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

Former Annual New Zealand Notice to Mariners, No. 19, published 1 July 2021 is cancelled. This is a repetition of the former Notice.

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, temporary hazard areas will be 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. 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.
- 5. In order to further promulgate the 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).
- Rocket Lab Range Control can be contacted during launch operations on VHF Channel 07 in the vicinity of Māhia Peninsula.

# **Precautionary Rocket Launch Area**

- 7. A Precautionary Rocket Launch Area, within which temporary Launch Hazard Areas (see paragraphs 9 14 below) will be established, is shown on nautical charts and at the end of this notice.
- 8. 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° 10′ 10′′S., 177° 25′ 00′′E. to   39° 10′ 10′′S., 178° 37′ 00′′E. to   39° 56′ 30′′S., 178° 37′ 00′′E. to
	39° 56′ 30′′S., 177° 25′ 00′′E. and to 39° 10′ 10′′S., 177° 25′ 00′′E.

## **Launch Hazard Area**

- 9. A temporary Launch Hazard Area will be established in the vicinity of Māhia Peninsula to protect the public and marine operators from the hazardous activities in the vicinity of the launch site.
- 10. Due to the varying flight paths and times of each rocket launch, 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).
- 11. For the purpose of ensuring maritime safety, each Launch Hazard Area will be established as a reserved area in accordance with *Hawke's Bay Regional Council Navigation Safety Bylaw 2018* Clause 3.8. Launch Hazard Areas shall be enforced by persons duly authorised under the *New Zealand Maritime Transport Act 1994* Sections 33F (1) (a), (b), (g), (h) and (i), and 33G (a).
- 12. 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 Launch Hazard Area; these virtual AIS AtoNs will supplement information promulgated via the methods listed in paragraph 13 below.
- 13. Details of Launch Hazard Areas will be notified by:
  - (a) Broadcast New Zealand Coastal Navigation warnings;
  - (b) Information pages on Rocket Lab's website www.rocketlabusa.com; and
  - (c) Advertisement in local newspapers, notice boards at local boat ramps and within nearby ports and marinas not less than 48 hours before a launch attempt begins.

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

14. To ensure the safety of persons, all vessels 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**

- 15. 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.
- 16. Rocket Lab's Range Control Centre, patrol aircraft and surface vessels are equipped with marine band radios and will attempt to make contact with any vessel found within the Launch Hazard Area to request that they leave the area.
- 17. 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.
- 18. Rocket Lab's Range Control Centre, patrol aircraft or surface vessels may attempt to make contact with any vessel approaching a Launch Hazard Area to advise it against entering the designated area.

# **Space Debris Hazard Area**

- 19. Temporary Space Debris Hazard Areas will be established to notify marine operators of the possibility of space debris falling in specific areas downrange.
- 20. 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).
- 21. Details of Space Debris Hazard Areas will be notified by Broadcast NAVAREA XIV navigation warnings via MF/HF Radio and EGC.
- 22. 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

