# Welcome to the glidertracker.org Tracking Hub

Please see <u>SETUP INSTRUCTIONS</u> further below for information on how to setup your GliderTracker Feed Configuration.

### **INTRODUCTION**

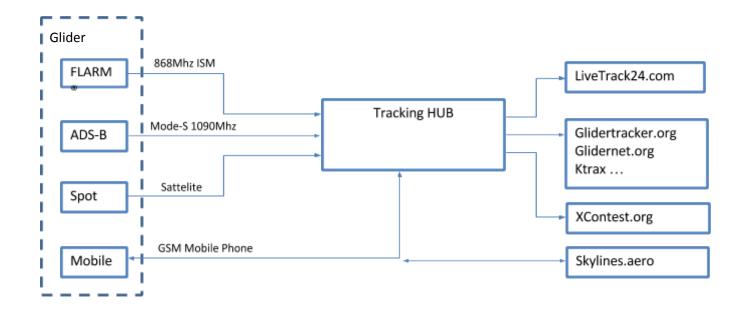
Modern technologies allow different ways to track your position. All different have their own specific advantages and disadvantages. This project allows to combine all the different tracking data sources to get the best out of all tracking channels as there are.

OGN Open Glider network	based on FLARM®
Mobile Tracking	based on mobile phones
ADS-B	based on Mode-S Transponder
SPOT	based on satellite telephone

Especially mobile tracking and OGN benefit from each other due to the specific advantages. Mobile tracking works good on ground and in alpine regions as it is based on Cell phone network. The drawback is that it does not work in high altitudes. In great altitudes OGN and ADS-B work best. So these techniques are more and less complementary. Personal locator transmitters PLT such as SPOT are based on telephone satellite systems and have big advantages as they are independent from any infrastructure. SPOT has the best coverage worldwide and might work even if all other techniques fail. The disadvantage is the fairy low data rate of typical every 15 minutes, which is not sufficient for live tracking but for SAR purposes.

Data Interval	Reception range	Range	Disadvantage
1s	Good > 1000m GND Very weak below	The higher the better	Bad near ground
5s	Good > 500m GND weak below	The higher the better	Bad near ground
1 60s	Good < 500m GND weak above	The lower the better	Need cell phone network
5 15 min	Perfect	infinite	Very Slow additional cost
	Interval       1s       5s       1 60s	IntervalGood > 1000m GND1sGood > 1000m GNDVery weak below5sGood > 500m GNDweak below1 60sGood < 500m GND	IntervalGood > 1000m GNDThe higher the better1sGood > 1000m GNDThe higher the better5sGood > 500m GNDThe higher the better1 60sGood < 500m GND

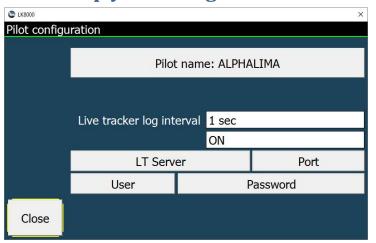
All the technics have their own specific tracking websites also with its specific dis-/advantages. This Project combines all tracking sources to have one central **tracking at a glance** independent from the tracking technic itself. In case of mobile tracking it also provides this data into the cockpit for example to have a better traffic awareness.



The tacking data from the different sources are combined and forwarded to the OGN APRS network, so all OGN websites and tools (Tracking, Logbooks, SAR...) are provided with the maximum data availability. For skylines.aero a data bypass is provided.

None of the tracking sites will be disabled when using the Tracking HUB, it is just an additional central data management for all the different tracking channels.

## **SETUP INSTRUCTIONS**



## 1. Setup your Navigation software for tracking

LT Server:	WWW.GLIDERTRACKER.ORG
Port:	80
User	User field of your feed (see chapter 2. Setup your GliderTracker Feed Configuration)
Pass	Pass field of your feed (see chapter 2. Setup your GliderTracker Feed Configuration)

## 2. Setup your GliderTracker Feed Configuration

Your first action is to go to <u>https://glidertracker.org/hub/</u> and create your personal account with the "register here" Button.

After you create a new account you must login to your new account.



Now you can add a data feed by clicking the "MyHub" Menu link, and then the "Create New feed" hyperlink. The Tracking Hub works best with Google Chrome browser. Other browsers may have problems editing the fields.

Now complete each of the Feed Configuration items. Hovering you cursor over each box will show prompts for the required data. We suggest that you enter each data field carefully, then SAVE it before clicking the "Active" tick box.

It is essential that you carefully choose your Aircraft, Type, and Address BEFORE attempting to SAVE the Configuration . If you do not have a FLARM or ICAO device, please ensure you select the TYPE as OGN and carefully follow the OGN instructions below in the ADDRESS section.

If you do not have a SPOT Device or SKYLINE account you can safely ignore any error messages that appear when you SAVE, as the required data is still saved to the database. Any other error messages must be resolved carefully. If in doubt, delete the configuration with the x button, and start again.



#### **Feed configuration**

	LK8	000	Flarm configu	ratio	11			Grab	from Spot	Send to Skylines Get from Skylin		om Skylines	
Name Activ	e User	Pass	Aircraft		Type		Address	Read	SPOT	Send	Skylines	Read	Skylines
D-4321 🗹	Hote	I PW	Glider	۲	Flarm	۲	DD1234		04zR4v64NWT2huIFONEHuLSPeelFzZo7s		711C1221		1234

## **Username/PW (Password)**

Here you can specify the username and password used for the tracking software in your Smartphone tracking software (LK8000, XCSoar, ...) to identify yourself (Note it does not need to be the same as your Tracking HUB account.

In your Smartphone Tracking Software (like LK8000, XCSoar, LT24 client, ... and many others) you need to setup livetracking with your individual username and password. This username and password must match the User/Pass setting in your feed. As Tracking server you must enter "www.*Glidertracker.org"* in order to send the data to the Glidertracker HUB.

#### To identify the different tracking devices each has its own ID

## Address

If you have a FLARM or TRANSPONDER, enter your Flarm ID or the Transponder ICAO24 Address as described below. If your glider is equipped with a Mode-S Transponder, it is recommended to set the FLARM<sup>®</sup> ID equal to the ICAO24-Address on the FLARM device. Otherwise skip to section *OGN* 

#### FLARM® ID

When you purchase a FLARM<sup>®</sup>-device, it is configured to send an ID, which is based on the serial number of the device, and unique for all FLARM<sup>®</sup> compatible devices. The FLARM<sup>®</sup> Id is a 6 digit number. Each FLARM<sup>®</sup> has an individual FLARM<sup>®</sup> ID by default. It used to start with a DDxxxx.

#### **ICAO24-Address**

The ICAO Address is a 6digit 24Bit number provided by the authorities whenever a Transponder is official registered. For ADS-B out the Transponder must be equipped with a GPS receiver.

https://en.wikipedia.org/wiki/Automatic\_dependent\_surveillance\_%E2%80%93\_broadcast# ADS-B\_Out\_satellite\_reception

#### OGN

Important: If you don't have a Flarm nor ICAO Transponder address (like most of the Paraglider Pilots do) you must not use the above settings! In this case you should use the OGN setting for the ID. As ID you can select your own unique 24bit hex format number ID (e.g. 123456) Please make sure that this ID is not in use already.

All used IDs can be found here:

http://ddb.glidernet.org/download/

where:

**'F' means Flarm ID** 

'I' means ICAO Address

'O' means OGN ID

## **SPOT ID**

You can connect your <u>SPOT Satellite Tracker</u> to your glidertracker.org HUB account Setting up a SPOT shared page is easy. You can see the oficial documentation here

Sign into your SPOT account at http://www.FindMeSpot.com

- Click the Share tab near the top of the page.
- Under SPOT Shared Pages, click the Create Shared Page link.
- Create Page Settings -> Set the options in the Create Shared Page window that appears. Be sure to enter a Shared Page Name and select your SPOT device.
- Under Security, set the page to 'Public;.
- Select 'Send the shared page myself' option
- Click Create Now to complete the process.
- At the bottom of the page, a very long URL should appear

Your SPOT Feed ID is the last part only, a big string like 0lhy3HJRHYMesXf45hHRJHrt5D5vzZiK3gHy5

http://share.findmespot.com/shared/faces/viewspots.jsp?glId=0lhy3HJRHYMesXf45hHRJHrt5D5vzZiK3gHy5

The SPOT ID is: 0lhy3HJRHYMesXf45hHRJHrt5D5vzZiK3gHy5

## **Skylines**

You can connect skylines in two ways, as tracking source (tracking number) or forward the hub data to skylines using the feeding ID

# Live Tracking key (feeding from hub to skylines)

The Skylines Live Tracking key is an 8digit number, needed to forward the tracking data to skylines. The key is provided by the skylines website for each registered user and can be found in the user account und under "Settings" "live Tracking". As shown here:

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Live Tracking						
Ulrich Heynen	Live Tracking K	(ey				?
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Password			Generate new key			
Live Tracking						
	CJ					
	Tracking Delay					
	None					▼
			Change			
		© The SkyLines T	eam - Imprint			

Please visit skylines.aero for further information. If you enter the Skylines ID and enable "Use Skylines" the Tracking data will be forwarded to the www.skylines.aero tracking website.

# Skylines tracking number (HUB getting tracking data from skylines)

The Skylines tracking number is an up to 5digit number, needed to get tracking data from skylines. The ID is provided by the skylines website for each tracked item. You can find the tracking number in the URL of a skylines live tack which are listed here:

https://skylines.aero/tracking

if you select a specific track the tracking number can be found in the opened URL in this example the tracking number 12345:

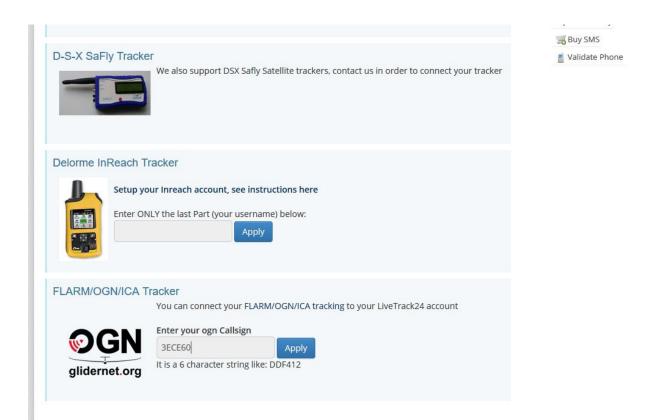
https://skylines.aero/tracking/12345

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	ISSE	BOSCHSTRAS				Ulrich Heynen	Pilot	
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## Livetrack24

If you want to add the data to you livetrack24 account, you don't need to setup this in the glidertracker.org HUB. Livetrack24.com already has an interface to the OGN data provided by the hub. You only need to specify the address under the OGN section in you LiveTrack24 account under "MyAccount" "Edit Account" (scroll down),

Auf deutsch "Konto", "Konto ändern" runterscrollen.



# KTrax, Glidernet.org

The tracking data is automatically forwarded into the Open Glider APRS Network.

Glidernet.org and glidertracker.org will show your current position but with a cryptic label. If you want a clear text you must FLARM/ICAO enter your callsign or desired name into the OGN database.

http://ddb.glidernet.org/