Consequential amendments to Subpart 101.H – Rockets - (CD 1920SS)

**Overview**

The purpose of the proposed consequential amendments *Civil Aviation Safety Amendment (Part 101 - High Power Rockets) Regulations 2020,* is to align Part 101 of the *Civil Aviation Safety Regulations* (CASR) with the Australian Space Agency’s (ASA) legislative framework for high power rockets, and to transfer certain responsibilities for oversighting regulatory risk of high power rockets to the ASA. The focus of these amendments is to support the *High Power Rocket* (HPR) Rules (which commenced on 30 June 2020), update the cross‑references to "high power rocket" (the definition of which is located in the ASA's legislation) and remove overlap of offences which are otherwise dealt with in the ASA's legislation.

The ASA’s definition of launch in section 8 of the *Space (Launches and Returns) Act 2018* (SLRA) is:

**Table 1 – Definition of launch (SLRA)**

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| ***launch:***   1. a space object, means launch the whole or a part of the object into an area beyond the distance of 100 km above mean sea level, or attempt to do so,   or   1. a high power rocket means launch the rocket into an area that is not beyond the distance of 100 km above mean sea level, or attempt to do so. |

From 30 June 2020, the ASA’s definition of high power rocket in section 5 of the HPR Rules states:

**Table 2 – Definition of high power rocket (HPR Rules)**

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| ***5 Definition of high power rocket***  For the purposes of the definition of high power rocket in section 8 of the Act, an object is a high power rocket if:   1. it is a rocket propelled by a motor or motors with a combined total impulse greater than 889,600 Newton seconds,   or   1. it is a rocket propelled by a motor or motors with a combined total impulse greater than 40,960 Newton seconds and is fitted with a system or systems that allow active control of its trajectory. |

An important principle which flows through the ASA's legislation and these proposed amendments is consideration of the concepts of "air risk" and "ground risk". Implementing the ASA's oversight of high power rocket activities, consistent with CASA's existing regulatory responsibilities in relation to aviation safety, means that in terms of a regulatory approval timeline, the ASA is the "entry control" regulator for all high power rocket activities. Once an applicant has applied to the ASA for a high power rocket permit and has been granted the permit, the next step would be for the applicant to apply to CASA for an area approval to conduct launch. Accordingly, the applicant would be required to apply to two separate regulators in succession since there are separate pieces of legislation administered by two regulatory agencies. CASA and the ASA will collaborate closely on any regulatory approvals required and share information to ensure applications and regulatory issues are considered in a streamlined manner.

**Please see Table 3 in the fact bank below for more detailed information on the proposed consequential amendments to Subpart 101.H - Rockets.**

**Fact Bank:** Table 3 – Regulation of different kinds of rockets

Fact bank content

For policy explanatory purposes, the various “groupings” of rockets has been set out below for ease of reference.

|  |  |  |
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| **Pre-30 June 2020 concepts** | **Post-30 June 2020 concepts** | **Regulatory responsibility** |
| Small Model Rocket (CASR 101.440) | Grouping A  ***Small Model Rocket*** (CASR 101.440) – no change to existing provisions in the CASR. | Air risk – CASA  Ground risk – CASA |
| Model Rocket (CASR 101.425) | Grouping B  ***Model Rocket*** (CASR 101.425) – no change to existing provisions in the CASR. | Air risk – CASA  Ground risk – CASA |
| High Power Rocket (CASR 101.425) | Grouping C  Repeal of definition of high power rocket in CASR 101.425.  New concept of a “rocket that is not a model rocket” to be used in regulation 101.450 of CASR for regulating launch of rockets in an area approved by CASA.    CASA will consider both the air and ground risks of rockets that are:  (a) not a model rocket; and  (b) not a *high power rocket* (within the meaning of the SLRA); and  (c) not a rocket that facilitates the launch of a s*pace object* (within the meaning of the SLRA).  For ease of reference, CASA will consider referring to rockets in grouping C as ***amateur rockets*** in relevant instruments issued by CASA.  The provision creating an offence if a person launches a rocket in a way that creates a hazard to an aircraft in subregulation 101.055(2) is unchanged.  The provision creating an offence if a person launches a rocket in a way that creates a hazard to another person or to property in subregulation 101.055(3) is narrowed to only apply to rockets in Grouping A, B and C. | Air risk – CASA  Ground risk – CASA |
| Grouping D  Repeal of definition of high power rocket in CASR 101.425 for regulating launch of rockets in an area approved by CASA.  New concept of a “rocket that is not a model rocket” to be used in regulation 101.450 of CASR for regulating launch of rockets in an area approved by CASA.  Grouping D is aligned with the operation of a rocket that is defined as a ***high power rocket*** set out in the ASA’s legislation (within the meaning of the SLRA). These rockets will have air risk regulated by CASA (the grant of area approvals and offence provisions including subregulation 101.055(3)) but ground risk is regulated by the ASA. | Air risk – CASA  Ground risk – ASA |
| Grouping E  Repeal of definition of high power rocket in CASR 101.425 for regulating launch of rockets in an area approved by CASA.  New concept of a “rocket that is not a model rocket” to be utilised in regulation 101.450 of CASR.  Grouping E is aligned with the operation of a rocket that facilitates the launch of a ***space object*** (including suborbital rockets and similar launch vehicles) is regulated under the ASA’s legislation.  CASA will continue to oversight air risk associated with these launches, but ground risk and space risk are regulated by the ASA. | Air risk – CASA  Ground risk – ASA  Space risk – ASA |

CASA and the ASA consider the various regulatory risks, in terms of policy framework, to mean:

***Air risk*** – this refers to a regulatory obligation to ensure the safety of air navigation and is expressed in civil aviation legislation such as section 9A of the *Civil Aviation Act 1988*, Subpart 11.BA of CASR, and regulations 101.030(3), 101.055(2) and 101.460 of CASR. This is predominantly a CASA regulatory obligation with some shared responsibility with the ASA due to requirements under section 12 of the SLRA in relation to launch from an aircraft in flight and section 26 of the HPR Rules in relation to preparation of a flight safety plan. From 30 June 2020, the ASA is the entry control regulator for all high power rocket activities. Matters concerning air risk for the purposes of a launch, which fall within CASA’s responsibility, will be consulted through information sharing processes between the two agencies.

***Ground risk*** – this refers to risk of debris or materials from launched rockets that may impact people or property on the ground. From 30 June 2020, the ASA is solely responsible for regulating all aspects of ground risk in relation to high power rocket activities and space objects (Groupings D and E, particularly through sections 19 and 25 of the HPR Rules). The offence in connection to ground risk in subregulation 101.055(3) of CASR will be amended to only apply to rockets that are not high power rockets or space objects (Groupings A, B and C).

***Space risk*** – for the purposes of Australian legislation, the delimitation of space begins at 100 km above sea level. Regulation of activities undertaken in space (Grouping E) is the ASA’s sole responsibility.

*NOTE: A “space object” could, be facilitated by a rocket (but this is not always the case). It is important to note that a space object is not a high power rocket since the former (space object) exceeds 100 km in altitude and the latter (high power rocket) must not exceed 100 km in altitude.*

**Impact on industry**

There is no substantive policy change in CASA's proposed amendments. The changes are consequential in nature and flow from government legislation in 2019.

To complement the ASA's legislative requirements for persons who hold existing CASA area approvals (under regulation 101.030) for the launch of rockets, CASA proposes to:

* impose a general condition on all existing area approvals granted for the purposes of regulation 101.450 of CASR, to require launches of high power rockets (within the meaning of the SLRA) to hold a high power rocket permit granted by the ASA; or
* amend each individual existing area approval granted for the purposes of regulation 101.450 of CASR, to clarify that the approval would only apply to rockets other than high power rockets.

Going forward, as part of CASA's assessment for grant of an area approval, CASA will consider requiring applicants, where the rocket is a high power rocket as defined by the SLRA, to first secure an HPR permit from the ASA to undertake that launch. This ensures:

* administrative simplicity for industry to first approach the ASA as the entry controlling regulator, on matters regarding oversight of high power rockets and
* administrative continuity in relation to CASA's subsequent regulatory role on airspace deconfliction and oversight of risks to air navigation when the high power rocket is operationally prepared for launch.

Please read the Summary of proposed change (SPC) on CD 1920SS for more detail on this subject.

**Why are we consulting**

CASA recognises the valuable contribution that community and industry consultation make to the regulatory development process. We are consulting to ensure that the proposed new rules are clearly articulated and will work in practice and as they are intended.

All documents related to this consultation are attached at the bottom of the page. They are:

* Summary of proposed change document, which provides background on the proposed standards
* Exposure Draft - Civil Aviation Safety Amendment (Part 101—High Power Rockets) Regulations 2020
* [*Space (Launches and Returns) Act 2018*](https://www.legislation.gov.au/Details/C2019C00246) [C2019C00246]
* [*Space (Launches and Returns) (High Power Rocket) Rules 2019*](https://www.legislation.gov.au/Details/F2019L01119) [F2019L01119]
* MS Word copy of this consultation for ease of distribution and feedback within your organisation.

Please read the Summary of proposed change and before providing your feedback in the online survey.

### F**ile upload option no longer available**

CASA can no longer offer the option to upload files because of the potential risk of malware.

**Using an iPad**

If you are using an iPad to complete the survey you will be asked to 'download the relevant PDF'. Depending on the software you have on your iPad you may need to download the free viewer to review the single document PDF files. Where a file is a 'multi-file or portfolio PDF’ you will need to source the Adobe free view - available from iTunes.

**What** **happens** **next**

At the end of the response period for public comment, we will review each comment and submission received. We will make all submissions publicly available on the CASA website, unless you request your submission remain confidential. We will also publish a Summary of Consultation which summarises the feedback received, outlines any intended changes and details our plans for the instrument.

Information about how we consult and how to make a confidential submission is available on the [CASA website](https://www.casa.gov.au/rules-and-regulations/landing-%20page/consultation-process).

To be notified of any future consultations, you can subscribe to our [consultation and rulemaking mailing list](https://mailinglist.casa.gov.au/?p=subscribe&id=3).

Give Us Your Views

## [Appears on the overview page at the bottom]

[Online Survey](https://consultation.casa.gov.au/regulatory-program/pp1816us/consultation/)

[This link is on the front page of the survey and takes you to the survey questions]

**Related**

[This section is at the bottom of the front page and contains all the links to other sites and documents related to this consultation]

* Summary of proposed change on CD 1920SS
* Exposure Draft - Civil Aviation Safety Amendment (Part 101—High Power Rockets) Regulations 2020
* MS Word copy of online consultation - Consequential amendments to Subpart 101.H – Rockets – (CD1920SS)
* [Space (Launches and Returns) Act 2018](https://www.legislation.gov.au/Details/C2019C00246) [C2019C00246]
* [Space (Launches and Returns) (High Power Rocket) Rules 2019](https://www.legislation.gov.au/Details/F2019L01119) [F2019L01119]

## **Audiences & Interest groups**

## Audiences

* Rocketry Participants
* High Power Rocket Operator
* Rocketry Organisation
* Rocketry Organisation Member

## Interests

* Rocketry
* Model rocket enthusiast/operator

**PAGE 1:** Personal Information

First name

(Required)

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Last name

(Required)

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Email

If you enter your email address you will automatically receive an acknowledgement email when you submit your response.

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Do your views officially represent those of an organisation?

(Required)

*Please select only one item*

Yes, I am authorised to submit feedback on behalf of an organisation

No, these are my personal views.

If yes, please specify the name of your organisation.

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Which of the following best describes the group you represent?

*Please select only one item*

High Power Rocket Operator as per the High Power Rocket definition in the Space (Launches and Returns) (High Power Rocket) Rules 2019

Rocketry organisation member

Rocketry organisation

Model rocket enthusiast/operator

Other

Please specify “Other” if selected.

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**PAGE 2:** Consent to publish Submission

In order to provide transparency and promote debate, we intend to publish all responses to this consultation. This may include both detailed responses/submissions in full and aggregated data drawn from the responses received.

Where you consent to publication, we will include:

* **your last name**, if the submission is made by you as an individual or
* **the name of the organisation** on whose behalf the submission has been made
* **your responses** and comments

We **will not** include any other personal or demographic information in a published

response.

Information about how we consult and how to make a confidential submission is

available on the [CASA website](https://www.casa.gov.au/rules-and-regulations/landingpage/consultation-process)**.**

(Required)

*Please select only one item*

Yes - I give permission for my response/submission to be published.

No - I would like my response/submission to remain confidential but understand that de-identified aggregate data may be published.

I am a CASA officer.

**PAGE 3:** Feedback on consequential amendments to Subpart 101.H – Rockets (CD 1920SS)

Please provide any comments you may have on the proposed consequential amendments to Subpart 101.H - Rockets in the comments box below.

**Fact Bank:** Table 3 – Regulation of different kinds of rockets

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Comments

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