

NAV DRONE FAQ

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Frequently Asked Question (FAQs)

1. What functionality is not available in the mobile app?

The following functionalities are only available in the NAV Drone Web application and are not available in the NAV Drone Mobile app:

- Associate users with an operator
- Visualize the flight zones of active drone operations on a map
- Edit a published operation
- Copy an existing operation
- Acknowledge a rescinded permission request

2. How do I access NAV Drone Apps?

NAV Drone is accessible through the following websites:

- NAV Drone Viewer to view map of controlled airspace https://map.navdrone.ca/
- NAV Drone Web to login and request authorizations https://portal.navdrone.ca
- NAV Drone Mobile apps (Android or iOS) can be downloaded from the app store (Android/Apple)

3. What browsers are supported by NAV Drone?

NAV Drone supports the following web browsers:

- Safari (Mac OS and Windows) current version and one version back
- Firefox (Mac OS, Windows and Linux) current version and two versions back
- Chrome (Mac OS, Windows and Linux) current version and two versions back
- Edge (Mac OS and Windows) current version and two versions back

4. Do I need to create an account to use NAV Drone?

Both the NAV Drone Viewer and NAV Drone Mobile applications can be explored without an account. For NAV Drone Mobile, click the "Explore without account" link from the log in page. To take advantage of all the functionality NAV Drone has to offer, you must create an account.

5. What do I need for requesting access to controlled airspace?

First you will require a completed NAV Drone user profile. In order to access controlled airspace in Canada, drone pilots are required to have a Pilot Certificate – Advanced Operations obtained from Transport Canada, as well as a means by which they can have two-way communication with the appropriate air traffic services unit. NAV Drone users will also require a valid drone registration number obtained from Transport Canada and associated with the drone they wish to fly in controlled airspace. NAV Drone will not allow a



pilot to request access to controlled airspace until they have entered a valid Pilot Certificate – Advanced Operations, their mobile telephone number in their NAV Drone user profile and a valid drone registration associated with their drone.

6. Why must I validate my mobile phone number?

Validating your mobile phone number ensures that two-way communication capability can be maintained with the appropriate NAV CANADA Air Traffic Services unit while operating in a control zone. Your mobile number will also be used as a 2^{nd} factor for multi-factor authentication.

7. Why is the pilot certification needed?

According to Transport Canada, drones are aircraft, which makes you a pilot. When you fly your drone, you are sharing the sky with other drones and manned aircraft.

When flying a drone heavier than 249 grams, drone pilots must carry a valid drone pilot certificate at all times while operating their drone. A valid drone pilot certificate is a printed or electronic document issued by Transport Canada.

To learn more about drone pilot certificates, visit Transport Canada's website.

8. Why is a Pilot Certificate – Advanced Operations needed to fly in controlled airspace?

The *Canadian Aviation Regulations* (CARs) Part IX states that a flight in controlled airspace is considered an Advanced operation. To fly Advanced operations, you must obtain a Pilot Certificate – Advanced Operations from Transport Canada. As a provider of air traffic services, NAV CANADA must collect pilot certification number from all pilots requesting access to airspace that it controls.

9. How long does it take to get an approval to access controlled airspace?

Requests to access controlled airspace may be evaluated in two ways, depending on the location and altitude of the operation.

For a flight zone with an altitude that is at or below the lowest maximum altitude threshold for all selected cells of a control zone grid, an automatic approval will be issued when submitting a permission request.

For a flight zone with an altitude above the lowest maximum altitude threshold for all selected cells of a control zone grid, a manual review of the operation by NAV CANADA is required.

Based on location and complexity of the airspace, processing times can vary. RPAS authorization requests can take up to two weeks.



10. What devices are supported by NAV Drone?

The NAV Drone Mobile app supports iOS and Android devices released within thepast three years and running a version of the mobile operating system that is currently supported by Apple/Google.

11. How do I add a drone that is not available in the drone list?

On the NAV Drone Web application, click on Gear in the left sidebar. Click on the

[+ Add] button and update the necessary information in the *New drone* screen. If the manufacturer or model you are trying to add is not available in the drop down list then you can type the name directly in the field to add it.

Please refer to the NAV Drone Web User Manual for detailed instructions.

On the NAV Drone Mobile application, tap the *Profile* icon, then tap the *Gear* tab. Next tap *Add* to display the *Add drone* screen. If the manufacturer or model you are trying to add is not available in the drop-down list then you can type the name directly in the field and tap *New* to add it.

12. How do I delete my profile?

From the NAV Drone Web application:

- 1. Click on the menu button at the top left of the screen to display the menu
- 2. Click on the Profile & Account Settings menu entry
- 3. You will now see the My account screen displaying your personal details in the Personal Info tab
- 4. Click on Delete account link in the Security area
- 5. An off-boarding message stating the date your account will be permanently deleted is displayed
- 6. Click Delete Account to confirm. Your account will be deactivated for 30 days before it is permanently deleted. You can reactivate your account at any time during the 30-day period.

From the NAV Drone Mobile app:

- 1. Tap on the ... button in the menu bar at the bottom right of the screen to access the More screen.
- 2. Tap on My Account
- 3. Tap on Delete account
- 4. An off-boarding message stating the date your account will be permanently deleted is displayed
- 5. Tap OK to confirm. Your account will be deactivated for 30 days before it is permanently deleted. You can reactivate your account at any time during the 30-day period.



13. What happens if I choose to delete my profile?

Your account will be deactivated for 30 days before it is permanently deleted. You can reactivate your account at any time during the 30-day period. After 30 days you will not be able to reactivate your account.

14. Why did my permission get rescinded?

Permission requests may be rescinded for the following reason:

 A decision by NAV CANADA due to exceptional circumstances that could have a safety implication to manned aviation

15. What does a NOTAM mean?

A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

NAV Drone visualizes the area of influence of a NOTAM. Operators should be aware that the area of influence is typically larger than the actual restriction. Refer to the published NOTAM to ensure that you respect all associated rules and that you are allowed to fly your RPAS.

The complete and official source for Canadian NOTAMs is the NAV CANADA CFPS website: CFPS-Alphanumeric Weather Recall (navcanada.ca)

16. What do the different colours of airspace mean?

The different colours are used to represent geozones. A geozone is defined as anyairspace that may have restrictions, may require permission, or may require awareness of manned aviation. Geozone colors in the map will change based on

the category of operation selected in the Map Layers menu. Geozones can be eitheryellow, orange or red.

- Yellow exercise caution due to the potential presence of manned aviation
- Orange permission required to access this geozone
- Red geozone is restricted to drone operations



17. How do I get situational awareness of airspace that is applicable to visual line of sight (VLOS) drone operations?

An overview of the airspace applicable to VLOS drone operations can be viewed at https://map.navdrone.ca

18. What should I do if I encounter an issue/incorrect data with the app?

NAV CANADA Support Site

- Have a look at the NAV CANADA Support Site to see if the information you need is there. If there is an
 outage on the app it will be reported there along with an estimated recovery time.
 https://www.navcanada.ca/en/flight-planning/drone-flight-planning/nav-drone-support.aspx
- Issues/incorrect data etc. may be reported by sending an email to navdrone@navcanada.ca

When reporting an issue, please include:

- A description of the issue and time it occurred
- The steps you took to get to that condition
- A screen capture of the issue (if possible)

19. What is the difference between a drone operator and a drone pilot?

A drone operator is the legal entity or organization that organizes a drone flight. Thedrone operator is accountable for the drone ownership. A drone pilot is the person accountable for flying the operation with the drone.

If the owner of the drone is also flying that drone, then the operator and pilot are one and the same person.

20. What are the restrictions for a NAV Drone operation?

The following operational restrictions must be followed while planning an operation:

- Duration of Operations
 - Operation length is limited to 24 hrs to prevent multiple repetitive flights
 - At the end of 24 hrs the mission has to be ended and marked as Landed
- Operation Planning
 - Maximum of 60 days in advance



o RPAS Flight zone

Limits for the RPAS Flight Zone include both a Maximum Span limit and a Surface area limit.
 RPAS Flight Zones must be less than both limits to be valid. Limits are as follows:

Polygon: 12.5 Sq.NM + 10 NM span

• Circle: 12.5 Sq.NM + 10 NM span

• Path/Line: 12.5 Sq.NM + 10 NM span

- All the measurements for length, area etc.are in nautical miles and feet as default units. Users
 can change their preference if needed
- Operational constraints will show a warning on the parameters screen when entering a shape/line, and
- Operational constraints have a publish validator with an error to indicate that they have exceeded the limits and should submit multiple requests.

21. What is the difference between micro drone, basic and advanced operations?

Please refer to the following information from Transport Canada regarding the difference between micro drone, basic and advanced operations: https://tc.canada.ca/en/aviation/drone-safety/find-your-category-drone-operation

22. Why does my name appear several times on some screens?

You can create an Operator in NAV Drone, and the Operator can have one or more Pilots associated with them. If you are an Operator (e.g. company representative) and a Pilot registered under that Operator, you will see references to yourself as both Pilot and Operator on some screens.

23. How do I obtain permission to fly in controlled airspace?

Access to controlled airspace via NAV Drone is limited to control zones under the jurisdiction of NAV CANADA.

Access to control zones not controlled by NAV CANADA cannot be provided via NAV Drone. Permission must be obtained directly from the controlling agency. Controlling agency information is presented in the Warning section of the validation message list, and by selecting the affected geozone in NAV Drone Mobile or Nav Drone Web.

To obtain permission to access NAV CANADA controlled airspace, you must have a NAV Drone user profile, which includes a Pilot Certificate – Advanced Operations and a verified mobile telephone number.



Ensure that a Transport Canada registration number is associated to your drone under the Gear screen. A new drone can be added to your list of Gear, but you must ensure each drone has an associated Transport Canada registration number.

Once completed, an operation can be created by defining the flight zone and associated parameters in a NAV CANADA control zone grid. Ensure you select a registered drone for this operation. Next, validate and publish the operation prior to submitting the permission request task.

24. How can I turn off / disable Multi-Factor Authentication (MFA) option?

The MFA can be enabled/disabled through the check box option under: Profile & Account Setting > My Account > Personal Info > Security.

25. What are control zone grids?

Each control zone under the jurisdiction of NAV CANADA has been divided into a number of $\frac{1}{2}$ x $\frac{1}{2}$ NM grid cells. Each grid cell has been assigned a maximum altitude threshold ranging from 0 to 400 ft Above Ground Level (AGL) increasing in increments of 100 ft. Control zone grids are used by NAV Drone to determine if a request for permission to access controlled airspace can be approved automatically or if the request needs to be sent to NAV CANADA Air Traffic Services for further assessment.

26. How to change the role of an operator from admin to user?

The operator Admin role can invite other users to join the operator's team. To edit the role of a user, log into NAV Drone web, click the Users tab, then click on the menu icon (:) on the right side of the user entry in the table and select the menu item Edit.

27. What do I do if my drone geofences do not match with the NAV Drone map?

If you encounter a discrepancy between a NAV Drone map data and your dronemanufacture's geofence data, please contact your drone manufacturer.

28. What do I do if I cannot find an answer to my questions in this list?

Please refer to the NAV Drone user guides and the NAV CANADA Support Site for additional information.

https://www.navcanada.ca/en/flight-planning/drone-flight-planning/nav-drone-support.aspx

Additionally, you can contact our support team at navdrone@navcanada.ca.



29. How do I change the operator that my NAV Drone account is linked to?

On the NAV Drone Web application, the user can change the Operator by clicking on the Current Operator (on the top left corner of the screen) and then selecting the desired Operator from the list of Operators displayed

On the NAV Drone Mobile application, the user can change the Operator by clicking on the More button -> My Account -> Operator and then selecting the desired Operator from the list of Operators displayed

30. How do I change the default operator in NAV Drone?

In the NAV Drone Web application, the Settings tab allows you to set your preference for the following settings for the Default operator in case your personal account is associated with multiple operators (e.g. if you are a freelance pilot contracted by multiple operators), you can select which operator is displayed by default when opening NAV Drone.

31. Where does NAV CANADA provide bilingual services?

NAV CANADA operates in compliance with Canada's Official Languages Act and the Official Languages (Communications with and Services to the Public) Regulations. The Canadian Aviation Regulations identify the geographical areas within Canada where air traffic control and related advisory services must be available in both English and French. In accordance with this legislation, NAV CANADA provides services in both official languages (French and English) in the National Capital Region

(Ottawa/Gatineau) and throughout the province of Quebec.

32. How do I report safety concerns with my operations, such as a runaway drone?

Canadian Aviation Regulations (CARs) provides a Site Survey list (see CARs 901.27) which includes knowing the proximity of aerodromes, airports and heliports, etc. Pilot/operator best practices suggest having a list of emergency contacts applicable to the flying site (flyaway, EMS etc.).

In the event of a flyaway, it's important to contact the affected authority providing last known position, direction, height and remaining battery life.

33. What if my operation overlaps two or more control zones?

A separate permission request is required for each NAV CANADA control zone. It is possible you may receive permission to operate in one control zone and not the other.



For Non-NAV CANADA Control Zones, you need permission from the Controlling agency which cannot be obtained from NAV CANADA. Please contact the controlling agency.

Controlling agency information is presented in the Warning section of the validation message list, and by selecting the affected geozone in NAV Drone Mobile or Nav Drone Web.

34. How do I update my mobile number?

On the NAV Drone Web application User can update mobile number under: Profile and Account Settings > Personal Info. > Mobile > Edit (+1-Mobile number) and click 'Send verification code' button to receive the verification code.

On the NAV Drone Mobile application User can update mobile number under: My Account > Mobile number > Enter the new number (+1-Mobile number) and then click 'Verify' button to receive the verification code.

If the Multi-factor authentication for your account is ON and you do not have access to your old phone number, then please send an email to Navdrone@navcanada.ca.

35. What are the rules for micro drone (under 250 grams)?

Rules for micro drones can be found at Transport Canada's website: https://tc.canada.ca/en/aviation/drone-safety/find-your-category-drone-operation

36. Can I see what other drones are being used in my company?

User can view the list of all drones associated to the company by clicking on 'Gear' in the left navigation menu.

37. How do I add my pilot certificate?

On the NAV Drone Web application, user can add the pilot certificate by navigating to:

Profile and Account Settings > My documents > Click 'Add Document' > Select 'Licence'. A Form is displayed.

Select 'Type' as 'Pilot Certificate'. Complete the form, upload a copy of the certificate (optional), and click 'Save'

On the NAV Drone Mobile application, user can add the pilot certificate by navigating to: More (...) > My documents > Tap 'Add' > Set 'Category' to 'LICENCE' and 'Type' to 'Pilot Certificate'. Next complete the 'Subtype' and 'Certificate Num.' field and Save



38. I am a foreign operator with an SFOC allowing me to fly in Canada. How do I enter my credentials in NAV Drone?

As an international user with a valid Special Flight Operation Certificate (SFOC) but without a Transport Canada issued Pilot Certificate – Advanced Operations, please follow the below steps to enable the use of NAV Drone to create advanced operations.

- 1. Login into NAV Drone web at https://portal.navdrone.ca
- 2. Click the down arrow next to your name located at the top left of the screen
- 3. Click Profile & Account Settings
- 4. Click My documents tab
- 5. Click **Add document** button
- 6. Select "Licence" from the drop down
- 7. On the *Add pilot licence* form:
 - a. Ensure the fields are set as follows:
 - Country = Canada
 - Type = Pilot Certificate
 - Subtype = Advanced
 - b. Enter PC0000000000 in the field named Certificate number or reference
 - c. Upload a copy of your SFOC:
 - Click the **Upload** link
 - Select a copy of your SFOC from your computer
 - Click *Open* button
 - d. Click the Save button at the bottom of the form

39. Why does NAV Drone allow me to plan an operation in a national park?

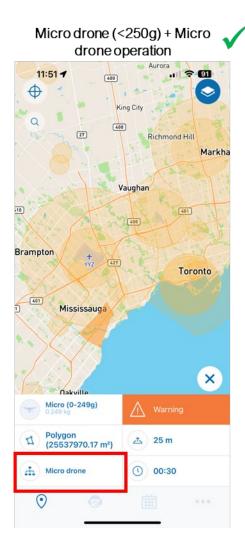
Drone operation in national parks may meet the requirements to use the airspace according to its Transport Canada classification. However, depending on the area of the flight or the location of the take-off/landing site, other agencies such as Parks Canada may have rules about the use of drones. Parks Canada information is presented in the Warning section of the validation message list, and by selecting the affected geozone in NAV Drone Mobile or Nav Drone Web. If the pilot publishes the operation, the validation status will be Warning.

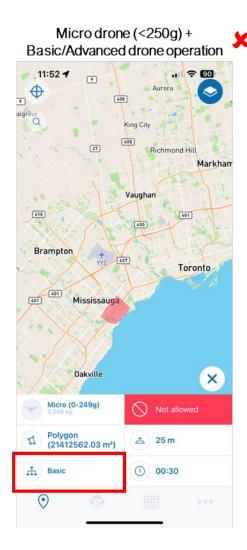
^{*}Note that this is a temporary workaround and should not be shared with other users. NAV CANADA may require you to make changes to your licence/documents setting in the future once a permanent solution is implemented



40. Why does NAV Drone not allow me to fly (anywhere) with my micro drone?

Micro drone operations are not as restrictive as for small RPAS since they are not regulated by Transport Canada. However, planning a micro drone operation in NAV Drone requires the user to ensure that the Selected Drone and Category of Operation fields are aligned with each other, otherwise a "Not allowed" validation result is returned. The following screenshots illustrate the recommendations:







Glossary

Terms	Abbreviations
AGL	Above Ground Level
ANSP	Air Navigation Service Provider
NES	NOTAM Entry System
NOTAM	Notice to Airmen
RPAS	Remotely Piloted Aircraft System
TC	Transport Canada
UAV	Unmanned Air Vehicle
VLOS	visual line-of-sight