

mapping\_route\_taken.docx

TJH 15,16,18-MAY-20

TJH 1-JUN-20

# Mapping Route Taken

## Requirement

I would like to see, on a map, where I have been. I want the map to be detailed enough to show field boundaries. I do not want to carry on my field trip anything bigger or more expensive than an ordinary mobile ( cell ) phone, or need to spend much time during the field trip taking records. I want to be able to produce a map, showing the route taken, in a single computer file that I can store and print.

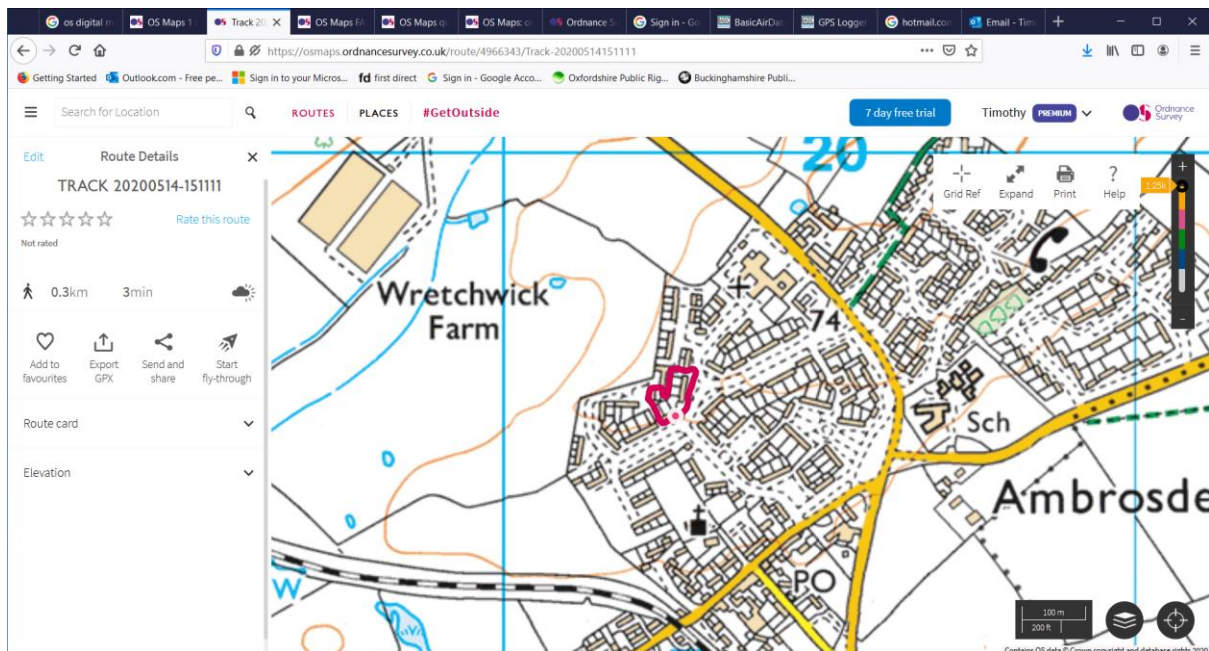
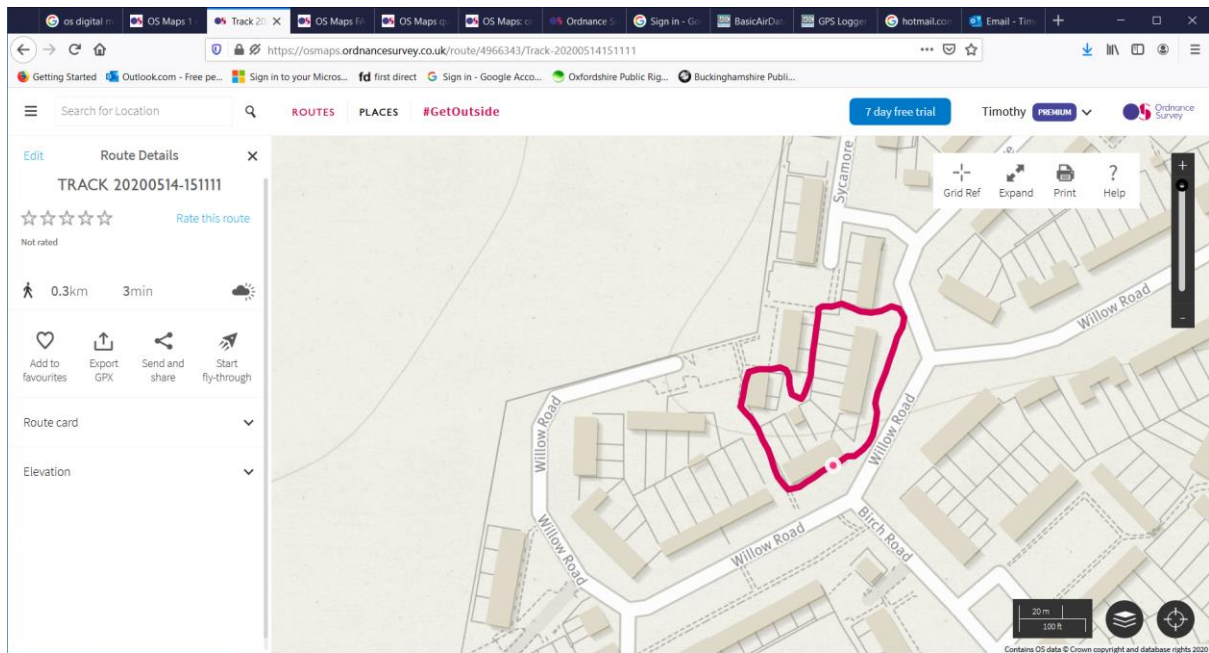
## Solution ( so far )

I have an Android phone and have installed "**GPS Logger**" by **Basic Air Data** which is an Open and Free project. That can export the route taken in GPS Exchange Format ( .GPX file ) and other formats. It can use the phone's email application, and other methods, to move the data from the phone.

The background mapping data can be obtained from the **Ordnance Survey**. For the level of detail that I want ( field boundaries and public rights of way for footpath work ), in the UK, it seems that there is ( still ) a **charge for the data** beyond a 7-days trial period. If I didn't want to see Public Rights of Way I needn't pay the subscription. If paying on a monthly basis the cost is now £ 2.99 per month ( less if committing for longer ). See further on for considerations of sources of mapping data.

Using the Ordnance Survey on-line tool in a web browser it is relatively easy to show a map from the OS and import into the display a GPS log file and then produce a Portable Document Format ( .PDF ) file of the result. N.B. The PDF is just an image and does not contain real mapping data.

Here are some example outputs of this method :-



## Other considerations / Background

OS Mobile App.

It may be possible to get mapping data from the Ordnance Survey mobile application. I have not investigated.

OS OpenMap

UK Government has made moves in recent years to open some OS data. Various types of maps are available under Government Open License ( or similar ) and that may include outlines of buildings and roads as shown on the example from Basic Air Data but does not seem, now, to me, to include all the data, such as field boundaries, that is displayed on their "Explorer" ( 1:25,000 when they print ) maps. I may not have looked hard enough and the situation may be changing fairly rapidly. If anyone can correct me I would appreciate that.

#### OS on-line

Using a web browser the "Standard" layer, which is free to access, does show field boundaries ( when sufficiently expanded ) but not rural Public Rights of Way. The "OS Leisure Maps" layer, which is available by subscription, does show field boundaries and Public Rights of Way.

#### OpenSteetMap

Although this initiative may have started in the UK, the mapping detail publicly available now ( May 2020 ) may not be adequate for my requirements.

#### Quantum GIS

The Basic Air Data example mentions this. I have downloaded it to MS Windows-10. The default download seemed more than just QGIS and I had difficulties following the "Advanced Install" options to get just the Long Term Release version. If I could get the mapping data, rather than an on-line image of it, then this Geographic Information System ( or another ) might be useful.

#### Google Maps

May not have mapping data down to field boundary level.

Website includes "You can import map features like lines, shapes, and places to your map from KML files, spreadsheets and other files."

#### StreetMap

It does seem to show maps down to field boundary level. It seems easy to include a link ( URL ) to a custom location but the business seems focused on advertising rather than supplying map data for the use I am intending.

#### DEFRA's "MAGIC" map

Is interesting but I haven't found it useful for this application.

#### FootPathMap

I have a short email from "FootPathMap Contact" dated 29-MAY-20 which includes "*we do not offer the ability to import routes onto the map*"

## **Desired Route rather than route taken**

As well as, or instead of, showing on a map where I have been it might be useful to set a desired route on a map and then have assistance to try to follow it ( at this level, like normal "Sat Nav" use in a vehicle ). I guess other people have done that but I haven't yet.

## **URLs**

<https://www.basicairdata.eu/projects/android/android-gps-logger/>

<https://www.basicairdata.eu/blog/2016/11/26/newbies-guide-to-import-gpslogger-tracks-into-qgis/>

[https://en.wikipedia.org/wiki/GPS\\_Exchange\\_Format](https://en.wikipedia.org/wiki/GPS_Exchange_Format)

[https://support.google.com/mymaps/answer/3024836?hl=en&ref\\_topic=3024924](https://support.google.com/mymaps/answer/3024836?hl=en&ref_topic=3024924)

<https://support.google.com/maps/answer/144361?co=GENIE.Platform%3DDesktop&hl=en>

<https://www.ordnancesurvey.co.uk/shop/os-maps-online.html>

<https://www.ordnancesurvey.co.uk/documents/os-opendata-getting-started-guides.pdf>

<https://www.ordnancesurvey.co.uk/business-government/products/open-map-local>

<https://www.ordnancesurvey.co.uk/opendatadownload/products.html>

[https://en.wikipedia.org/wiki/Open\\_Government\\_Licence](https://en.wikipedia.org/wiki/Open_Government_Licence)

<https://en.wikipedia.org/wiki/OpenStreetMap>

<https://learnosm.org/en/beginner/>

<https://www.qgis.org/en/site/>

[https://magic.defra.gov.uk/Dataset\\_Download\\_Summary.htm](https://magic.defra.gov.uk/Dataset_Download_Summary.htm)

<https://www.streetmap.co.uk/idlinkto.htm>

<https://footpathmap.co.uk/>

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