



TZ Ecosystem

(Edition 2)

INDEX

-
- 1. TZ ecosystem**
 - 2. Synchronizing via TZ Cloud**
 - 2.1. Network via Cloud – Overview**
 - 2.2. How Are User Objects Synchronized?**
 - 3. Synchronizing via Local Network**
 - 3.1. Local Network – Overview**
 - 3.2. How the data is synchronized?**
 - 4. Utilizing TZ First Mate App**
 - 4.1. Creating Fishing Catch Log**
 - 4.2. Registering Photos Only**
 - 4.3. Synchronization with MFDs**
 - 5. Utilizing TZ iBoat App**
 - 5.1. TZ iBoat App as Remote MFD**
 - 5.2. TZ iBoat App as Photo Tool**
 - 6. Synchronizing between Home and Boat**
 - 6.1. Home Planning**
 - 6.2. TZ Cloud and Local Network – Advanced Use**
 - 7. Anchor Watch Alarm Monitored Remotely**
 - 8. Synchronization among Fleet**
 - 9. Movie for Familiarization**

1. TZ Ecosystem



The **TZ Ecosystem** is a **NEW** solution to **synchronize user objects among TIMEZERO products via the Cloud, which we call TZ Cloud**. In addition to utilizing a Cloud solution, a local network with the built-in Wireless LAN of MFDs is also utilized to synchronize the data within the local network of MFDs.

What are user objects? – **Points, routes, fishing catch log, and photos (NO tracks)**

What devices are used? – **Following TIMEZERO products**

Solution	Overview
	The TZT9F/12F/16F/19F supports the data synchronization in the TZ Cloud – Ecosystem from the initial software version.
	The TZTL12F/15F and TZT2BB v7.01 will support the data synchronization in the TZ Cloud and local network.
TZ iBoat App  	TZ iBoat is a navigation app from MaxSea/Nobeltec for iPad and iPhone . While the app is available free of charge, charts are to be subscribed per year. In addition to using it for navigation, you can create and edit points, routes, and boundaries, as well as registering photos. It is also a good aid for home planning before getting onboard.
TZ First Mate App  	TZ First Mate app is an upcoming new app from FURUNO for iOS and Android devices , free of charge. In addition to using this app to log your fishing catch , it can be utilized to register photos and comments and synchronize them with MFDs and TIMEZERO software in the same My TIMEZERO account.
TIMEZERO PC Software 	TIMEZERO PC software, TZ Navigator and TZ Professional, has been utilized in a variety of fields for home planning and editing after navigation or fishing.
Site for PC Browser 	https://cloud.mytimezero.com/ This is a new, cloud-based website and the My TIMEZERO site is accessible free of charge. User data can be created and edited on NOAA raster charts for the US and Google Map-like maps for the other areas.

How can TIMEZERO products be synchronized? –

✚ **Via Cloud (See [Section 2](#))**

✚ **Via Local network between NavNet TZtouch2 and TZtouch3 MFD (access point) and TZ iBoat, TZ First Mate (See [Section 3](#))**

2. Synchronizing via TZ Cloud

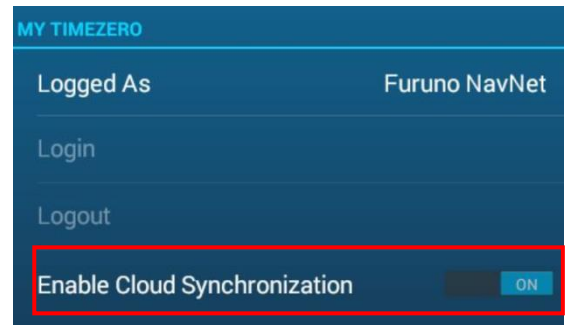
2.1. Network via Cloud – Overview

While the MFD, TZ iBoat app, TZ First Mate app, TIMEZERO software, and PC browser are logged in with the common My TIMEZERO account, user objects are automatically synchronized via the **TZ Cloud**.



Log in to My TIMEZERO with your account in each device as follows.

- ✦ TZT9F/12F/16F/19F: Access [Settings] – [General] – [My TIMEZERO] to log in and set [**Enable Cloud Synchronization**] to [ON] as shown in the example at left.
- ✦ TZ iBoat, TZ First Mate, PC site, and TIMEZERO software: Log in on each app.



2.2. How Are User Objects Synchronized?

Every time user objects are entered, edited, or removed on one of the devices, the database in the TZ Cloud is updated. Other devices connected to the TZ Cloud later will have the updated user objects from the Cloud. If all the devices are connected to the TZ Cloud simultaneously, you can see each update of user objects simultaneously on each device.

3. Synchronizing via Local Network

3.1. Local Network – Overview

While the Internet connection is unavailable onboard, user objects can be synchronized by local network with the MFD. Set the MFD as the access point in [Settings] – [General] – [Wireless LAN Setting] – [Create Local Network] – [ON] and connect devices for TZ First Mate app and TZ iBoat apps.



In this local network configuration, **NO** login to My TIMEZERO is required on the MFD.

3.2. How the data is synchronized?

When user objects are created, edited, or removed on each device **offline**, i.e. **NOT** wirelessly connected in between, how is the data synchronized after locally networked? The following are some case examples.

Case 1 – Different actions on each device

Rule: Offline actions on each device are merged after locally networked.

(1) There are TZT16F and iPad (TZ iBoat). Both devices have the common waypoint **WPT 01** first.



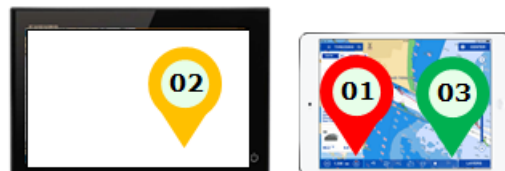
(2) In an offline environment, **WPT 02 is added** to and **WPT01 is removed** from the TZT16F.



(3) **WPT03 is added** to the TZ iBoat.



Now, the TZT16F has WPT 02 only, and the TZ iBoat has both WPT 01 and WPT 03 in the offline environment.



(4) When the TZT16F and TZ iBoat are locally networked, **WPT 02 and WPT 03 remain on both devices** because removal action of WPT 01 on the TZT16F and additional action of WPT 03 on the TZ iBoat are merged.



Summary:



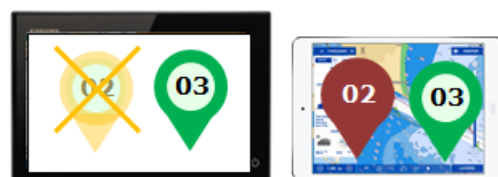
Case 2 – Different actions for the common object(s) on different devices

Rule: Offline actions on the MFD side are prioritized when locally networked.

(1) There are TZT16F and iPad (TZ iBoat). Both devices have the **common** waypoint (WPT) 02 and WPT 03 first.



(2) **WPT 02 is removed** on the TZT16F. **The color of WPT 02 is changed** on the TZ iBoat.



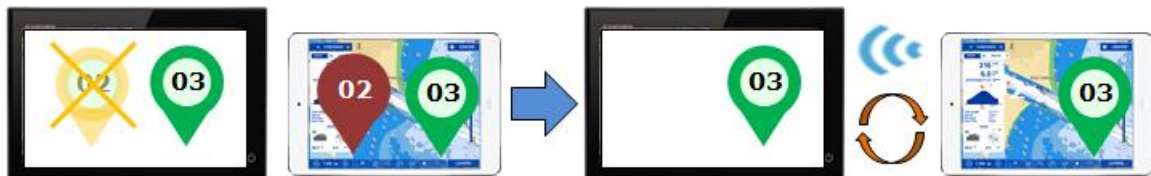
Now, the TZT16F has WPT 03 only, and the TZ iBoat has WPT 02 in the different color and WPT 03 in the offline environment.



(3) When they are locally networked, **only WPT 03 remains** on both devices because WPT 02 has been removed on the TZT16F.



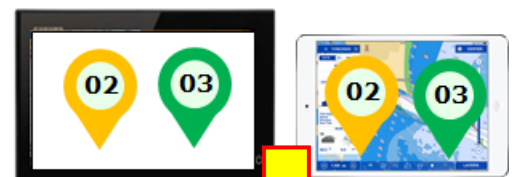
Summary:



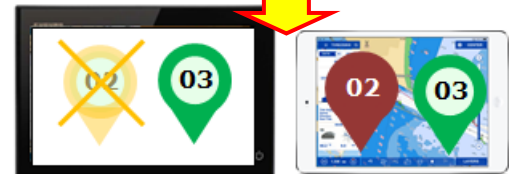
Tips – What if each device is connected to the Internet?

After the common object(s) on each device is edited in an offline environment, the device connected to the TZ Cloud for synchronization first is prioritized.

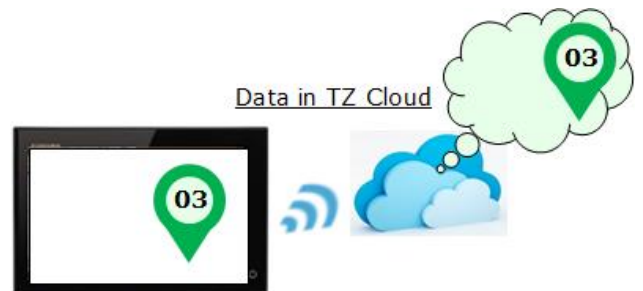
Like the Case 2, while both TZT16F and iPad (TZ iBoat) have the common waypoint (WPT) 02 and WPT 03, WPT 02 is removed on the TZT16 and the color of WPT 02 is changed on the TZ iBoat, in an offline environment.



What will happen if the TZT16 is connected to the TZ Cloud first, followed by TZ iBoat?



(1) The **TZT16F is connected to the TZ Cloud first.**



(2) The TZ iBoat is connected to the TZ Cloud next. The TZ iBoat will show only WPT 03 referring the latest TZ Cloud data.



Now, only WPT 03 remains on both devices because the TZ Cloud database

has been updated to be the one of TZT16F connected first.



On the other hand, what if TZ iBoat is connected to the TZ Cloud first, followed by TZT16F?

(1) The TZ iBoat is connected to the TZ Cloud first.



(2) The TZT16F is connected to the TZ Cloud next. The TZT16F will show both WPT 02 and WPT 03 referring the latest TZ Cloud data.



Now, both WPT 02 and WPT 03 remain on both devices because the TZ Cloud database has been updated to the one of TZ iBoat connected first.



IMPORTANT NOTE

If all the user objects have been removed from one of the devices, other networked devices will also have the database removed. Make sure to periodically back up the data to a USB jump drive on the MFD just in case.

Insert a USB jump drive to the USB port and access [Home] – [Settings] – [Files] – [IMPORT/EXPORT] – [Export User Objects] and export them to the USB jump drive.

4. Utilizing TZ First Mate App

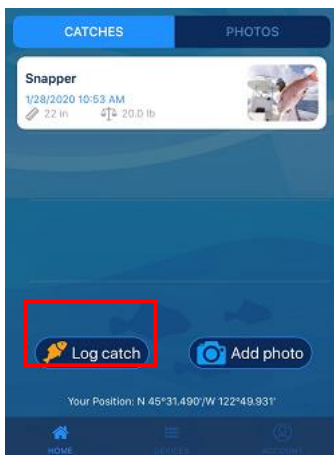


The **TZ First Mate app** is useful to **log your fishing catch**. When the MFDs onboard are away from where you are fishing on the boat, it can be difficult to enter a point on the Plotter right after hooking a fish, making the point you enter later on different from the actual spot you hooked the fish. **The TZ First Mate app on iOS/Android devices helps log your fishing catch with fish icons, fish information, photos, and comments, and synchronize them with the MFD.**

4.1. Creating Fishing Catch Log

- (1) After fishing, tap [Log catch].
- (2) A photo selection window will open. Take a new photo or select a photo previously taken. You can skip this step if not necessary.
- (3) Select one of the fish species. Frequently selected types will appear on top.
- (4) Enter the fish length, weight, fishing information, and comment. These cells can be left blank to be filled in later. The depth, sea temperature, and air pressure information sourced by the wirelessly connected MFD will also be registered automatically.

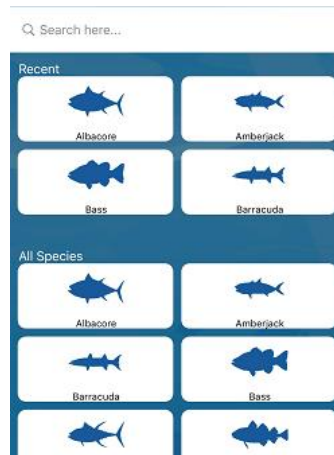
(1)



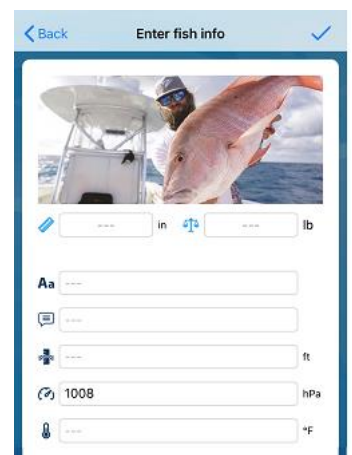
(2)



(3)



(4)

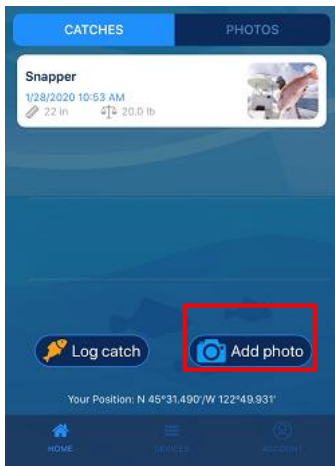


4.2. Registering Photos Only

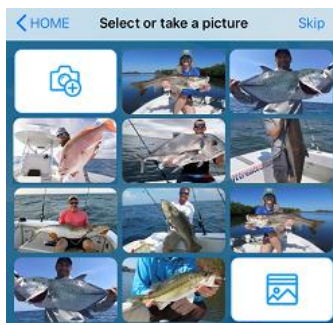
When you want to register photos of scenery or others around the specific location, **photos without fish icons** can be registered. For example, if you are entering an unfamiliar marina and you want document the entrance with a photo.

- (1) Tap [Add photo].
- (2) Select a photo or take a new photo of fish or scenery.
- (3) Enter the name and comment. These cells can be left blank.

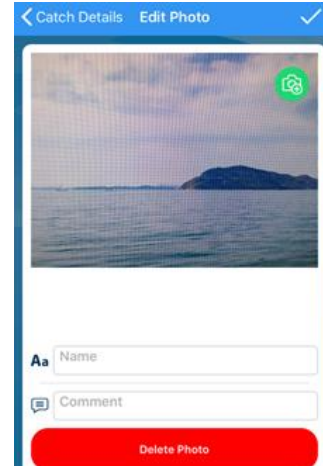
(1)



(2)



(3)



Note:

With the MFD synchronized with the TZ First Mate app, photo icons will appear on the MFD and be shown in a full screen by tapping one of the icons as shown in [Section 4.3](#). The photo icon is different than the fish catch icon.

4.3. Synchronization with MFDs

With the TZ First Mate app wirelessly connected to the MFD, **fish icons and photos registered on the TZ First Mate app will be located at the GPS position of MFD, as well as registering the depth, sea temperature, and air pressure information available on the MFD network.**

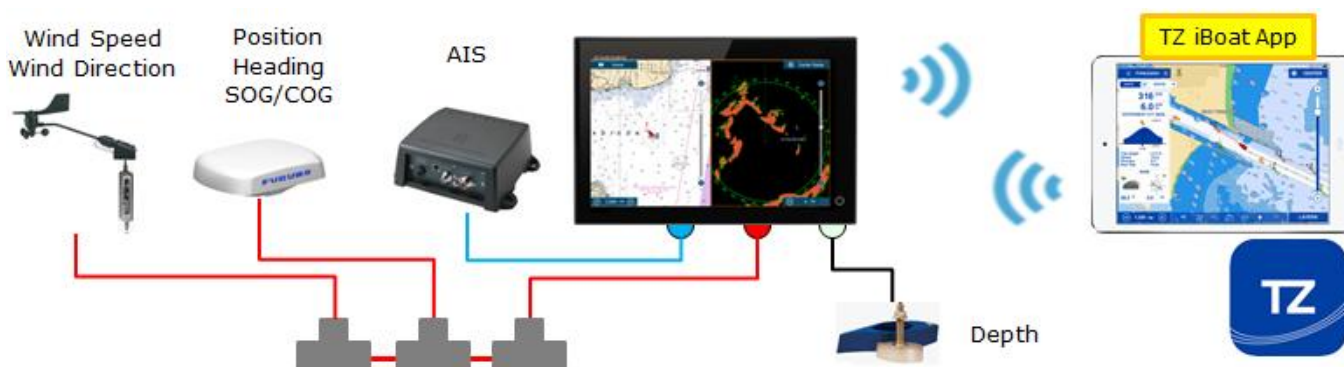
With the TZ First Mate app **not** connected to any MFD, fish icons and photos will be registered **at the GPS position received by the iOS/Android device in use**. The data will be synchronized with the MFD when the device is wirelessly networked with the MFD, which will show the fish icons and photos on the registered locations accordingly.

Photo Only	Fish Icon with Photo	Photo in Full Scree

5. Utilizing TZ iBoat App

5.1. TZ iBoat App as Remote MFD

The TZ iBoat app for iPad can be utilized as a remote MFD: With an iPad for TZ iBoat app wirelessly connected to the MFD, i.e. local network, the **TZ iBoat app will show own ship position, SOG, COG, heading, depth, wind speed, wind direction, and AIS information** (AIS module required), **as well as user objects synchronized with the networked MFD.** The TZ iBoat app as the remote station can be utilized to monitor the navigation status away from the helm or bridge within the range of Wireless LAN and enter or edit points, routes, boundaries, fish icons, and photos, which are synchronized with the networked MFD.



Note:

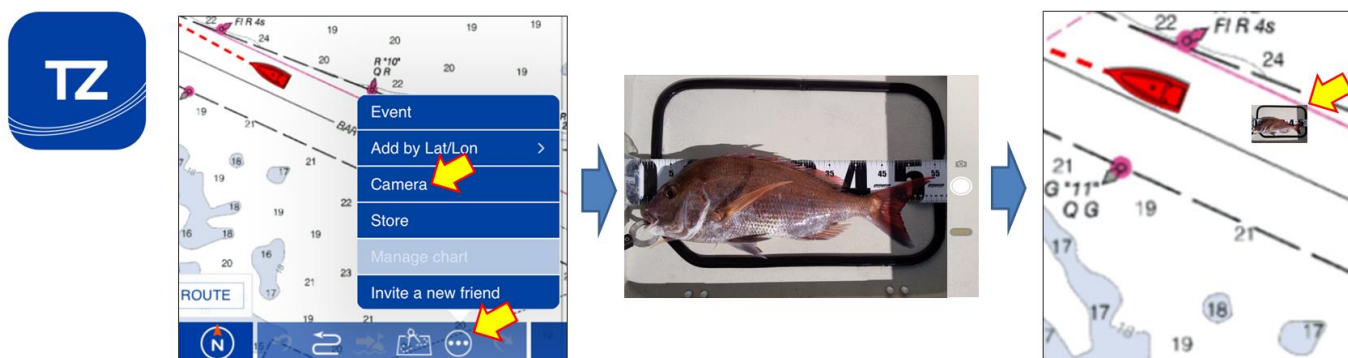
- (1) The **AIS module** is required on the TZ iBoat app to show AIS information on the app.
- (2) Radar and Fish Finder echoes are **NOT** shown on the TZ iBoat app.

5.2. TZ iBoat App as Photo Tool

The TZ iBoat app for iPad can also be used to register photos on the Plotter screen.

Registering Photos on Plotter

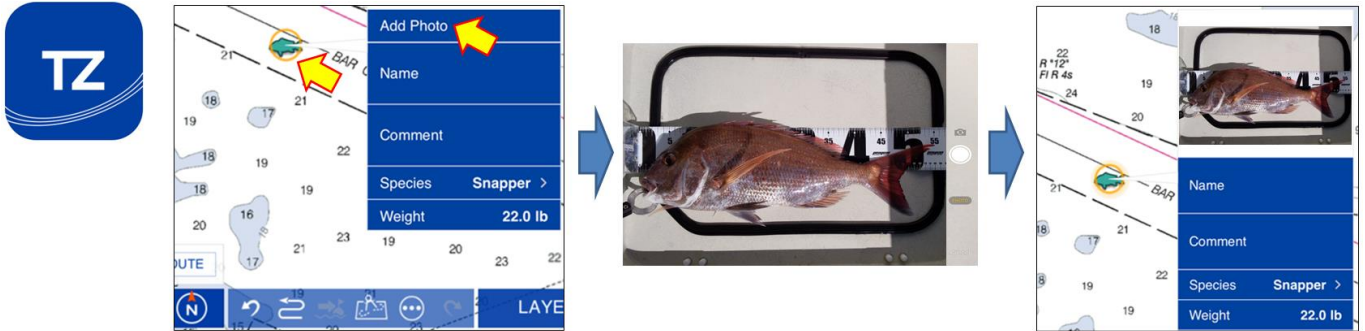
- (1) Tap [---] icon at the bottom and select [Camera].
- (2) The camera app will launch. Tap [Use Photo] to take a photo.
- (3) A camera icon will appear on the own ship position. The photo will be shown in a full screen by tapping the icon.



Adding Photos to Fish Icons

When fish icons on the Plotter screen have no photos registered yet, photos can be added using the TZ iBoat app.

- (1) Tap one of the fish icons and select [Add photo].
- (2) The camera app will launch. Tap [Use Photo] to register a photo.
- (3) A camera icon will appear on the plotter. The photo will be shown in a full screen by tapping the icon.



6. Synchronizing between Home and Boat

6.1. Home Planning

After navigation points, routes, and boundaries are planned at home, **these user objects can be synchronized with MFDs onboard via the TZ Cloud or local network with TZ iBoat or TZ First Mate app.**

At Home: You create points, routes, and boundaries on a PC (TZ software or PC site) or an iPad (TZ iBoat app) with My TIMEZERO account logged in. These user objects are automatically synchronized in the TZ Cloud. If the TZ First Mate app

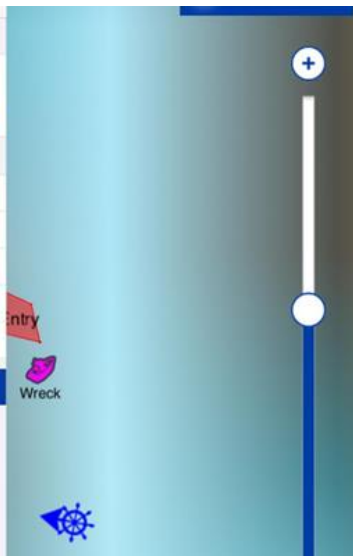
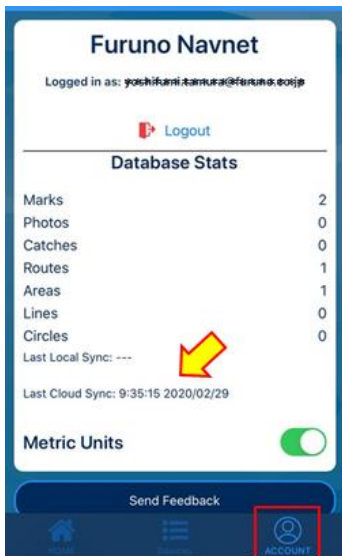


with the common My TIMEZERO account is connected to the Internet, the data is also synchronized on the device.

Example of points, routes, and boundaries planned on the PC site:



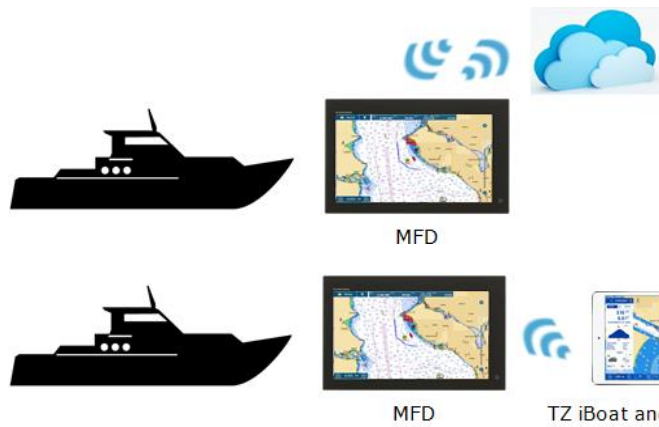
You can see that the objects are synchronized in the TZ Cloud on TZ First Mate app and TZ iBoat app.



Left:
TZ First Mate App
[ACCOUNT] page

Right:
TZ iBoat App
[Share] menu

At Harbor: Connect one of the MFDs onboard to the Internet and log in to the My TIMEZERO account or connect an iPad (TZ iBoat app) or an iOS/Android device (TZ First Mate app) to the MFD by local network.



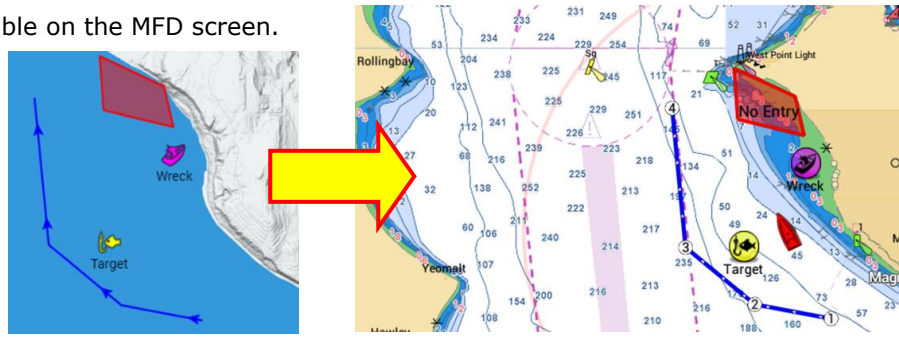
Example of TZ Cloud:

Once accessing the TZ Cloud, the user objects are synchronized with the networked MFD.

Example of local network:

The user objects on the device synchronized in the TZ Cloud at home will be synchronized with the locally networked MFD.

You can see that the user objects are available on the MFD screen.



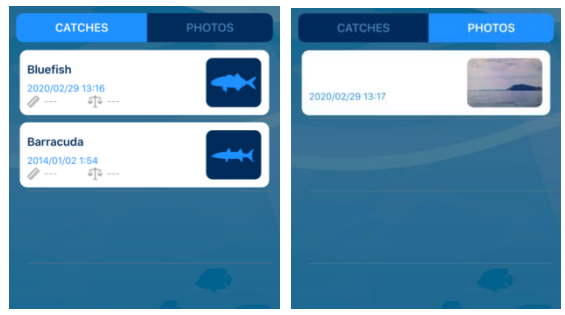
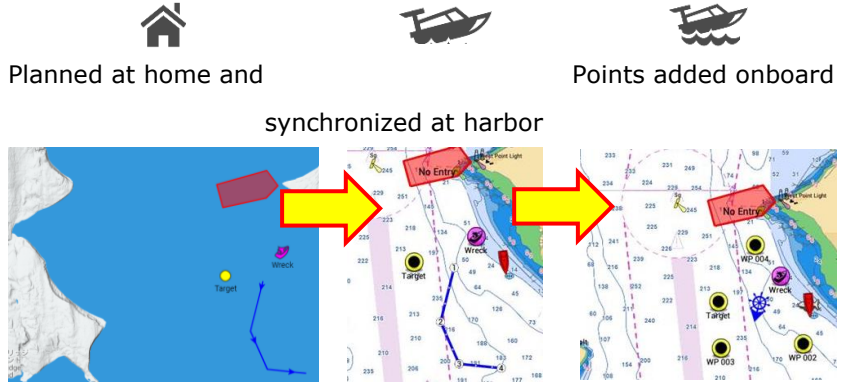
6.2. TZ Cloud and Local Network – Advanced Use

After leaving a harbor, you may create points, enter event marks, register fishing catch log with the TZ First Mate app, take photos, and engage in many other activities onboard. MFDs, iPad, and smart phones will be filled with a variety of data by the time you come back to the harbor. However, you may have no enough time to review and edit them at the harbor if you are occupied with tidying up fishing gear, cleaning the deck, etc. **Wireless network to the TZ Cloud as well as local network between MFD and TZ iBoat/First Mate app is useful to edit each user object back at home and synchronize it with the MFDs onboard at the next boating.**

Home → Harbor → Water

At Harbor: Points, routes, etc. planned at home is synchronized with the MFD.

On Water: Points are added while fishing. Fishing catch log and photo are also registered on the TZ First Mate app.



Catch log and photo on TZ First Mate app

Back at Harbor or While Onboard

Back at the harbor or while onboard: Connect the MFD to the Internet to synchronize the latest user objects in the TZ Cloud. If no Internet connection is available, connect the TZ iBoat or TZ First Mate app to the MFD by local network to synchronize the user objects with the device. After the device is connected to the Internet via Wi-Fi or 3G/4G while the TZ iBoat or TZ First Mate app is launched, the data will be synchronized in the TZ Cloud.



Back at Home

Back at Home: Launch the TZ software, PC site, or TZ iBoat app to see that the data has been synchronized in the TZ Cloud and edit each object as you like. (The following screenshots are from the PC site.) You can also add photos, names, and comments on the TZ First Mate app to describe the fishing catch log in detail and synchronize them in the TZ Cloud. Make sure that the TZ iBoat or TZ First Mate app are also connected to the TZ Cloud to have the updated database after editing the data.

The diagram shows the workflow of data synchronization and editing. It starts with a house icon labeled "Back at home: Data synchronized". A cloud icon with Wi-Fi signals is labeled "Data edited". To the right, a screenshot of the "HOME" app interface shows "CATCHES" and "PHOTOS" sections. The "CATCHES" section lists "Bluefish (James)" and "Barracuda (Giant)". The "PHOTOS" section shows two images of fish, each with a red box around it. A yellow arrow points from the "Data synchronized" state to the "Data edited" state, and another yellow arrow points from the "Data edited" state to the app screenshot.

For Next Boating

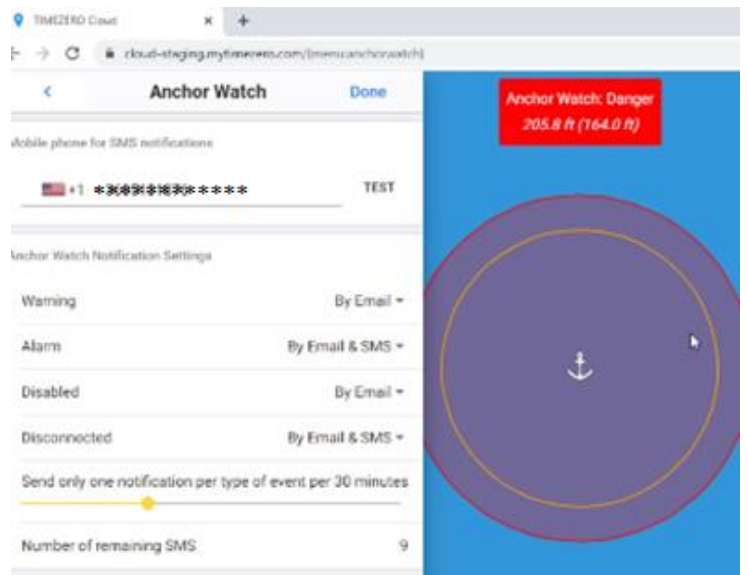
For the Next Boating: Connect the MFD to the Internet to synchronize with the updated user objects in the TZ Cloud. If no Internet connection is available, connect the TZ iBoat or TZ First Mate app to the MFD by local network to synchronize the user objects with the device, so that you can see that the objects on the MFD are updated. On NavNet TZtouch3 MFDs, registered photos can be shown in pop-up menus and in full screen.



Before sync.	After sync.	Photo also visible in pop-up menu and full screen	

7. Anchor Watch Alarm Monitored Remotely

The **Anchor Watch Alarm** generated on the MFD is automatically synchronized on the local network like an active route and is available on all TZ devices. This allows you to drop the Anchor Watch conveniently from your phone (TZ iBoat, updated to V2.2 for this function) and see and adjust it from the TZT9F/12F/16F/19F v2.01 or TZTL12F/15F/2BB v8.01 (by local sync). It also allows you to be alerted from any TZ devices (phone or tablet). If the Internet access is available to login to the My TIMEZERO account with the TZ device(s), the connected device will report the position (Position Reporting) and the anchor watch status will be sent to the TZ Cloud, so that the status can be viewed remotely from any location using a web browser (cloud.mytimezero.com). If you are logged in to the My TIMEZERO account with your phone, the TZ Cloud server can send you a text alert automatically in SMS.



Sample – Anchor Watch status shown on a web browser

8. Synchronization among Fleet

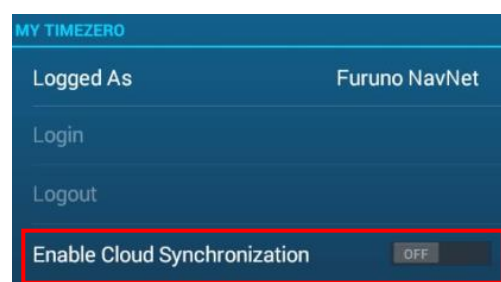
The TZ Cloud – ecosystem can be utilized to synchronize the user objects among different vessels with the common My TIMEZERO account. **While the MFD onboard multiple boats are logged in with the common account, user objects**

from each boat are automatically synchronized with each display onboard, so that all the boats in the fleet can refer to the common database.



Note:

When the data should not be synchronized, the Cloud Synchronization can be turned off: Access [Settings] – [General] – [MY TIMEZERO] – [**Enable Cloud Synchronization**] and set to [**ON**].



For Fleet Tracking, a different service to monitor and share the status of members in the fleet, see **Sales Bulletin FSBxx** for details and supported devices.

9. More information on TZ Cloud

Note:

For more information on the TZ Cloud, check out the TIMEZERO website: <https://mytimezero.com/tz-cloud>.

--- END ---

- All brand and product names are registered trademarks, trademarks or service marks of their respective holders.