

CAD 5-01

AIRSPACE USAGE FOR **LAUNCH VEHICLE ACTIVITIES**

Effective: 28th of August 2025

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صندوق البريد: 1 ، الرمز البريدي: 111 مسقط - سلطنة غمان هاتف :943544441/2(1968) فاحس: 94354544(264)



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1. GENERAL

1.1. Purpose and Scope:

In coordination with the National Space Program at the Ministry of Transport, Communications and Information Technology, this directive provides the requirements of the Civil Aviation Authority for the coordination of launch vehicle activities conducted within or from the territory of Oman known as the Muscat Flight Information Region (FIR).

This directive outlines:

- the responsibilities, procedures, and requirements that must be met by the applicant
 of the launch activity to ensure the safe, efficient and secure use of airspace during
 launch activities;
- the detailed airspace coordination requirements, necessary for launching a rocket, within Oman's civil aviation framework;
- the regulatory and standard steps that the applicant of a launch activity should follow in order to be able to reserve specified area of the Muscat FIR, during a specific period of time (temporarily basis) for their launch vehicle activity.

1.2. Applicability:

The requirements of this directive apply to all entities intending to conduct rocket launches within or from the Muscat FIR.

It also applies to air navigation service provider and the entity and its employees who are responsible for airspace oversight or coordination.

1.3. Effective Date:

This Directive is effective from the date of issue.

1.4. Cancelation:

This Directive includes interim requirements to address the current industry needs. The CAA will reserve the right to cancel or repeal this Directive, anytime, under its designated power as prescribed by the Civil Aviation Law or any other applicable Laws or Regulations.

The CAA will continuously evaluate and, where appropriate, amend this Directive to reflect advancements in industry practices or technologies, changes in applicable laws and regulations, or other material developments within the aviation and space sectors.

In the event that decisions, directives, or policy changes issued by the Ministry or other relevant entities which would impact the scope or content of this Directive, the CAA will take the necessary steps to repeal or amend the Directive accordingly, ensuring full alignment with ministerial guidance and national regulatory frameworks.

1.5. Definitions:

Refer to CAR-1 for relevant definitions and abbreviations.

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- 1.6. Editorial practices used in this Directive:
 - (i) 'Shall' is used to indicate a mandatory requirement.
 - (ii) 'Should' is used to indicate a recommendation.
 - (iii) 'May' is used to indicate discretion by the Authority, or the industry as appropriate.
 - (iv) 'Will' indicates a mandatory requirement and is used to advise of action incumbent on the Authority.

2. CAA REQUIREMENTS FOR LAUNCH VEHICLE ACTIVITIES

This Directive is issued by the Civil Aviation Authority pursuant to its power under the Royal Decree No. (76/2019) promulgating the Civil Aviation Law and under the Ministerial Decision No. (2023/116) issuing the Executive Regulation of the Civil Aviation Law, which mandates the CAA to regulate, supervise, and ensure the safety and efficiency of air navigation within the Muscat Flight Information Region (FIR).

- 1. The applicant shall approach the CAA for the planned activity at least 45 days before the launch, accompanied by a Subject Matter Expert (SME), to provide an explanation for the overall intended activity for the CAA to assess and plan.
- 2. The applicant shall be the single source of disseminating information to grantee consistency and to avoid the mis-coordination.
- 3. The applicant shall, not later than 45 days before the launch, provide a comprehensive Safety Case that includes the technical specification of the Launch System, Launch Event, Hazard Management, Launch Weather Requirements, Communication Plan, Launch Procedures, and all required data.
- 4. The applicant shall, not later than 45 days before the launch, provide the launching plan: -
 - 4.1 the exact launching site coordinates in WGS 84 format, including the date and time.
 - 4.2 Proposed launch height/altitude
 - 4.3 Vertical and horizontal projection of the launch path.
 - 4.4 Re-turn back plan.
 - 4.5 Expected landing area.
 - 4.6 Circular radius with a safety buffer of the launch activity site.
 - 4.7 Possible deviation due to wind or any other factors.
- 5. A specific hazard identification followed by a risk assessment session based on frequency/severity in terms of pre and post mitigation shall be organized and facilitated by the launching entity SME as follows: -
 - 5.1 To ensure the rocket fitness to be launched
 - 5.2 To ensure the airspace safety and efficiency
 - 5.3 To ensure the Maritime, RAFO operations/SAR and the ROP and their associated partners are ready

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صندوق البريد: 1 ، الرمز البريدي: 111 مسقط - سلطنة غمان هاتف:24354441/2) فاكس: 968)24354544 صندوق البريد: 1





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- 6. The applicant shall provide the CAA a draft letter to inform the adjacent states about the expected activity to enable them appropriate planning and management of the air traffic; this letter will be finalized by the CAA.
- 7. The applicant shall provide the CAA with all necessary data and parameters required to take the appropriate actions.
- 8. The applicant SME shall simulate the launch and the re-turn back activity having the major stakeholders involved in the exercise.
- 9. Failure to submit the required documentation by the prescribed deadlines, or the submission of documentation is deemed insufficient, or any changes unknown to the CAA, may result in imposition of a delay to the proposed launch date.
- 10. Any other items deemed necessary by the CAA.

ISSUANCE OF NOTAM

Upon satisfactory fulfillment of all requirements outlined in this Directive, the CAA will issue the relevant NOTAM(s). The issuance of the NOTAM constitutes the CAA's approval for the temporary reservation of the specified airspace within the Muscat FIR for the launch activity, taking into account the airspace safety and efficiency.

Note 1: This approval is for the airspace usage only and does not constitute approval for any other aspect of the launch (e.g. security, environmental, maritime, etc.), which must be obtained from the relevant competent authority.

Note 2: depending on the distance from the FIR or airspace boundaries, and size or nature of the launch and return activity, there might be a need to involve diplomatic channels for proper coordination.

4. APPLICATION OF AIRSPACE OPERATION FOR SPACE LAUNCH ACTIVITY

The application is published at the CAA website and may also be requested by email at the address: Space@caa.gov.om.

Rawva Nasser Al-Adawi

Acting, Director General of Civil Aviation Re

Date: 28 Aug 2025

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صندوق البريد: 1 ، الرمز البريدي: 111 مسقط - سلطنة غمان هاتف :44354441/2) فاكس: 4968)(4354544() مادوق البريد: 1 ، الرمز البريدي: 110 مسقط - سلطنة غمان P.O. Box: 1, P.C.: 111, Muscat - Sultanate of Oman, Tel Office: (+968) 24354441/ 2, Fax: (+968) 24354544



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