

## Consultation - Proposed new remotely piloted aircraft (RPA) registration and RPA operator accreditation scheme (PP 1816US)

### Overview

In 2019, CASA proposes to introduce a remotely piloted aircraft (RPA) registration and RPA operator accreditation requirement, as a way of monitoring the safe and lawful operation of RPAs. The registration and accreditation requirements are proposed to apply (with certain exceptions) to the following RPA:

- RPA more than 250 grams operated recreationally and
- all RPA operated commercially, including excluded RPA operations, regardless of weight.

The RPA registration and accreditation requirements are not proposed to apply to the following:

- RPA 250 grams or less operated recreationally or
- Model aircraft at CASA-approved model airfields or
- RPA operated recreationally indoors.

This consultation seeks your comments on the detail of the proposed scheme.

The aim of the proposed new rules is to increase safety through increased compliance with the requirements:

- ensuring everyone who flies a drone over 250 grams knows the rules
- helping CASA to target the right safety information to the users who need it most
- making it easier for authorities to identify when someone is breaking the rules.

**Accreditation** will be free. You will have to do an online education course – basically, watch a video and answer a quiz on the drone rules that apply to you. However, if you already hold a drone licence you will not have to do this course.

The cost of **registration** has yet to be determined by CASA. The cost will depend on whether you fly your drone for fun or profit. It is likely to be a \$20 or less annual fee (per person) for recreational drones and for some model aircraft operators. There will also be an annual registration fee likely to range from \$100 to \$160 per drone, for each commercial drone.

### Why we are consulting

As part of the development of aviation rules, CASA consults with the community to ensure the rules will work in practice as they are intended.

We have a responsibility under section 9 of the Civil Aviation Act 1988 for the safety regulation of civil air operations, including drones, in Australian territory.

The Government [supported the introduction of a mandatory accreditation and registration system for drones](#) last year. This was in response to the recommendation from a Senate Standing Committee on Rural and Regional Affairs and Transport inquiry.

### How to complete this consultation

The consultation will ask you questions in relation to the detail of the registration and accreditation scheme. Each question will include key points and further reading from the relevant sections of the following two documents:

- *Policy Proposal – Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation scheme*
- *Annex A - Policy statement - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation scheme.*

These documents include content about how the scheme will work in practice. They are attached below under 'Related'. Please note, throughout these documents CASA uses the term *remotely piloted aircraft (RPA)* to refer to a drone.

### **Recent industry feedback**

CASA has previously consulted with the community on drone registration and accreditation.

In November 2018, a group of drone industry experts met to consider drone registration and accreditation. This [technical working group](#), made up of industry representatives, was established by the [Aviation Safety Advisory Panel](#) (ASAP) to direct our engagement with industry and to seek input on regulatory and associated policy approaches. The group strongly supported the introduction of a scheme. However, there were some concerns expressed about the impact on some model aircraft owners and operators.

In August/September 2017, CASA published a [drone discussion paper](#). The majority of respondents also supported some form of registration, training and proficiency when the weight of the drone was taken into account.

### **What happens next**

CASA will register and review each submission received through this online response form. We will make all submissions publicly available here on the Consultation Hub unless you have requested that your submission remain confidential. We will also publish a summary of consultation which will summarise all the feedback we received.

Once we have considered public feedback, CASA will be working to an overarching commencement date of 1 July 2019. To minimise risks associated with the supporting information technology systems, a staged implementation is planned whereby registration and accreditation are progressively introduced:

- 1 July 2019 – RPA operator certificate (ReOC) holders and RePL holders who own their own drone (registration only)
- 1 September 2019 – Excluded RPA operators ([Sub 2k](#) and [flying over your own land](#)) (accreditation and registration)
- November 2019 – Recreational drone operators (accreditation and registration)

## Page: Table of contents

In 2019, CASA plans to introduce a scheme to ensure all drones weighing more than 250 grams are registered and the people flying them are accredited. Any drones 250 grams and under that are flown commercially will also need to be registered.

The first 2 sections of the consultation are about the consultation and ask you for some information about yourself.

The next 3 sections of the consultation relate to the proposed scheme.

When you have completed the consultation, click the **'Finish'** button at the bottom right of this page.

The following Fact Bank provides a snapshot of the steps you will need to take under the scheme depending on who you are and what you fly your drone for. Please note, CASA uses RPA (remotely piloted aircraft) to refer to drones.

### FACT BANK – What you will have to do

Fact Bank Content

#### Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

#### 2.4 Impacts on industry and community

##### 2.4.1 Industry

CASA has advanced the development of its online tools and processes to assist people accrediting and registering an RPA or model aircraft in Australia. The process has been designed to be completed either on a desktop or on a mobile device.

The expected impact across affected stakeholders is detailed below by each stakeholder group:

To enlarge Table 1: Requirements for RPA registration and accreditation, please click on the link below.

[RPAS Policy Proposal Table](#)

Table 1: Requirements for RPA registration and accreditation

Criteria	Obtain ARN (3 minutes*)	Obtain RoC	Obtain RoFL	Recreational accreditation online video (3 minutes*)	Recreational accreditation online quiz (8 minutes*)	Excluded category accreditation online video & quiz (30 minutes*)	Register RPA (4 minutes per RPA*)	After CASA generated registration mark (if no serial number on RPA)	Pay fee online Recreational \$20 (or less) Excluded and Commercial <150 kg \$100 - \$150
Recreational Operator: RPA over 250 g	✓			✓	✓		✓	✓	✓
Child under 18-years-old/ Guardian: RPA over 250 g	Guardian			Child and Guardian	Guardian		Guardian	Guardian	Guardian
Excluded Category Operator: Any RPA weight	✓					✓	✓	✓	✓
Commercial operator other than Excluded: Any RPA weight	✓	✓	✓				✓	✓	✓
Model aircraft enthusiast (including FPV): RPA over 250 g in public space	✓			✓	✓		✓	✓	✓
Foreign Recreational Operator in Australia: RPA over 250 g	✓			✓	✓		✓	✓	✓
Foreign Excluded Operator in Australia: Any RPA weight	✓					✓	If RPA is registered in another country, a 'permission' will be granted.	If RPA is registered in another country, a 'permission' will be granted.	✓
RPA above 150 kg FR Operations/ <sup>1</sup> International Operations <sup>2</sup>	✓	✓	✓				Register using existing conventionally piloted aircraft registration process		

<sup>1</sup> FPV – First Person View (drone racing)  
<sup>2</sup> FR operations of RPAs will likely be required by future ICAO Standards and Recommended Practices (SRPs) to be registered in accordance with ICAO Annex 7 – Aircraft Nationality and Registration Marks.  
<sup>3</sup> International operations of RPAs will likely be required by future ICAO SRPs to be registered in accordance with ICAO Annex 7 – Aircraft Nationality and Registration Marks.  
 \* Estimated average processing time

### 2.4.2 Community

The wider non-aviation community is also expected to benefit from the RPA registration and accreditation initiative. Future RPA electronic identification provides for CASA and other government entities to easily distinguish the legitimate commercial and recreational RPA users from those that may have motives at odds with societal expectations.

Accreditation and registration will encourage safer and lawful operation and operate as a deterrent to unlawful and unsafe activities. Where appropriate, these benefits may extend beyond safe operation to privacy, security, noise monitoring, and irresponsible RPA use.

Accreditation provides CASA the opportunity to establish a mutually beneficial relationship with the remotely piloted community and provides a mechanism to proactively target RPA users with relevant safety information. Furthermore, it provides CASA with a demographic profile of the RPA sector that is useful to assist in developing future safety campaigns.

Data collection of the total RPA numbers, RPA types, locations and the operational categories of RPAs can be used to maximise the use of CASA's limited resources. The data available to CASA management and organisational decision makers enables risk identification and early corrective intervention strategies. Registration provides for future-ready technologies, such as electronic identification (eID) being developed, and will in future enable integrated RPA using UAS traffic management systems<sup>30</sup> (UTMs).

Page	Topic	Questions
1	Personal information	10 questions
2	Consent to Publish your submission	1 question
3	Registration	4 Questions
4	Accreditation	2 Questions
5	Registration and accreditation – considerations	2 Questions

## Page 1: Personal information

### First name?

(Required)

### Last name?

(Required)

### Email address?

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

Email

### Do your views officially represent those of an organisation?

(Required)

Please select only one item

- Yes
- No

**If yes, please specify the name of the organisation.**

### Who are you?

Please select one of the options below – if more than one category applies choose the highest level of qualification.

(Required)

Please select only one item

- Recreational drone owner and/or pilot
- Model aircraft owner and/or pilot
- Excluded drone operator
- RePL holder (but not a ReOC holder)
- ReOC holder
- I am not currently a drone owner or flyer but plan to own one in the future
- I am not a drone owner or flyer
- Other (Please specify below)

Please specify 'Other' if selected

**Do you own or fly a drone weighing more than 250 grams?**

*(Required)*

Please select only one item

- Yes
- No
- I don't own or fly a drone
- Don't know

**How did you hear about this consultation?**

This information is not mandatory but will help CASA to provide more targeted safety information in the future.

- CASA email
- CASA Facebook
- CASA Twitter
- CASA LinkedIn)
- Facebook (not CASA)
- Twitter (not CASA)
- LinkedIn (not CASA)
- Drone forum
- Drone organisation
- Media eg newspaper, radio, television
- Other

**What is your age group?**

This information is not mandatory but will help CASA to provide more targeted safety information in the future.

- 16 and under
- 17-25
- 26-35
- 36-45
- 46-55
- 56-65
- 56-65
- 66 +

**What is your gender?**

This information is not mandatory but will help CASA to provide more targeted safety information in the future.

- male
- female
- other

**Where do you live?**

Please enter your Post Code below

## Page 2: Consent to publish your submission

In order to promote debate and transparency, 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 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, including the gender, age or postcode of the respondent.

We will not publish responses of any person who discloses their age as under 16.

### Do you give permission for your response to be published?

*(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.

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-page/consultation-process) <<https://www.casa.gov.au/rules-and-regulations/landing-page/consultation-process>>



## Page 3: Registration

### Question 1

**Policy aim:** CASA plans to introduce a national scheme to register all drones weighing more than 250 grams to monitor the safe and lawful operation of drones. Any drones 250 grams and under that are flown commercially will also need to be registered.

Registration will be mandatory whether the drone is flown for fun or profit. However, there are some exemptions. See Question 2

#### Key Points

CASA has chosen drones weighing over 250 grams because:

- The drone is large enough to create a potential hazard to manned aircraft.
- It is a common weight in international standards (USA, UK, China, Germany, Brazil).
- It makes it relatively easy for drone owners to work out if they need to register. (The European system measures potential energy so takes into account mass and speed, but this is harder for an owner to understand and comply with).

### FACT BANK - Further information – Choosing what to register

#### Fact bank content

Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

#### 1.5 Choosing what to register

It is impractical to seek registration for every unmanned flying RPA no matter how small. To do so would be complex, costly and could potentially impose inconvenience on society exceeding the safety<sup>14</sup> benefit.

Risk delineators that could justify inclusion on a safety basis in a registration system include the following.

##### 1.5.1 Potential airspace hazard

Any remotely piloted aircraft that is airborne has some potential to create a hazard to conventionally piloted aircraft and, therefore, may be considered a candidate for registration. However, for the avoidance of air collisions, existing operational restriction is a more effective tool than a mass threshold.

Registration, including future eID initiatives, will provide real safety benefits and societal and security disincentives against those with bad intentions. They will also facilitate the provision of systems for safe, efficient unmanned air traffic management.

##### 1.5.2 Mass/potential energy

A 250 g delineator is not necessarily a safety related weight-break; it is an internationally common threshold that aligns with mass delineations made by the US, the UK, China, Germany and Brazil as the lower limit for RPA registration. Japan is an outlier having elected to set its threshold at 200 g. Ireland has a higher threshold.

EASA has approached the potential energy issue differently and determined registration will be required at above 80 joules potential impact transfer<sup>15</sup>. The weakness of this proposed delineation is that in the absence of specific manufacturer affixed labelling (absent in the legacy RPA fleet), even a reasonably well-informed user cannot easily determine their own compliance status. On the other hand, the benefit of a potential-energy-based measure is that registration can capture high-speed, lower mass racing drones that are potentially more dangerous, and include them based on risk.

### 1.5.3 Commercial use

Commercial RPAS operators already have a relationship with CASA in one of three ways: as a holder of an RPA Operating Certificate (ReOC); a Remote Pilot Licence (RePL); or by way of a notification to CASA as an excluded category operator. Consultation<sup>16</sup> conducted to date supports that all these commercially used RPAs be registered.

### 1.5.4 Research and development testing

Australia has a growing RPA manufacturing and components industry. RPAs are used for a significant variety of research and development purposes that extend from the testing of new RPA design features, to concepts for conventionally-piloted aviation and avionics testing.

<sup>14</sup> Mandatory registration >250 g is consistent with most international aviation safety practice currently.

<sup>15</sup> 80J is approximately 1kg dropped from 8 metres (on Earth in a vacuum).

<sup>16</sup> Paper published in August/September 2018; A technical working group met in November 2018.

### 1.5.5 Home-built RPAs and model aircraft

Home-built recreational RPAs and model aircraft are similar to research and development RPAs with many lacking a unique formal serial number allocated at time of manufacture.]

A similar solution may be that home builders be provided flexibility within the registration system and be permitted to self-transfer registration identity across iterations of the same design.

**Do you agree that all drones over 250 grams should be registered? (noting that there are some exemptions – see Question 2)**

- Yes
- Yes, with changes. (Please specify below)
- No, requires changes (Please specify below)
- Don't know

If you have selected – *Yes, with changes* or *No, with changes* – please enter your comments here.

## Question 2

**Policy aim:** CASA has exempted some drones from registration, because to register every drone would be complex, costly and potentially impose inconvenience on society, exceeding any safety benefit.

Key points

The exemptions are:

- Flying indoors which is no risk to manned aircraft
- Model aircraft being flown only at CASA-approved model airfields which are under the supervision of peers and therefore pose few safety risks to unmanned aircraft and people.

- Drones greater than 150 kilograms because they already require registration through another aviation rule.

## FACT BANK – Further information – What RPAs would NOT have to be registered?

### Fact bank content

#### Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

##### 1.6 What RPAs would NOT have to be registered?

###### 1.6.1 Model aircraft or recreational RPA operations indoors

Indoor operations are free from airspace risk. Risks to people and property of indoor operations are already regulated via existing provisions in Part 101 of the *Civil Aviation Safety Regulations 1988 (CASR)*.

###### 1.6.2 Model aircraft operated exclusively at approved model aircraft fields

Model aircraft, including RPA that are operated in first-person-view (PFV) and are operated exclusively at model aircraft fields in a non-commercial context and under supervision of peers, pose few risks to people and airspace.

CASA proposes that, to lessen the impact of registration and accreditation initiatives on the model aircraft community, a list of model aircraft fields across Australia be created and maintained by CASA in cooperation with model aircraft associations. Field sites would be eligible for admission to the list if they met both the following criteria.

- People not associated with the model aircraft operation could be excluded from the site while flying takes place.
- The site is acceptable to CASA in terms of airspace risk.

Model aircraft fields would not have to be permanent sites dedicated to model aircraft, but rather some form of tenure that assures a right to exclude third parties. However, this would have to be demonstrated. Public parks and beaches would not meet the proposed access test unless specific arrangements with the landholder (council etc.) are made. Operations in public places would still be possible but would require operators to hold a registration of the RPA or model aircraft and an accreditation or RePL.

Model aircraft associations, such as the Model Aeronautical Association of Australia (MAAA) and Australian Miniature Aerospots Society Inc (AMAS), have a large membership and contribute a valuable safety benefit to their members. This benefit is extended to the general public through their procedures, training programs and promotion of safe operations.

Requiring persons who operate model aircraft solely at model aircraft fields to register model aircraft merely for safety reasons is not convincing enough, and potentially may undermine the value of such organisations with which CASA seeks to cooperate.

###### 1.6.3 RPAs that are required to be registered in accordance with Part 47 of CASR and marked in accordance Part 45 of CASR

The conventionally-piloted aircraft registration framework which is already required for RPA/model aircraft >150 kg might reasonably be reserved for all remotely piloted aircraft that require 'conventionally-piloted aircraft like' support structures. This includes RPAs that have the one or more of the following attributes:

- integrated airspace operations (IFR) with conventionally piloted traffic
- integrated airport operations with conventionally-piloted traffic
- continuing airworthiness requirements
- for which security risks imply tighter operator controls
- international operations
- aircraft mass or size.<sup>17</sup>

<sup>17</sup> Large wing span, low mass.

#### Annex A - Policy statement – Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

21. Prescription the following matters:

- a. when referring to RPA mass, it is to include any batteries, attachments, sensors, cameras and any other equipment fitted
- b. the following RPA and model aircraft must be registered in order to be legally flown in Australian territory.
  - i. remotely piloted aeroplane that is used for:
    - 1. recreation and is between 250g – 150 kg<sup>4</sup> mass
    - 2. any commercial excluded category operations of RPA (101.237, 101.F.5) regardless of mass, including 250 grams mass or under
    - 3. any RPA operators certificate operations (101.270) regardless of mass, including 250 grams mass or under
  - ii. remotely piloted rotorcraft that is used for:
    - 1. recreation and is between 250g – 150 kg mass
    - 2. any commercial excluded category operations of RPA (101.237, 101.F.5) regardless of mass
    - 3. any RPA operators certificate operations (101.270) regardless of mass.
  - iii. remotely piloted powered lift aircraft that is used for:
    - 1. recreation and is between 250g – 150 kg mass
    - 2. any commercial excluded category operations of RPA (101.237, 101.F.5) regardless of mass
    - 3. any RPA operators certificate operations (101.270) regardless of mass.
  - iv. remotely piloted airship that is used for:
    - 1. recreation and is between 250g – 150kg mass<sup>5</sup>
    - 2. any commercial excluded category operations of RPA (101.237, 101.F.5) regardless of mass
    - 3. any RPA operators certificate operations (101.270) regardless of mass.
  - v. model aircraft 250g – 150kg mass that is used for only recreational operations and is operated at other than at a CASA approved site.

<sup>4</sup> CASR 47(1)(i) requires any RPA more than 150 kg to be registered under Part 47 and marked under Part 45

<sup>5</sup> Its mass being more than 250 g but its weight being less than zero with the gas installed

## Does the proposed scheme ensure the right drone operations are exempted from registration?

- Yes
- Yes, with changes. (Please specify below)
- No, requires changes (Please specify below)
- Don't know

If you have selected – *Yes, with changes* or *No, with changes* – please enter your comments here.

### Question 3

**Policy aim:** A fee will be charged to register drones under the new registration scheme.

Key points

- The recreational and model aircraft registration fee has been set to encourage participation.
- The proposed annual cost of registration will be:
  - Recreational and model aircraft
    - Less than \$20 per person per year
  - Excluded and remotely piloted aircraft operator certificate (ReOC) per drone
    - Between \$100 to \$160 per drone per year
- Most of CASA's funding comes from a fuel excise, in other words, the conventionally piloted aviation industry. The registration fee is an attempt to, over time recoup some funding for drone safety management from people who own and operate drones.

## **FACT BANK – Further information– Benefits and costs of a RPA registration system**

### **Fact bank content**

Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

#### **1.3.2 Benefits and costs of an RPA registration system**

##### **1.3.2.1 Benefits**

- a. Registration would support the identification of the operator following an RPA-related safety accident, incident or audit, provided that the RPA can be identified (visually or electronically) and can be associated with the CASA-held record.
- b. A CASA-held registration system would allow other government agencies lawful access to address social nuisance, privacy, security and noise concerns.
- c. Registration would facilitate future electronic identification (eID) systems that would support in-flight identification of an RPAS operator, as well as providing a mechanism to support a future RPAS traffic management system.
- d. Registration would also provide CASA, the government, industry and the community with a more accurate picture of the nature and size of the Australian commercial and recreational RPA fleet to assist with current and future policy settings related to this technology. This would expand knowledge to include RPA ownership demographics and information across the geographic spread of ownership and areas of operation.
- e. Registration would also provide CASA with the opportunity to target education campaigns regarding safe flying that are aimed at improving the flying ability of those operating RPAs.

##### **1.3.2.2 Costs – RPAS user**

The costs to the RPAS user include the time required to register each RPA, and the cost of the registration fee for that category of registration.

It is proposed that different fee structures would be based on whether the user indicates the RPA will be used for recreational or commercial purposes:

- a. Recreational RPAS or model aircraft operators would pay a single annual fee for all RPA/model aircraft that are registered.
- b. Commercial and excluded RPAS operators would be charged a fee per commercial RPA that is registered and based on a scale of fees linked to the weight category of the RPA.

A discussion on time and cost impacts categorised by industry sector is presented in chapter 2.4 of this policy proposal.

CASA systems would be configured to generate a warning to the user when they select the RPA as recreational only, advising them that the RPA must not be used for commercial purposes.

Re-registration would be required on the anniversary of the initial registration and would involve payment of the requisite fee and validation of the data held by CASA and if required updating (e.g. change of address).

### 1.3.2.3 Costs – Government

There are significant upfront costs for CASA to implement an RPA registration system. CASA will have to implement IT systems to support registration and accreditation and amend legislation to support and require its use. It is expected that these costs would be recovered over time through the collection of registration fees.

## FACT BANK – Further information – Cost recovery considerations registration

### Fact bank content

#### Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

### 1.7 Cost recovery considerations - registration

Present CASA funding arrangements<sup>18</sup> include appropriation (tax payer funds from general revenues), a portion of the aviation fuel levy, and the fees and charges that CASA collects. However, the remotely piloted sector consumes very little aviation fuel for which an excise is added to the price in order to fund the safety regulator. The introduction of a registration fee is an attempt to, over time, re-balance CASA's funding across the conventionally piloted and remotely piloted sectors<sup>19</sup>.

There will be significant upfront costs to implement a national RPA registration and accreditation scheme. There will also be associated ongoing costs in the maintenance systems that support the scheme.

CASA anticipates that there will be a cost recovery regime associated with RPA registration consistent with the Australian Government's cost recovery guidelines<sup>20</sup>.

CASA has not determined a final fee structure; an **indicative** structure is as follows:

- Recreational – less than \$20 for annual registration per person (**not** per RPA)
- Any commercial operation, including Excluded RPA operations, and those under a ReOC – between \$100 to \$160 per RPA per year.

The cost difference between recreational and commercial registration reflects the cost to CASA to appropriately oversight each sub-sector of the RPAS community. Commercial activity, including excluded RPA operations, are inherently more complex than recreational operations requiring proportionally more of CASA resources to appropriately oversight.

CASA will undertake further work to determine an appropriate fee structure that is consistent with its obligations under the Australian Government Charging Framework.

Early consultation with RPAS and model aircraft communities conducted through the Aviation Safety Advisory Panel – Technical Working Group (TWG) put a view to CASA that cost recovery should be balanced to the delivery of safety policy outcomes. The TWG surmised that a reasonable fee will maximise safety benefits through encouraging increased compliance rates. CASA has set the recreational RPA/model aircraft registration fee deliberately low in order to encourage participation.

CASA will publish a Cost Recovery Implementation Statement (CRIS) outlining the new/amended fees in accordance with the Australian Government Charging Framework for public consultation in February 2019.

#### 1.7.1 Fee-free registration system, or a fee-free period to encourage compliance

To encourage early uptake, the FAA allowed US users to register free of charge for a period prior to levying the fee. While discussing CASA's proposed cost recovery model, the TWG noted

<sup>18</sup> CASA income is comprised of 3 sources 1. Appropriation by government, 2. Fuel excise levied on aviation fuels 3. Fees levied on users for services provided (approvals, permissions etc.).

<sup>19</sup> The commercial remotely piloted sector pays service fees to CASA for operating certificates and permissions on an equitable basis with the conventionally sector.

<sup>20</sup> Australian Government cost recovery guidelines – <https://www.finance.gov.au/sites/default/files/australian-government-cost-recovery-guidelines.pdf>

### 1.7.2 Overseas experience

The US (i.e. FAA)<sup>21</sup> fee to register recreational RPAs is \$5 USD (around \$7.00 AUD) per person for 3 years, for multiple RPAs. The FAA registration for commercial use costs \$5 USD<sup>22</sup> per aircraft and is valid for 3 years.

<sup>21</sup> FAA - Fly under the Special Rule for Model Aircraft

[https://www.faa.gov/uas/getting\\_started/model\\_aircraft/](https://www.faa.gov/uas/getting_started/model_aircraft/)

<sup>22</sup> FAA - UAS Registration [https://www.faa.gov/uas/getting\\_started/registration/](https://www.faa.gov/uas/getting_started/registration/)

## Has the right balance been reached with the registration fees?

- Yes
- Yes, with changes. (Please specify below)
- No, requires changes (Please specify below)
- Don't know

If you have selected – *Yes, with changes* or *No, with changes* – please enter your comments here.

## Question 4

**Policy aim:** Drone registration is for one year, with annual fees due thereafter.

Key points

- CASA intends to let you know well in advance that your registration is going to expire so you will have time to renew.
- You will have to make sure that your contact details are up to date.
- If you're not planning to fly your drone, you do not have to register it.

### FACT BANK - Further information – Expiry of registration

#### Fact bank content

Annex A - Policy statement - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

**Expiry of registration**

32. A regulation that provides that registration of an RPA or model aircraft expires one year after it is issued and would lapse if not reregistered:
- a. Reregistered in this context means that the operator
    - i. has confirmed that it is their intent for the RPA or model aircraft to be registered
    - ii. has confirmed that all the details held by CASA for the aircraft and its operator are correct and accurate or has amended the details accurately
    - iii. has paid the correct fee.
  - b. CASA may offer a facility that offers multiple yearly fees to be paid in advance and may offer a discount for doing so. However, the operator must reconfirm the registration details held by CASA for the aircraft and its operator are correct and accurate or the registration will expire.
  - c. It is CASA's intent to electronically 'push notify' operators that registration will expire well in advance of expiry.

**Should registration be required annually?**

- Yes
- Yes, with changes. (Please specify below)
- No, requires changes (Please specify below)
- Don't know

If you have selected – *Yes, with changes* or *No, with changes* – please enter your comments here.



## Page 4: Accreditation

### Question 1

**Policy aim:** CASA plans to introduce a scheme to ensure anyone 16 years of age and older flying a drone weighing more than 250 grams has the knowledge to safely and lawfully operate a drone.

#### Key Points

- In practice this means anyone 16 years and over flying a drone weighing more than 250 grams:
  - for fun, i.e. for recreation only
  - under the excluded category i.e. [commercial under 2 kg](#) or [over your own land](#)
- Under the proposed scheme, if you hold a remote pilot's licence (RePL) you are already accredited you do not need to complete more training.
- Accreditation will take the form of an online education course i.e. watching a video and answering a quiz.
- Two different accreditations will be available:
  - Simple online course for recreational operators
  - A slightly more detailed course for the excluded category than it will be for recreational operators.
- Accreditation will be free.
- The benefits of accreditation are:
  - flyers will be more likely to know the rules
  - likelihood of a decrease in accidents/incidents
  - increase CASA's understanding of the drone community through better demographic information
  - better targeting of CASA's safety messages to flyers who need it
  - better targeting of CASA's surveillance and auditing activities.

#### **FACT BANK: Further information – Accreditation – background**

##### **Fact bank content**

Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

## **1.2 Mandating a personal accreditation scheme for RPAS flight proficiency**

It is not known how many individuals operate RPAs within Australian territory; this number could be in the hundreds of thousands. It is relatively easy and cheap to buy and operate small RPAs. While many of these small RPAs typically do not pose a serious threat to people or property, there have been several incidents that have increased public concern about the inappropriate operation of them.

There are immediate and enduring benefits of a training/knowledge test. A better-informed RPAS operator is more likely to exhibit improved safety behaviours because of their increased safety knowledge and operational awareness. The training/knowledge test should be provided separately from a requirement to register RPAs and be available to anyone who has access to an RPA.

### **1.2.1 Other Australian accreditation and licensing schemes**

There are several licensing schemes in other comparable sectors within Australia, with varying levels of structure and regulatory oversight. These include a nationally recognised Recreational Pilot Licence (RPL) for conventionally piloted aircraft, state-based motor vehicle driver licences, and state-based boating and powered-water-craft licences. Examples of these schemes are summarised in table 1 at 1.3.1.

### **1.2.1.1 International RPAS Operating Environment**

In the RPAS sector, internationally, each national aviation administration (NAA) mandates the requirements for their own licensing model. Internationally, there is no current harmonisation in terms of age limits or qualifications for non-commercial RPAS pilots/operators:

- **Canada:** for devices between 250g and 1kg, pilots must be 14 years or older; for devices 1kg to 25kg, pilots must be 16 years or older.
- **UK:** a discussion paper released in July 2018 has proposed a minimum age of 18 for a small RPAS operator, but no decision has been made on this point. The UK has legislated requirements that will come into effect on 30 November 2019, with an online safety test being mandatory for all recreational remote pilots.
- **The US and Sweden** - There is a comprehensive list of 'safety tips', or minimum recommended safety practices, but no formalised scheme.

### **1.2.2 Cost recovery considerations - accreditation**

The safety education aspect of an RPAS course and quiz is something that CASA currently does at no cost to participants. Safety education is a CASA function under s9(2) of the Act, and a proportion of its budget is committed to budget to the safety education of pilots of conventionally piloted aircraft without cost recovery. The safety outcomes CASA seeks with this policy depend on a strong uptake by those who are already actively flying without accreditation.

Consistent with this approach, CASA is envisaging accreditation would be free so as not to inhibit uptake of the initiative by RPAS users. However, there would be a fee to register an RPA.

## **1.2.3 Benefits and costs of an accreditation scheme for RPAS flight proficiency**

### **1.2.3.1 Benefits**

- Safer operation through increase in lawful operation due RPA ownership being more identifiable to authorities.
- Better operator understanding of how to operate safely through education thereby reducing likelihood of incident/accident.
- Differentiation of the accredited population to inform CASA's risk-based surveillance program (also useful to other government entities).
- Safety information - provision of a mechanism to proactively target RPA users.
- Demographic profile within the RPAS sector to assist in the development of safety campaigns
- Industry sector intelligence made available to CASA decision makers.

### **1.2.3.2 Costs to individuals and industry**

- Time to undertake the accreditation.
- Time to renew accreditation when it expires after three years.

Table 1 - Comparable schemes utilised by government agencies

Category	Authority	Registration Scheme	Licence Required	Accreditation Scheme	Minimum Age Requirements	Training Requirements	Additional Requirements
Commercial RPA	CASA	Yes (150kg over)	RePL	Theory exam + practical test		5 hours practical experience	
Excluded RPA	CASA						Must comply with standard operating conditions and notify CASA
Recreational, conventionally piloted aircraft	CASA	Yes	RPL	RPL theory Exam + flight test	16 years	Min 25 hours flying time	English language assessment
Motor Vehicle	State	Yes	Driving Licence	Driving knowledge theory test + driving test	16 years (SA 17 years)	Mandated supervised practical training	Eyesight test and medical depending on State
Motorcycle	State	Yes	Rider Licence	Driving knowledge theory test + driving test	16 years (SA 17 years)	Mandated supervised practical training	Eyesight test and medical depending on State
Boat/ Powered Water Craft (PWC)	State	Yes	Boat Licence	Boating/PWC knowledge theory test + practical test	12 years	Mandated supervised practical training	

### Is the accreditation scheme aimed at the right drone flyers?

- Yes
- Yes, with changes. (Please specify below)
- No, requires changes (Please specify below)
- Don't know

If you have selected – *Yes, with changes* or *No, with changes*– please enter your comments here.

### Question 2

**Policy aim:** Accreditation will expire after three years.

Key points

- If you are still flying, you will be required to undertake the course again.
- CASA plans to tell you well in advance when your accreditation is about to expire so you will have time to renew.
- Manned pilots undergo a flight review every two years to satisfy CASA that they remain competent to fly, so it is reasonable to ensure that drone pilots should do the same.

- However, we want to ensure that the process is not too onerous or time consuming, so it's only an online course (no practical) and we set the expiry of accreditation at three years.
- Drone technology and uptake are evolving quickly and that may mean that the rules will change over time, re-accreditation ensures you remain up to date.

## FACT BANK Further information – Accreditation to expire after 3 years

### Fact bank content

Annex A – Policy statement - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

#### Accreditation to expire after 3 years

12. Regulations that make Recreational RPA accreditation, and Excluded RPA accreditation of an individual expire 3 years after its day of issue/reissue:

- a. It is CASA's intention to electronically "push" notification of the requirement to re-accredit well in advance of the expiry date.
- b. Re-accreditation would include the requirement to re-do education and basic knowledge test; and reconfirm/update personal details.

*Note - It is CASA's policy intent that:*

- *RPA accreditation (either kind) would cease to exist if a RePL was subsequently issued to the same individual.*
- *A Recreational RPA accreditation would cease to exist if an Excluded RPA accreditation was subsequently issued to the same individual.*
- *In either case the privileges of the lower authorisation(s) are included in the higher authorisation.*

### Is three years an appropriate time to need to repeat your accreditation?

- Yes
- No – but 5 years is ok
- No – but 2 years is ok
- No – but 1 year is ok
- No – accreditation should never expire

comments

## PAGE 5: Registration and accreditation – considerations

### Question 1

**Policy aim:** You cannot register a drone unless you are 16 years of age or older. If you fly a drone weighing more than 250 grams and you are under 16 years of age you need to be supervised. The supervisor must be 18 years of age or older and accredited.

#### Key Points

In setting the age limits for drone activities, CASA considered other activities:

- The law considers most Australians are considered mature enough to drive a car at 16 years of age. However, to gain a full licence and drive without limitations on your licence, you need to be older.
- At the age of 18, you are considered responsible enough to do things like vote, apply for a home loan and marry.
- There is no agreed age for registering or flying a drone internationally.

### FACT BANK - Further information – International comparisons

#### Fact bank content

Policy Proposal - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

#### 1.2.1.1 International RPAS Operating Environment

In the RPAS sector, internationally, each national aviation administration (NAA) mandates the requirements for their own licensing model. Internationally, there is no current harmonisation in terms of age limits or qualifications for non-commercial RPAS pilots/operators:

- **Canada:** for devices between 250g and 1kg, pilots must be 14 years or older; for devices 1kg to 25kg, pilots must be 16 years or older.
- **UK:** a discussion paper released in July 2018 has proposed a minimum age of 18 for a small RPAS operator, but no decision has been made on this point. The UK has legislated requirements that will come into effect on 30 November 2019, with an online safety test being mandatory for all recreational remote pilots.
- **The US and Sweden** - There is a comprehensive list of 'safety tips', or minimum recommended safety practices, but no formalised scheme.

### FACT BANK – Age to register

#### Fact bank Content

Annex A - Policy statement - Proposed new remotely piloted aircraft (RPA) registration and RPAS operator accreditation

**Persons that may register RPA and model aircraft**

26. A regulation that outlines that CASA may prescribe that the following persons may apply to CASA to register an RPA and model aircraft:
- a. For a recreational RPA or model aircraft that is to be registered - an individual who is 16 years of age or older.
  - b. For an RPA registered for recreational and commercial use:
    - i. a corporate entity that has an ARN;
  - or
  - ii. an individual who is 16 years of age or older and has an ARN.
  - c. It is intended that:
    - i. the operator (one who is responsible for the RPA) is associated with the RPA through its registration
    - ii. registration does not imply a financial ownership or lien on the RPA.

**RPA operation without license or without accreditation not lawful**

10. A regulation that makes it a requirement to operate an RPA or model aircraft for an individual to hold a Recreational RPA accreditation, or Excluded RPA accreditation, or a Remote Pilot Licence. Offence would be subject to infringement notice:
- a. Commercial operations of an RPA in the excluded category (101.237) would require an Excluded RPA accreditation, (or a Remote Pilot Licence) regardless of mass, even if the RPA 250 grams or less.
  - b. Recreational RPA accreditation would be required for operations of an RPA over 250 grams, that is not a business, or not an operation conducted in the course of carrying on a business. Mass is only relevant to recreational RPA activity. Mass is to include any batteries, fuel, attachments, sensors, cameras that may be fitted to the RPA or model aircraft.
  - c. The following exceptions would apply:
    - i. Individuals under 16-years provided they were be directly supervised<sup>2</sup> by an adult who holds a Recreational RPA accreditation, or Excluded RPA accreditation, or a Remote Pilot Licence.

<sup>2</sup> CASA is satisfied that the Macquarie Dictionary definition of "supervision" as it intersects with the definition of "supervisor" have the same meaning as the policy intent for this provision providing the "supervisor" is legally responsible for the actions of those they supervise.

## Is 16 the right age to take responsibility to fly a drone without supervision?

- Yes
- No – but 18 years is ok
- No – but 17 years is ok
- No – but 15 years is ok
- No – but 14 years is ok
- Don't know

## Question 2

**Is 18 the right age to supervise a drone flyer younger than 16?**

- Yes
- No but 16 is okay
- No but 17 is okay
- No but 19 is okay
- No but 20 is okay
- No but 21 is okay
- Don't know