

# Instrumentation

**Objective 1:** To load a waypoint file onto your flight software and display the waypoints.

Go to the website <https://wessex.wpcomp.uk/>

The idea of the competition is very simple: take off from any of the 1 sites (red circles), fly to as many of 29 waypoints (blue dots) as you can in 10 minutes. The competition is open to all full Wessex members with a CP rating or above. Taking part in this competition will

- be FUN!
- get you thinking
- get you flying away from the hill, but not so far that you can't get back
- help you to work out how your GPS works
- improve your flying
- push you to the edge of your "comfort bubble" and thus increase its size
- encourage you to explore all of our flying sites.

Based on the Thames Valley waypoint competition originally devised by Chris Williams, the competition is new for 2022

[View the waypoints](#)

Download the waypoint file in GPS Dump (.wpt) format ☐ CP Only

[Results so far](#)

[Enter a flight](#)

Select the waypoint format appropriate to your instrumentation and download the file onto your equipment. The filetype you need depends on what equipment you have. You will need to determine this for yourself.

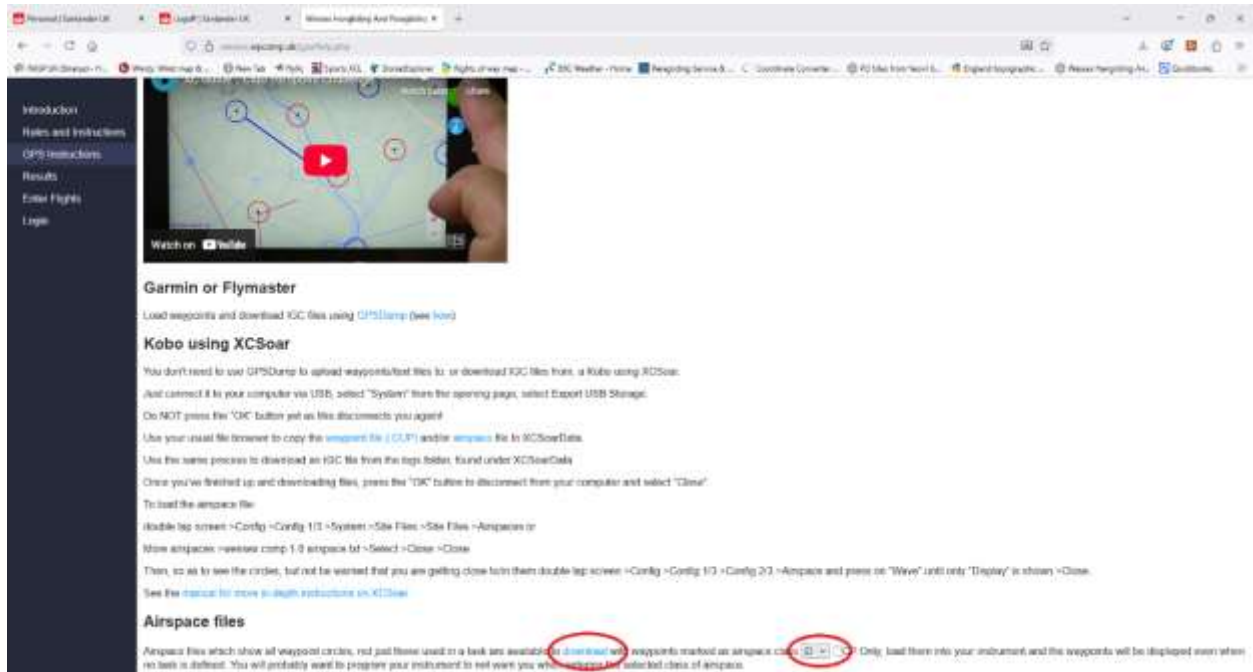


When you are successful you should see the waypoints displayed on your instrument.

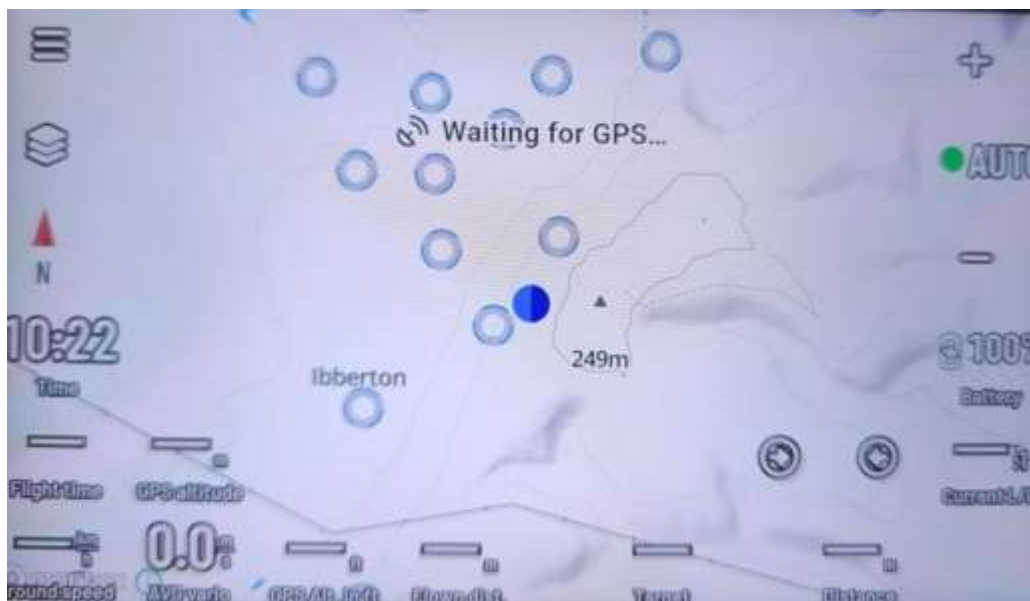
# Instrumentation

**Objective 2:** Load a custom Airspace file onto your instrument and display it.

Go to the website <https://wessex.wpcomp.uk/>



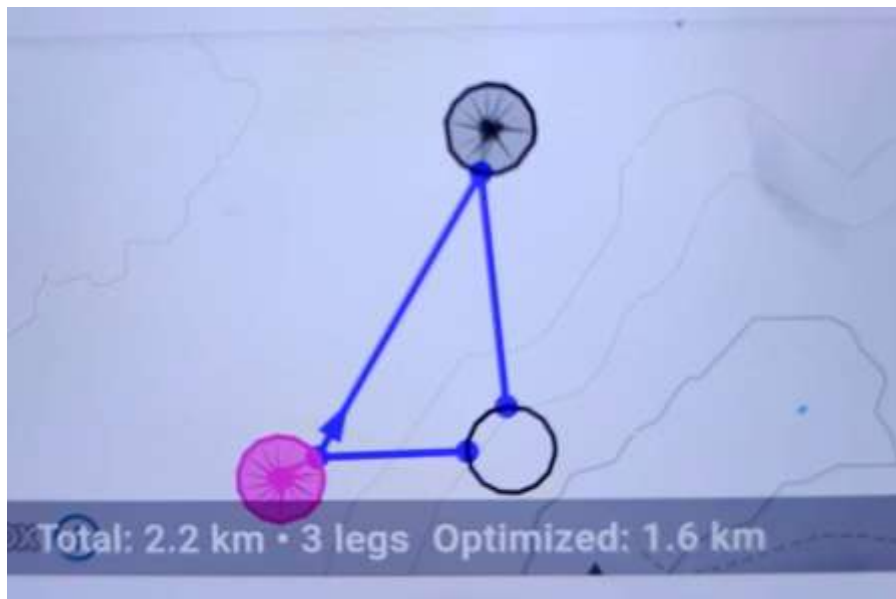
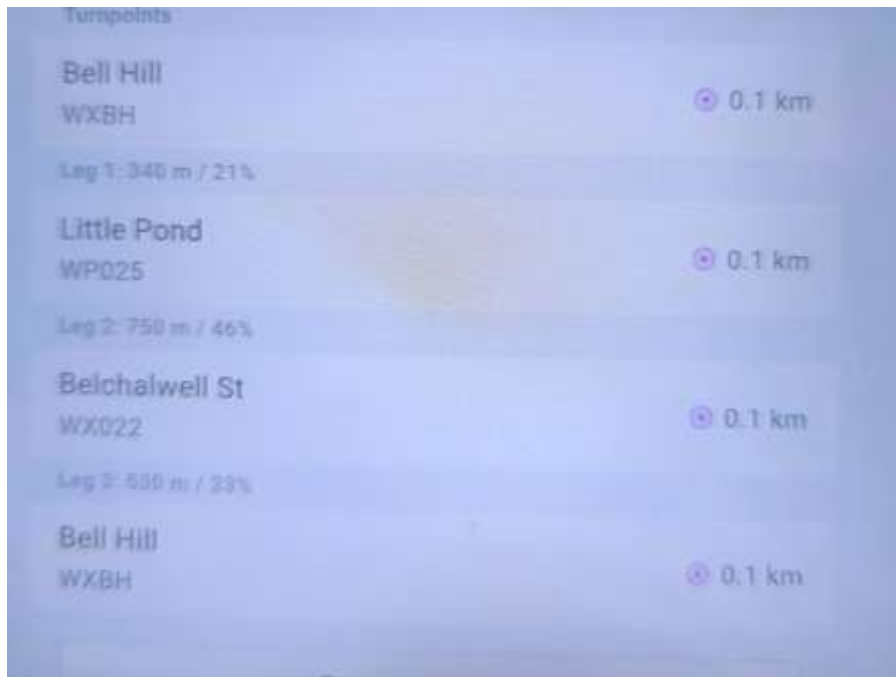
Download the waypoint circles as class D (Danger) Airspace. Install and enable the file on your instrument.



When you are successful you should see the waypoint circles on your instrument as Class D (Danger) airspace.

# Instrumentation

**Objective 3:** Use the Bell hill waypoints to create a route.

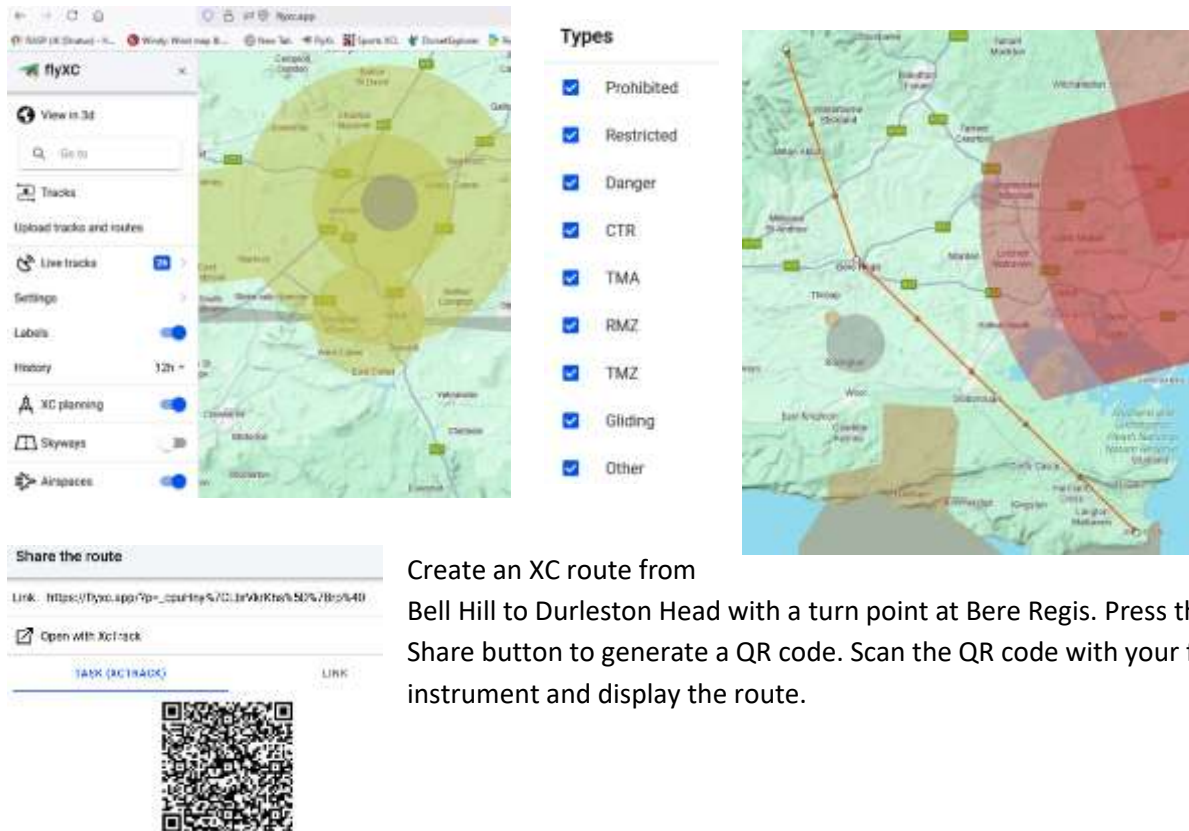


Create a triangle XC task on your instrument using the Bell Hill waypoints. For all points set the cylinder radius to 100m

## Instrumentation

**Objective 4:** Create an XC route using the FlyXC app and load the route onto your instrument using a QR code.

Go to the website [flyxc.app](https://flyxc.app). Enable XC planning and Airspaces. Under Airspace types enable everything.



# Instrumentation

**Objective 5:** Fly a task between waypoints of the Bell Hill Challenge (See Objective 3). Observe airspace proximity alerts on your Instrument. Cancel airspace for Today during flight.

This is a practical flying task. Having loaded the Bell Hill Challenge waypoints and airspace as Class D 100m radius airspace you are now ready to fly a task.

During the flight your instrument should display an airspace proximity warning that you are approaching or have entered Class D airspace. Learn what audio and visual clues your instrument is giving you.

There will be a way for you to cancel airspace for today (not permanently). This usually involves you touching the airspace warning and selecting “Today”. This is a very useful feature of your instrumentation.

# Instrumentation

**Objective 6:** Customizing your instrument display.



Instrument displays are usually fully customizable. Often there can be multiple windows visible by swiping. Screen orientation, the information displayed and the screen layout is fully customizable.

There is no correct answer to what should be displayed and how it should be laid out. The important thing is to be able to

look at your screen and quickly know everything you need to know. What you choose is up to you but here are my preferences.

**GPS Altitude in ft** (Used in the UK and for airspace limits)

**GPS Altitude in m** (Used in Europe in guiding and competitions)

**Current L/D** ( This is your current glide angle across the ground. Useful for seeing if speed bar improves or degrades the glide)

**Ground Speed** (Essential parameter for safety. You need to know if you're going backwards)

**Time** (Competition tasks have a "Start" and "Land By" time requirements so you need to know what the current time is if you're flying competitions)

**Average Vario** (I display the average climb over a 10s period. Instantaneous Vario is not useful)

**Distance** (The distance to the next navigation waypoint)

**Target** (The name of the next waypoint)

**Task Required L/D** (The glide angle needed to arrive at the destination. Some people prefer to display arrival height)

**Flown Distance** (How far I've flown)

**Zoom in/out** (Essential to know where the next airspace is and how close it is.)

**Next / Last Waypoint** buttons (Allows me to skip a waypoint I've missed and go onto the next one)

What you choose is up to you but it's worth spending the time to set it up as you like it.