Launch Area	All that area bounded by great circle lines from
	39° 06′ 10′′S., 178° 00′ 05′′E. (Kahutara Point) to
	38° 54′ 00′′S., 178° 18′ 00′′E. to
	38° 54′ 00′′S., 178° 42′ 00′′E. to
	39° 54′ 00′′S., 178° 42′ 00′′E. to
	39° 54′ 00′′S., 177° 24′ 00′′E. to
	39° 10′ 12′′S., 177° 24′ 00′′E. to
	39° 09′ 36′′S., 177° 49′ 15′′E. (Long Point / Taramahiti Point) to
	39° 06′ 10′′S., 178° 00′ 05′′E. (Kahutara Point)

### | Launch Hazard Areas

- 11. For each launch, a temporary Launch Hazard Area will be established within the Precautionary Rocket Launch Area to protect the public and marine operators from the hazardous activities in the vicinity of the launch site.
- 12. Due to the varying flight paths and times of each rocket launch, and local weather conditions, precise limits of temporary Launch Hazard Areas are not shown on nautical charts, and descriptions of these areas do not appear in this notice or *Admiralty Sailing Directions, New Zealand Pilot* (NP51).
- 13. To ensure maritime safety, each Launch Hazard Area will be established as a reserved area in accordance with Hawke's Bay Regional Council Navigation Safety Bylaw 2023 section 9.
- 14. Temporary virtual Automatic Identification System (AIS) aids to navigation (AtoNs) shall be used in accordance with IALA regulations and recommendations to clearly identify the perimeter of the Temporary Launch Hazard Area; these virtual AIS AtoNs will supplement information promulgated via the methods listed in paragraph 15 below.

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## **Rocket Launch Hazard Areas and Warnings**

- 15. Details of Launch Hazard Areas will be notified by:
  - (a) Broadcast New Zealand Coastal Navigation warnings;
  - (b) Rocket Lab's website www.rocketlabusa.com/missions/launch-safety; and
  - (c) Notice boards at local boat ramps and within nearby ports and marinas not less than 48 hours before a launch attempt begins.
- 16. To ensure the safety of persons, all vessels must maintain a listening watch on VHF Channel 07 while within the active Precautionary Rocket Launch area and must remain outside the Launch Hazard Area while it is in effect unless prior permission is granted by Rocket Lab Range Control.

### **Launch Hazard Area Patrols**

- 17. Prior to conducting launch operations, the Launch Hazard Area may be patrolled by aircraft and surface vessels and monitored by radars and cameras to ensure no persons or vessels are within the Launch Hazard Area.
- 18. Rocket Lab's Range Control Centre, patrol aircraft and surface vessels are equipped with marine band radios and will attempt to contact any vessel found within the Launch Hazard Area and may request that they leave the area.
- 19. Any vessel being so warned must immediately leave the designated area until the conclusion of launch operations and must remain clear of the Launch Hazard Area to ensure that it will be safe from falling debris.
- 20. Rocket Lab's Range Control Centre, patrol aircraft or surface vessels may attempt to contact any vessel approaching a Launch Hazard Area to advise it against entering the designated area.

### **Space Debris Hazard Area**

- 21. Temporary Space Debris Hazard Areas will be established to notify marine operators of the possibility of space debris falling in specific areas downrange.
- 22. Due to the varying flight paths and times of each rocket launch, precise limits of temporary Space Debris Hazard Areas are not shown on nautical charts, and descriptions of these areas do not appear in this notice or ADMIRALTY Sailing Directions, New Zealand Pilot (NP51).
- 23. Details of Space Debris Hazard Areas will be notified by:
  - (a) Broadcast NAVAREA XIV navigation warnings via MF/HF Radio and EGC.
  - (b) Rocket Lab's website <u>www.rocketlabusa.com/missions/launch-safety</u>
- 24. To ensure the safety of persons, all vessels operating in a Space Debris Hazard Area while it is in effect should navigate with caution.

## Precautionary Rocket Launch Area

