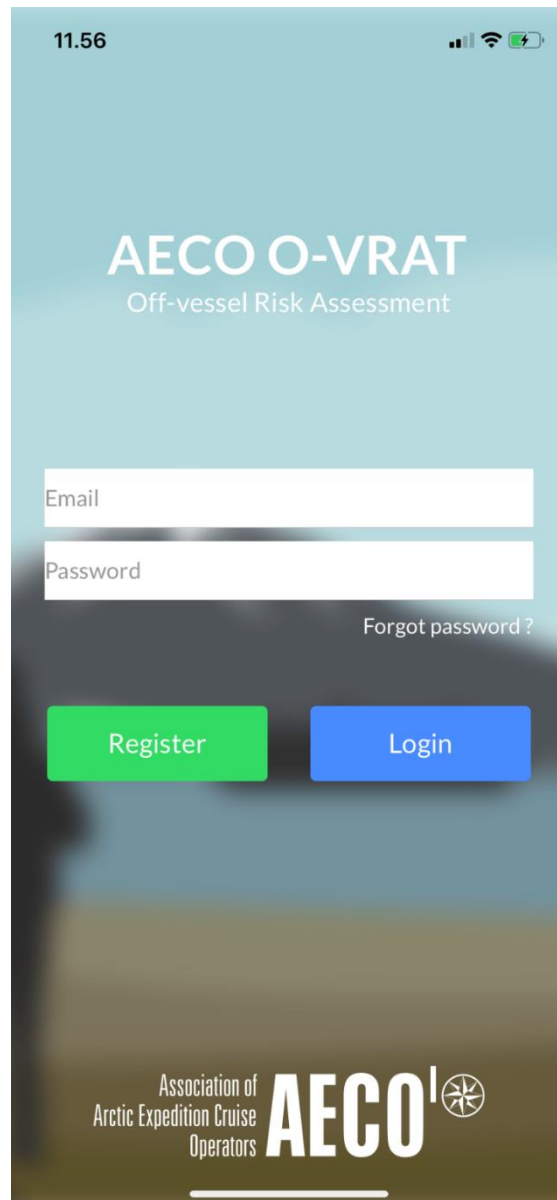


**AECO Off Vessel Risk Assessment Tool  
(O-VRAT)**

# **USER GUIDE**

**Last update 09-06-2023**



The screenshot shows a mobile app interface for 'AECO O-VRAT Off-vessel Risk Assessment'. At the top, the status bar shows the time 11:56 and signal/battery icons. The app title 'AECO O-VRAT' is centered in large white letters, with the subtitle 'Off-vessel Risk Assessment' below it. There are two input fields: 'Email' and 'Password'. To the right of the password field is a link that says 'Forgot password?'. Below the input fields are two buttons: a green 'Register' button and a blue 'Login' button. At the bottom, the logo for the 'Association of Arctic Expedition Cruise Operators' is displayed next to the text 'AECO!' and a compass icon. The background of the app is a blurred image of a ship's wake in the water.



*Funded by the Svalbard Environmental Protection Fund*

## Indhold

Application functionality .....	3
Startup page when logged on .....	4
Point select site (zoom in and click) .....	5
Area marker .....	6
Restrictions tab !.....	7
Guidelines tab.....	8
Notes tab .....	9
Risk Assessment.....	9
Offline functionality and server synchronization of the application.....	14
Access and initial download of all AECO Guidelines.....	14

## Creating a password

Registration to use the O-VRAT app can only be achieved by request from a member operator to the AECO secretariat. If not sanctioned by a member, access to the app is not possible.


Newly registered will be informed once registered. Before logging on, remember to create a password here:

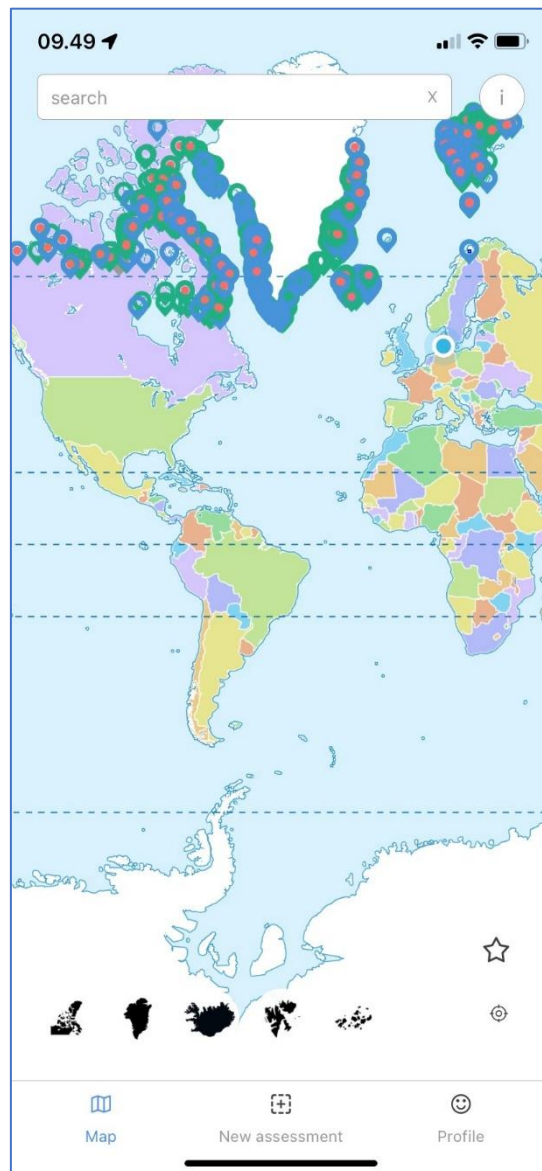
**[https://ovrat2.aeco.no/accounts/password\\_reset/](https://ovrat2.aeco.no/accounts/password_reset/)**

It is strongly recommended to change passwords from time to time.

## Application functionality

### Startup page when logged on

- Map with all sites corresponding to the sites registered in the AECO cruise database.
  - o Green markers: No specific guidelines attached, nor any restrictions listed.
  - o Blue markers: Sites with guidelines attached.
  - o Markers with red center: Sites with restrictions attached.
- Site search capability or zoom to point select site.
  - o Quick access to restrictions, AECO Guidelines, and Notes.
- Short cut maps for quick access to AECO geographical areas.
- Ability to start new risk assessment directly by site name search and  or vice versa.
- Profile access which includes server synchronization



Point select site (zoom in and click)

- Easy access to Restrictions (if any).
- Easy access to AECO Guidelines (if any).
- Easy access to Notes feature
  - Review notes in tab.
- Add sites to *favorites* by using ☆ .
- Start new assessment by site name search [🔍] or vice versa.



### Area marker

A larger area containing sites with the same restrictions is delimited by a polygon. The polygon does not reflect exact positions but indicates a reasonably precise representation of the area in question. Specific positions for the area borders may or may not be available in individual site restrictions but can otherwise be found in local legislation.

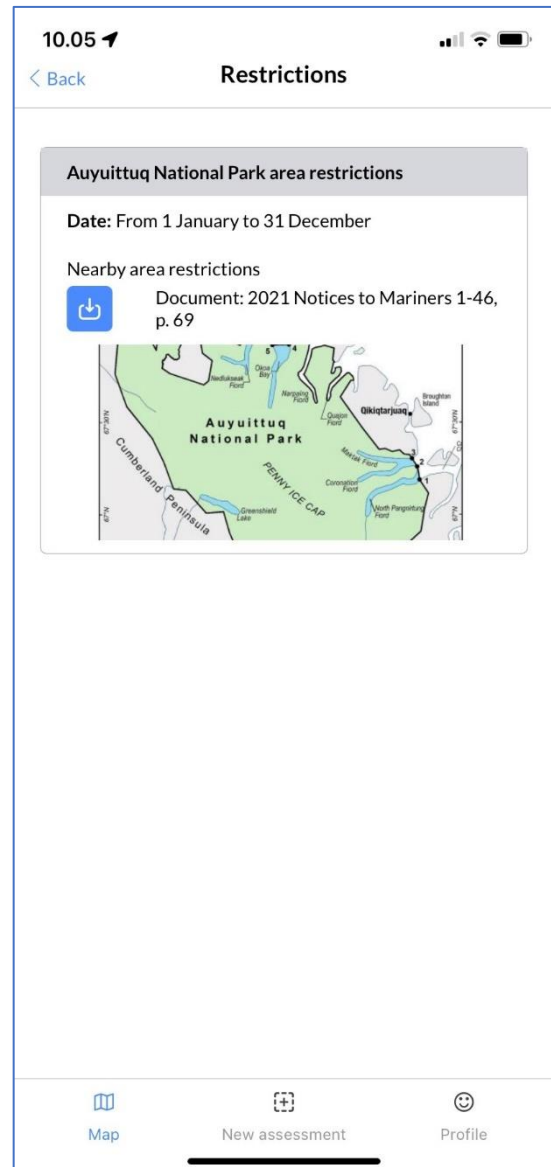
Within the area borders there are restrictions that are the same or similar for all sites included (registered as markers or not). The restrictions are explained in the **Restrictions tab** for each individual registered site (see page 6).



Not all areas of the AECO geographical range containing similar restrictions are marked this way. If not, restrictions can still be viewed by accessing the individual sites **Restrictions tab**.

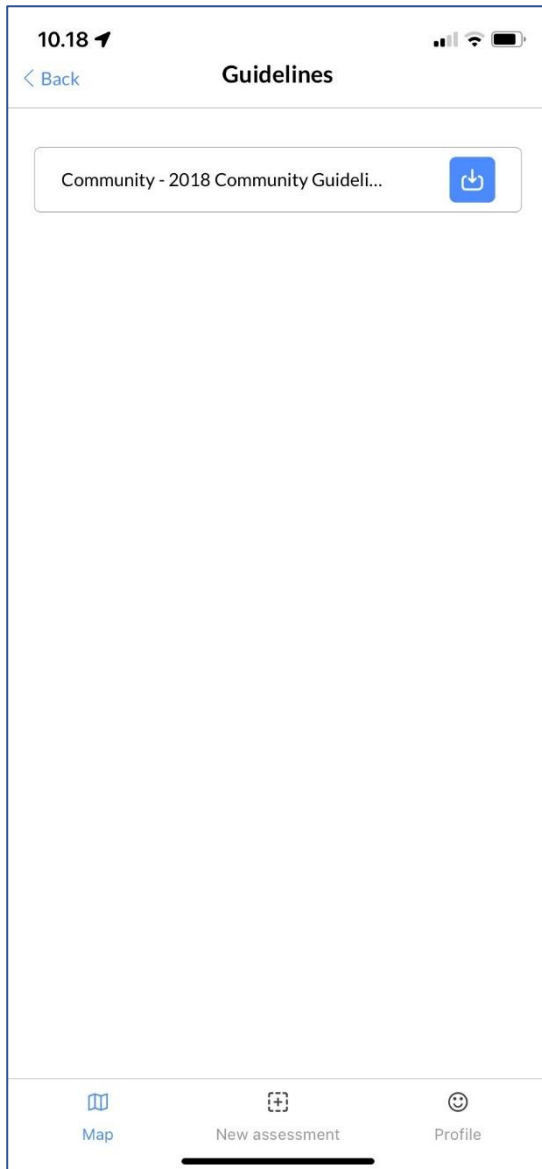
## Restrictions tab !

If access restrictions exist for a specific landing site or near to a registered landing site, the map marker has a red center, and the **Restrictions tab** is highlighted. Restrictions can be seasonal in nature or year around access prohibition. The ambition is to include official documentation for any restrictions such as maps, quotes from local legal framework, etc. for each site if applicable.



## Guidelines tab

Any of the comprehensive set of AECO Guidelines that is relevant to a site can be accessed directly in the application via the **Guidelines tab**.





## Notes tab

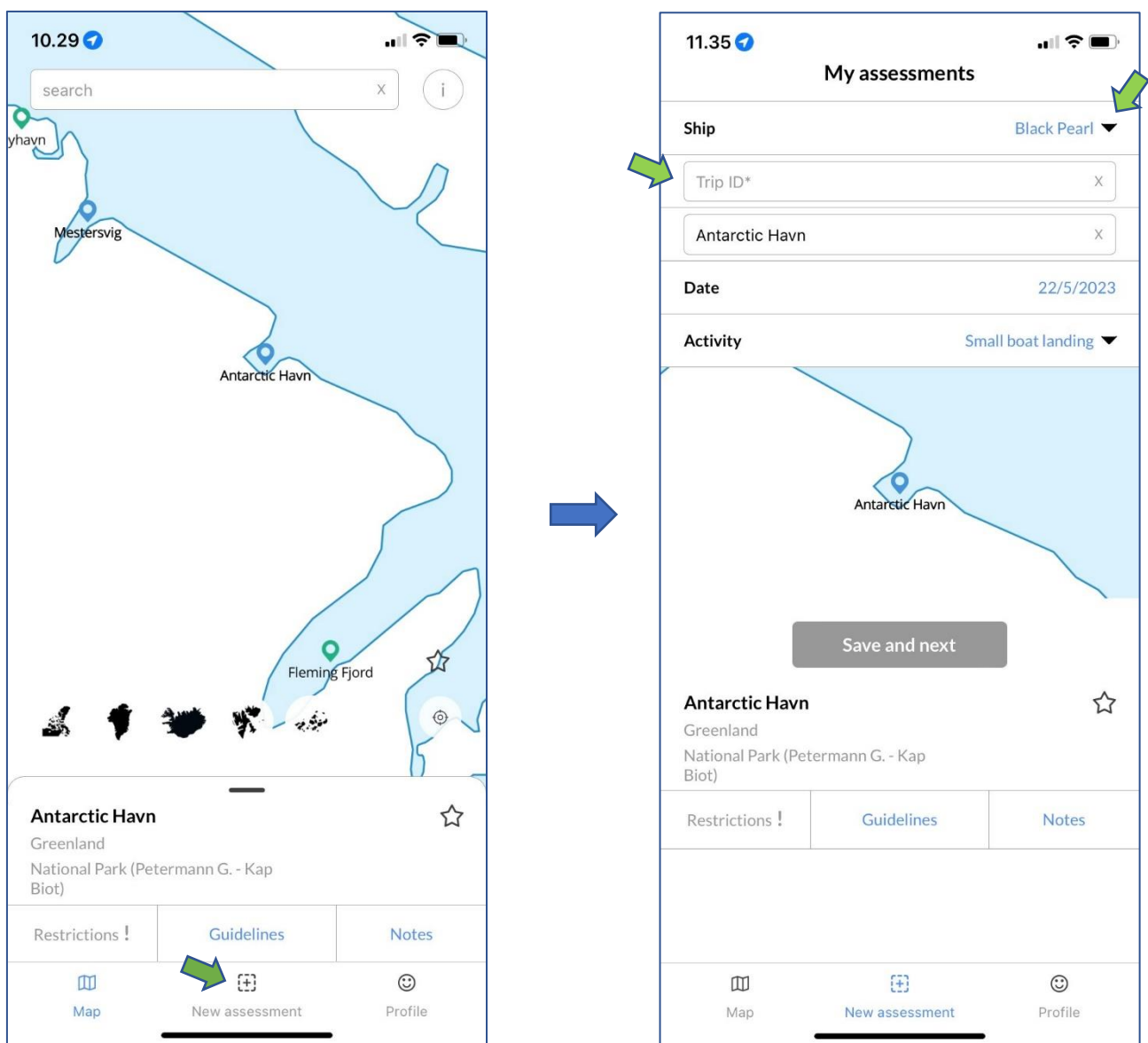
The **Notes tab** will allow authorized users to add warnings and recommendations to future visitors. This could for example be if a polar bear has been spotted at a given date and time. It could also be environmental features that warrant extra caution or consideration if planning a visit. The notes are updated every time a server synchronization is completed. Hence it is not a “live” feature but as close to as current technology allows.



## Risk Assessment

The risk assessment feature offers an authorized user to complete and log a risk assessment for landing operations. A dedicated workshop including AECO member specialists including Captain Leif Skog, Lindblad Expeditions, and Dagmar Hagen representing NINA, convened in Copenhagen

in 2017 to define the safety, environmental, and human aspects that need to be taken into consideration when completing a comprehensive risk assessment for landing operations. This included the definitions of mitigation measures for each point identified. Based on the original NINA approach, questions were designed which, depending on the answer of the user, leads to mitigation methods being suggested by the application. The user can then tick off the mitigation methods used to counter the challenge identified. The process is intended to ensure the best possible preparation for any landing operations for all staff involved as well as a retrievable record of risk assessments in case the need arises.



When starting a new risk assessment, AECO member specially authorized personnel (typically ELs) must select the relevant ship to ensure that the risk assessment is easily identifiable as an official risk assessment. Non-authorized users (typically other field staff) will only have access to the

default vessel *Black Pearl*. Some AECO members deliberately do not authorize any of their field staff to access their vessels and hence conduct official risk assessments. This can be due to other company specific procedures concerning logging of risk assessment.

The trip ID/trip number must then be added. Using the same trip number with several different assessments that comprises a full trip will help organize the documentation process when exporting the assessments. Moreover, it will allow for five questions of the assessment to be auto filled in after the first landing assessment entry (can be edited) as some questions pertain to passengers and team which do not necessarily change during a trip. If no need for adjustments, move to the next section on *Safety*, *Environment*, and *Human* factors.

11:52

< Back New assessment

Trip (5) Safety (0) Environment (0) Human (0)

**Team strength**  
Relative to site conditions, rate staff strength

High Medium Low

**Demography**  
Is the demography challenging

No Partly Yes Don't know

**Mobility**  
Is the mobility challenging

No Partly Yes Don't know

**Cultural issues**  
Are the cultural issues challenging

No Partly Yes Don't know

**Language barriers**  
Are the language barriers challenging

No Partly Yes Don't know

Save

Map New assessment Profile



13:54

< Back New assessment

Trip (5) Safety (16) Environment (20) Human (6)

**Narrow brink and fine-grained soil**  
Is there a narrow brink with fine-grained soil near the landing

No Peripheral On site Don't know

☒ Erosion risk  
Ensure that damage to the brink is kept at a minimum

☒ Safety hazard  
Ensure that all participants stay clear of the edge of the brink to avoid falls.

**Bird cliffs**  
Is there a bird cliff

No Peripheral On site Don't know

**Denning site for arctic fox**  
To your knowledge, are there Fox dens in the area?

No Don't know Yes

☒ Fox  
Ensure all staff have read the wildlife guidelines on Arctic fox

**Industry**  
Are there industrial remnants (like mine, railway, technical)

Save

Map New assessment Profile

Mitigation measures are suggested where appropriate and these are ticked off if performed to document what level of preparation has been conducted for a given landing.

Saving risk assessments is possible after when either of the *Trip*, *Safety*, *Environment*, and *Human* aspects, have been completed. This enables users to have full control to complete the relevant aspects only, i.e., landing in a harbor with small boats may not need the *Environmental* aspect of the risk assessment option.

When the risk assessment is finished, press **Complete** to finalize the risk assessment. Once completed, the user is not able to adjust the given risk assessment.

13.58

[< Back](#) **Assessment summary**

---

**Trip**

Item	Selection
Team strength	High
Demography	Partly
Mobility	No
Cultural issues	No
Language barriers	Partly

**Safety**

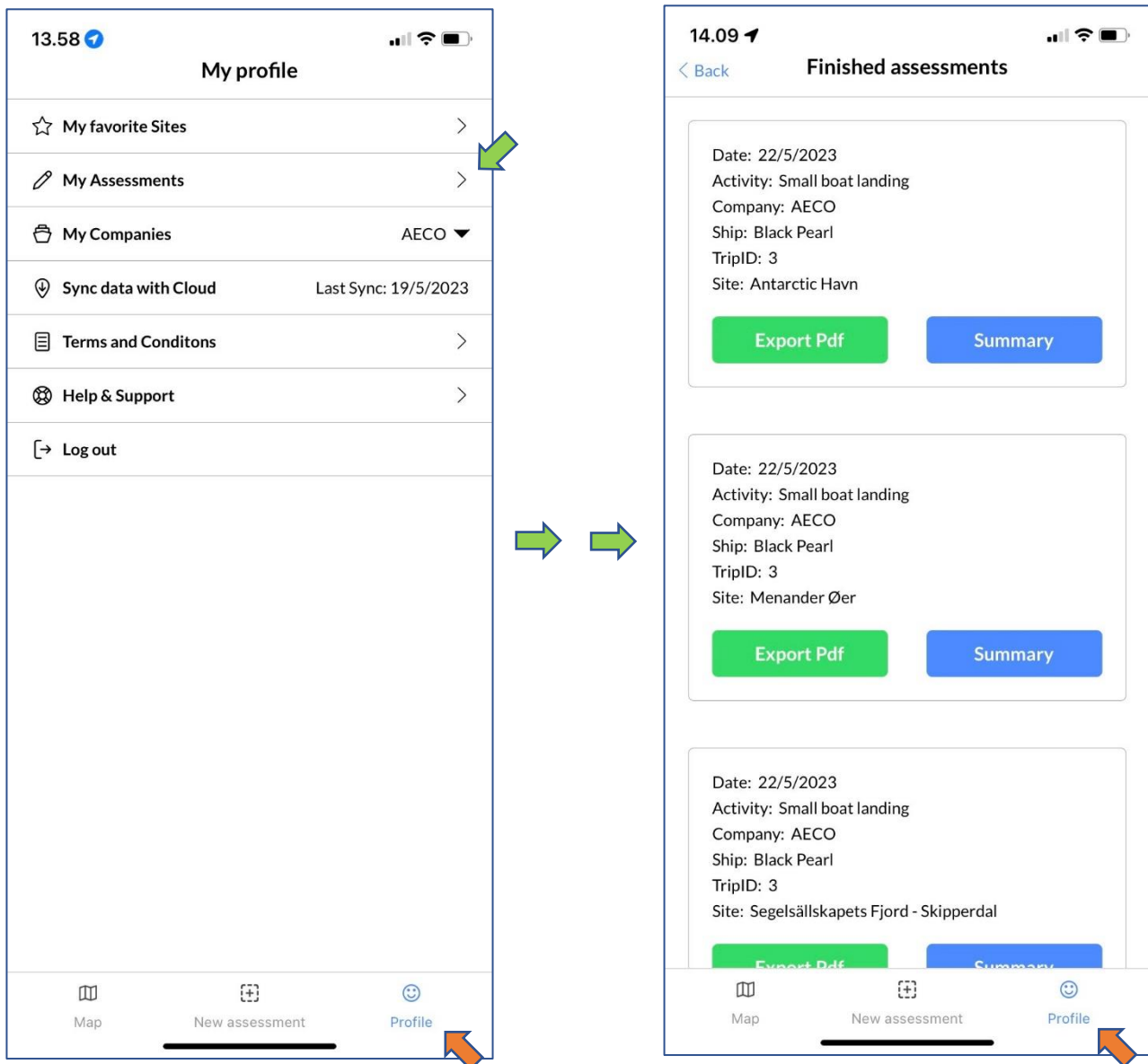
Item	Selection
Tide, neap, spring	No
Shore-line	Yes
Fog	Partly
Air temperature	No
Fluvial plain	No
Kelp	No
Visibility under water	No

**Complete**

Map New assessment Profile

Initially this will save the assessment on the device.

Once online, go to the **Profile** page.



The points of interest originally identified by the expert panel along with the mitigation methods attached are not mandatory requirements to complete an assessment. They can be skipped, and an assessment can still be filed. This is to enforce that the app is a tool to help expedition staff rather than dictate what is right or wrong. Conditions can be interpreted differently by different individuals depending on e.g., experience level, specific expertise, etc. The end responsibility and final say on any landing operation is firmly in the hand of the responsible persons on board. But if used as a tool the application can be helpful to make landing operations even safer in the future.

### Offline functionality and server synchronization of the application

The **Profile page** includes a variety of information incl. the server synchronization option.

The application is an offline application. Internet connectivity in the Arctic is limited to what the expedition cruise vessel itself can supply outside of settlements. Often at a very high cost.

Whenever connected to a stable Wi-Fi connection, a server synchronization should be made. This will upload any risk assessments that has been made to the cloud server, update notes, site additions, etc. Once online the user can also export the risk assessments via e-mail or other communication apps to i.e., employer operations departments for documentation purposes.

### Who can use the application?

The application is for AECO members and their staff only. Members must supply AECO with a list of staff requiring access and specify which kind of access is authorized prior to the season:

There are two types of registration:

- Default registration to access all features but only with the default ship *Black Pearl*.
- Individual member authorized personnel who will be able to make official risk assessments by accessing the member vessel(s) when doing risk assessments. Authorized personnel will also have access to the default vessel *Black Pearl*.

Members will individually identify and authorize expedition leaders (or others) who can file a risk assessment. The list of authorized personnel will be forwarded to the AECO secretariat and registered in the O-VRAT admin site. Everyone will be registered with unique log on credentials and assigned to one or more authorizing companies (staff often works for more than one company).

### Access and initial download of all AECO Guidelines

The app allows access to all guidelines independently for quick access and initial download. Go to the site "AECO Headquarters, Tromsø" and go to the **Guidelines tab**. A list of all guidelines appears that can be accessed directly.



09.04

New assessment

Site AECO Headquarters, Tromsø

Date 17/03/2021

Location Grønnegata 53, 9...

Activity Visit office

Save and next

You are logged in as Troels onboard Black Pearl . You can change this on the Profile page

AECO Headquarters, Tromsø

Svalbard

Other sites in Svalbard + Jan Mayen

Restrictions Guidelines Notes

Map New assessment Profile

For additional information on the AECO office please start a risk assessment for the **AECO Headquarters, Tromsø** site.