



Operation manual

for the Balloon-tracking application for training and competition flying

Version: 1.0.24. Valid from: 15/12/2021

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INFORMATIONS



1. GENERAL INFORMATION

The application runs on Android devices, it is an element of the Balloon-tracking System. Use of the app is free, but a registration at www.balloon-tracking.eu is needed beforehand. The email address you provided in your registration will be your Username to log in. You can use this User name and password to access the main Balloon-tracking website, the application and the Balloon-tracking Events sub-websites. If you want to change this password, you can do so in the menu www.balloon-tracking.eu/profile.

You can use the app with the features you learn here as a pilot competing in races and training, or as a member of a team like Crew.

The app also provides a great variety of tools to help Officials in competitions (Competition Directors, Target Team Leaders and Target Team Members, Scorers). Another Manual has been created to learn about the features for Officials.

This manual for Balloon-tracking is designed for hot air balloon captains. Please read carefully before installing and using the app!



1.1 APPLICATION FEATURES

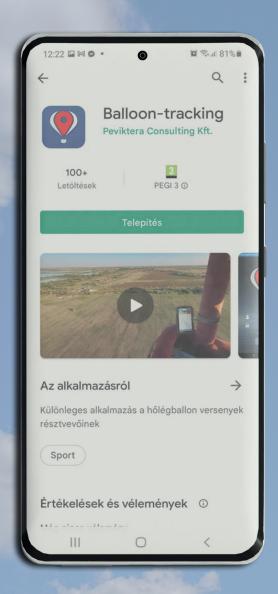
The primary function of the app is to help your individual flights, prepare for competitions during training. If you fly alone, you will practice the possible tasks in competitions and use the application. If you use it with several captains at the same time during a joint exercise and flight, you can also compare your individual results.

The second available feature of the app is to support your competition. The Balloon-tracking System server and websites are set up to work with your application to receive and send data.

Logger: For Events where the Organizer uses the Balloon-tracking System to manage the competition, the application will help you compete. In such competitions, you connect an external measuring and data communication device - the Tube - to the application. The application and Tube work together as the perfect logger.

The app will significantly increase the safety of your flight during such races and will also be a great help in communication related to the race.

Enjoy the services of the Balloon-tracking System and the app, recommend it to your pilot's friends too!



2.1 INSTALL THE APP

The Balloon-tracking application is constantly being developed based on requests from pilots and Officials. The new features may also affect the database built behind the application on your mobile device. You will be notified if such a change is made.

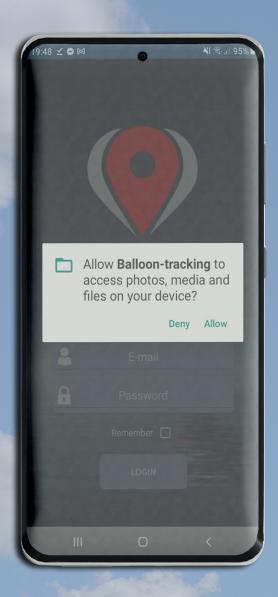
In this case, in order to use the latest features of the app, you must first uninstall the application you used before and download it again. Minor updates are done automatically, so you don't have to manage every update manually.

If you currently have a version prior to December 15, 2021 installed on your mobile device, please uninstall it and reinstall the application!

You can find the App on Google Play as Balloon-tracking, or use this QR code:



After downloading and installing, launch the application and grant the necessary permissions as follows!

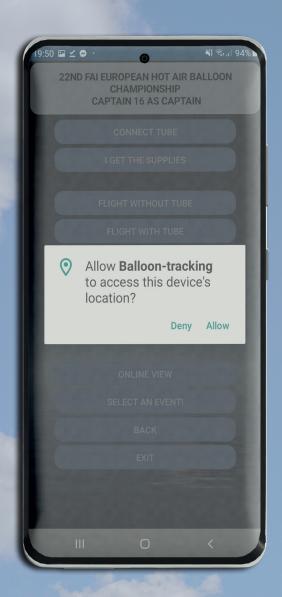


2.2 ENABLING DATA BACKUP

The application must use the photo and media library of your mobile device for several functions. The app does not use your own pictures and videos. The application needs permission to access the library because it saves the track and other data needed to operate it.

When you turn on the app, it checks to see if you've already given permission to do so. If not, it will ask for permission from you.

Allow this! If you deny this, the app will not work properly and stop. If you want to use the app, turn it back on and give it permission to access the photo and media library!



2.3 PROVIDING ACCES TO LOCATION DATA

The application must use the GPS built into your mobile device for several functions. When you turn on the app, it checks to see if you've already given permission to do so. If not, it will ask permission from you.

If you deny this, the app will not work properly and stop. If you want to use the application, turn it on again and give it permission to access the location data!

2.4. ENSURING DATA COMMUNICATION

The app receives and sends important data to the System server during training and for competitions and Officials. This requires mobile data communication to be enabled, please enable it!

Enable mobile data in your mobile settings, if necessary with data roaming!



3. USING THE APPLIACTION IN TRAINING MODE

In this chapter you will learn how to use the application in Training mode. In Training mode, the application does not need any other tools, race database and race subwebsite.

The data will only appear on your mobile device and will not be disclosed in any way.

However, in training mode you cannot access the special functions and modules developed by Balloon-tracking for competitions.

Log in to the application with your Username and Password used in the Balloon-tracking System.



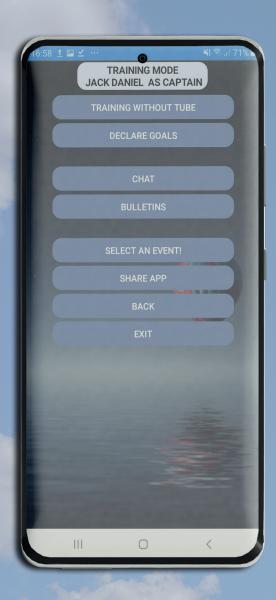
3.1 SELECTING AN EVENT

After logging in, this screen will display all Events that are currently running in the Balloon-tracking System or have been made available by the organizers. On this page you can enter the Training mode or any of the Events.

If you are not a participant (Competitor Captain, Crew or Official) in the selected Competition, you can only use the CHAT, BULLETINS and ONLINE VIEW menus to enter the Event. In that competition you can't fly a task, declare Goals, and drop Electronic Markers.

In such an Event ONLINE VIEW menu, you can see the flights of the competitors in your application with a uniform delay set by the Event Director under Tasks. This is the same as the information available to the public on the Event sub-website.

Now select the Training mode and get to know the menus.



Entering the Training mode opens the Captains main menu page. You can go here from any page with the MENU button. Get to know the menus!

TRAINING WITHOUT TUBE menu. Select this menu for your practice flights. You can find out more about the available functions in 3.7.

DECLARE GOALS menu. You can declare Goalt in advance or during the flight. See 3.3 for details.

CHAT menu. If you have logged in to any Event or Training mode, the CHAT menu is available to you from anywhere. In Chat, you can read all the posts made in an Event you are a participant in. You can also post to them. If you write an entry without filtering (ALL), all participants in such an Event will see your entry.

If you set up filtering in a Chat for an Event, only Chats entered by participants in that Event will appear. If you write an entry during this time, only the participants of the Event who are with you in this Event will be able to read it.

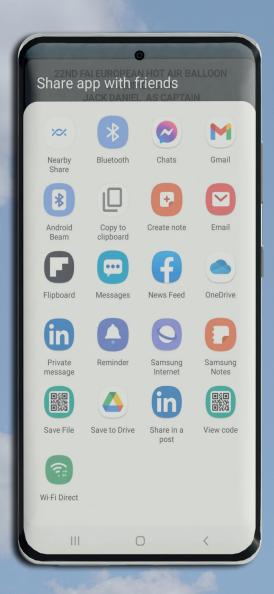


BULLETINS menu. If you have logged into any Event or Training mode, the BULLETINS menu is available to you from anywhere. A Bulletin may be written by an Event Organizer, Director and Jury. This is an official announcement to the participants of the Event and is only visible to the participants of the Event.

When your application is running, it downloads the Bulletins. The publisher of the Bulletin will receive an automatic system message stating that your application has downloaded the Bulletin and the content has already reached you.

If the sender has also set a confirmation request when writing the Bulletin, you may see an "I Agree" button below the text of the Bulletin. This will indicate that you have received the Bulletin and understood it. The sender of the Bulletin will also receive feedback that you have confirmed this.

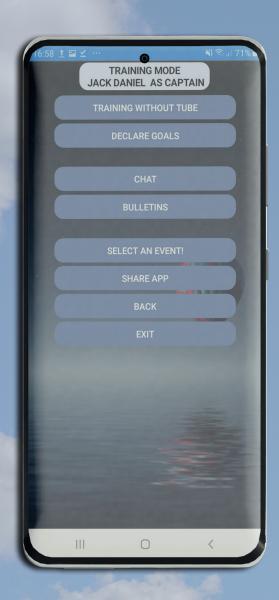
SELECT AN EVENT button. This button takes you to the Event selection page. Here you can switch between the available Events and the Training mode.



SHARE APP menu. Open this menu and select the best sharing option.

Share the app with your friends, team members, Crew, and other pilots.

Use Balloon-tracking services together!



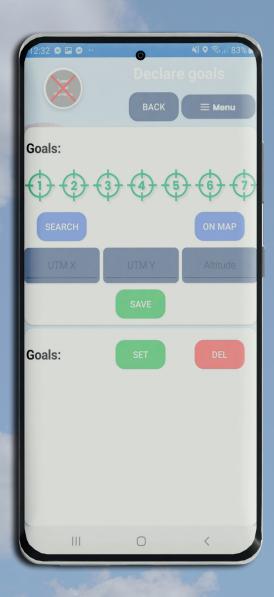
BACK button. This will always take you to the previous page from where you navigated to this interface.

Stopping the application: Attention! Always stop the application with the EXIT button and not with the Close or Close all button on your mobile device or by turning off the device.

It frequently communicates with the server while the application is running, updating data and information for you. If you are just interrupting a communication with an external stop command, a data packet may be lost or damaged.

If you use this EXIT button, the application will make the necessary backups before stopping.





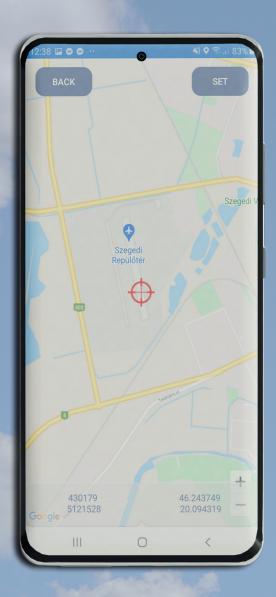
3.3 LEARN HOW TO USE THE DECLARE GOALS MENU

You can also see the Speed limit warning indicator above this page. This feature requires Tube sensors and does not work in Training mode. You can find detailed information about this feature in the Event features.

Goals

Here you can see the number of the available 10 Goals. You can drag the list left and right to search. To declare, first select the serial number, the background of the number will turn yellow. In training mode, then declare the Goal position using the ON MAP method or by entering the UTM coordinates (standard 4 characters). Entering Alt is optional. The Search option is not available in Training mode.

Click the ON MAP button.



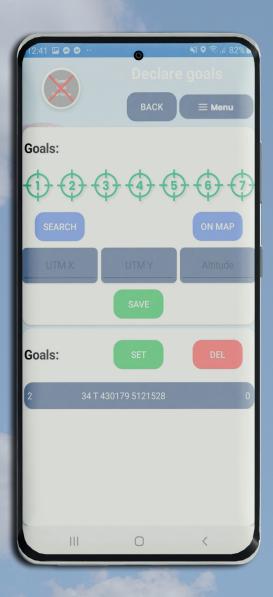
3.4 DECLARE ON MAP

On the DECLARE Map page that opens, drag the map under the center crosshair.

The current coordinate of the destination cross UTM and the LAT / LON data are also displayed at the bottom of the map.

When the crosshairs are over the location you want to select, press the SET button.

This map will close and you will return to the Declare Goals page



3.5 MANAGING DECLARED GOALS

In the GOALS interface you can see the already declared Goals. If you want to declare a new Goal, repeat the previous steps.

If you want to delete an already declared Goal, select it and press the DEL key.

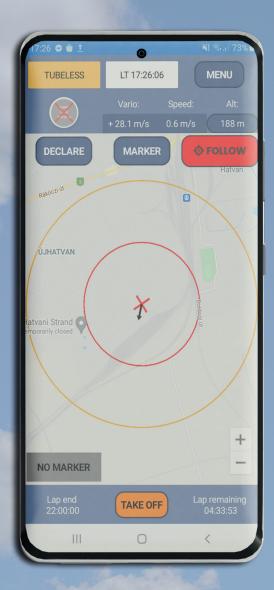
In training mode, you can use the same Goal number an unlimited number of times.

The declaration made does not close the serial number, you can freely practice several goals with the same number on the map and in the list.

When you are done with the declarations, use the BACK button.

This returns you to the MAP mode of the Training mode, where the declared Goals are already displayed.

These are marked with a red crosshair that you saw on the declaration.



3.6 TRAINING MAP

This is the most frequently used page during Training. Get to know the parts.

Tubeless icon. This is how the app informs you that you are currently in Tubeless mode. In tournaments, you will see your paired Tube device ID and connection status here.

LT: Local Time according to your GPS position.

MENU button: return to the Main Menu page.

No speed limit Warning - inactive, this feature is only available in Tube mode.

Vario: Value calculated based on the change in the GPS altitude of your mobile phone in training mode.

Speed: Ground speed data based on your mobile phone's built-in GPS.

Alt button: the height of the mobile's built-in GPS. This is an active button, if you press it you can set the unit (meters or feet)

At the top of the map you will find active buttons

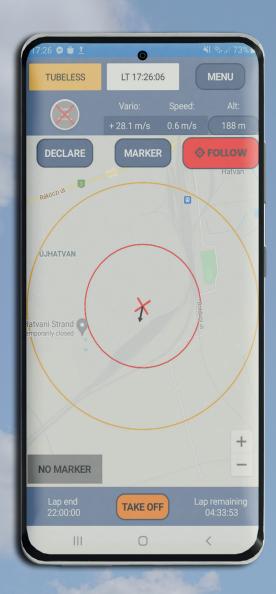
DECLARE button: opens the Declare Goal menu during a flight

MARKER button: opens the marker selection menu

Follow Button: This is a function toggle button.

If the button is red, the map will not follow you. You can pull it off and stay where you put it. Zoom (+/-) works.

If the button is green and the map is running below you, your position will always be in the center of the screen. Zoom (+/-) will not work



3.6 TRAINING MAP

Displays at the bottom of the map:

Lap end indication: This only shows a value during an Event race.

Take Off / Landing button: In training, you can indicate when the track starts and ends. Its use in competitions also means scoring and communication to the public. If you use it in a race, the waypoints between Take Off and Landing on and off will appear on the public pages during the race. Scorers will see all waypoints on the enabled Tube during the race, which will be recorded on the server in the Event log.

Lap remaining - Your race counts down the time available until the end of the current race. It shows no value in training mode.

Other signs on the map:

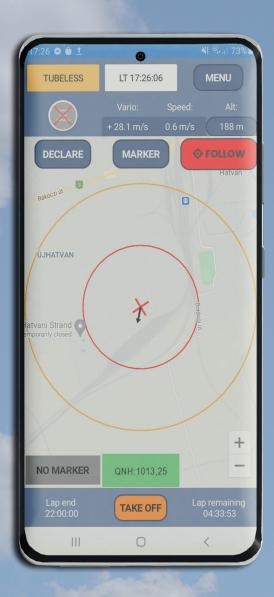
My Position: X

My track: In training mode, your track is displayed between TAKE OFF and LANDING.

Red circle: The boundary of the area around your balloon with a radius of 500 m.

Yellow circle: The boundary of the area around your balloon with a radius of 1,000 m.

Direction: The arrow from your balloon shows the current direction of your flight.



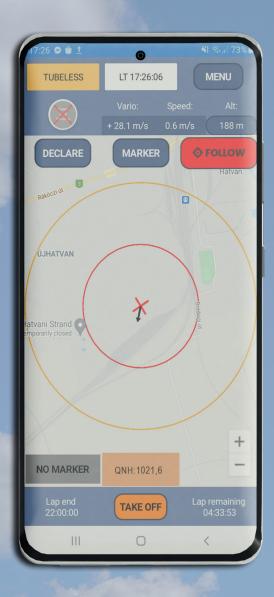
3.6 TRAINING MAP

QNH: - If the application detects that your mobile phone has a built-in pressure sensor, the button is green, active and the default setting is 1013.25 mbar. Until you modify this data, altitude is measured with this QNH value.

Click the button to set QNH. Enter the value with two decimal places (eg 1021.60) and confirm with OK.

The application only accepts QNH values above 950 mbar and below 1040 mbar as valid! If you enter an invalid value, the application will not accept it. In this case, the button will turn green again after OK. The key will be labeled 1013.25 and active to enter the QNH value.

After setting the QNH value in the valid range, the altitude (and vario) is calculated with the new QNH value set. This button is highlighted in orange. You can change the QNH value at any time in Training mode. Enter the new value and confirm with OK.



3.7 ELECTRONIC MARKER

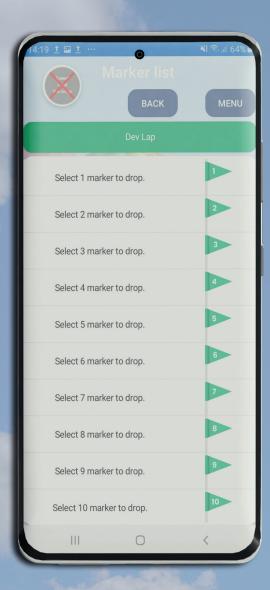
That function is almost identical to dropping an Electronic marker in a competition.

You need to prepare first. To do this, you need to select the electronic markers you want to drop on the next Target.

If you have not yet selected a marker, the gray NO MARKER inactive button will appear at the bottom of the map.

To select, press the MARKER button in the top center of the map.

This will open the selection page.



3.8 ELECTRONIC MARKER SELECTION

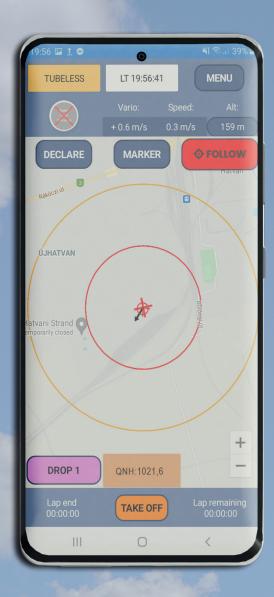
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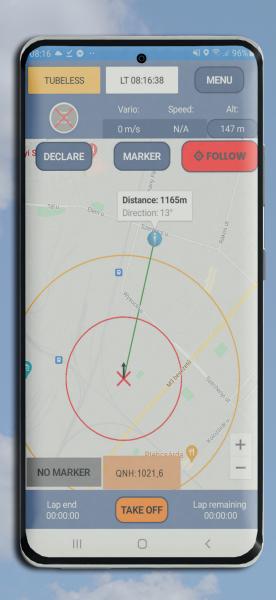
3.9 DROPPING AN ELECTRONIC MARKER

If an electronic marker is already selected, the DROP button at the bottom of the MAP page is active and its color is the same as the marker.

The caption will show you the serial number of the selected electronic marker.

If you want to select another marker for the drop, press the MARKER button again to go back to the selection menu and replace it with another electronic marker.

To drop, press the DROP button. The current GPS position is saved in the app when you press the button. The dropped marker with a yellow flag appears on the map.



3.10 DISTANCE AND DIRECTION ON MAP

The built-in measuring tool of the MAP interface helps you with just two clicks.

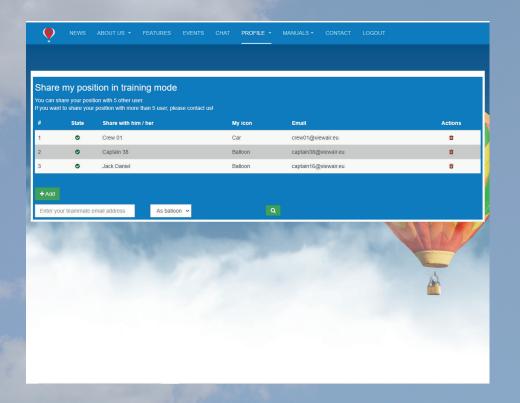
First click on the object relative to which you want to see the distance and direction of the second object. This will mostly be the X mark on your own balloon.

Then click on the object you want to examine. This can be e.g. the next target.

A label with the data and a green line between the two objects appear next to the second object.

The distance and bearing will be constantly updated as your balloon travels in flight.

To deselect objects, tap the map in an empty area and the selection will be deselected. You can then select a new object pair.



3.11 POSITION SHARING IN TRAINING MODE

If you want a member of your team to see you in Training mode, you need to share your own position with Him.

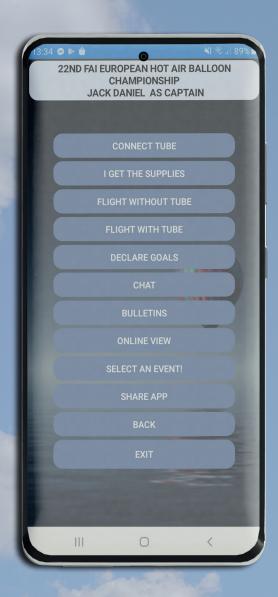
You can do this in the Balloon-tracking.eu/Profile/Share my position menu.

- Click the + Add button.
- Enter your team member's email address, which he or she will use as a username in the Balloon-tracking System.
- Set the icon to see how He sees you. (If you are a captain: "As balloon", if you are a Crew, "As car"
- · Click the search button.

If there is no user with the entered email address in the System, you can send them an invitation with one click. If your team member is already registered in the System, he will be added to the list who can see you in Training mode.

Attention! In order for you to see a member of your team, he must share his position with you!

After that, both of you enter the Application, select the Training mode and the Training without Tube menu. On the map, you can follow each other during the training flight - if you both have an internet connection.



4. EVENT SPECIFIC MENUS AND FUNCTIONS

These menus and functions are available to you in the app if you are a participant in a competition for which the Organizer uses the Balloon-tracking System.

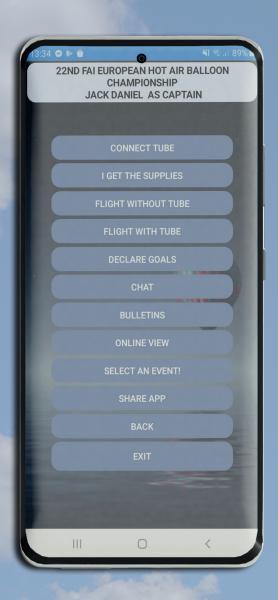
There are two ways to participate in such an Event:

- ✓ if you have applied on the Balloon-tracking Event sub-website and the Organizer has accepted your application, or
- ✓ if the Event Organizer sends you an invitation and you accept it.

Once you have participated in an Event, you can use all the captain functions in the app and on the Event subwebsite.

If you are not a participant, only ONLINE VIEW is available to you as PUBLIC view.

As a participant, select the Event in which you want to use the app in and enter it! The application switches to the Event Captain main menu page. Your application will link to the Event sub-website and a two-way data connection will be established. You get the data of the Competitions, the logger function works on the Event database.



4. EVENT SPECIFIC MENUS AND FUNCTIONS

During the Event, you also have the option to use the app in Training mode between races. You can switch to this on the SELECT EVENT page. It is important that your data generated in Training mode at this time is not included in the Event database! If you are flying in a race, always choose the Event!

If you have selected an Event, you will also find some additional menu items on the Captain's Main Menu page that you did not see in Training mode.

There will also be menu items already known in Training mode that offer you additional functions and services for racing.

You can find out about these functions and menu items that can be used during racing in this chapter.



4.1 GET THE SUPPLIES

For the Events, the Organizers have put together a package for you of the things you will need to compete. In it you can see the things you have ordered and also the items that all competitors will receive uniformly.

The app helps the Organizer to keep track of whether the necessary supplies have reached you.

Green: You haven't received these items yet. When you receive it, click on the "I GOT IT" button. You have now sent a digital signature to the System. The button for the received devices will be gray or orange.

Gray: You've already received these items and the Officials aren't expecting you to return them.

Orange: You received these items, and the Officials expect you to return them at the end of the competition.

The return works similarly, but is done by the Official. He will record on the Event website or in his app that he has received the items from you. When it happens, that line in your list will turn grey.



4.2 CONNECT TUBE

At the Events, the Organizer and Officials have already prepared one of the Tubes for You. You recieved this Tube from Officials during Check in.

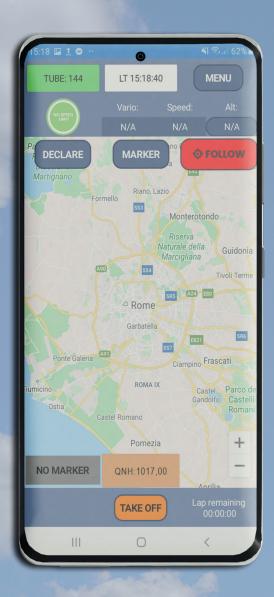
Turn on your Tube to pair it with the device.

In the main menu, click the CONNECT TUBE menu, and the Device ID of your Tube will appear in your list on the page that opens.

As a competitor, you usually only see one Tube device here, but the list name is still correct. In some cases, the Organizer may associate additional special Tube devices (e.g., Hare, Reference transceiver, etc.) with you and then you really need to choose from the options knowing your task.

If you do not find the Tube Device ID in the list, make sure it is turned on and at least the green LED at the bottom is blinking.

Select the Tube device from the list.



4.3 COMPETITOR MAP PAGE

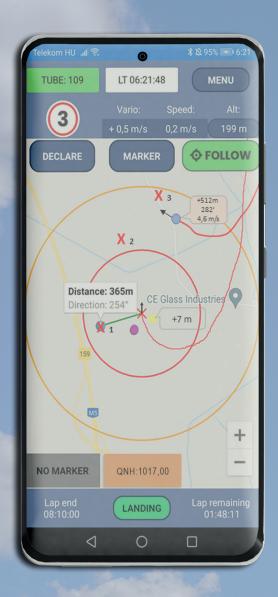
After connecting the Tube, the application switches to the sensors on your TUBE device. It receives data from Tube's GPS, pressure, temperature and humidity sensors and synchronizes with the Tube's data backup module.

Your application will switch to the competition MAP interface. Until the GPS position of the Tube is received by the app, Rome is shown as the standard starting position in the center of the space step. This is not an error, you will have to wait for the Tube GPS to find the GPS satellites.

Once this is done, the blue LED at the bottom of the Tube will also flash from time to time and the "X" indicating your own position will jump to your real position on the MAP page.

TUBE ID indicates the status of the connection. Green and Tube ID are displayed when the connection is working. You may also see a thin red flashing frame at times, indicating Bluetooth communication between the two devices. If the connection is lost (eg you move away from your mobile near the Tube) you will see yellow Disconnected.

The app and Tube are constantly searching for each other, if they get close again they will automatically reconnect.



4.4 DETAILS OF THE EVENT MAP

Airspaces, zones on the map. The airspaces and zones prepared by the Organizer for the Event will appear on your map with the necessary information.

Official Targets and MMAs on the map: During each race, the selected Targets (JDG) and MMAs (eg for GBMs, etc.) will appear on your map. It is important to know that for Targets and MMAs, these positions appear first according to the Task Sheet. When the Target Team Leader actually places the Target and MMA, its position in the System is finalized online. Your application will also be updated and will indicate the exact Target to you.

Balloons appearing on the MAP interface Altitude Compared to you: the other balloons are visible due to the safety of the flight

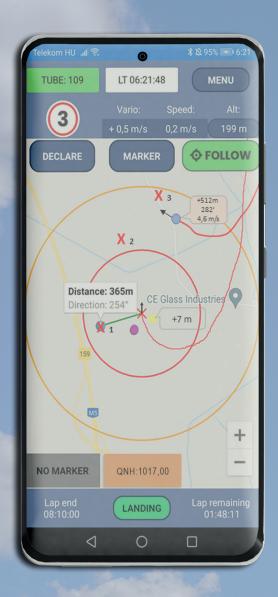
- ✓ Ballons with the same height as you are Yellow (+/- 10 m)
- → Ballons with more than 10 meters above your altitude are Blue
- → Ballons below your altitude by 10 meters or more are Purple

QNH: Before the laps of the competition, Officials sets the official QNH value for the race on the server. your application will switch to it.

The QNH button is inactive (You cannot change it) and indicates in orange that the altitude is being measured with a pressure sensor and an official QNH value.

From now on, all Tubes and apps will calculate with this, so everyone will see the correct altitude value on their display. Due to the uniform calculation, the scoring is done with the same height.

Lap End: and Lap remaining: These fields only work during the race. Based on the Task Sheet, Officials sets up and starts the countdown.



4.5 OWN AND SHARED POSITION ON MAP

My track and direction: On the map you can constantly see your own position, track and the direction of your flight.

My Chief Crew position: During the race, if the registered Chief Crew on your team also uses the app (and is logged in), both of you can see each other's position in real time. This function only works between registered team members. The Chief Crew will appear in the screen as a small car.

Other Captain's track and direction: In the Balloon-tracking System, on the Events sub-website, captains have the opportunity to share their Tube position with other captains.

For example, if another Captain (Joe) shares his Tube position with you, you will see Joe's track, ground speed and the direction of his flight on the map in real time. So He will give you information about the direction of the wind where He is flying.

This share is not automatically reciprocal, since Joe shared his position with you, he can't see your position in real time yet! Joe will only see this if you share your position with him.

Sharing the position is at the will of each captain - unless this feature is prohibited or generally required by the Competition Rules.



4.6 SPEED LIMIT WARNING

This feature is one of the special features of the Balloon-tracking System. It is similar to the features of the FLARM used by gliders or the TCAS system used in commercial aircraft flights.

The Speed limit warning works without an internet connection and alerts you if other balloons fly nearby. It increases the safety of your flight and helps in avoiding penalty points.

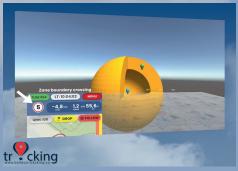
The function is based on competition rules. On each balloon, the Tube accurately measures its own altitude and GPS position. This information is broadcasted in an encrypted way by each Tube. Your Tube device also receives the transmission of balloons around you, this information also reaches your application via Bluetooth.

If your application receives information from these radio broadcasts that one (or more) balloons are so close to you that you can only fly at a limited vertical speed according to the rules, it will notify you. Naturally, the most strict restriction (lowest speed) required by the distance of the nearest balloon will appear on your screen.



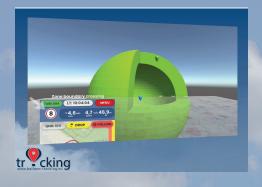


If there is another balloon (active Tube device) closer than 25 meters nearby (near your Tube device), a speed limit of 3 m/s applies



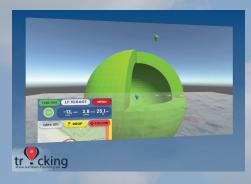


If there is another balloon (active Tube device) within 25-50 meters nearby (near your Tube device), a speed limit of 5 m/s applies





If there is another balloon (active Tube device) within 50-75 meters nearby (near your Tube device), a speed limit of 8 m / s applies.





If there is no other balloon (active Tube device) within 75 meters near you (your active Tube device), there is no Speed limit warning.

APP + TUBE = (MORE THAN) LOGGER





4.7 LOGGER FUNCTION

In the Balloon-tracking System, the logger function is provided by the app running on your mobile device and the Tube.

Data backup is cloud and network based. The track, declare goals and drops are stored continuously in the Tube data storage module in your application. They are transmitted via encrypted radio broadcasts and saved in all other Tube, app, data storage module of terrestrial radio receivers and on the server.

This means, for example, that the Balloon-Tracking System, with 100 pilots, 100 Tube and 5 terrestrial radio receivers, had up to 205 backups of each waypoint.

For scoring the tracks, Electronic Marker Drops are available on the server in real time. The evaluation can start after the end of the lap and the measurement of the drop of the physical markers - which the Target Team also online save in the app. Balloon-tracking's built-in scoring module will be available soon.



4.8 THE PBMS FUNCTION

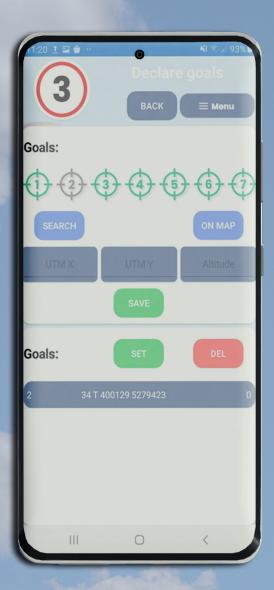
The unique feature of the Balloon Tracking System is Predefined Back-up Messages Services, PBMS.

During flight, balloons can often find themselves in a situation where Internet communication is impossible or insecure.

The Balloon-tracking System provides a solution for Event Directors to define text messages before Laps. These messages are stored in the background by the applications. If the Event Director wishes to communicate the information described in one of the stored messages to the competitors, this can be done with one click.

The System will then send an activation command to all applications and terrestrial radio receivers. Mobile terrestrial radios begin broadcasting the command to Tubes. Applications with an Internet connection display the content of the message to the pilot and also pass the activation code to the paired Tube device.

Then, this Tube device will also transmit the code to other Tubes in a radio message. This way, it gets to where there is no internet connection at the moment



4.9 ADDITIONAL FEATURES AND FUNCTIONS 1

In some of the previously known menus, new features are also available in race mode. Some functions work different than in Training mode. You can find out these differences and additions here.

DECLARE GOALS menu, Event specific services and functions.

The Declare on map function works similar as in Training mode. The difference is that **you can only use a serial number once in a Lap to declare.** You can't have more than one PDG with the same serial number at the same time, this would interfere with your scoring.

If you have declared a Goal in Event mode (eg with number 2), this serial number (2) will already be inactive and gray on the next declaration on the Declare Goals page. If you delete a PDG from the Goals list, your number will be released and you can use it again.

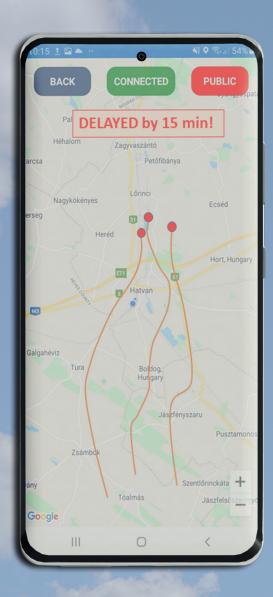
In **Declare, Search:** Event mode, if the Organizer has prepared a target list for the competitors, the list is available here with the SEARCH button. Open the list and select the appropriate Target.

Speed limit warning on the Declare Goals interface: If you fly a task during the Event and declare Goal in the air, the Speed limit Warning will also appear on this display. This will alert you to look around, someone is flying nearby!

MARKER menu: Selecting the electronic marker works similar as in Training mode. The difference is that you can only drop an electronic marker once in a Lap.

If you have already dropped a Marker, it will turn gray on the MARKER page. You cannot reset or reselect it. All electronic markers will be available again for the next Lap.

ONLINE VIEW menu: One of the most important tasks of the Balloon-tracking System is to ensure that the public follows the competitions in real life. It is also a high priority that publicly available information does not interfere with the sporting competition. For this reason, the **display works in two timelines.**



4.9 ADDITIONAL FEATURES AND FUNCTIONS 2

One of the two two timelines is the **delayed viewing** of information on the ONLINE interfaces.

While a Laps is taking place, the public (unregistered visitors to the Event website and even members of other competing teams) can see all balloons flying in the Online menu at the same time - but only with a delay set by the Organizer (e.g. 15 minutes).

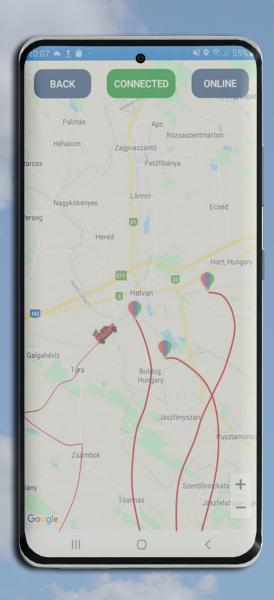
For them, the name Online View is not perfectly accurate, as it is more of a Delayed View.

If you go to the ONLINE menu in the application and switch to the PUBLIC version, you can see this too.

In short: If you select the **PUBLIC view in the ONLINE menu** in the app, you will see the flight of all balloons at once - but with a delay.

Connected signal: Your mobile device's server connection is active.

Waiting... indication: there is no active server connection, your mobile device is waiting to connect.



4.9 ADDITIONAL FEATURES AND FUNCTIONS 3

The other timeline is the Real Time View of Flights on the ONLINE interface.

Event officials always see all balloon flights in real time. The System ensures that competitors and their teams can follow their own position (and the position of the captains who share the Tube position with them) in real time.

This is what happens when you access the Event subweb or when you go to the ONLINE menu in the app.

In short: If you select the **ONLINE view in the ONLINE menu** in the app, you will not be able to see the other competitors at the same time. You can only see your own flight - and the captains sharing their position with you - **but in real time!**







5. USEFUL TIPS AND ADDITIONAL INFORMATIONS

Your application performs many operations in connection with the service provided to you. It makes intensive use of GPS, Bluetooth module, mobile computing capacity of your mobile phone, processor and data storage folders. It all consumes energy. Experience has shown that the use of this application can discharge the phone's battery significantly during 6-8 hours of continuous use.

Please always charge the battery of your phone and Tube before flying!

Important Warning: Use and run the application continuously during the flight. Never use the phone application shutdown to shut it down.

Always exit the Main Menu with the EXIT button so that the saved data of your flight cannot be damaged.

You can find a lot of other useful information at www.balloon-tracking.eu. The application and the Balloon-tarcking System are being developed to help the Organizers and Competitors of the hot air balloon competitions.

If you have any questions, requests or suggestions, or if you would like to see a new feature, do not hesitate to email us at helpdesk@balloon-tracking.eu!

We wish you a good flight and good competition!