NAV Drone Web version 3.6 User Manual



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1 Preface

1.1 Intended audience

This User Manual is intended for all drone operators, pilots and crew members who want to plan and manage drone operations in the NAV Drone Web.

This web application is part of the NAV Drone Remotely Piloted Aircraft Systems (RPAS) Traffic Management system.

Basic familiarity with your PC platform and a supported web browser are the only prerequisites for understanding the information presented in this User Manual.

1.2 Supported software

Supported web browsers:

- Evergreen i.e. auto-updating browsers such as Microsoft Edge (most recent version and two versions back), Mozilla Firefox (most recent version and two versions back with major patches applied), and Google Chrome (most recent version and two versions back)
- Apple Safari (most recent version and one version back)
- Opera (most recent version and two versions back)



Visiting the website using Microsoft Internet Explorer is not supported. Please use one of the browsers listed above.

1.3 Disclaimer

- Illustrations shown in this User Manual may differ from the actual product.
- In some cases there is more than one way to perform an action in the application. In the context of this User Manual not all alternatives are being described.
- The product features available to you depend on your configuration, as well as to your role and responsibilities. Therefore, you may not have access to all functionalities described in this User Manual.

2 Introduction

2.1 Features of the NAV Drone Web

2.1.1 General

If you create a user account in the NAV Drone Web it also serves as your pilot account. At the same time your operator account is automatically created as well.

2.1.2 Drone pilot

- Select an associated drone operator in your user profile.
- Select an operation that was assigned to you by an associated drone operator.
- Select a drone that is registered by an associated drone operator.

2.1.3 Drone operator

- Register and manage your certifications/licences.
- Manage your operator account, crew, drone and logbook.
- Plan and schedule drone operations.
- Validate your operation ensuring operation compliance with applicable laws and regulations, including geographical zones. Validation also supports strategic deconfliction.
- Obtain the required operational approvals (permissions) from the authorities.
- Submit a flight plan with the responsible authorities to notify other airspace users of your flight.
- View your flights in real-time, including (un)manned air traffic and integrated collision alerting (If available in your configuration, see "Disclaimer" on page 9).
- Prioritization of flights
- Strategic deconfliction
- Emergency management

2.2 The workflow

2.2.1 The pre-flight phase

In this phase you can:

- plan and visualize your drone operation.
- validate your planned operation ensuring compliance with (local) laws and regulations, including geographical zones and strategical deconfliction. If required, request approvals before performing the operation.
- manage your drones, crew and documents (certificates, licences, insurance documents, operation manuals,...).



It is also possible to perform these tasks in the Unifly Operator Mobile App.

2.2.2 The flight phase

In this phase you can:

- activate a previously planned operation.
- visualize a planned operation and nearby air traffic (If available in your configuration, see "Disclaimer" on page 9).
- manually log the start and the end of the flight with automatic drone and pilot logbook entry generation.



It is also possible to perform these tasks in the Unifly Operator Mobile App.

2.2.3 The post-flight phase

In this phase you can:

- manage your drones, crew and logbook.
- manage operation reporting.

3 Register and log in

If you want to use all features of your product configuration you must register with Unifly.

3.1 Create an account

1. Start your browser and open the NAV Drone Web (https://portal.navdrone.ca).



2. Click *Create an account* and complete all fields on the registration page.



Make sure to use an active email address since this email address will be used to verify and confirm your registration.

- 3. Select the checkbox to display the License agreement details. Read the agreement, scroll down to activate the *I agree* button at the bottom and click on it.
- 4. Select the checkbox to display the Privacy Notice details. Read the agreement, scroll down to activate the *I agree* button at the bottom and click on it.
- 5. (Optional) Check the checkbox to allow Unifly to contact you with account and/or application related information.
- 6. Click *Register* to continue. By clicking on this button, a confirmation email will be sent to the email address provided in the registration form.

3.2 Activate your account

1. Activate your account by clicking on the *Activate account* button in the email you received after registration or by pasting the link included in the email into your web browser. Make sure to check your spam folder if you don't find the confirmation email in your standard incoming email folder.

2. You will receive a confirmation that your account is now ready for use. Along with your user account, which also serves as your pilot account, your operator account is automatically created. This account will enable you to manage your operations. See also "Features of the NAV Drone Web" on page 11.

3.3 Reactivate account

If you deleted your account (see "Delete account" on page 36) and would like to reactivate it during the legal retention period, please follow the instructions below:

1. Start the NAV Drone Web in your web browser.



- 2. Enter your user name and password.
- 3. Click Login.
- 4. A message appears asking for confirmation to reactivate the account. Click *Send reactivation mail*.
- 5. A message appears stating that a reactivation link has been sent to your email.
- 6. Check your mailbox and confirm your reactivation by following the instructions in the email message sent to you. Make sure to check your spam folder if you don't find the reactivation email in your standard incoming email folder.
- 7. Your account has been reactivated and you can continue using the Unifly product.

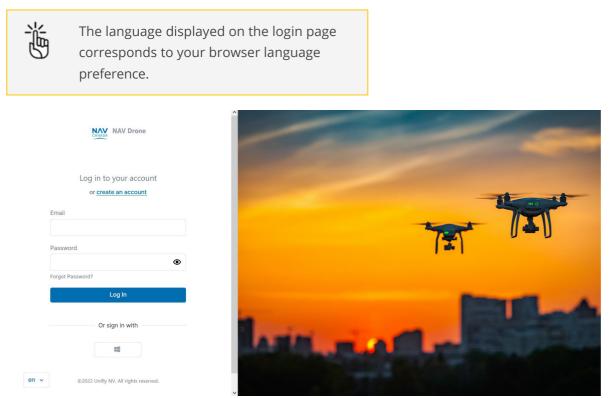


As stated in the off-boarding message you received when you deleted your account, following data are no longer accessible:

- Crew members linked to your Operator account at the time of account deletion.
- Authorization requests that were still active at the time of account deletion.

3.4 Log in

1. Start the NAV Drone Web in your web browser (<u>https://portal.navdrone.ca</u>).



- 2. Enter your email address and password. Use the *Eye* icon to expose/hide your password.
- 3. Click *Login*.

3.5 Log out

- 1. Click the active *Operator name* at the top of the left sidebar to activate the tools menu.
- 2. Click Log out.

4 Dashboard

If you log in to the NAV Drone Web your operator *Dashboard* page opens.

User A ~ John Doe	Welcome back, John Doe		
U User A O	Current & future operations	Past operations	
John Doe david langendingburfly zero Profile & Account Settings My logbook Log Out	There are no current or future operations.	Operation same Peration same Down Anthe Donnes - Mano Dranes Applicational reasolition ©samone	SN4 2015/2002211400.44 Exel 04(56)20221200.44 Fight status Executor
		Cynerifin nam Israetafun Gwenn Aersteinnic - Altara Zente ATX6 Cynerifinal aenoton	947 336(7)022.043/35 400 336(7)022.043/35 78(4)(104) 400 400 400 400 400 400 400 400 400
		Operation name Estaction Done Anipatonica - Aniura Zenith ATXIS Operational envelopment Reflection	Surt 29077022104619 Evel 290770222114619 Freger table
Plan operation v			

The dashboard, initially empty, provides an overview of a limited number of your past, current or future operations. They appear sorted on creation date.

In this screen you can also start planning an operation.

The sidebar to the left provides access to your user/operator profile and to all features that are available in your configuration. Click

At the top of the sidebar, your name will appear twice:

- Last name, first name: as an operator, the default name for your commercial entity.
- First name, last name: your name as a user.

Both can be modified, see also "Edit user/pilot profile" on page 29 and "Edit operator profile" on page 37.

Click ? to access:

- Legal
 - Terms and Conditions of Use
 - Privacy Policy
 - Cookie Policy
- Help
 - Nav Drone Support
 - ° Release info

5 How to use tables

The user interface uses tables that contain all data required for you to be able to execute your tasks. Following instructions show you how to use the main functions of these tables in the most efficient way.

5.1 Table structure and functions

You can find the following structure and functions in all tables. The table shown below is an example.

Q Search										4 Tilters	All operations
Name	Drone Pilot 2	Start time	End time	Duration	Validation	Status	Fight status	NAV CANADA Reference Code	Tasks No	otification status	Archived?
test2	1515151 - Acti John Doe	26/03/2024 11:47:00	26/03/2024 12:47:00	1:00:00	Allowed	Draft	Landed		N	lot applicable	
	1515151 - Acti Jean Dupont	04/03/2024 11:41:00	04/03/2024 12:41:00	1:00:00	Warning	Draft	Landed		Ν	lot applicable	6
Test1	1515151 - Acti John Doe	04/03/2024 11:38:00	04/03/2024 12:38:00	1:00:00	Allowed	Published	Landed		N	lot applicable	1
SANS NOM	1515151 - Acti John Doe	04/03/2024 09:40:04	04/03/2024 09:50:04	0:10:00	Allowed	Published	Landed		N	lot applicable	,
Inspection	1515151 - Acti John Doe	01/03/2024 15:36:00	01/03/2024 16:06:00	0:30:00	Allowed	Published	Landed		N	lot applicable	
COPY Inspection	1515151 - Acti John Doe	01/03/2024 10:48:44	01/03/2024 11:48:44	1:00:00	Allowed	Published	Landed		N	lot applicable	
Inspection	1515151 - Acti John Doe	01/03/2024 08:51:00	01/03/2024 09:50:00	0:59:00	Allowed	Published	Landed		N	lot applicable	1
Inspection	1515151 - Acti John Doe	01/03/2024 08:49:00	01/03/2024 09:48:00	0:59:00	Allowed	Published	Landed		N	lot applicable	1
SANS NOM	1515151 - Acti John Doe	07/11/2023 14:57:00	07/11/2023 15:57:00	1:00:00	Not allowed	Draft	Landed		N	lot applicable	1
Inspection	1515151 - Acti John Doe	19/06/2023 09:01:00	19/06/2023 10:01:00	1:00:00	Allowed	Published	Landed		N	lot applicable	1
Inspection	1515151 - Acti John Doe	05/05/2023 10:25:39	05/05/2023 11:25:39	1:00:00	Allowed	Published	Landed		Ν	lot applicable	1
TEST	John Doe	10/04/2022 14:12:00	10/04/2023 19:45:00	5:28:00	Error	Draft	No Drone		N	lot applicable	1

N°	Description
1	Enter your search term in the field next to the <i>Search</i> symbol.
2	 Click on the header to change the alphabetical/chronological order of the table records in that column. See also "Sort" on page 21.
	 Drag a header to the left or right to change the order of the columns. See also "Change column order" on page 21.
	- Use drag and drop to use the group feature (if available for this table). See also "Group" on page 25.
3	Click <i>Settings</i> \$ to display/hide table columns. See also "Display/hide table columns" on the next page.
4	Click <i>Filters</i> to add filters to only view a limited number of table entries. Per default the name of the last saved filter is displayed. See also "Filter" on page 22.

N°	Description
5	Click <i>All</i> to select/edit/delete an existing view or add a new one. Per default the name of the last selected view is displayed. See also "View" on the facing page.
6	Click the 🛢 menu to perform an action on the selected table entry. See also "Dots menu" below.

5.2 Dots menu

The *Dots menu* is located next to each table entry and lists all available actions that you can perform on that entry.

Q Search										1 Filte	rs All operations ×
Name	Drone Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	Tasks	Notification status	Archived?
Pipeline check	DLA789 - DJI Mai User B	11/03/2022 08:41:49	11/03/2022 18:41:49	10:00:00	Prohibited	Published	Landed			Not applicable	I
Canal survey	Speedy - Aerialtri User B	21/03/2022 15:30:14	21/03/2022 16:30:14	1:00:00	Prohibited	Published	Landed			Not applicable	Q. View Details
Building survey	DLA789 - DJI Mai User B	28/03/2022 09:52:36	28/03/2022 10:52:36	1:00:00	Authorization required	Published	Landed	PR-00000362	1 👔	Not applicable	 Publish operation Edit
Pipeline check	DLA789 - DJI Mai User B	28/03/2022 10:28:20	28/03/2022 11:28:20	1:00:00	Prohibited	Published	Landed	PR-00000363	1 🕡	Not applicable	 G Copy S Cancel operation
	User B	28/03/2022 11:42:50	28/03/2022 12:42:50	1:00:00	Fatal	Draft	No Drone			Not applicable	 Archive operation Delete operation
Est	User B	29/03/2022 15:09:39	29/03/2022 16:09:39	1:00:00	Fatal	Draft	No Drone			Not applicable	
	User B	31/03/2022 11:03:29	31/03/2022 12:03:29	1:00:00	Fatal	Draft	No Drone			Not applicable	:
Pipeline check	DLA789 - DJI Mai User B	11/04/2022 10:18:54	11/04/2022 11:18:54	1:00:00	Disclaimer	Published	Landed			Not applicable	:

5.3 Display/hide table columns

Q _{Search}												Filters All operations ~
Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	Tasks	Notification status	Archived?
Pipeline check	DLA789 - DJI Mat	User B	11/03/2022 08:41:49	11/03/2022 18:41:49	10:00:00	Prohibited	Published	Landed			Not applicable	 Name Drone
Canal survey	Speedy - Aerialtri	User B	21/03/2022 15:30:14	21/03/2022 16:30:14	1:00:00	Prohibited	Published	Landed			Not applicable	 Pilot Start time
Building survey	DLA789 - DJI Mar	User B	28/03/2022 09:52:36	28/03/2022 10:52:36	1:00:00	Authorization required	Published	Landed	PR-00000362	1 👔	Not applicable	End time
Pipeline check	DLA789 - DJI Mat	User B	28/03/2022 10:28:20	28/03/2022 11:28:20	1:00:00	Prohibited	Published	Landed	PR-00000363	1 🕡	Not applicable	DurationValidation
		User B	28/03/2022 11:42:50	28/03/2022 12:42:50	1:00:00	Fatal	Draft	No Drone			Not applicable	 Status Flight status
TEst		User B	29/03/2022 15:09:39	29/03/2022 16:09:39	1:00:00	Fatal	Draft	No Drone			Not applicable	 Permissions refs Tasks
		User B	31/03/2022 11:03:29	31/03/2022 12:03:29	1:00:00	Fatal	Draft	No Drone			Not applicable	 Notification status Archived?
Pipeline check	DLA789 - DJI Mar	User B	11/04/2022 10:18:54	11/04/2022 11:18:54	1:00:00	Disclaimer	Published	Landed			Not applicable	Archived on

Click the 🌣 icon and select or deselect the table columns you want to display.

5.4 Change column order

Click and hold a column header to move it to the desired position in the table.

Q Sear	ch		≂ Filters	All operations v
Add ~				
lame	Drone Pilot	N	Duration Validation	¢
	DLA789 - DJI I User B	28/02/2022 15:19:57)22 16:19:57	1:00:00 Prohibited	I
Inspection	DLA789 - DJI I User B	09/03/2022 13:29:16:22 17:29:16	4:00:00 Prohibited	:

5.5 Sort

Sorting will display table entries in ascending or descending alphabetical or chronological order. To sort the table entries, click on a column header.

Q Search	1				1 Filters All operat	tions ~
Name	Drone Pilot	Start time	End time	Duration	Validation	¢
Inspection	DLA789 - DJI I User B	V 09/03/2022 13:29:16	09/03/2022 17:29:16	4:00:00	Prohibited	1
Inspection	DLA789 - DJI I User B	10/03/2022 07:44:09	10/03/2022 23:44:09	16:00:00	Prohibited	I
Pipeline check	DLA789 - DJI I User B	11/03/2022 08:41:49	11/03/2022 18:41:49	10:00:00	Prohibited	I
Building survey	DLA789 - DJI I User B	16/03/2022 15:28:31	16/03/2022 16:28:31	1:00:00	Authorization required	I
Canal survey	Speedy - Aeria User B	18/03/2022 10:07:14	18/03/2022 11:07:14	1:00:00	Disclaimer	:

- A vertical arrow pointing upwards is displayed next to the column header to indicate that the table entries are sorted by ascending order on that attribute.
- A vertical arrow pointing downwards is displayed next to the column header to indicate that the table entries are sorted by descending order on that attribute.

5.5.1 View

Next to the default view of *All operations* you can create your own views based on your personal preferences. You can switch views by clicking on the view name button that shows by default the name of the last selected view.

Q Search									1 Filters All operations	J
Name	Drone	Pilot	Start time 😺	End time	Duration	Validation	Status	Flight statı	All operations	
Pipeline check	9999 - DJI Mir	David Langendries	19/07/2022 14:24:00	19/07/2022 15:24:00	1:00:00	Fatal	Draft	Landed	User view 1 📔 🖉 🕯	
Inspection	9999 - DJI Mir	John Deere	12/08/2022 12:08:00	12/08/2022 14:05:35	1:57:35	Disclaimer	Published	Landed	Create view	1
Land survey	9999 - DJI Mir	John Deere	12/08/2022 12:09:00	12/08/2022 13:09:00	1:00:00	Disclaimer	Draft	Landed		:
Pipeline check	9999 - DJI Mir	John Deere	16/08/2022 12:53:00	16/08/2022 13:53:00	1:00:00	Prohibited	Published	Landed	PR-00000438, PR	:
Land survey	9999 - DJI Mir	John Deere	17/08/2022 09:56:00	17/08/2022 10:56:00	1:00:00	Authorization required	Draft	Landed		:
Pipeline check	9999 - DJI Mir	John Deere	17/08/2022 13:27:00	17/08/2022 14:27:00	1:00:00	Authorization rejected	Published	Landed	PR-00000452, PR	:
Land survey	9999 - DJI Mir	John Deere	17/08/2022 13:36:00	17/08/2022 14:36:00	1:00:00	Authorization rejected	Published	Landed	PR-00000454, PR	:
Inspection	9999 - DJI Mir	John Deere	17/08/2022 14:12:00	17/08/2022 15:12:00	1:00:00	Disclaimer	Published	Landed	PR-00000457, PR	:
4										÷

- 1. Sort, hide or move columns to configure the desired view.
- 2. Click the view button and click *Create view*.
- 3. Enter a name for the new view and click *Save*.

Clicking on the view name button also lets you edit or delete an existing view.



After you configured a view by hiding, sorting and moving columns and you leave the page, the application will automatically remember that view and show it next time you visit the page, even if you didn't save it as a new view.

5.6 Adjust column width

To adjust a column width, move your mouse cursor into the column header area and place it on the border between two columns. Drag the border delimiter left or right to adjust the column width accordingly.

5.7 Click behaviour

Click once on a table entry to view entry details (if available).

5.8 Filter

Use filters to display only the entries corresponding to the filter criteria.

5.8.1 Define a filter

- 1. Click Filters.
- 2. Click *Add* and select a field to use as a filter.

- 3. Click on the field filter you just selected. Depending on the field choice you can
 - select several options

Q Search	_					1 Filters	All operations v
Flight status (Add 🗸						
Landed	Drone	Pilot	Start time	End time	Duration	Validation	0
No Drone	DLA789 - DJI I	User B	28/02/2022 15:19:57	28/02/2022 16:19:57	1:00:00	Prohibited	:

or

- click in the field and start typing to activate the filter.

Q Search			1				1 Filters All o	perations ~
Name: Ins		8	Add Υ					
Name	Drone	Pilot		Start time	End time	Duration	Validation	0
Inspection	DLA789 - DJI	I User B		09/03/2022 13:29:16	09/03/2022 17:29:16	4:00:00	Prohibited	:
Inspection	DLA789 - DJI	I User B		10/03/2022 07:44:09	10/03/2022 23:44:09	16:00:00	Prohibited	:

If needed, add more filters. The number on the *Filters* button indicates how many filters are active. Multiple filters are applied following a Boolean AND function, as shown below.

Q Search									2 Filters All operations	5 *
Drone	¢	Pilot	© A	dd ¥						
Name	Drone F	Pilot 🛧	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	٥
UNNAMED	OO-AWS - DJ		16/12/2020 14:56:15	16/12/2020 15:56:15	1:00:00	Not Allowed	Published	Landed		:
Railway surveying	OO-AWS - DJ	Miguel A. Fernandez	04/02/2021 16:19:47	04/02/2021 17:19:47	1:00:00	Authorization required	Draft	Landed		:
Railway survey	oo-aws - dj	Miguel A. Fernandez	04/02/2021 16:18:19	04/02/2021 17:18:19	1:00:00	Not Allowed	Draft	Landed		1
Bridge construction	oo-aws - dj	Miguel A. Fernandez	03/02/2021 16:20:27	03/02/2021 17:20:27	1:00:00	Authorization required	Draft	Landed		1
UNNAMED	OO-AWS - DJ	Andres Van Swalm	24/01/2021 02:37:50	24/01/2021 03:04:50	0:27:00	Response pending	Published	Landed	PR-0000078, PR-0(1

5.8.2 Remove a filter

Click X next to a filter to remove it.

5.8.3 Save a filter

After you add a filter you can save it in order to use it again afterwards.

- 1. Add filter. See also "Define a filter" on page 22.
- 2. Click *All operations* and *Create view*.

Pilot: John D	eere	🛛 Add 🗸							All operation	S		
lame	Drone	Pilot 🛧	Start time	End time	Duration	Validation	Status	Flight status	User view 1	8	•	
est	9999 - DJI Mir	John Deere	06/09/2022 11:02:00	06/09/2022 12:02:00	1:00:00	Disclaimer	Published	Landed	Create view			

- 3. Enter a name for the filter and click *Save*.
- 4. The saved filter now is available.

Q Search								≑ Filters	All op	peratio	ons ~
Add ~								All operations			
Name	Drone	Pilot 🛧	Start time	End time	Duration	Validation	Status	User view 1			1
Pipeline check	9999 - DJI Mir	David Langendries	19/07/2022 14:24:00	19/07/2022 15:24:00	1:00:00	Fatal	Draft	Operations pilot John Deere		•	
Inspection	9999 - DJI Mir	John Deere	12/08/2022 12:08:00	12/08/2022 14:05:35	1:57:35	Disclaimer	Published	Create view			1

5.9 Group

5.9.1 Set group

Grouping displays table entries in groups, based on their attributes or fields.



Not all fields support grouping.

1. Click and hold the field you want to group to activate the *Drag Columns Here To Group* bar.

Q Search		+ DRAG COL	UMNS HERE TO GROUP		All operatio	ns v
Add ~	StorDrone 🔸	Pilot	End time	Duration	Validation	ø
Canal survey	1:/Speedy-Aerič:14	User B	18/03/2022 11:07:14	1:00:00	Disclaimer	ł
Building survey	16/DLA789-1DЛ3:31	User B	16/03/2022 16:28:31	1:00:00	Authorization required	1
Pipeline check	11/DLA789 - DЛ 1:49	User B	11/03/2022 18:41:49	10:00:00	Prohibited	:

- 2. Drag and drop the column heading to the *Drag columns here to group* bar.
- 3. All data linked to the selected field is displayed in the table. Expand or collapse the table entries contained in a group by using the + and icons at the left side of the group. Click the x next to a grouping to remove it.

Pilot ×	🕂 DRAG	COLUMNS HERE TO GRO	UP		
Q Search			∓ Filters	All operation	IS Y
Add ~					
Drone Name	Start time	End time	Duration	Validation	¢
- Pilot:User B(5)					
DLA78	28/02/2022 15:19:57	28/02/2022 16:19:57	1:00:00	Prohibited	1
DLA78! Inspection	09/03/2022 13:29:16	09/03/2022 17:29:16	4:00:00	Prohibited	:

5.9.2 Examples

5.9.2.1 One group

In the example below, *Pilot* is used. In this case, there is only one pilot who performed flights, so only one group appears.

Pilot ×	🕂 DRAG	COLUMNS HERE TO GRO	UP		
Q Search			∓ Filters	All operation	s ¥
Add ~					
Drone Name	Start time	End time	Duration	Validation	¢
- Pilot:User B(5)					
DLA78	28/02/2022 15:19:57	28/02/2022 16:19:57	1:00:00	Prohibited	I
DLA78! Inspection	09/03/2022 13:29:16	09/03/2022 17:29:16	4:00:00	Prohibited	:

5.9.2.2 Multiple groups

In the example below *Drone* is used. In this case two groups appears, corresponding to the drones that have been used to perform the flights in the operations.

Q Sea	arch		1	Filters All o	operation	s ~
lame	Pilot	Start time	End time	Duration	Valir	¢
- Drone:DJI -	Matrice 100(4)					
Inspectio	on User B	09/03/2022 13:29:16	09/03/2022 17:29	:16 4:00:00	Pi	:
Inspectio	on User B	10/03/2022 07:44:09	10/03/2022 23:44	:09 16:00:00	Pi	:
- Drone:Aeria	Itronics - Altura Zenith	ATX8(1)				
Canal su	rvey User B	18/03/2022 10:07:14	18/03/2022 11:07	:14 1:00:00	D	;

5.9.2.3 Nested groups

In the example below the combination of both groups (first *Drone*, then *Pilot*) results in a sub-group for each drone type of the pilots using that drone (see below).

Drone x	Pilot ×	🕂 DRAG C	OLUMNS HERI	E TO GROUP	
Q	Search			1 Filters	All operations v
Name	Start time	End time	Duration	Validation	0
- Drone:DJI + Pilot:U	I - Matrice 100 <i>(4)</i> Jser B <i>(4)</i>				
	rialtronics - Altura Zenith ATX	8(1)			
- Pilot:U	Jser B(1)				
Ca	nal surve: 18/03/2022 10:07:	14 18/03/2022 11:07:14	1:00:00	Disclaimer	1

6 Edit profile

6.1 Edit user/pilot profile

J John Deere ~ John Deere CHANGE OPERATOR	Welcome back, John Deere		
J John Deere 🔅	Current & future operations	Past operations	
John Deere davd.angendries@unify.sero Profile & Account Settings My logbook Log Out Flightmap	There are no current or future operations	Operation name Inspection Drone DJI - Mini 2 Operational execution (Published)	Start 12/08/2022 12:08:00 End 12/08/2022 14:05:35 Flight status Landed
Logbook		Operation name Pipeline check Drone DJI - Mini 2 Operational execution (Published)	Start 16/08/2022 12:53:00 End 16/08/2022 13:53:00 Flight status Larded
@		Operation name <u>Pipeline check</u> Drone DJI - Mini 2 Operational execution (Published)	Start 17/08/2022 13:27:00 End 17/08/2022 14:27:00 Flight status Landed
Plan operation			

- 1. Click the active *Operator name* at the top of the left sidebar to activate the tools menu.
- 2. Click Profile and account settings.

6.1.1 Add/edit personal information

Use this tab to change your personal details.

My account Personal info My documents Settings		
Personal Details		Edit
Mobile	Verified	Edit
Address	Belgium	Edit
Security		Multi factor authentication Change password Delete account
Privacy	l agree to receive notification emails from Unifly	

My account

Ĭ

Personal info My documents Settings		
Personal Details	John Doe	Edit
Mobile	: Verified	Edit
Address	t.	Edit
Security		Multi factor authentication Change password Delete account
	I agree to receive notification emails from NAV CANADA	

When entering your mobile number, click *Send verification code* to have a SMS with a verification code sent to your mobile phone. After receiving the code, enter the code on the website and click *Verify phone number* to confirm your mobile number.

A verified mobile number is required for planning and performing drone operations.

From the *Personal info tab* you can also:

- activate multi factor authentication, see "Multi factor authentication" below.
- change your password, see "Change your password" on page 32.
- delete your account, see "Delete account" on page 36.
- agree to receive information emails from Unifly.

6.1.2 Multi factor authentication

6.1.2.1 Data security

To increase data security you can activate *Multi factor authentication*. Next to your credentials, the Unifly application will also ask for a verification code that is sent in an SMS to your mobile device.

Depending on your configuration you may be required to activate this feature during the registration process.



A verified mobile number is required to make use of the *Multi factor authentication* service.

6.1.2.2 Activate Multi factor authentication.

1. Click the *Personal info* tab.

My account

Personal info My documents Settings		
Personal Details	D Sector approximation	Edit
Mobile	Verified	Edit
Address	Belgium	Edit
Security		Multi factor authentication Change password Delete account
Privacy	I agree to receive notification emails from Unifly	
My account Personal info My documents Settings		
Personal Details	John Doe	Edit
Mobile	Ventied	Edit
Address	1	Edit
Security		Multi factor authentication Change password Delete account
	I agree to receive notification emails from NAV CANADA	

- 2. Check if a verified mobile number is listed in your profile.
- 3. Click *Multi factor authentication* in the *Security* section.

Security

Multi factor authentication
Change password
Delete account

4. Click the radio button to activate or deactivate *Multi factor authentication*.

Security	We will ask you for an SMS code every time you log in.	_	
	Save Cancel		

5. Click *Save* to save your changes.

6.1.3 Change your password

account nal info My documents Settings		
ersonal Details	Μ	Edit
tobile	+32 444 44 44 44 Venilied	Edit
ddress	Luchthavenlei 7A 2100 Deurne BEL Belgium	Edit
ecurity		Change password Delete account
rivacy	I agree to receive notification emails from Unify	

My account

Personal info My documents Settings		
Personal Details	John Doe	Edit
Mobile	Venthed	Edit
Address	I.	Edit
Security		Multi factor authentication Change pasaword Delete account
	l agree to receive notification emails from NAV CANADA	

- 1. Click the *Personal info tab*.
- 2. Click Change password.
- 3. Enter your current password.
- 4. Enter your new password.
- 5. Click *Save*.

6.1.4 Add/edit personal documents

You can add documents related to your user account, such as licences and certificates.

John Doe My account				
Personal info My documents	Settings			
				Add document 👻
Q Search				▼ Filters All documents >
Issue date Valid und	Certificate	Reference	Country	0
07/11/2023	Plot Certificate	PC4567891245	I•I Canada	а ^т

- 1. Click the tab *My documents*.
- 2. Click Add document.
- 3. Select the document type you want to add from the popup menu.
- 4. Enter the required data.



Optionally, you can upload a file such as a scan of the document you are registering.

5. Click *Save* to save your changes or *Cancel* to abort the action.

6.2 Edit settings

- 1. Click the *Settings* tab.
- 2. Click *Edit* next to the relevant data set to specify your preferences.

My account

Personal info	My documents	Settings	

Account	Default operator		Ec
Units of	Altitude	m	Ec
Measurements	Distance	m	
	Dimensions	mm	
	Weight	kg	
	Pressure	hPa	
	Temperature	°C	
	Velocity	m/s	
Notifications	Play sound		
	Desktop notifications		

6.2.0.1 Date and time

1. Specify the available settings.

Date & Time	Coordinate format	
	 51.190042°, 004.450589° 	
	○ 51°11′24", 004°27′02"	
	Date format	
	21/01/2022	
	Time format	
	09:12:19	~
	Timezone	
	(UTC +02:00) Europe/Brussels	~
	Save Cancel	

- Coordinate format
- Date format
- Time format (expressed in Coordinated Universal Time)
- Time zone
- 2. Click *Save* to save your changes or *Cancel* to abort the action.

6.2.0.2 Language

1. Specify the available settings.

Language	Language	
	en	
	Map label language	
	Inherit from language	~
	Country specific	
	Inherit from language	
	Use default (English)	

- Language of the user interface
- Map label language
 - a. Country specific: when navigating, the map labels from a specific country are displayed in the official language of this country. For example: if a user is navigating in Spain, the map labels are displayed in Spanish, while if the user is navigating in Germany, the map labels are displayed in German.
 - b. Inherit from language: the map labels are displayed in the language selected in the setting *Language*.
 - c. Use default (English): the map labels are always displayed in English.
- 2. Click *Save* to save your changes or *Cancel* to abort the action.

6.2.0.3 Default operator account

This setting is only relevant if you have more than one operator account linked to your user account.

1. Specify the *Default operator account* that appears when you log in to the NAV Drone Web.



2. Click *Save* to save your changes or *Cancel* to abort the action.

6.2.0.4 Units of measurement

Units of Measurements

1. Specify the available settings.

metric	
Altitude	
m	
Distance	
m	
Dimensions	
mm	
Weight	
kg	
Pressure	
hPa	
Temperature	
0 °	
Velocity	
m/s	

- Preset:
 - a. custom: you can select your preference for every single unit of measurement.
 - b. metric: all units of measurement appear according to the metric system.
 - c. imperial: all units of measurement appear according to the imperial system.
- Altitude
- Distance
- Dimensions
- Weight
- Pressure
- Temperature
- Velocity
- 2. Click *Save* to save your changes or *Cancel* to abort the action.

6.2.1 Delete account

6.2.1.1 Data privacy

If you want to delete your account, Unifly will comply with the applicable data privacy regulations by deleting and/or anonymizing your personal and operational data.

6.2.1.2 Process

If you delete your account, it will first be deactivated and will only be completely deleted after the legal retention period. During that time you are still able to reactivate it.

6.2.1.3 Delete your account

- 1. Click the *Personal info* tab.
- 2. Click *Delete* in the *Security* section.

Security

Multi factor authentication
Change password
Delete account

- 3. An off-boarding message appears, clearly stating the date your account will be permanently deleted. Make sure to read and understand the details of the statement. Click *Delete account*.
- 4. A confirmation message appears.



In case you would like to reactivate your account during the legal retention period specified in the off-boarding message, please see "Reactivate account" on page 14.

6.3 Edit operator profile

If you intend to offer drone services as a drone operator company you need to update your drone operator company profile.

User A ~ John Doe	Welcome back, John Doe		
U User A 🔯	Current & future operations	Past operations	
C Company Kegelae () John Doe and Jargundhesgunthy arro Profile & Account Settings My logbook Log Out	These are no current of future operations.	Operation same Biodine chock Done Artic früches - Nano Drones Operations exosten Extenses	Sker 03(05/2022 14:00:44 End 04/05/2022 12:00:44 Right status Caretos
		Operation name braces Dense Andratitorios – Attara Zenthi ATX8 Oreneriones autotan Controllogia autotan	Start 2907/2022 08:31:35 End 2907/2022 09:31:35 Triget dama.
		Operation name <u>Nateschild</u> Dower Antantorones - Altara Zenth ATXB Operational execution Constantion execution	SAVE 29/07/2022 10:46:19 Ever 29/07/2022 11:46:19 Telef studie Landers
Plan operation ✓			

- 1. Click the active *operator name* at the top of the left sidebar to activate the tools menu. In case you invited other operator users you will see their operator names as well and you can switch between them.
- 2. Click **\$** to the right of your current operator company name (*lastname firstname* by default) in the menu to go to the *Operator settings* screen.

6.3.1 Edit operator info

1. Click *Edit* next to each line and complete all fields.

Operator settings		
Operator info		
Operator Details	U User A	Edit
Address		<u>Edit</u>
UAS Operator Registration Number		<u>Edit</u>

2. Click Save.

7 Add/edit gear

On the tabs in this screen you can keep track of your drones, including their administrative and technical details. Providing the administrative and technical details of your drones is required in order to display drone- related information in the NAV Drone Web logbooks and for the drone operation validation process.

Click *Gear* in the left side bar.

Gear						
Drone						
						+ Ad
Q. Search					∓ Filters	All drones ~
Drone name	Registration number	Manufacturer 🛧	Model	Serial number	Flight status	ò
72* DLA5412	12548	Aerialtronics	Altura Zenith ATX8	14784522	Landed	Edit
123		Aerix Drones	Nano Drones		Landed	I
🖽 DLA789	15494	IID	Mini 2	4545	Landed	:

7.1 Add drone

- 1. Click Add.
- Complete all required fields. Depending on your configuration some fields may be mandatory. After you select a manufacturer and model, a number of specification fields is populated automatically. If you want to add a custom made drone, start typing text in the *Manufacturer* field and click *Enter*. Now you can complete the remaining specification fields.

Identification					
	Registration	number	Serial r	umber	
ر ہے ہ ے (Drone name				
	Manufacture	٢	Model		
	Home mad	e	~		
	Home mad	e			
E Change					
Change					
🖬 Change					
Change Technical specifications		Flight specifications		Control specifications	
		Flight specifications		Control specifications Control operating range	
Technical specifications			minutes		m

- 3. Upload an alternative drone image if required.
- 4. Click *Save* to save your changes.



Enter accurate data as they can be used in the drone operation validation process.

7.2 Edit drone



Adjusting predefined gear specifications, i.a. MTOM and speed, can have an impact on applicable regulations. Unifly and NAV CANADA cannot be held liable for the possible impact of adjusting such predefined gear specifications on validation states and/or approval requests of your operation.

- 1. Click *Edit* next to the table entry of the drone you want to edit or select *Edit* from the # menu.
- 2. Make your changes.
- 3. Click *Save* to save your changes or *Cancel* to abort the action.

7.3 Delete drone

1. Click on the I menu next to the drone you want to delete and select *Delete*.



Deleting a drone will cancel all ongoing or planned operations that the drone is part of. Be sure before performing this action.

2. If you want to proceed, click the checkbox to confirm and click *Delete* or click *Cancel* to abort the action.

7.4 Register your drone

A registration number must be added for small RPAS in Canada and required for Basic or Advanced operations in airspace controlled by NAV CANADA.

To associate a Canadian registration number with a drone, proceed as follows:

- 1. Click the table entry of the drone you want to register.
- 2. Click the *Registrations* tab or *Add registration*.

Action Drone - AD-	TALON	Edit
Drone details Registrations C	onnected tracking devices Documents	
	Identification	
Tat	Callsign	9999
	Manufacturer	Action Drone
	Model	AD-TALON
	Registration number	add registration
	Serial number	14852

3. Complete all required fields.



Optionally, you can upload one or more files such as a scan of the document you are registering.

4. Click Save.

7.4.1 Add documents

Add drone related documents such as user/maintenance manuals and certifications of conformity.

Gear							
Drone							
						+ Add	
Q Search					₹ Filters	All drones 🐱	
Drone name	Registration number	Manufacturer 🛧	Model	Serial number	Flight status	0	
Tat DLA5412	12548	Aerialtronics	Altura Zenith ATX8	14784522	Landed	Edit	•
223		Aerix Drones	Nano Drones		Landed	:	
🖾 DLA789	15494	IID	Mini 2	4545	Landed	1	

- 1. Click the table entry of the drone you want to add documents for.
- 2. Click the *Documents* tab.
- 3. The procedure to register/upload documents is similar to the procedure described in "Add/edit personal documents" on page 33.

8 Add/edit users

8.1 General

The NAV Drone Web allows you as an operator to invite multiple users to join your crew, such as drone pilots, observers, and payload specialists. Crew members are associated with you via an email-based invitation. You can then plan drone operations to be executed by one of your crew members.

As an operator you have an overview of the users linked to your account. Users have access rights based on their assigned user role. The operator user and operator admin are 2 predefined user roles with some defined access rights. This is configuration dependent.

- A user (crew member) can be associated with multiple drone operators. The user can select in their user profile which drone operator to perform a drone operation for.
- If you invite other users, you can see the operations they perform for you but you cannot see operations they might perform for other operators.
- If you as an user get invited by other operators to perform operations for them, you can only see those specific operations, not any operations performed by other users.

8.2 Add user

- 1. Click *Users* in the left sidebar.
- 2. To add a new user, click *Invite user*.

Users							+ Invite user	
Q Search						≂ Filters	All users 👻	
First name	Last name 🛧	Mobile	Email	Invite status	Source		¢	
User	В	-2240031575	dent langen bross - Silpan Paja	Active				•

3. Complete all fields, select a *User role*. Click *Save* to save your changes or *Cancel* to abort the action.

Invite user	×
First name	
	à
Last name	
Email	
User role	
Administrator	
	Cancel Save

4. The newly added user will be listed in the user table with the status *Requested*. After refreshing the screen, the status changes to *Pending*. If the new user accepts the invitation they will be redirected to create and activate an account if required, or redirected to their active account.

8.3 Edit/delete user

- 1. Click *Users* in the left sidebar.
- Click the Imenu next to the user you want to *editl delete* and select the applicable action. In *Edit*, you can switch the role of active users between Admin and User. Unlike normal users, an Admin can invite other users to join the operator's crew.

Jsers							+ Invite us
Q Sea	rch					≂ Filters	All users v
First name	Last name 🛧	Mobile	Email	Invite status	Source		¢
Jser	A	+12498581479	An is importioned by a starting of	Active			1
Jser	В	- 3240000 1479	Anithe gentre - Sparity a	Active		Γ	I
							EditDelete

3. Click *Save* to save your changes or *Cancel* to abort the action.

9 Operations

9.1 The operations screen

Click *Operations* in the left sidebar to display an overview of your drone operations. From this page you can both plan new drone operations and manage your planned and past drone operations.

The page shows all your drone operations. Click on an operation to display the operation details. See also "Edit draft operation" on page 63.

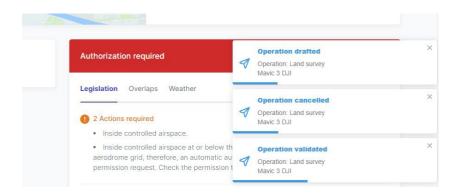
perations									Plan operatio	pii
Q Search								1 Filters	All operation	is Y
Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions r	¢
Land survey	9999 - DJI Mir	John Deere	12/08/2022 12:09:00	12/08/2022 13:09:00	1:00:00	Disclaimer	Draft	Landed		1
Land survey	9999 - DJI Mii	John Deere	17/08/2022 15:48:00	17/08/2022 16:48:00	1:00:00	Prohibited	Published	Landed	PR-000004	1
Land survey	1515 - DJI Ma	John Deere	17/08/2022 14:13:00	17/08/2022 15:13:00	1:00:00	Disclaimer	Published	Landed	PR-000004	1
Inspection	9999 - DJI Mir	John Deere	17/08/2022 14:12:00	17/08/2022 15:12:00	1:00:00	Disclaimer	Published	Landed	PR-000004	1
Land survey	9999 - DJI Mir	John Deere	17/08/2022 13:36:00	17/08/2022 14:36:00	1:00:00	Authorization rejected	Published	Landed	PR-000004	1
Pipeline check	9999 - DJI Mir	John Deere	17/08/2022 13:27:00	17/08/2022 14:27:00	1:00:00	Authorization rejected	Published	Landed	PR-000004	1
Land survey	9999 - DJI Mir	John Deere	17/08/2022 09:56:00	17/08/2022 10:56:00	1:00:00	Authorization required	Draft	Landed		1
Pipeline check	9999 - DJI Mir	John Deere	16/08/2022 12:53:00	16/08/2022 13:53:00	1:00:00	Prohibited	Published	Landed	PR-000004	:

9.2 **Procedure for creating a new operation**

Creating a new operation consists of five main steps:

- 1. Plan an operation, including the creation of an operational area and the definition of the operation parameters. See also "Plan operation" on page 49.
- 2. Validate the operation against applicable rules and regulations. See also "Validate operation" on page 59.
- 3. Save the operation as *Draft*. See also "Save operation as draft" on page 60.
- 4. Publish the operation. See also "Publish operation" on page 64.
- 5. Manage the operation's tasks, to receive the permissions required to conduct the operation, when applicable. See also "Manage tasks" on page 64.

Throughout the procedure, toast notifications may appear in the right bottom corner of the screen, confirming the actions you executed. A progress bar indicates the remainder of the time during which the toast notification will be visible.



You can switch notifications *on* or *off* in your account settings. See also "Edit settings" on page 34.

9.3 Plan operation

9.3.1 General

You can either plan an operation from scratch or copy an existing operation and change its details if required. To make it easier to find the operation you plan to reuse, you can use the *Pin* feature (If available in your configuration, see "Disclaimer" on page 9).

- If you want to plan a new operation from scratch, go to "Plan a new operation" on the next page.
- If you already have pinned or existing operations you would like to start from, go to "Plan operation based on existing/pinned operation" below.
- If you want to pin operations to reuse, go to "Pin operation" on page 82.

9.3.2 Plan operation based on existing/pinned operation

To find out how to use the *Pin* feature, see "Pin operation" on page 82.

To plan a new operation based on an existing/pinned operation:

- 1. Click the dropdown icon next to the *Plan operation* button in the expanded left sidebar or in the top right corner of the *Operations* page and select *Copy existing operation*.
- 2. Select a pinned operation (appearing at the top of the list) or any other existing operation to start from.

/08/2022 1	4:05:35 1:57:35 Disclaimer	Published
/07/2022	Choose operation	× aft
	Select operation to copy	
	Select	~
	PINNED OPERATIONS	
	Land survey	
	OTHER OPERATIONS	
	Pipeline check	
	Inspection	
	Pipeline check	

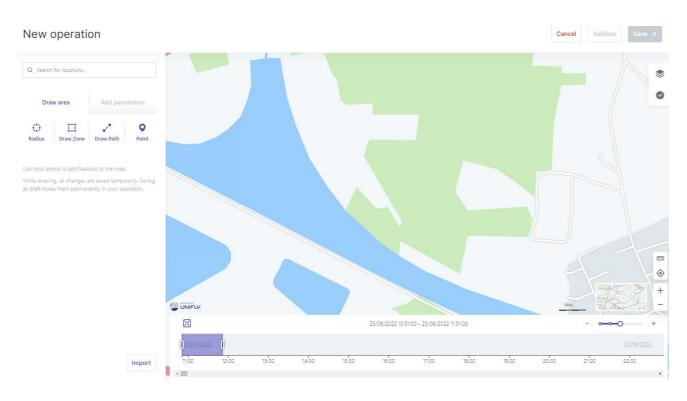
 If you want to the new operation to take place at your current location, select the checkbox *Move geometry to current location.* Your browser may ask you to confirm that you want to share your current location details.

2022 1	4:05:35	1:57:35	Disclain	ner		Published
2022	Choo	ose opera	ation		×	aft
	Select	operation	to copy			
	Seleo	ot			~	
	• M	ove geome	try to current	t location	ration	
		-				

- 4. Click *Copy operation* to go to the *New operation* screen. From here you can:
 - keep all existing operational data and move on to validate/save your operation. See also "Validate operation" on page 59 and "Save operation as draft" on page 60.
 - make changes to the operational area or parameters as also described in "Plan operation" on the previous page before moving on to validate/save the operation.

9.3.3 Plan a new operation

To plan a new operation from scratch, click *Plan operation* in the expanded left sidebar or click *Add* in the right top corner to open the *New operation* page.



- Use the buttons in the top bar to *Cancel*, *Validate* and *Save* your operation
- Use the side-menu to:
 - draw the operational area.
 - add operation parameters.
- Use the map screen to explore the area.



More details about the general map functions, map layers and how to display airspace information are provided in "Flightmap" on page 87.

Use the time line to detect and resolve possible time conflicts with other planned operations.
 To see more or less granularity on the time line, move the slider on the right above the time line. To centre the time span of your operation on the time line, click the Centre button on the left above the time line.

9.4 Draw operational area

9.4.1 Cylindrical area



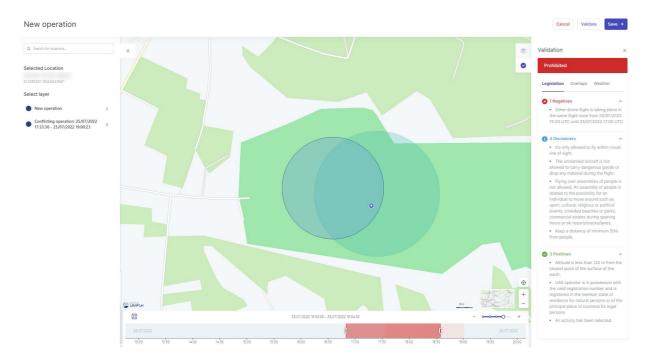
- 1. Select a location by either using the search field or by moving the map and using the map controls.
- 2. In the *Draw area* tab of the side menu, click *Draw circle*. The standard mouse pointer (♠) will change to a crosshair pointer (+).
- 3. Click the location you intend to use as the centre of the cylindrical operational area. Automatically a circle is drawn on the map. The cylindrical operational area is represented by that circle and the operation's maximum height, which will be defined later.
 - To modify the location of the operational area, move it by dragging and dropping it on the map.
 - Drag and drop the circle handle to modify the proposed operational area size.



There are limits to the size of your operational area. See also "Size constraints" on page 95.

4. Click outside the operational area to finalize it.

In case your operation overlaps in time with another already planned operation in that same area, the other planned operation becomes visible on the map and on the time table at the bottom of the screen. You can move the time sliders of your operation accordingly to resolve the conflict.



- 5. To modify the operational area right click on it and click *Edit*.
- 6. You can also edit manually the following data fields that were populated automatically when drawing the area:
 - Radius
 - Coordinates
- 7. (Optionally): add points to the operation. See "Add points" on page 56.

9.4.2 Polygon area



- 1. Select a location by either using the search button or by moving the map and using the map controls.
- 2. In the *Draw area* tab of the side menu click *Draw zone*. The standard mouse pointer (♠) will change to a crosshair pointer (+).
- 3. Start drawing your polygon in the map window.
 - To modify the location of the operational area, move it by dragging and dropping it on the map.
 - Drag and drop any vertex to move it.
 - Add new vertices by dragging and dropping a shape handle (the smaller point in the middle of an edge).
 - Delete a vertex by pointing the mouse cursor on it and holding the right click button down.



There are limits to the size of your operational area. See also "Size constraints" on page 95.

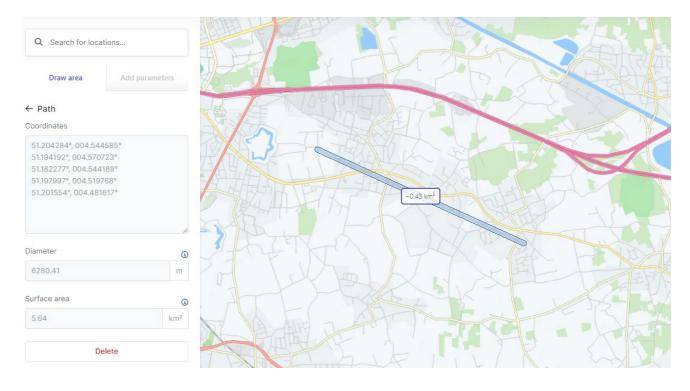
4. To close the polygon, double click.

In case your operation overlaps in time with another already planned operation in that same area, the other planned operation becomes visible on the map and on the time table at the bottom of the screen. You can move the time sliders of your operation accordingly to resolve the conflict.

5. To modify the operational area right click on it and click *Edit*. Add new vertexes by dragging the middle point between the edges (i.e. smaller squares). Click outside the operational area to finalize it.

- 6. You can also edit manually the following data field that was populated automatically when drawing the area:
 - Coordinates
- 7. (Optionally): add points to the operation. See "Add points" on the next page.

9.4.3 Path-based area



- 1. Select a location by either using the search button or by moving the map and using the map controls.
- 2. In the *Draw area* of the side menu click *Draw path*. The standard mouse pointer (♥) will change to a crosshair pointer (+).
- 3. Start drawing your path in the map window.
 - To modify the location of the operational area, move it by dragging and dropping it on the map.
 - Drag and drop any point to move it.
 - Add new segments by dragging and dropping a shape handle (the smaller point in the middle of a segment).
 - Delete a vertex by pointing the mouse cursor on it and holding the right click button down.



There are limits to the size of your operational area. See also "Size constraints" on page 95.

- 4. To finish your path, double click. In case your operation overlaps in time with another already planned operation in that same area, the other planned operation becomes visible on the map and on the time table at the bottom of the screen. You can move the time sliders of your operation accordingly to resolve the conflict.
- 5. To modify the operational area right click on it and click *Edit*. Add new vertexes by dragging the middle point between the edges (i.e. smaller squares). To change the width of the path, move your cursor over the path border until it becomes a double arrow. Click and hold while moving the border to change the width. Click outside the operational area to finalize it.
- 6. You can also edit manually the following data field that was populated automatically when drawing the area:
 - Coordinates
- 7. (Optionally): add points to the operation. See "Add points" below.

9.4.4 Imported geometry based area

1. At the bottom of the *Draw area* of the side menu click *Import*.

Import	×
Drag a GeoJSON, JSON or KML file	e here
or Select file from device	

2. Drag a compatible file (*.GeoJSON/JSON/KML) to the window or select from your device.



The file can contain only one operational area.

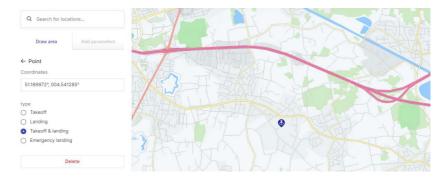
There are limits to the size of your operational area. See also "Size constraints" on page 95.

In case your operation overlaps in time with another already planned operation in that same area, the other planned operation becomes visible on the map and on the time table at the bottom of the screen. You can move the time sliders of your operation accordingly to resolve the conflict.

9.4.5 Add points

- 1. Click the back arrow button ← in the *Draw area* to go to the main geometry tab.
- 2. Click *Point*.
- 3. Select the point you want to place:
 - a. Takeoff
 - b. Landing
 - c. Takeoff and landing
 - d. Emergency landing

4. Click in the map to place the point. There is no limit to the number of points. For each additional point, return to the previous step to select the type of the new point.



9.5 Time offset conflict

If you draw an operation with a different time-offset than indicated in your user settings, the system displays a warning. In the parameter window inline messages show in detail the offsets between user settings and operation geometry.

New operation	Warning	×
Q Search for locations	Part of the area for your operation is located in a different time zone.	1
Draw area Add parameters	•	<
Line of Sight	·	
VLOS v	PAN AND	
Start time		
09/03/2022 09:36:42 UTC+1		
Part of the area for your operation is located in a different time zone. (UTC +03:00)		
End time	A A A	
09/03/2022 10:36:42 UTC+1		
Part of the area for your operation is located in a different time zone. (UTC +03:00)	The XI	
Height AGL		

9.6 Add operation parameters

1. Click Add parameters.

Draw area	Add parameters	
Line of Sight		
VLOS	~	
Start time		
02/03/2022 16:15:18	UTC+1	
End time		
02/03/2022 16:30:18	UTC+1	
Height AGL		
25	m	
Drone		
Action Drone - AD-TALON	I (DLA158) 🗙	
Connected tracking devices		
• Unifly BLIP - 25412		
Drone pilot		

- 2. Complete following operational data:
 - Operation name. Choose a meaningful name.
 - Operation category
 - Activity
 - Operation type (VLOS,...)
 - Start/end time and date



There are limits to the duration of an operation and the time period you can plan an operation in advance. See also "Time constraints" on page 95.

- Height at which you will be flying.
- Drone: select a drone. See also "Add drone" on page 39.
- Drone pilot. The available lists contains all users (pilots and other crew members) that have accepted your invitation. See also "Add/edit users" on page 43.



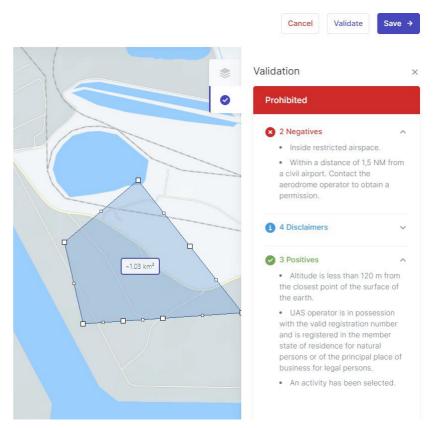
Select a drone pilot with a verified mobile telephone number to be able to publish the operation later on!

- Description (optional)
- 3. Click Save.

9.7 Validate operation

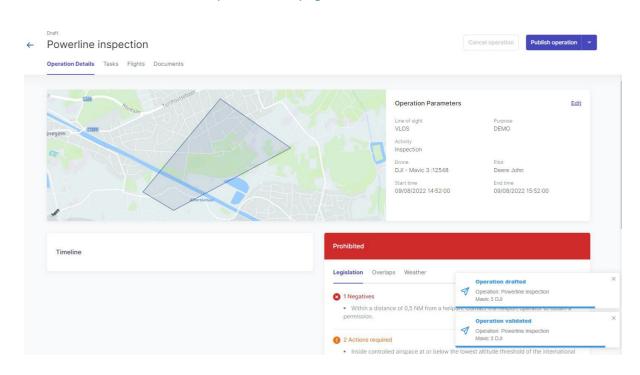
Once you planned your operation (see also "Plan operation" on page 49), you can validate it. The validation consists in verifying that the operation, as defined by its operational area and parameters, complies with applicable rules and regulations.

- 1. Click Validate.
- 2. Read the validation result in the sidebar at the right hand side of the page. The validation results are provided in two forms:
 - The overall validation result: indicates whether the operation
 - a. is allowed (green colour code).
 - b. comes with warnings or actions required (orange colour code, see also "Manage tasks" on page 64).
 - c. is not allowed, error or authorization rejected (red colour code).
 - The result categories: each category provides detailed information about the rules that the operation is or is not complying with, as well as possible warnings, actions required, and disclaimers that the pilot should keep in mind when conducting the operation.



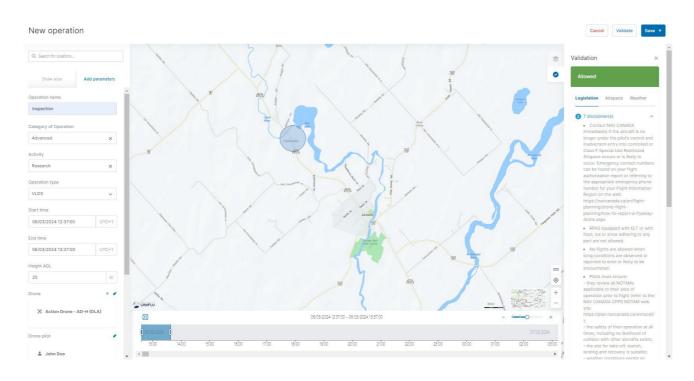
- 3. Click the **∨** and **∧** icons to the right of the category name to expand/collapse the categories to show/hide the details. Scroll down to make sure you read all information.
- 4. If necessary, adapt the operation flight area and/or parameters until you get the desired validation result before proceeding. It is also possible that the validation result requires you to complete data with regards to your user/operator profile or your gear before you can continue.

 Click *Save* to save your changes or *Cancel* to abort the action. Clicking *Save* saves the operation as a draft and makes it visible and available for editing in your operations overview, see also "Edit draft operation" on page 63.



9.8 Save operation as draft

Any time during the planning of an operation, you can click *Cancel* at the top right of the screen to cancel the creation of the operation, or click *Save* to save the operation as a draft. You can still change the *Operational area* and *Parameters* of a draft operation, see also "Edit draft operation" on page 63.



Clicking *Save* will take you to the *Operation details* tab of the *Operation* page.

÷	Duit Inspection Operation Details Tasks Flights Documents		Cancel operation v
	Ecando	Operation Param Operation type VLOS Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Activity Act	Literatory of Operation Advanced H 1515151 Dec John Lind time
	Timeline	Allowed Legislation Airspace Westfier 7 disclaimer(s) Plots must ensure: Big Structure(s) Big Structure(s	er aircrafts exists;

9.8.1 The Operation page features

0 6	ka Fights Documents	La La	Incel operation Zoom to Take
0 6	334		
remin			
	Coretta	Operation Parameters	
	Loop	Operation type	Category of Operation
		VLOS	Basic
		Action Drone - AD-H :1515151	Doe John
		Start time 01/03/2024 15:36:00	End time
		01/03/2024 15:36:00	01/03/2024 16:06:00
refe			
®Canada			
Timeline		Allowed	
Timenne			
01/03/2024		Indiation Alexandre Weather	
01/03/2024	0	Legislation Airspace Weather	
	Landing by John Doe		
10:12:09		1 7 disclaimer(s)	
10:12:09			
	Take-off by John Doe	 RPAS equipped with ELT or with frost, ice or snow adhering to any part are not allowed. 	
	Take-off by John Dee		olled airspace.
10:12:05	Take-off by John Doe	RPAS equipped with ELT or with frost, ice or snow adhering to any part are not allowed.	olled airspace.
10:12:05	Landing by John Doe	RPAS equipped with ELT or with frost, ice or snow adhering to any part are not allowed. It is the sole responsibility of the RPAS pilot to see and avoid alloraft in controlled and uncontri	
10:12:05		RPAS equipped with ELT or with frost, ice or snow adhering to any part are not allowed. If its the sole responsibility of the RPAS pilot to see and avoid aircraft in controlled and uncent Pilots must ensure:	NADA CFPS NOTAM web site:

N°	Description				
1	The <i>Operation details</i> tab includes:				
	a. the map indicating the <i>Operational area</i> (see also "Draw operational area" on page 52).				
	b. the <i>Operational parameters</i> which you can also <i>Edit</i> from this page (see also "Add operation parameters" on page 58).				
	c. the operation <i>Timeline</i> showing <i>Take-off/Land events</i>				
	d. the validation section:				
	- Click <i>Legislation</i> to view validation details.				
	 Click on <i>Weather</i> to display the weather forecast for the next 24h, relevant to your operation. This includes information on <i>Cloud</i> <i>ceiling</i> and <i>QNH</i>. 				
	 Click on <i>Weather</i> to display the weather forecast for the next 24h, relevant to your operation. This includes information on <i>Cloud</i> <i>ceiling</i> and <i>QNH</i>. 				
2	The <i>Tasks</i> tab (see also "Manage tasks" on page 64).				
3	The <i>Flights</i> tab (see also "Display operation flights" on page 81).				
4	The <i>Documents</i> tab (see also "Add/edit operation documents" on the facing page).				

N°	Description
5	Perform relevant actions on the operation using this button or drop down list.

9.9 Edit draft operation

- 1. Click on the menu next to the table entry of the operation you want to edit and select *Edit*. Alternatively you can click on the entry of the operation to go to the operation details screen where you can also click *Edit* next to *Operation area* or *Operation parameters*.
- 2. Make your changes to the operational area or parameters as also described in "Plan operation" on page 49.



3. You can now validate and save your operation or cancel your changes.

9.10 Add/edit operation documents

The *Documents* tab lists all documents related to the operation. You can upload as many documents as needed, including Specific Operations Risk Assessment (SORA) documents and Special Flight Operations Certificate (SFOC).

The procedure to upload documents is similar to the procedure described in "Add documents" on page 41.

← Test ops	5.			
Operation Deta	ils Tasks Flights	Documents		
				Add document
Q Searc	h			▼ Filters All documents ~
Name	Created on 🗸	Description	Туре	0
SORA 210112	04/02/202	1 SORA file Operations	SORA	1

9.11 Publish operation

Once an operation has been planned and validated (see also "Plan operation" on page 49 and "Validate operation" on page 59), it must be published. Publishing an operation is required, for example, to submit tasks such as permission requests.

- 1. Click Publish operation.
- 2. The operation status changes to *Published* and the *Cancel operation* button becomes active.
- 3. The *Zoom to Take-off button* appears and a toast pops up at the bottom-right informing you that the operation has been successfully published.

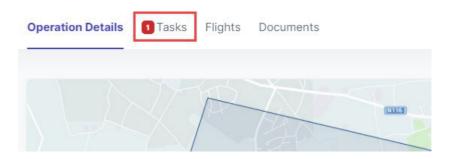
Do not publish an operation before you have finished editing it!

After publishing an operation you can no longer edit it. If you try to do so, the application will create a copy of the published operation. The original published operation will be will be cancelled and deleted.

9.12 Manage tasks

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After publishing the operation to the authorities there may be manual or automated tasks to be performed. If any outstanding tasks exist, their number is indicated in red next to the *Tasks* tab.



The validation results will indicate when you must obtain a permission before being legally allowed to conduct your drone operation. A red notification icon will also appear to the left of the *Tasks* tab when there are unresolved actions applicable to your operation.

Click the *Tasks* tab to display tasks associated with an operation.

The actions are listed in three zones representing the status of the action:

- Action Required: actions that need to be taken.
- *Submitted*: permission requests submitted to the corresponding authorities.
- *Resolved*: tasks that have been resolved.

initiated PR-00000132 Permission Request - Demo Supervisor	
Permission Request - Demo Supervisor	
Submit Cancel View Details	
Initiated PR-00000131 Permission Request - Demo Supervisor	
Submit Cancel View Details	
Submit Cancer View Details	

- Click *Submit* to submit a permission request to the relevant authority (NAV CANADA).
- Click *Cancel* to cancel a submitted permission request.



Make sure that all remaining tasks are in the *Resolved* status before you proceed with the planned operation.

9.13 Permission requests

9.13.1 Why do you need permissions?

As defined in the Canadian Aviation Regulations Part IX, permissions are required to conduct Advanced operations in airspace controlled by NAV CANADA.

Permission requests are evaluated either automatically or manually:

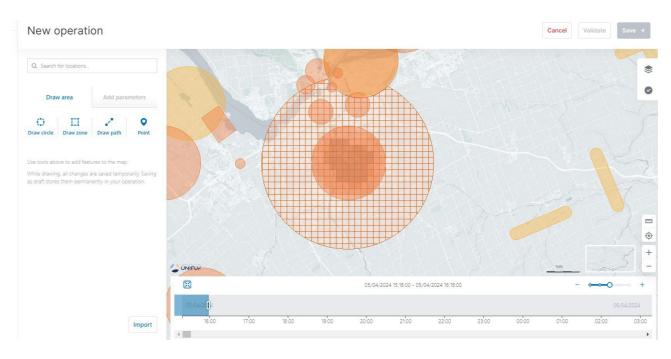
- Auto Approval: permission requests that are automatically approved in NAV Drone.
- Further Coordination Required: permission requests that must be reviewed by NAV CANADA before they can be approved or Rejected.

Whether a permission request is characterized as Auto Approval or Further Coordination Required depends on the height and location of the operation's flight zone.

When drawing an operational area for an Advanced operation, airspace controlled by NAV CANADA is identified on the map by a grid with a colour assigned to each cell. That colour code indicates the

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maximum height at which an operation's permission request can be automatically approved in NAV Drone. Above that maximum height, permission requests will require further review by NAV CANADA when submitted.



If the operation flight zone overlaps multiple NAV CANADA control zones, NAV Drone will generate a separate task (permission request) for each affected control zone in the Action Required category. Each task will need to be submitted and assessed independently.

9.13.2 Permission requests with auto approval

In airspace controlled by NAV CANADA, when the operation's height is at or below the upper limit of all the grid cells that the flight zone intersects, the permission request will be automatically approved in NAV Drone after its submission by the operator.

As indicated below, a permission request associated with a Draft operation will also have the status *Draft*.

Coratto Coperation Details Tasks Flights Documents		Cancel operation Publish operation v
Action Required Draft Permission Request - ATS ADMIN	Submitted	Resolved

To submit a permission request, make sure that the operation has been published. See also "Publish operation" on page 64.

When the operation is published, the status of the permission request changes to Initiated and a NAV CANADA Reference Code is assigned to the permission request by NAV Drone.

Published Conspection Operation Details Tasks Flights Documents			Cancel operation Zoom to Take-off ×
Action Required	Submitted	Resolved	
Initiated Crowson Request - ATS ADMIN Submit Cancel View Details			

Three buttons are available for permission requests with the status Initiated:

- *Submit*: clicking on that button will display a dialog box to provide additional information, as shown below.
- *Cancel*: clicking on that button will cancel the permission request.

 View Details: clicking on that button will provide additional information about the permission request, such as the relevant authority and the *Activity* (history of events associated with this permission request).

eventioned Published →	Permission ×		Cancel operation Zoom to Take-off Y
Operation Details 1 Tasks Flights Documents	At maximum operation altitude/distance, what is the process and time required to terminate the flight in event of emergency?		
Action Required Initiated CYOWO30624401 Permission Request - ATS ADMIN	Land Immediately v Minutes: 1	Resolved	
Submit Cancel View Debalis	Description of pre-programmed RPAS behavior procedures and Hight profiles to be followed in the event of a lost C2 link: Land immediately v Minutes: 1 2		
	If the operation requires an SFOC, include the number in this field: Remarks for NAV CANADA *** DO NOT ENTER ANY ALTERNATE FUGHT INFORMATION INCLUDING TIMUDIATENCINIT ZONE INFORMATION IN THIS FIELD AS SUCH INFORMATION WILL NOT BE CONSIDERED OR AUTHORIZED AS PART OF THIS AUTHORIZATION REQUEST ***		
	File Upload Drop file ners Cancel OK		

÷	Published Inspection Operation Details Tasks Flights Documents	Initiated CYOW030624A01 Permission Request -		×		Cancel operation	Zoom to Take-off Y
	Coperation Details Tasks Flights Documents Action Required Instance CrYOWO00924401 Permission Request - ATS ADMN Submit Cancel View Details	Type Auto septoval Activity No activities yet	Nover Laflerty ATS ADMN	ł	Resolved		

When a submitted permission request is eligible for auto approval, NAV Drone automatically approves the permission request and changes its status to *Approved*.

The approved permission request appears in the *Resolved* category and an email is sent to the user's email address.

Published Inspection Operation Details Tasks Flights Documents			Cancel operation Zoom to Take-off 💙
Action Required	Submitted	Resolved Approved CY0W030624 Permission Request - AT View notice	

The *View notice* button provides access to the permission request notice, which contains all information related to the permission request. Click the *View details* button to see the details. Click *Download as PDF* to download the notice as proof that the operation is allowed.

4	Published Inspection Operation Details Tasks Flights Documents	Approved CYOW030624A01 X Permission Request - View Details		Cancel operation Zoom to Take-off 🔹
	Action Required	<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	Resolved Approved CYOWO30824A01 Permission Request - ATS ADMIN View notice	

NAV CANADA reserves the right to rescind, at any time, a permission request that was approved. In that case, the operation is no longer allowed. See also "Rescinded permission requests" on page 77.

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9.13.3 Permission requests with further coordination required

In airspace controlled by NAV CANADA, when the operation's height is above the upper limit of any of the grid cells that the operation's flight zone intersects, the permission request will require a review by NAV CANADA after its submission.

A permission request associated with a Draft operation will have the status *Draft*, as indicated below.

Druit Inspection Operation Details Tasks Flights Documents			Cancel operation
Action Required	Submitted	Resolved	
Draft			
Permission Request - ATS ADMIN			

To submit a permission request, make sure that the operation has been published. See also "Publish operation" on page 64.

When the operation is published, the status of the permission request changes to *Initiated* and a NAV CANADA Reference Code is assigned to the permission request by NAV Drone.

÷	Published Inspection Operation Details Tasks Flights Documents			Cancel operation Zoom to Take-off Y
	Action Required	Submitted	Resolved	
	Initiated CYOW030624A03			
	Permission Request - ATS ADMIN			
	Submit Cancel View Details			

Three buttons are available for permission requests with the status Initiated:

- *Submit*: clicking on that button will display a dialog box to provide additional information, as shown below.
- *Cancel*: clicking on that button will cancel the permission request.

 View Details: clicking on that button will provide additional information about the permission request, such as the relevant authority and the *Activity* (history of events associated with this permission request).

- Inspectio	n	Permission	×	
Operation Detail	s Documents	At maximum operation altitude/distance, what is the process a to terminate the flight in event of emergency?	and time required	
			~	
Action Requir		Minutes:		
	W030624A03 equest - ATS ADMIN			
Submit	Cancel View Details	Description of pre-programmed RPAS behavior procedures an be followed in the event of a lost C2 link:	id flight profiles to	
			~	
		Minutes:		
		If the operation requires an SFOC, include the number in this f	field:	
		Remarks for NAV CANADA		
		DO NOT ENTER ANY ALTERNATE FLIGHT INFORMATION (INC TIME/DATE/HEIGHT/FLIGHT ZONE INFORMATION) IN THIS FIE INFORMATION WILL NOT BE CONSIDERED OR AUTHORIZED / AUTHORIZATION REQUEST	ELD AS SUCH	

			li.	
		File Upload		
		Drop file here		
			Cancel OK	

Fuldamed Inspection Operation Details Details Details Details	Initiated CYOW030624A03 Permission Request -		×		Cancel operation	Zoom to Take-off Y
Action Required Instance CrYON320624403	Type Manual approval Activity No activities yet	Relevant authority ATS ADMIN		Resolved		
Permission Request - ATS ADMIN Submit Gancel View Details						

When a submitted permission request requires further coordination, NAV Drone sends the permission request to NAV CANADA and changes its status to *Sent*, moving the permission request to the *Submitted* category. The user still has the option to cancel the permission request or to view the permission request details.

Action Required Submitted Sector/CV000050404.03. Sector/CV000050404.03. Vere Details Sector/CV00050404.03.	~	Published Inspection Operation Details Tasks Flights Documents			Cancel operation	Zoom to Take-off Y
			Sent CYOW030624A03 Permission Request - ATS ADMIN	Resolved		

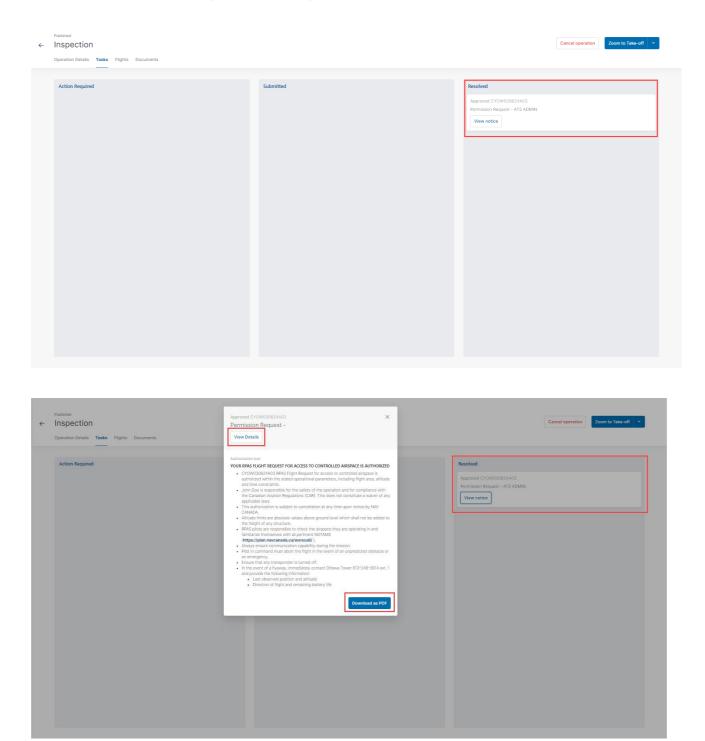
A permission request with a Sent status means that the permission request has been successfully submitted to NAV CANADA. When NAV CANADA starts the review, the company will change the status of the permission request to In *review* to notify the user.

÷	Published Inspection Operation Details Tasks Flights Documents			Cancel operation	Zoom to Take-off 🛛 👻
	Action Required	Submitted In review CYOW03052AA03 Permission Requist - ATS ADMIN Cancel View Details	Resolved		

The result of the review will be one of the following three options:

- *Approved*: after review, NAV CANADA determined that the operation is allowed.
- *Rejected*: after review, NAV CANADA determined that the operation is not allowed.
- *Needs action*: after review, NAV CANADA determined that an action by the operator is required before a decision can be made.

When a permission request has been *Approved*, it is moved to the *Resolved* category and an email is sent to the user's email address. The *View notice* button provides access to the permission request notice, which contains all information related to the permission request and can be downloaded as a PDF as proof that the operation is allowed.

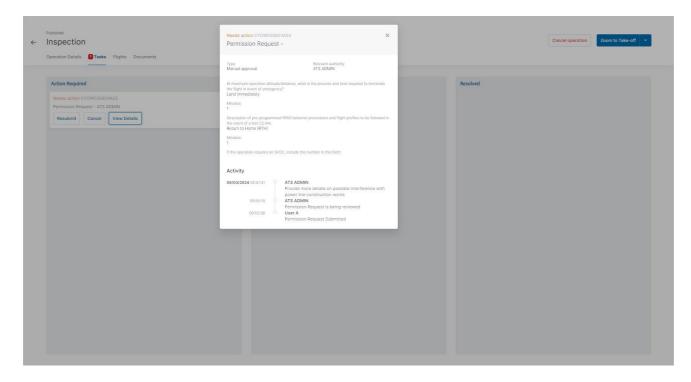


When a permission request has been *Rejected*, it is moved to the *Resolved* category. When a permission request *Needs action*, it is moved to the *Action required* category.

In both cases, users will receive an email from NAV CANADA explaining why their request was rejected or needs action. This information can also be viewed on the permission request details screen under *Activity*.

9.13.4 Permission requests with the status "Needs action"

When a permission request is reviewed by NAV CANADA and its status changes to *Needs action*, changes to the operation might be required depending on the reason provided by NAV CANADA.

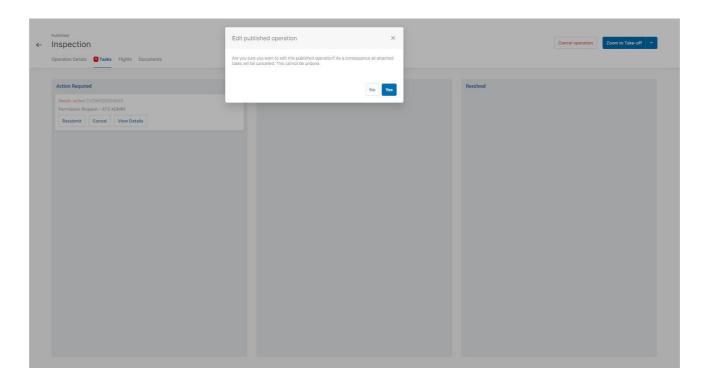




When NAV CANADA requires change to the flight zone and/or the operation parameters, editing the published permission request will cancel the previous request and all associated tasks, generating a new permission request.

Follow the procedure below when changes to the operation are required:

- Click on the \checkmark button at the top right of the screen and select *Edit*.
- When prompted with the warning message as shown below, click *yes* to proceed.
- Make the required changes to the operation.
- Save the operation as *Draft*.
- Publish the operation.



A new permission request has been created for the operation. The remainder of the procedure is identical as described in section Permission requests with further coordination.



NAV CANADA reserves the right to rescind, at any time, a permission request that was approved. In that case, the operation is no longer allowed. See also "Rescinded permission requests" on the facing page.

9.13.5 Operations with multiple permission requests

When the operation's flight zone intersects with the grid cells of more than one control zone managed by NAV CANADA, multiple permission requests will be automatically created in the system.

In that case, the operator is required to submit all of them.

←	Published Inspection Operation Details Tasks Flights Documents			Cancel operation	Zoom to Take-off 🛛 👻
	Action Required Permission Request - ATS ADNIN Submit Cancel View Details Permission Request - ATS ADNIN Submit Cancel View Details	Submitted	Resolved		

To get approval to perform the flight, both permission request must be approved.

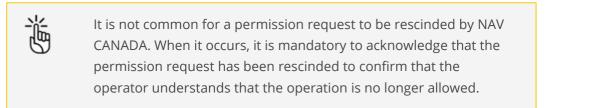
÷	Published			Cancel operation	Zoom to Take-off 🛛 💙
	Operation Details Tasks Flights Documents				
	Operation Deptets Tasks Pights Documents	Submitted	Resolved Approved CYZD030824A01 Permission Request - ATS ADMIN View notice Approved CYYZD030824A01 Permission Request - ATS ADMIN View notice		

9.13.6 Rescinded permission requests

If a permission request is rescinded, NAV CANADA will provide the reason for the status change. There are three methods a rescinded permission request will be communicated to the user:

- If the user is logged in to the system at the time the permission request is rescinded, a notification will be displayed at the bottom right of the screen.
- An email is sent to the user's email address.

- The operation's validation status indicates that an action is required to acknowledge that the permission request has been rescinded.



← Inspection		Cancel operation Zoom to Take-off ~
Operation Details Tasks Flights Documents		
Action Required	Submitted	Resolved
		Rescinded CYYZ030824A01 Permission Request - ATS ADMIN View Details Acknowledge
		Rescinded CYZD030624A01 Permission Request - ATS ADMIN
		View Details Acknowledge

Clicking on the *View Details* button opens a dialog box that displays more information about the permission request. Information as to why the permission status has been changed can be viewed under *Activity*.

Clicking on the *Acknowledge* button changes the status of the permission request from *Rescinded* to *Cancelled*. Click the *Show deprecated toggle button* to display the cancelled permission request.

÷	Published Inspection Operation Details Flights Documents			Cancel operation	Zoom to Take-off Y
	Action Required	Submitted	Resolved Cancelled CYZD000824A01 Permission Request - ATS ADMIN Cancelled CYYZ030824A01 Permission Request - ATS ADMIN		Show deprecated

9.14 Log a flight

When selecting a published operation from the operations table, a *Zoom to Take-off* button is available at the top right of the screen. You can now log a flight as the operation is being conducted in the field. A flight is considered as one takeoff and landing sequence. Therefore, an operation can consist of multiple flights.



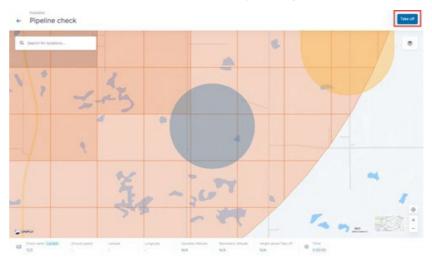
Make sure that all remaining tasks are in the *Resolved* status before you take off. See also "Manage tasks" on page 64.

9.14.1 Take off

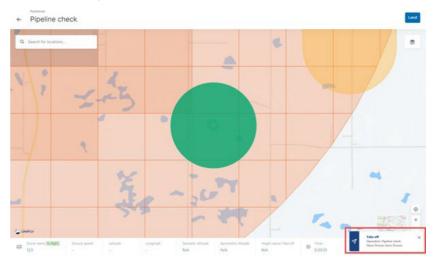
1. Click Zoom to Take-off to get to the Take-off screen.



2. Click Take-Off to indicate the start of your flight.



3. A message appears at the bottom right corner confirming take-off. The operation flight timer starts counting.

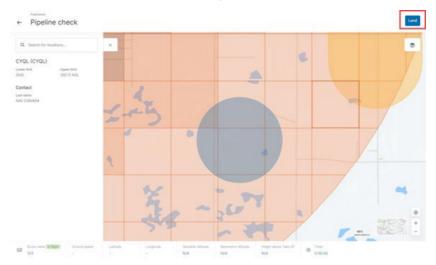




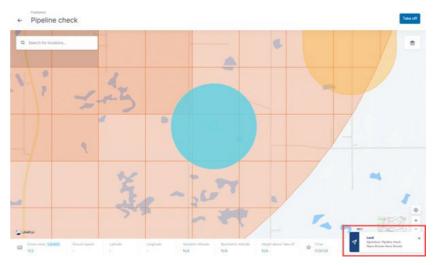
Clicking on the operation area on the map will display the operation details in the left sidebar.

9.14.2 Land

1. Click Land to indicate that the flight has finished (the drone is landing).



2. A message appears at the bottom right corner confirming landing. The *Land* button reverts back to the *Take off* button.



Click *Take off* to indicate the start of a new flight or click < to return to the *Operation details* screen where the flight that you conducted is now listed in the *Flights* tab, see also "Display operation flights" below. You can find more detailed information on your flights in the logbook, see "Logbook" on page 93.

9.15 Display operation flights

You can display a list of all flights that have been carried out (i.e. take-off and landing) during the time of an operation (i.e. start and end time).

- 1. Click *Operations* in the sidebar.
- 2. Click the operation for which you want to display the flights.

3. Click the *Flights* tab.

peration Details Tasks	Flights Documents			
Q Search				
Drone	Takeoff 🛧	Duration	Status	Pilot 🚯
OO-AWS - DJI Matrice 600	04/02/2021 16:05:57	0:03:52	Landed	A second s
OO-AWS - DJI Matrice 600	04/02/2021 16:09:50	0:00:15	Landed	Name of American
C	one DO-AWS - DJI Matrice 600	one Takeoff 🛧	Takeoff + Dutation VO-AWS - DJI Matrice 600 04/02/2021 16:05:57 0:03:52	one Takeoff + Duration Status OO-AWS - DJI Matrice 600 04/02/2021 16:05:57 0:03:52 Landed

9.16 Additional operation actions

Click *Operations* in the left sidebar to display an overview of your drone operations.

Operati	ions									Plan operatio	on 🗸
Q Search	h								1 Filters	All operations	
↓ Name ↓ Land st		Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions r	۰ . ا
		9999 - DJI Mii		12/08/2022 12:09:00	12/08/2022 13:09:00	1:00:00	Disclaimer	Draft	Landed		-
Land su		9999 - DJI Mii		17/08/2022 15:48:00	17/08/2022 16:48:00	1:00:00	Prohibited	Published	Landed	PR-000004	-
Land su	urvey		i John Deere	17/08/2022 14:13:00	17/08/2022 15:13:00	1:00:00	Disclaimer	Published	Landed	PR-000004	-
Inspect	tion	9999 - DJI Mii	r John Deere	17/08/2022 14:12:00	17/08/2022 15:12:00	1:00:00	Disclaimer	Published	Landed	PR-000004	-
Land si	urvey	9999 - DJI Mii	r John Deere	17/08/2022 13:36:00	17/08/2022 14:36:00	1:00:00	Authorization rejected	Published	Landed	PR-000004	1
Pipelin	e check	9999 - DJI Mii	r John Deere	17/08/2022 13:27:00	17/08/2022 14:27:00	1:00:00	Authorization rejected	Published	Landed	PR-000004	1
Land st	urvey	9999 - DJI Mir	r John Deere	17/08/2022 09:56:00	17/08/2022 10:56:00	1:00:00	Authorization required	Draft	Landed		1
Pipelin	e check	9999 - DJI Mii	r John Deere	16/08/2022 12:53:00	16/08/2022 13:53:00	1:00:00	Prohibited	Published	Landed	PR-000004	1
4											+

9.16.1 Pin operation

You can use the *Pin* feature (If available in your configuration, see "Disclaimer" on page 9), to make an operation appear at the top of the operations to select from when planning an operation based on an existing one. See also "Plan operation based on existing/pinned operation" on page 49. 1. Click the ***** menu next to the operation you want to pin and select *Pin operation*.

pe	erations													Plan opera	ation
Q	Search												Filters	All operatio	ons ~
	Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	Tasks	Notification stat	5	Archived?	0
i.	Pipeline check	9999 - DJI Mini	Dent Largentins	19/07/2022 14:24:00	19/07/2022 15:24:00	1:00:00	Fatal	Draft	Landed			Not applicabl			I
	Pipeline check	9999 - DJI Mini	Anto Deserv	16/08/2022 12:53:00	16/08/2022 13:53:00	1:00:00	Prohibited	Published	Landed	PR-00000438, PR-00000439	2 🕡	Not applicabl			I
	Land survey	9999 - DJI Mini	into Dana	12/08/2022 12:09:00	12/08/2022 13:09:00	1:00:00	Disclaimer	Draft	Landed			Not applicabl	_		
	Inspection	9999 - DJI Mini	Anton Disease	12/08/2022 12:08:00	12/08/2022 14:05:35	1:57:35	Disclaimer	Published	Landed			Not applicabl	2	Q View Details	
														Publish oper	ration
														🖉 Edit	
														Copy Cancel opera	ation
														Archive oper	
														Delete opera	
														F Pin operation	m

2. A *Pin* icon appears on the left hand side of the operation. Pinned operations always appear at the top of the list.

To unpin an operation select *Unpin* in the **‡** menu.

9.16.2 Copy operation

1. Click the ***** menu next to the operation you want to copy and select *Copy*.

John Deere	17/08/2022 14:12:00	17/08/2022 15:12:00	1:00:00	Disclaimer	Published	Landed	Not applicable	1
John Deere	17/08/2022 13:36:00	17/08/2022 14:36:00	1:00:00	Authorization rejected	Published	Landed	Not applicable	Q View Details Flight report
John Deere	17/08/2022 13:27:00	17/08/2022 14:27:00	1:00:00	Authorization rejected	Published	Landed	Not applicable	 Publish operation Edit
John Deere	17/08/2022 09:56:00	17/08/2022 10:56:00	1:00:00	Authorization required	Draft	Landed	Not applicable	Copy Cancel operation
John Deere	16/08/2022 12:53:00	16/08/2022 13:53:00	1:00:00	Prohibited	Published	Landed	Not applicable	Archive operationDelete operation
John Deere	12/08/2022 12:08:00	12/08/2022 14:05:35	1:57:35	Disclaimer	Published	Landed	Not applicable	Pin operation

2. A new operation is planned with the same operation details as the original operation.

9.16.3 Archive/unarchive operation

9.16.3.1 General

If you archive an operation:

- the operation is no longer visible in your operations overview.
- you can display archived operations only by activating the *Archive* filter. See "Filter" on page 22 on how to set up and activate a filter.
- you can reverse the status by unarchiving the operation. See "Unarchive operation" on the next page.

9.16.3.2 Archive operation

Click the **‡** menu next to the operation you want to archive and select *Archive*.

Q Search								∓ Filters	All operations Y
Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs
Powerline inspection	9999 - Aerialtı	Territ angentries	08/09/2021 15:33:11	08/09/2021 16:33:11	1:00:00	Prohibited	Cancelled	Landed	PR-00000186, PR
Land survey radius are	9999 - Aerialtı	Dest aspectra	29/09/2021 16:06:13	29/09/2021 17:06:13	1:00:00	Disclaimer	Published	Landed	Q View Details Flight report
Test David	9999 - Aerialtı	Testorgentra	21/10/2021 10:03:00	21/10/2021 11:03:00	1:00:00	Disclaimer	Published	Landed	 Publish operation Edit
Test Davdid2	9999 - Aerialtı	Dest argentist	21/10/2021 11:10:09	21/10/2021 12:10:09	1:00:00	Prohibited	Draft	Landed	 ✔ Copy ♥ Cancel operation
Pipeline check	9999 - Aerialtı	Devid Langevilles	22/10/2021 13:02:13	22/10/2021 14:02:13	1:00:00	Prohibited	Cancelled	Landed	Archive operation
									Delete operation
							- · · · ·	20 20 20	

9.16.4 Unarchive operation

- 1. Click *Filters*.
- 2. Click Add and Archived?
- 3. Click *Archived*? and *Yes* to activate the filter and make all archived operations visible in the table.

Q Search							1	Filters All operation	ons Y
□ yes	Drone Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	¢
seration 1	D A789 - Aeri User A	01/03/2022 16:08:13	01/03/2022 17:08:13	1:00:00	Response pending	Cancelled	Landed	PR-00000221	ł
peration 2	DLA789 - Aeri User A	27/02/2022 16:11:17	27/02/2022 17:11:17	1:00:00	Response pending	Published	Landed	PR-00000222	I
peration 3	DLA789 - Aeri User B	27/02/2022 16:12:48	27/02/2022 17:12:48	1:00:00	Prohibited	Cancelled	Landed	PR-00000223	I
peline check	DLA789 - Aeri User B	01/04/2022 13:09:40	01/04/2022 14:09:40	1:00:00	Prohibited	Published	Landed		1

4. Click the **\$** menu next to the operation you want to unarchive and select *Unarchive*.

Q Searc								Filters All operatio	ns Y
me	Drone Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	0
peration 1	DLA789 - Aeri User	A 01/03/2022 1	5:08:13 01/03/2022 17:08:1	13 1:00:00	Response pending	Cancelled	Landed	PR-00000221	1
								Q. View Details	
								Flight report	
								Publish operati	on
								G Copy	
								⊘ Cancel operation	on
								Unarchive oper	ratior
								Delete operation	ən

9.16.5 Cancel operation

9.16.5.1 General

If you cancel an operation:

- all related tasks will be cancelled as well.
- the operation remains visible in your operations overview.
- you can still copy the parameters to plan a new drone operation.

9.16.5.2 Cancel operation

1. Click the **‡** menu next to the operation you want to cancel and select *Cancel*.

Q Search								1 Filters	All operations	~
Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs	¢
Operation 2	DLA789 - Aeri	User A	27/02/2022 16:11:17	27/02/2022 17:11:17	1:00:00	Response pending	Published	Landed	PR-00000222	÷
Operation 3	DLA789 - Aeri	User B	27/02/2022 16:12:48	27/02/2022 17:12:48	1:00:00	Prohibited	Cancelled	Landed	PR-00000223	÷
Pipeline check	DLA789 - Aeri	User B	01/04/2022 13:09:40	01/04/2022 14:09:40	1:00:00	Prohibited	Published	Landed		:
Land survey	DLA789 - Aeri	User A	01/04/2022 13;10:52	01/04/2022 14:10:52	1:00:00	Prohibited	Published	Landed	 Q. View Details Plight report Publish operation Edit Copy Cancel operation Archive operation Delete operation 	on

2. A confirmation message appears.

9.16.6 Delete operation

9.16.6.1 General

If you delete an operation:

- it is cancelled if it is a planned operation. If the operation occurred in the past or is ongoing, you need to cancel it manually before deleting it.
- the operation is no longer visible in your operations overview.
- you no longer have access to the operation.

9.16.6.2 Prerequisites

- If an operation has flights linked to it, you first need to remove them manually from the Logbook. See also "Logbook" on page 93.
- If the operation occurred in the past or is ongoing, you need to cancel it manually before deleting it. See also "Cancel operation" above.

9.16.6.3 Delete operation

1. Click the **\$** menu next to the operation you want to delete and select *Delete*.

Q Search								≂ Filters	All operations 👻
Name	Drone	Pilot	Start time	End time	Duration	Validation	Status	Flight status	Permissions refs 🔅
Powerline inspection	9999 - Aerialtı	Devid angeotries	08/09/2021 15:33:11	08/09/2021 16:33:11	1:00:00	Prohibited	Cancelled	Landed	PR-00000186, PR
Land survey radius are	9999 - Aerialtı	Derif largestrik	29/09/2021 16:06:13	29/09/2021 17:06:13	1:00:00	Disclaimer	Published	Landed	Q View Details
Test David	9999 - Aerialtı	Testingentes	21/10/2021 10:03:00	21/10/2021 11:03:00	1:00:00	Disclaimer	Published	Landed	 Publish operation Edit
Test Davdid2	9999 - Aerialtı	Destagement	21/10/2021 11:10:09	21/10/2021 12:10:09	1:00:00	Prohibited	Draft	Landed	 G Copy ⊘ Cancel operation
Pipeline check	9999 - Aerialtı	Test agentes	22/10/2021 13:02:13	22/10/2021 14:02:13	1:00:00	Prohibited	Cancelled	Landed	 Archive operation Delete operation

2. A confirmation message appears.

10 Flightmap

10.1 Features

Use the *Flightmap* to:

- Follow up on your operations.
- Be aware of your surroundings while performing your operation.

10.2 The Flightmap page

Click *Flightmap* in the left sidebar.

10.2.1 Map area features



N°	Description
1	Use the <i>Search bar</i> to search for a geographical/address location and geozones (If available in your configuration, see "Disclaimer" on page 9).
2	Display Mode: Click <i>Display mode</i> to display/hide the mode selection options. Hover the mouse pointer over the selection options to get a mode tooltip. The following modes are available: • night mode with or without labels • day mode with or without labels • satellite mode with or without labels

N°	Description
	- coloured mode with or without labels
3	 Move the map by using the <i>Move-to-current-location</i> (⁽¹⁾) controls. Note that this only works if you have location services enabled on your computer. by dragging it with the left mouse button.
4	 Distance calculator. 1. Click the distance calculator icon. 2. Click a location on the map. The coordinates of that location are displayed. 3. Move your cursor over the map to see the distance in NM to any given point. 4. Click another location on the map. The coordinates of that location are displayed. 5. To stop measuring, click the distance calculator icon again.
5	 Zoom the map by using the <i>Zoom</i> (+ and -) controls. by using the mouse scroll wheel . by left/right double clicking a location on the map. At low zoom levels the map does not display the drone relevant zones as indicated by a message that appears at the top of the page. Zoom in to be able to see them.
6	Select/deselect map layers (nr 5). See also "Map layers" on the facing page.

10.2.2 Map layers

10.2.2.1 General

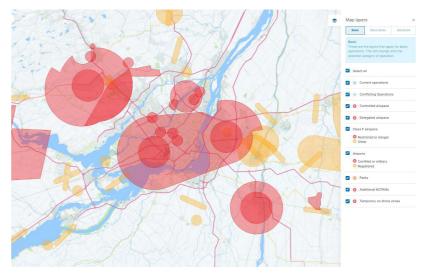
The map layers are a geometric representation of areas that RPAS pilots need to be aware of when planning an operation. Areas filled with red are prohibited. Areas filled with yellow require additional caution due to other air traffic. Areas filled with orange require permission from NAV CANADA, Parks Canada, the Department of National Defence, an airport operator, Penitentiary Authorities or any other specified user agency.

The following map layers are visible for all types of operations:

Map layer	Description
Planned operations	Displays all upcoming planned operations for you and any other user associated with your operator company in light blue. This layer is only available in the <i>Operations planning</i> screen, not in the <i>Flightmap</i> .
Current operations	Displays all operations that have been published by you or any other user associated with your operator company in dark blue. These are operations for which a take-off has been registered on the platform and are occurring within their scheduled activity period.
Conflicting operations	Displays in green all published operations, whether conducted by your operator company or by other operators, that create conflicts, such as overlapping in space or time.

10.2.2.2 Select/deselect map layers

- 1. Click \circledast to open the *Map layers* sidebar.
- 2. Click *Basic*, *Micro drone* or *Advanced* to list the layers that apply to each category.
- 3. Select/clear the relevant checkboxes or click *Select all* to select/clear all layers.



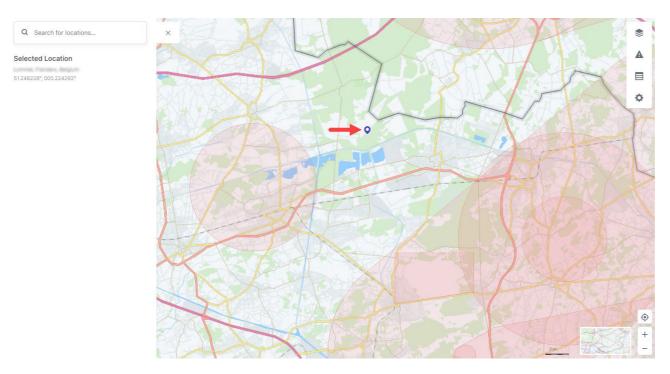
4. Click sto close the *Map layers* sidebar again.

10.3 Display airspace information

Information about airspace geozones is displayed by selecting a location on the map in the Map window. The selected location is marked with the \mathbf{Q} symbol. Three scenarios are possible, as described below.

10.3.1 Location not covered by any geozone

If the selected location is not covered by any geozone, information regarding that location (coordinates and, when available, address information) is displayed at the top left of the screen.



The sidebar can be closed by clicking on the imes icon at the top right of the sidebar.

10.3.2 Location covered by one visible geozone

If the selected location is covered by only one visible geozone, detailed information associated with that geozone is displayed in the sidebar on the left of the Map window.



The sidebar can be closed by clicking on the X icon at the top right of the sidebar.

10.3.3 Location covered by multiple visible geozones

GND

N/A

If the selected location is covered by multiple visible geozones, a list of the geozones covering that location is displayed in the sidebar on the left of the Map window. Selecting one of the geozones in the list by clicking on its name displays the information for the selected geozone in that same sidebar.



Click the back arrow to close the selected geozone. The sidebar can be closed by clicking on the 🗙 icon at the top right.

11 Logbook

Click on *Logbook* in the left sidebar to access the logbook module. The logbook helps you keep track of all flights conducted under your account and provides statistics regarding the total flight time for the pilots and drones.

Both tabs (*Users* and *Drones*) present the same information (all flights logged) but grouped based on a different field. See "Group" on page 25 for more details about this table functionality.

11.1 Display users

Click the *Users* tab to display a list of all pilots who have performed flights. The flights are grouped per pilot. The number indicated on the right side of each pilot's name is the total flight time logged for that pilot.

By clicking on any logbook entry, a dialog box is displayed which provides additional information about the operation, the drone, and the selected flight.

Logbook		Logbook details		×	
Users Drone		Operation details			
		Operation name Pipeline check			
Q Search		Pilot			₹ Filters All users ¥
Name	Take off	La Max flight height 5.79 m AGL	Radius 851.21 m		0
— Pilot: John Doe ((48:06:07)	Category of Operation Micro drone	Activity Research		
Pipeline check	03/05/2022 14:00:57	Flight Type 0 VLOS			1
Pipeline check	03/05/2022 14:03:41	Drone details Manufacturer Aerix Drones	Model Nano Drones		I
Pipeline check	03/05/2022 14:04:59	0 Registration number			I.
Pipeline check	03/05/2022 14:10:50	Flight details o Take-off	Landing		i
Pipeline check	03/05/2022 14:13:52	03/05/2022 14:00:57 0 Rating	03/05/2022 14:03:25		I
Pipeline check	03/05/2022 14:14:06	0		Close	i
Pipeline check	03/05/2022 14:14:26	03/05/2022 14:14:34 0:00:07	Aerix Drones - Nano E		1

The available data include:

- Name of the pilot
- Take off time of the flight
- Landing time of the flight
- Duration of the flight
- · Drone that was used during the flight
- Pilot registration

11.2 Display drone

Click the *Drone* tab to display a list of all drones that have performed flights. The flights are grouped per drone.

By clicking on any logbook entry, a dialog box is displayed which provides additional information about the operation, the drone, and the selected flight.

ogbook		Logbook details		×	
Isers Drone		Operation details Operation name Pipeline check			
Q Search		Pilot			▼ Filters All drones *
Pilot	Name	Take Max flight height 5.79 m AGL	Radius 851.21 m		٥
- Drone: Aerix Dro	nes - Nano Drones (48:06:07,	initia arono	Activity Research		
John Doe	Pipeline check	Flight Type 03, VLOS			I.
John Doe	Pipeline check	03, Manufacturer Aerix Drones	Model Nano Drones		1
John Doe	Pipeline check	03, Registration number			I
John Doe	Pipeline check	03, Take-off	Landing		1
John Doe	Pipeline check	03/05/2022 14:00:57 03/ Rating	03/05/2022 14:03:25		i
John Doe	Pipeline check	03,		Close	1
John Doe	Pipeline check	03/05/2022 14:14:26 03/05/2022	14:14:34 0:00:07	_	

12 Addendum

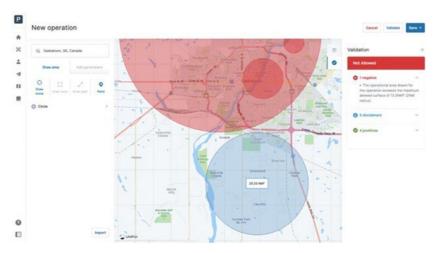
12.1 Operational constraints

12.1.1 Size constraints

The maximum area of a flight zone is limited. Depending on the shape of the operation, the constraints are:

- Polygon: 12.5 sq.NM
- Circle: 12.5 sq.NM (5 NM radius)
- Path: 12.5 sq.NM (10 NM length by 32 feet width)

These values are subject to change by NAV CANADA.

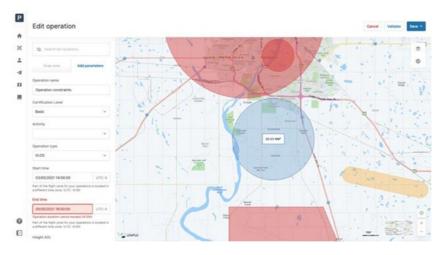


NAV Drone will prevent you from publishing an operation that exceeds the maximum area.

12.1.2 Time constraints

12.1.2.1 Time span operation

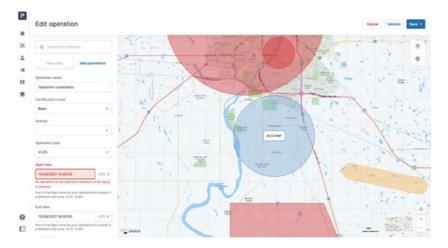
The maximum duration of an operation is limited to 24 hours. This value is subject to change by NAV CANADA.



NAV Drone will prevent you from publishing an operation that exceeds this time constraint.

12.1.2.2 Advance planning operation

An operation can only be planned up to 60 days in advance. This value is subject to change by NAV CANADA.



NAV Drone will prevent you from publishing an operation that exceeds this time constraint.

13 Glossary

Title	Abbreviation	Description
Above Ground Level	AGL	The altitude expressed in feet measured above ground level.
Above Sea Level	ASL	The altitude expressed in feet measured above sea level.
Activity	-	Type of operation.
Aerodrome	AD	Any area of land, water (including the frozen surface thereof) or other supporting surface used, designed, prepared, equipped, or set apart for use, either in whole or in part, for the arrival, departure, movement, or servicing of aircraft. This includes any buildings, installations, and equipment situated thereon or associated therewith.
Aerodrome routine meteorological report	METAR	A METAR describes the actual weather conditions at a specified location and at a specified time as observed from the ground.
Air Navigation Service Provider	ANSP	Organization which is responsible for the provision of air navigation services in domestic or international airspace.
Air Traffic Control	ATC	A service provided to aircraft in controlled airspace.
Air Traffic Controller	ATC	A person holding a valid licence to control air traffic.
Air Traffic Management	ATM	A management concept aimed at ensuring full utilization of ATC systems, according to the possibilities offered by future air navigation systems, as they evolve, from both a national and an international perspective.
Air Traffic Service	ATS	Includes services provided by Air Traffic Controllers and Flight Service Specialists at Area

Title	Abbreviation	Description
		Control Centres (ACC), Towers (TWR), Flight Service Stations (FSS and Flight Information Centres (FIC).
Air Traffic Services Specialist	-	The ATS Specialist is a member of the NAV CANADA personnel who manages access to controlled airspace.
Airport Advisory Service	AAS	Provision by an FSS of information relevant to the departure and arrival phases of a flight and to the transit of an MF area.
Airspace	-	The portion of the atmosphere controlled by a country above its territory, including its territorial waters or, more generally, any specific three-dimensional portion of the atmosphere.
Altitude	ALT	The height of an object or point in reference to sea level or ground level.
Approval	-	Authorization granted to an operator to manoeuvre in controlled airspace under conditions specified by an ATS unit based on the information provided in the permission request
Area Control Centre	ACC	An ATC unit that provides ATC service to aircraft operating within a flight information region (FIR)
Area of Responsibility (Glossary for Pilots and Air Traffic Services personnel - TP11958E)	AOR	A geographical area within which alerting service is provided by an ATS unit designated as the responsible unit.
Area of Responsibility (NAV Drone)	AOR	The group of control zones for which an ATS unit is responsible for coordinating the assessment of RPAS permission requests.

Title	Abbreviation	Description
Base map	-	A base map is a background layer with geographic information. A base map usually provides location references for features that do not change often such as boundaries, rivers, lakes, roads, and highways.
Beyond Visual Line of Sight	BVLOS	Flight performed beyond the pilot's/observer's line of sight.
Canada Air Pilot	CAP	A document in which the Minister may establish standard procedures for air operations at specific aerodromes. Contains descriptions of approaches, SID, STAR and airport layout and procedures.
Canadian Aviation Regulations	CARs	The rules enacted under the Aeronautics Act, that govern civil aviation in Canada. Replacing the Air Regulations and the Air Navigation Orders, the CARs and their associated standards came into force on October 10, 1996, after a comprehensive consultation process between Transport Canada and the aviation community. This co-operative and partnership approach to rule-making continues within the Canadian Aviation Regulation Advisory Council (CARAC), which discusses proposed amendments to the CARs and their associated standards.
Canadian Water Aerodrome Supplement	CWAS	A joint civil/military publication concerning water aerodromes that is intended to be used to supplement enroute charts and the Canada Air Pilot (CAP).
Certificate	-	In a professional context: a designation earned by a person to assure qualification to perform a job or task. Example: a drone pilot certificate. In a digital context: in cryptography, a public key certificate, also known as a digital certificate or identity certificate, is an electronic document used to prove the ownership of a public key.
Certification Level	-	Two categories (Basic and Advanced) of drone operations as defined under the Canadian Aviation

Title	Abbreviation	Description
		Regulations Part IX. Each category has a different set of rules drone pilots must follow.
Checkbox	-	Graphical control element that allows the user to make a binary choice, i.e. a choice between one of two mutually exclusive options. For example, the user may have to answer 'yes' (checked) or 'no' (not checked) on a simple yes/no question.
Circuit – Aerodrome traffic circuit	-	The specified path to be flown by aircraft operating in the vicinity of an aerodrome
Civil Aviation Authority	CAA	A government statutory authority in each country that maintains an aircraft register and oversees the approval and regulation of civil aviation.
Command and Control	C2	The data link between the remotely piloted aircraft and the remote pilot station for the purpose of managing flight.
Control tower	TWR	A unit established to provide ATC service to aerodrome traffic. Also called "Tower".
Control Zone	CZ	A controlled airspace of defined dimensions extending upwards from the surface of the earth up to and including 3000 ft AAE unless otherwise specified
Coordinated Universal Time	UTC	The time system used in aviation operations and given to the nearest minute, except when the pilot requests a time check. Time checks are given to the nearest 15 s. The day begins at 0000 and ends at 2359. Synonymous with Zulu time.
Dialog Box	-	Graphical control element in the form of a small window that communicates information to the user and prompts them for a response.
Disclaimer	-	Terms and conditions that apply to a user's access and use of the NAV Drone applications.
Drone	-	An unmanned aircraft guided by remote control or

Title	Abbreviation	Description
		onboard computers. Synonymous of RPA (Remotely Piloted Aircraft), UAV (Unmanned Aerial Vehicle), and UAS (Unmanned Aerial System).
Drone Name	-	Nickname that a pilot can associate with a drone.
Drone Operator	-	The drone operator means any legal or natural person who operates or intends to operate one or more drones.
Drone Pilot	-	A drone pilot is the person designated by a drone operator who is in command of the drone and in charge of the safe conduct of the flight. Depending on a number of factors, including the drone type and the drone operation, a drone pilot may be required to have one or more active certifications to be allowed to execute the drone flight.
Emergency		A situation that places an aircraft or other vehicle, or some person on board or within sight, in a state that requires immediate action.
Explore without account	-	Possibility in the NAV Drone mobile app to try out the mobile app without registering and logging in. Therefore, not all functionalities are available.
Flight	-	A flight is considered as one takeoff and landing sequence. Therefore, an operation can consist of multiple flights.
Flight Information Centre	FIC	A centralized ATS unit that provides services pertinent to pre-flight and the enroute phase of flight
Flight Information Region	FIR	An airspace of defined dimensions extending upwards from the surface of the earth within which flight information service (FIS) and alerting service are provided.
Flight Service Station	FSS	An ATS unit that provides services pertinent to the arrival and departure phases of flight at uncontrolled aerodromes and for transit through a mandatory frequency (MF) area

Title	Abbreviation	Description
Flight Service Specialist	FSS	A certified employee assigned duties and responsibilities at an FSS or FIC
Fly-away		An interruption or loss of the command and control link (C2 Link) where the pilot is unable to affect control of the aircraft and the aircraft is no longer following its preprogrammed procedures, all of which results in the RPA operating in an unpredictable or unplanned manner
Geozone	-	Any airspace that may have restrictions, may require permission, or may require awareness of manned aviation.
Ground Control Station	GCS	A ground control station refers to the complete set of ground-based hardware systems used to control a drone. Synonymous with Remote Pilot Station (RPS).
Height	-	In aviation: the vertical distance of an object measured from a stated reference such as the ground (above ground level = AGL). Reported in feet.
International Civil Aviation Organization	ICAO	A specialized agency of the United Nations, the objective of which is to develop the principles and techniques of international air navigation and to foster planning and development of international civil air transport.
JavaScript Object Notation	JSON	A common data format used for asynchronous browser–server communication.
Keyhole Markup Language	KML	Keyhole Markup Language (KML) is an XML notation for expressing geographic annotation and visualization within Internet-based, two- dimensional maps and three-dimensional Earth browsers. KML was developed for use with Google Earth, which was originally named Keyhole Earth Viewer. KML became an international standard of the Open Geospatial Consortium <u>https://www.ogc.org/standards/kml</u> in 2008. As for any XML standard, the message grammar can be

Title	Abbreviation	Description
		checked to see if it is correctly formatted so the system using it will be able to read and process the data.
Logbook	-	For pilots and operators, the logbook keeps track of all flights conducted under a user account and provides statistics regarding the total flight time for the pilots and drones.
Lost C2 Link	-	The loss of command and control link (C2 Link) contact with the RPA such that the pilot can no longer manage the aircraft's flight. A lost C2 Link does not necessarily result in a fly-away situation, as the RPA will be programmed to follow a predictable flight path until the link is reacquired or the flight is terminated. Lost C2 link procedures are programmed by the manufacturer, and on some models, may be modified/programmed by the RPAS operator.
Map Layers	-	Airspace zone categories displayed on top of the background map (base map).
Maximum Take- Off Weight	MTOW	Maximum take-off weight (MTOW) of an aircraft is a value defined by the aircraft manufacturer. It is the maximum mass at which the aircraft is certified for takeoff due to structural or other limits. MTOW is usually specified in units of kilograms or pounds. The mass is a fixed value and does not vary with changes in temperature, altitude, or runway available.
Multicopter	MC	A rotorcraft with more than two rotors. An advantage of multirotor aircraft is the simpler rotor mechanics required for flight control.
Nautical Mile	NM	The international nautical mile is defined as exactly 1852 metres (about 1.15 miles). The derived unit of speed is the knot, one nautical mile per hour.
No Drone Zone (NAV Drone)	NDZ	Specific to NAV Drone, a No Drone Zone is an airspace in which drone traffic is restricted or

Title	Abbreviation	Description
		forbidden. No Drone Zones are temporary.
Notice to airmen	NOTAM	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.
Operation (NAV Drone)	-	An operation is created by a pilot or by an operator and represented by a flight zone and associatedparameters such as the operation type, the start/end date and time, the designated pilot, the drone planned to be flown, etc.
Operator	-	A distinction is made between the operator level (commercial entity) and the user level (individual). One operator can invite multiple users to join their crew (drone pilots, observers, and payload specialists). In the same way, one user can be associated with multiple drone operators, as is the case for a freelance pilot who is contracted by multiple operators, for example.
Permission Request	-	For Advanced operations in airspace controlled by NAV CANADA, the operator must submit a permission request to NAV CANADA. Permission requests are evaluated either automatically or manually, depending on the height and location of the operation's flight zone. The possible statuses for a permission request are: Draft, Initiated, Sent, In Review, Needs Action, Approved, Rejected, Rescinded, and Cancelled.
Pilot in Command	PIC	See "Drone Pilot".
Registration Number	-	A registration number assigned to a drone by Transport Canada
Remote Control	RC	The use of control signals transmitted by radio to remotely control a device.
Remote Pilot	RP	See "Drone Pilot".

Title	Abbreviation	Description
Remotely Piloted Aircraft	RPA	See "Drone".
RPAS Traffic Management	RTM	An international aviation concept that brings an automated ATM- like system to very low-level airspace which will be occupied primarily by unmanned aircraft (commonly referred to as drones).
Shape handle	-	Graphic control element in the form of a small square, used for editing a shape by dragging the handle.
Tasks	-	For a drone operator, the Tasks tab list all tasks related to an operation, in three categories representing three different task statuses: Action Required, Submitted and Resolved. In the context of NAV Drone, tasks are associated with a permission request.
Tooltip	-	Common graphical user interface element displayed as an informational text box when hovering over an item. It is used in conjunction with a cursor, usually a pointer.
Transport Canada	тс	The federal authority responsible for regulating civil aviation
Transport Canada Aeronautical Information Manual	TC AIM	A primary Transport Canada publication of aeronautical information intended to serve as a pre-flight reference source for pilots and that contains information essential to aircraft operations in Canadian Domestic Airspace (CDA). It consolidates information of a lasting nature into a single document. Topics covered are general flight information, communications, meteorology, rules of the air and ATC procedures, entry and departure requirements for international flights, search and rescue, aeronautical charts and publications, licensing and registration, health, and airmanship

Title	Abbreviation	Description
Uncontrolled aerodrome	-	An aerodrome at which a control tower has not been established. This designation also applies during the non-operational period when an established control tower is on reduced hours (part-time)
User agency	-	The agency, organization, or military command responsible for the activity for which Class F airspace has been provided. The user agency shall be identified for Class F restricted areas, military operations areas, and danger areas and, where possible, should be identified for Class F advisory areas.
Validation	-	An operation validation consists in verifying that the operation complies with applicable rules and regulations.
Vertex	-	In geometry, a vertex is a point where two or more curves, lines, or edges meet. As a consequence, the point where two lines meet to form an angle and the corners of polygons are vertices.
Very Low Level	VLL	Very Low-Level airspace (VLL) is usually understood to be the volume of air below 500ft above (non-built-up) ground level.
Visual Flight Rules	VFR	The rules that govern the procedures for conducting flight under visual conditions. The abbreviation is used by pilots and controllers to indicate a type of flight plan or weather conditions.
Visual Line-of- Sight	VLOS	Unaided visual contact at all times with a remotely piloted aircraft that is sufficient to be able to maintain control of the aircraft, know its location, and be able to scan the airspace in which it is operating in order to perform the detect and avoid functions in respect of other aircraft or objects.
Visual Meteorological Conditions	VMC	Meteorological conditions, expressed in terms of visibility and distance from cloud, equal to or greater than the minima specified in CAR 602.

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For all information about the Unifly Drone Web App, please visit <u>https://www.navcanada.ca/en/flight-planning/drone-flight-planning/nav-drone-support.aspx.</u>

If you have any questions, please contact us by sending an email to <u>navdrone@navcanada.ca.</u>