

So You Lost a Glider

Follow the following steps in order with precision and speed. Get help from a small number of capable people. If in doubt about how to do something, check the Appendix.

1. Collect Information

- Names (e.g. Philip Lee)
- Cell Number (e.g. 847-890-2472)
- Contest Number (e.g. UV)
- Registration (e.g. N511SZ)
- You can find some of the above information in the SSA directory (**App. [1]**)
<https://www.ssa.org/SailplaneLocator>
- Use FAA N-Number registry (**App. [2]**) to search for person/registration/etc. to fill in any missing information
 - <https://registry.faa.gov/aircraftinquiry/>
- FLARM ID (e.g. A666CE)
 - This is usually the same as the "Mode S Code (hex)" that can be found on the N-number registry (**App. [2]**)
- OLC Competitor list and Gliding daily score at <https://www.onlinecontest.org/olc-3.0/gliding>. IGC files of the missing pilot may be useful to determine the FLARM ID. (**App. [3]**)
- Satellite Tracker URL (e.g. <https://share.garmin.com/PhilipLee2>)

2. Try to Find the Glider

Do the following in rapid succession (spend less than 30 minutes...split the tasks among 2-3 people) until a response is obtained.

- Send a text to the cell
- Use radio to ask 123.3 for a relay message to find the missing glider
- Send a message (via satellite tracker url) to satellite tracker (if inreach and public messaging is enabled)
- Check glideport.aero for any position reports (**App. [4]**)
- Check glidertracker.org for any position reports (**App. [5]**)
 - In "Settings" menu (top-left), change "Select" and "Track" to "24h".
- Check directly in their spot or inreach page listed in the SSA directory (may need to change filters to most recent track)

- Check <https://www.kisstech.ch/ktrax/?mode=sar> (**App. [6]**)
 - In the search box, enter either the registration or flarm ID
- Check ktrax.kisstech.ch/flarm-liverange/ (**App. [7]**)
 - Try the registration or flarm ID in the search bar
- Check <http://flightradar24.com/> (if the glider has an ads-b transponder) (**App. [8]**)
 - Enter registration number in the search box and see if an entry appears. Click on the entry.
- Also check <https://flightaware.com> for ads-b position reports (**App. [9]**)
- Check <https://skylines.aero/tracking> (**App. [10]**)

Finding the FLARM ID

If the flarm ID is not the same as the 6-digit Mode S Code for some reason, you can download a recent .igc file from www.onlinecontest.org and inspect it (with SeeYou or even with a text editor) to see the id, if the .igc files come from a Flarm unit. If present, the line (for id of A666CE) will look like:

```
LFLA202402ID 1 A666CE
```

See **App. [3]**.

3. Expand the Search

After 30 minutes of searching by the methods above, expand the search if nothing of use was found.

- Notify local soaring mailing lists that you are looking for the glider. Send all the info you have (name/registration/flarm/etc)
 - hqcggroup@groups.io
 - soartruckee@groups.io
- Send an e-mail to contact@glidernet.org + info@flarm.com with max. Information:
 - Registration
 - FLARM radio ID
 - Takeoff airport
 - Takeoff hour (please specify time zone)
 - Anything else to help identify glider
- If in Region 11, send all info to Philip Lee via email (pglee@pm.me), then text/call/leave message (**847-890-2472**).
 - He may have additional means to get last glider position
- Contact County Sheriff

- Share this document and all information with them
 - Ask if they will contact the Air Force Rescue Coordination Center (below)
- Contact Air Force Rescue Coordination Center
 - <https://www.1af.acc.af.mil/Units/AFRCC.aspx>
 - Phone (24-hours): **800-851-3051**
 - They coordinate **ALL** search and rescue operations in the US
- Call Norcal Operations Desk at **916-366-4019** and ask for primary radar info
 - Tell them you have a missing glider and the AFRCC is involved
- Call the cell operator of the missing person (e.g. T-Mobile). They may be able to give the last location of the phone
- Notify immediate family that the person is missing and that a search is underway

4. Collect IGC Files

The folks at flarm can extract fixes from other people's igc files.

- Ask every pilot that may have flown with the missing glider for their IGC files from their FLARM units
- The document <https://flarm.com/sar> contains on the last page the telephone numbers of experts who can be called in this case (and only for SAR purposes).
- Send all collected information and files immediately to info@flarm.com.

Appendix

[1] Using the SSA Sailplane Locator

Enter the pilot's last name and contest number

Sailplane Locator Information

Search for:

Member Last Name:

Contest ID:

Then select "Go":

Note: Wildcard is '%', e.g. Searching for member last name 'A%' returns all members with last name beginning with 'A'

Click "Go" and a result should appear

Name ▼	Glider	ID ▼	Reg ▼	Locator URL	ELT
Philip Lee	SZD-48-2 Jantar Std 2	UV	N511SZ	Click Here	

Clicking on the "Locator URL" should take you to a garmin or spot page. Here, it takes you to <https://share.garmin.com/PhilipLee2>. This is the Satellite Tracker URL.

[2] Using the FAA N-Number Registry

You may search by any of the following parameters

FAA Home » Licenses & Certificates » Aircraft Certification » Aircraft Registration » Aircraft Inquiry

FAA REGISTRY
Aircraft Inquiry

N-Number	Serial Number	Name
Make / Model	Engine Reference	Dealer
Document Index	State and County	Territory and Country
Pending Expiration Report	Expired / Pending Cancellation Report	Canceled Registration / Assignments Report

Here, I selected "N-Number" and entered the registration (without the "N"). Hopefully you at least know the pilot's name and can search by last name by clicking "Name."

FAA REGISTRY
N-Number Inquiry

*N-Number:

Data Updated each Federal Working Day at Midnight

You will either get a list of possible matches, or a single result like the following page

FAA REGISTRY
N-Number Inquiry Results

N511SZ is Assigned

Data Updated each Federal Working Day at Midnight



Aircraft Description			
Serial Number	B-1165	Status	Valid
Manufacturer Name	PEZETEL	Certificate Issue Date	03/21/2018
Model	SZD-48-1JANTAR STD 2	Expiration Date	03/31/2021
Type Aircraft	Glider	Type Engine	None
Pending Number Change	None	Dealer	No
Date Change Authorized	None	Mode S Code (base 8 / oct)	51463316
MFR Year	1981	Mode S Code (base 16 / hex)	A666CE
Type Registration	Co-Owned	Fractional Owner	NO

Note that the entry “Mode S Code (base 16/hex)” is usually the same as the FLARM ID of the aircraft, but not always, as the owner may not have configured the FLARM properly or may have a portable unit shared between more than 1 aircraft.

[3] Using OLC

For this, you need an OLC account (free) and to be logged in to download any IGC files.

Gliding

Overview of most famous Gliding Competitions

[OLC Champion](#)

[Daily Score](#) [Ranking](#) [Rules](#)

[Speed OLC](#)

[Daily Score](#) [Ranking](#) [Information](#)

[OLC Alps](#)

[Daily Score](#) [Ranking](#) [Information](#)

[OLC Junior Challenge](#)

[Ranking](#) [Rules](#)

[OLC Destination](#)

[Overview](#) [Rules](#)

Click on “Competitor->List of Competitors” to get the following screen.

List of Competitors

Q Search

A B C D E F G H I J K **L** M N O P Q R S T U V W X Y Z

⏪
⏩
6
7
8
9
10
11
⏪
⏩
☰
Page 9 of 26
2,582 items found, displaying 801 - 900

last name	first name	Club	Glider Pilot	Para-/Hanggliding Pilot	RC Pilot
Leduc	Thomas	BE ACUL - Aeroclub Universitaire de Louvain	✓		
Ledvina	Justin	0 US Air Force Academy	✓		
ledwith	patricio	AR Club Planeadores Zarate	✓		
Lee	Rachel	US Minden Soaring Club			
Lee	David	AU Melbourne Gliding Club (VMFG)	✓		
Lee	Shane	AU Mt Beauty Gliding Club	✓		
Lee	David	DE SFG Leck	✓		
Lee	Philip	US BASA (Bay Area Soaring)	✓		
Lee	George	⤵ AU Darling Downs Soaring Club	✓		

Do not use the search bar...it is garbage. Click the letter corresponding to the first letter of the pilot's last name and scroll through the pages. On the far-right of the entry, click on the blue book icon to bring up the following page.

All Flights of Philip Lee (US) 2020 (Worldwide, BASA (Bay Area Soaring))

OLC-Plus	Speed/League	Destination	One item found							
date	Points	km	km/h	Takeoff location	Aircraft	Start	End	Duration	state	Info
10/27/19	151.66	132.09	35.44	Hollister CA (US / 11)	Std. Jantar	18:34	22:42	4:07		
sum:	151.66							4:07		

Click on the small “i” icon on the far right of a recent flight.

Flight information - Philip Lee (US) - 27.10.2019

Type of glider: Std. Jantar, Takeoff location: Hollister CA (US / 11)

KML

IGC

edit flight

OLC-Plus

Speed/League

Destination

Click on the “IGC” icon on the right to download the flight trace in IGC format (you must be logged in). You can then take a look at the file in SeeYou or in a text editor to look for the FLARM ID or other information that you lack.

[4] Using Glideport (SSA Tracker)

GlidePort.aero Map Search Info or

Welcome

To configure your tracking device(s) and other settings, please [login](#). In order to obtain your login, you need to [register](#) first.

Please review the [help page](#) and the [terms of use page](#). If you are new to GlidePort.aero watch this [short video](#).

(See the [blog](#) page for more GP news.)

Quick Links

- World: [Map](#), [Today](#), [Yesterday](#)
- 2020 Caesar Creek Soaring Club Cross Country Camp 2020-08-03 - 2020-08-07

Click on World Map

GlidePort   Map  Search   Info 

World <

Sort 2 / 105

Name **Count** **Show All**

Filter

- ① New Zealand ▶
- ③ USA ▶



Click on USA

GlidePort   Map  Search  

< **World**

USA <

Sort 4 / 5

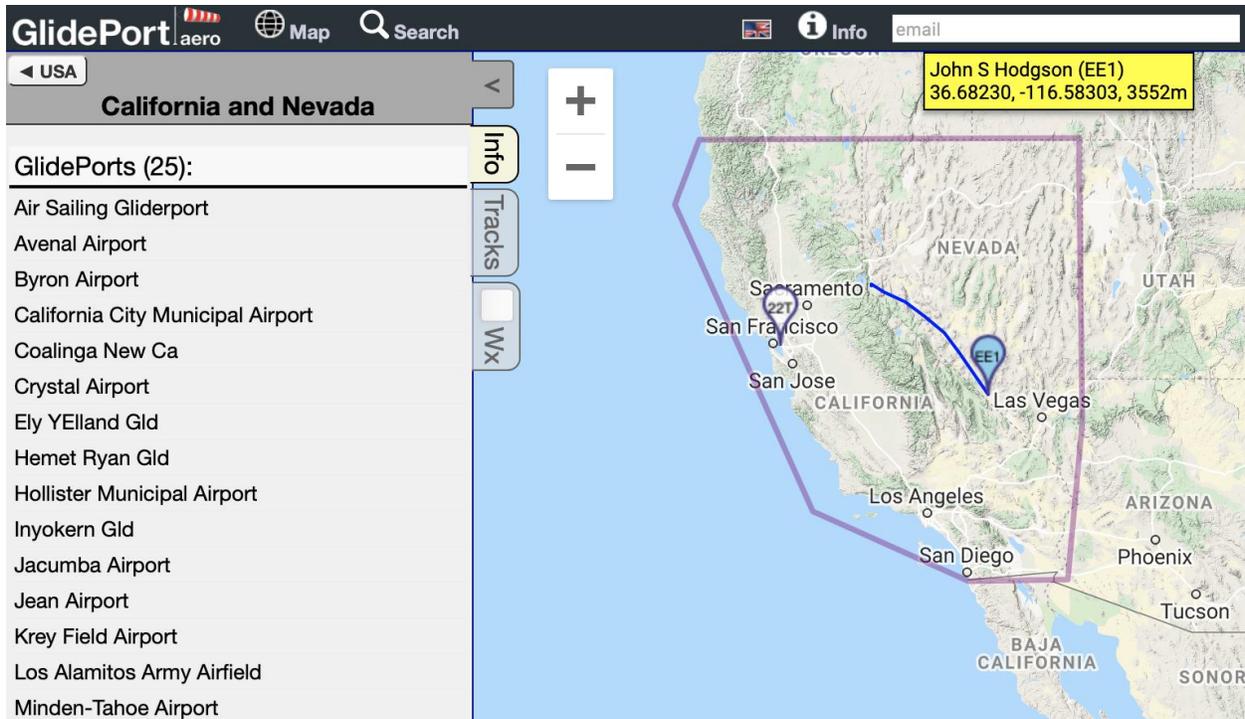
Name **Count** **Region** **Show All**

Filter

- ② [California and Nevada] ▶
- ① Minden-Tahoe Airport (NV)
Home of Soaring NV ▶
- ① Oakland Ca Metro (CA) ▶
- ① Warren-Sugarbush Airport (VT)
Home of Sugarbush Soaring
Association ▶



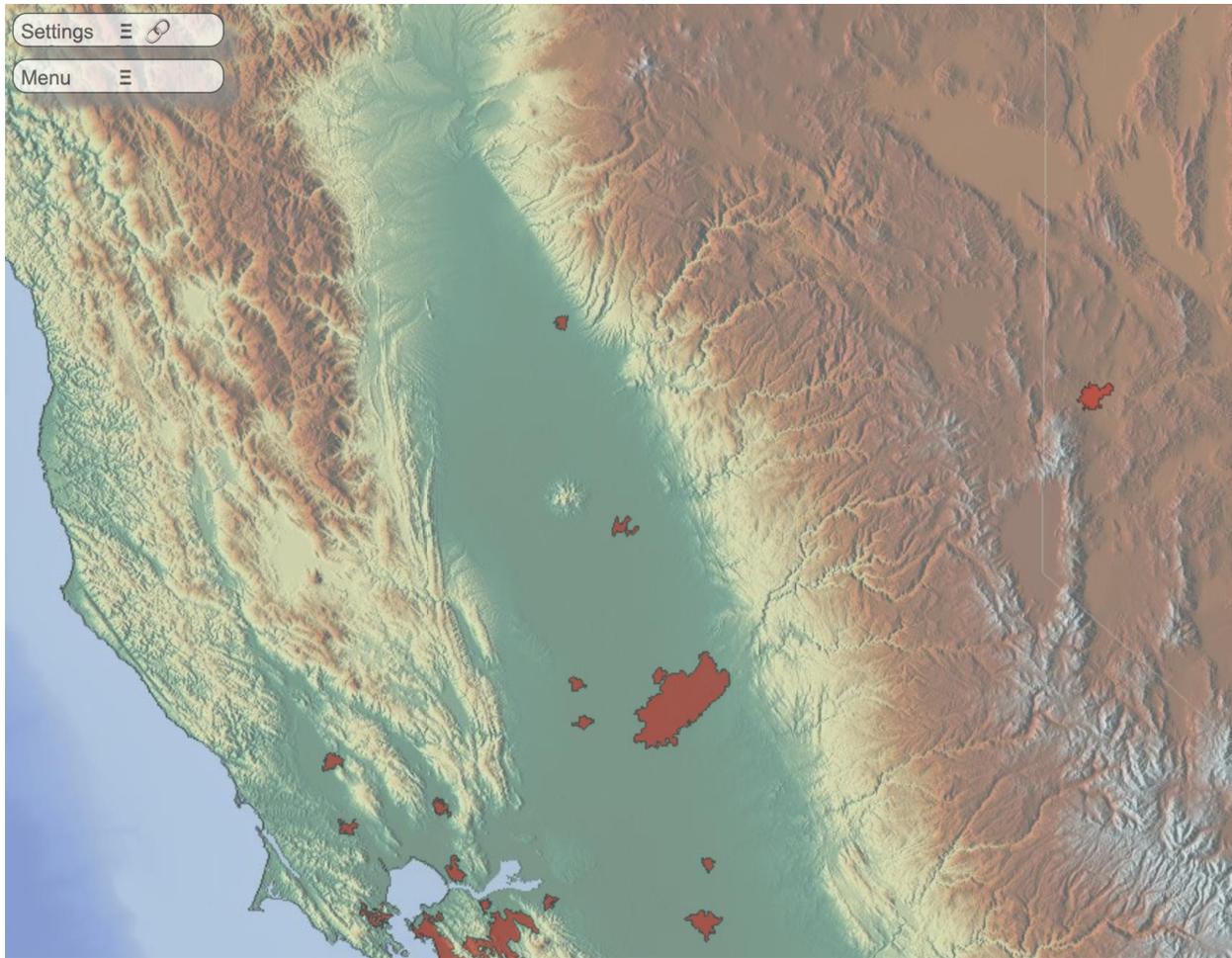
Click on California and Nevada



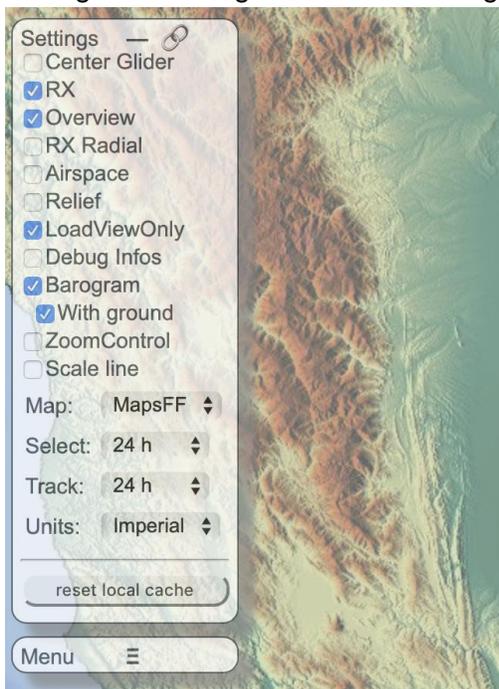
Look through the targets for the pilot/glider in question

[5] Using Glidertracker

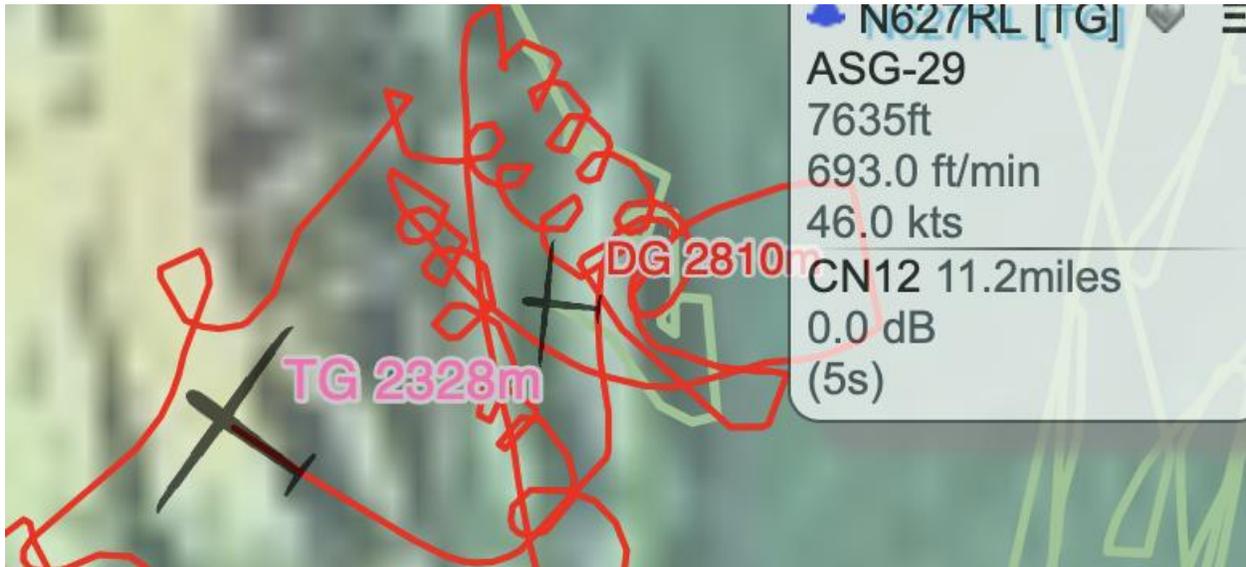
Zoom out and scroll around the map to the approximate location of the person.



Change the settings as shown. Change Select/Track to 24h and Units to Imperial.



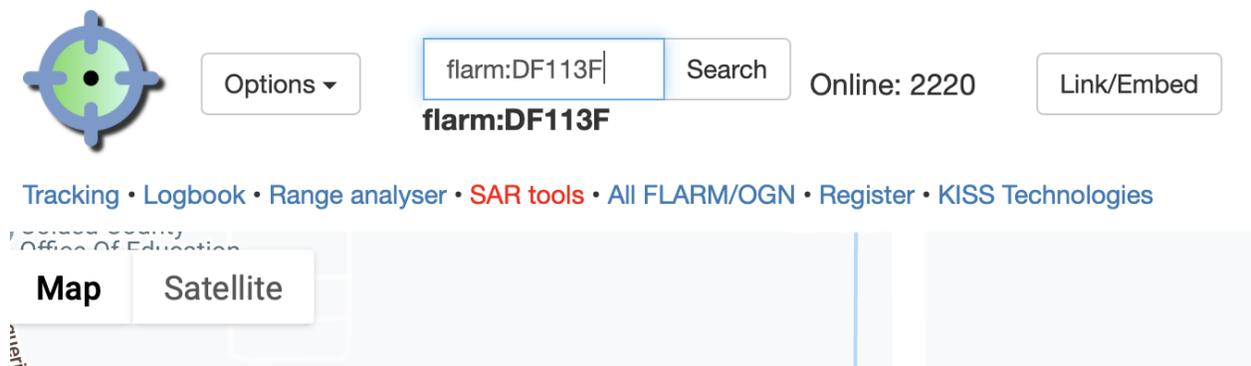
Scroll around and try to find a target with either the matching N-number or FLARM ID



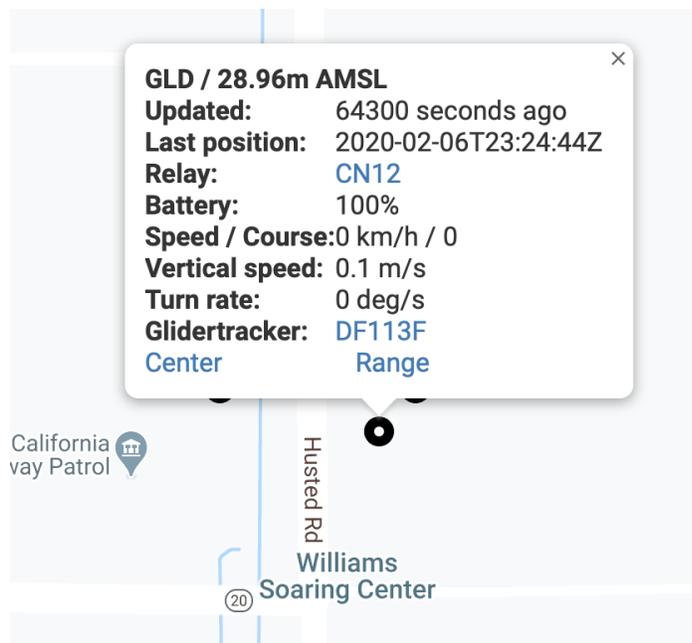
After clicking on a target, a panel opens on the right side of the screen. The last number in parenthesis tells how much time since the target was last seen. Above that is the signal strength and the receiver that last picked them up and the distance from that receiver. There is also the altitude, climb/sink rate, and forward speed.

[6] Using KTrax SAR

If the FLARM ID is known, enter "flarm:xxxxxx" in the search bar. Otherwise, scroll on the map to the approximate last-known location of the glider.



Information will be displayed as follows



[7] Using KTrax Liverange

The information provided here is not intended for search purposes, but it may nevertheless be useful. First, enter the FLARM ID in the search bar.

FLARM live range analyzer and SAR info

Please enter your 6 digit Radio ID (FLARM/OGN tracker, ICAO ID etc.) below to obtain a range and SAR report.

FLARM/OGN/ICAO ID:

The result page has a section at the bottom that looks like this

Report date:	Fri Feb 7 17:20:05 UTC 2020
Last measurement:	2020-02-02T22:51:43Z
Callsign/ID:	N627RL/icao:A831C0
Versions:	Hardware: 43/Software: 6.82
Received by:	1 OGN station(s)
Echos used:	3365 out of 3552
Average frequency deviation:	-7.71 kHz
Average GPS accuracy:	1.3 m
Position jumps:	0
SAR:	Map
Database version:	ktrax-ogn v2.7.1

The “Last measurement” field says when the aircraft was last received by any OGN station. The “SAR” field contains a link to the KTrax SAR map if the last measurement is within the last 24 hours (otherwise it is a dead link).

[8] Using Flightradar24

This is useful when the aircraft has ADS-B out. Enter the N-number or FLARM ID (Mode S hex code) into the search bar and click the result.

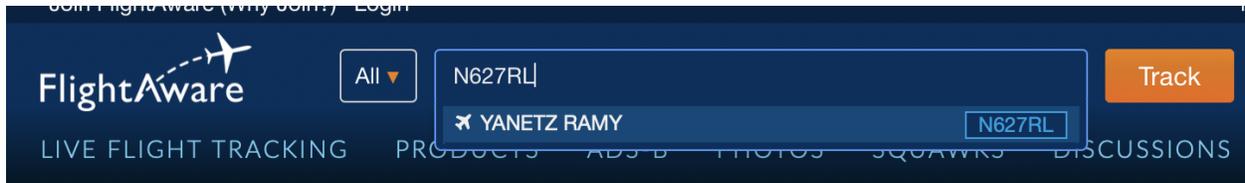
The screenshot shows the Flightradar24 website interface. At the top left is the logo and "LIVE AIR TRAFFIC". Below it are navigation tabs for "AIRCRAFT" (272 / 15,327) and "AIRPORT DELAYS". On the left, there is a table of airport delays:

AIRPORT	ARR	DEP
Halifax (YHZ)	4.9	5.0
Ottawa (YOW)	4.4	4.6
Montreal (YUL)	3.8	5.0
Norfolk (ORF)	3.9	4.7
Haikou (HAK)	3.0	5.0

At the bottom of this table is a link "Go to delay map". The main area is a map showing aircraft positions. A search bar at the top right contains "A831C0". A search results popup is displayed over the map, showing "AIRCRAFT" and "1 of 1 matches". The result is "N627RL (GLID)" with a small aircraft icon. Below the result is a link "Advanced search".

[9] Using FlightAware

This is useful when the aircraft has ADS-B out. Enter the N-number into the search bar



The result looks like

The screenshot displays the FlightAware page for aircraft N627RL. The page header includes the FlightAware logo, a search bar, and a 'Track' button. The main content area features a large heading 'N627RL' with a sub-heading 'LANDED OVER A MONTH AGO'. To the right, it indicates the aircraft was 'first seen near LEMOORE, CA' on 'SATURDAY 21-DEC-2019' at '03:06PM PST', and 'CVH HOLLISTER, CA' on 'SATURDAY 21-DEC-2019' at '05:00PM PST'. A green line on a map shows the flight path between these two locations, with a '1h 55m total travel time' indicated below. A 'Get Notifications' button is visible above the flight times section.

FLIGHT TIMES	
Takeoff	Landing
03:06PM PST	05:00PM PST
Scheduled 03:06PM PST	Scheduled --

AIRCRAFT INFORMATION

[10] Using Skylines

This is useful when the pilot has a Skylines account and has set up live tracking. Click the “Live” button at the top and search through the list of results for the pilot

Live Tracking

Last Fix	Pilot	Nearest Airport	Altitude	
35 seconds ago	Joschko H	 Oberschleisheim (14 km)	523 m MSL	Show
43 seconds ago	Indy Flyer	 Cruzeiro Do Sul (1,357 km)	2,295 m MSL	Show
28 minutes ago	Sascha Kaiser	 Lugano (2 km)	293 m MSL	Show
36 minutes ago	ZS RTX	 Fisantekraal (0 km)	118 m MSL	Show
1 hour ago	Marc Schick	 Sinsheim (5 km)	254 m MSL	Show
1 hour ago	Frank Beckmann	 Arnsberg Ruhrwie (6 km)	338 m MSL	Show
1 hour ago	ZS RUL	 Fisantekraal (0 km)	107 m MSL	Show
2 hours ago	Daniel Krüll	 Bonn Hangelar (0 km)	59 m MSL	Show
2 hours ago	Stéphane LACROIX	 Clamecy (13 km)	443 m MSL	Show