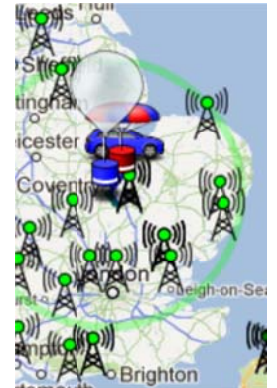


Although not strictly an amateur radio activity, many hams enjoy this activity, which includes building the transmitter, launching helium-filled balloons, then tracking the flight and retrieving the (hopefully intact). This is a short guide on how to receive and decode signals from high altitude balloons.

When do they fly?

Balloons fly at various times of the year all around the world, and the best bet is to look at the upcoming events listed on the UK HAS site or sign up to their mailing list: ukhas.org.uk

For real-time tracking of balloons in flight, go to spacenear.us/tracker



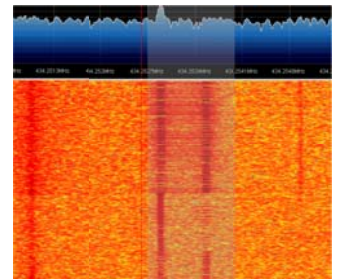
What you need to track a balloon

To track a balloon in flight, you need a 70cm SSB receiver. If you only have a 70cm receiver that copes with FM, not SSB – then it could be that a cheap dongle is the answer – At the time of writing, the Realtek RTL2832U costs just over £10 and is an SDR that receives 24MHz to 1.85GHz (FM, AM, SSB, CW) – perfect for many ham radio activities include balloon tracking – See www.essexham.co.uk/hab for details and links.

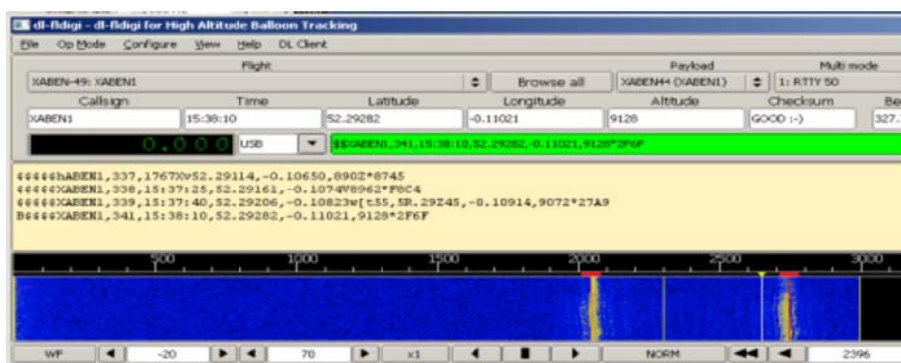
For the sake of this guide, we'll assume you're using a PC dongle – although if you have a radio that can handle 70cm SSB, it's a case of connecting the audio from your radio to the soundcard input on your PC.

Assuming you're using a PC dongle, the best bet is to install the software package SDR# - This is free software that allows you to set the frequency and mode of the dongle, effectively being the front-end to your software-defined radio.

You next need to tune your receiver into the frequency that the balloon is transmitting on – this information is given with the flight details on the UK HAS site. The frequency may drift a little. The signal is normally sent as RTTY data – Note the two red lines in the photo to the right – this is what a typical HAB signal looks like.



Once you're able to receive the signal and get the audio on your PC, you'll need the software to decode the RTTY signals – The package you need is called DL-FLDigi and the link is on our guide here: www.essexham.co.uk/hab . This will decode the balloon's location and allow you to upload data to spacenear.us/tracker



On our site, you'll find a short video, plus links, to help you get started. Go to www.essexham.co.uk/hab

For more Getting Started Guides, go to essexham.co.uk/getstarted