

# Aeronautical navigational aid radio ground station licence application form – OfW594

## Guidance for completing this form

### Who should use this form?

You may use this form to apply, amend or surrender a aeronautical navigational aid radio ground station licence in the United Kingdom Isle of Man, Jersey and Guernsey or a platform in the UK Continental Shelf

### Conditions

To establish an aeronautical navigational aid radio ground station, you must normally have:

- An equipment approval under the Air Navigation Order (ANO), issued by the CAA's Safety and Airspace Regulation Group (SARG);
- A frequency assignment, issued by the CAA's SARG; and
- An aeronautical radio licence under the Wireless Telegraphy Act 2006 ('the WT Act'), issued by Ofcom.

All three are required before you may establish or use any aeronautical radio equipment. When making a new application, you may wish to check with SARG that the equipment is suitable. The frequency assignment and ANO approval will be issued by SARG and arrive together but the radio licence, issued by Ofcom, will arrive separately. This documentation is not transferable between legal entities.

### Communication preference

Where possible, all correspondence will be sent to licensees electronically.

If you do not wish to receive documents electronically, you must opt out by ticking the box against each contact to receive correspondence by post.

### Completing this form

When completing this application please refer to the notes and complete in dark ink in **BLOCK CAPITALS**.

All fields are mandatory unless stated otherwise.

### Important

Ofcom makes regulations, which set out the fees for licences to use equipment issued under the WT Act. Further information about how we calculate your licence fees is available on the Ofcom website:

<https://www.ofcom.org.uk/manage-your-licence/radiocommunication-licences/aeronautical-licensing/licence-fees-calculator>

### How we use your data

We require this information in order to carry out our spectrum licensing duties under the Wireless Telegraphy Act 2006.

Please see Ofcom's General Privacy Statement for further information about how Ofcom handles your personal information and your corresponding right: [www.ofcom.org.uk/about-ofcom/foi-dp/general-privacy-statement](https://www.ofcom.org.uk/about-ofcom/foi-dp/general-privacy-statement)

When we receive an application for an aeronautical radio ground station licence, we share this form OfW586a with the CAA, as they need the information contained therein in order to perform their functions and enable you to establish your aeronautical ground radio station and to assess whether the installation can be approved under the ANO. The CAA SARG may contact you to obtain further details in support of your application.

In the case of a new application or a change in your payment contact details, you will also need to complete [form OfW586b](#) (new application payment contact details) and submit it to Ofcom along with this form OfW594.

However, we will not share personal data that you provide in form OfW586b (therefore we collect this information separately).

### **False representation statement**

Articles 256 and 265 of the ANO provides that it is offence to make, with intent to deceive, any false representation for the purpose or procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. Persons doing so render may face a fine, imprisonment or both.

### **For licensing help contact:**

Ofcom  
FAO Spectrum Licensing  
PO Box 1285  
Warrington  
WA1 9GL

Email: [spectrum.licensing@ofcom.org.uk](mailto:spectrum.licensing@ofcom.org.uk)  
Website: [www.ofcom.org.uk/manage-your-licence](http://www.ofcom.org.uk/manage-your-licence)  
Phone: 020 7981 3131

### **For frequency assignment and ANO approval assistance help contact:**

Safety and Airspace Regulation Group  
Future Safety, Communications, Navigation and Surveillance

E-mail: [frequency.approval@caa.co.uk](mailto:frequency.approval@caa.co.uk)  
Website: <https://www.caa.co.uk/Commercial-industry/Airspace/Communication-navigation-and-surveillance/Aeronautical-radio-stations/>

### **Radio interference**

Since the operation of a new system may cause interference to existing users, your supplier may consider it necessary to carry out compatibility tests before you apply for your licence. Once installed and operating, your system must not cause undue interference to any other wireless telegraphy equipment. If it does, you may need to stop operating until the cause of the interference has been rectified. Ofcom cannot offer any protection against interference radiated by other authorised services, or by industrial, scientific and medical equipment; however, if you do experience interference, please contact us.

### **Changes to licensee**

WT Act Licences may not be transferred. The Licensee must give prior or immediate notice to Ofcom in writing of any change in the details of the name and/or address of the licensee.

### **Changes to aeronautical equipment**

The licensee must give prior notice of any change to equipment by completing this application.

It is worth noting that the CAA and Ofcom have different payment requirements. The CAA will not process the applications until the initial charges have been received. Ofcom will send you an invoice prior to sending out the radio licence.

If the CAA needs to investigate, and this exceeds the application charge payable, the applicant can expect to pay additional charges to recover those excess costs incurred by the CAA in accordance with the scheme of charges.

If a member, or an employee, of the CAA is required to travel overseas in respect of this application you are advised to read the CAA scheme of charges to which this application relates to the section entitled 'Additional charges where the functions are performed outside of the United Kingdom'. All expenses incurred in pursuance of this application by travelling overseas will be payable by the applicant on demand.

If this application is withdrawn, a cancellation charge may be levied to reflect the work carried out by the CAA up to the point of cancellation. The CAA refund policy can be found at [www.caa.co.uk/refunds](http://www.caa.co.uk/refunds).

### **Radio licence fees**

The licence fee should only be paid to Ofcom after you have been invoiced. The licensee must pay the relevant fee as provided for by section 12 of the WT Act and the Regulations that have been made under that section. If you fail to pay the licence fee, Ofcom may revoke the licence.

The fee for an aeronautical radar ground station licence is payable annually. A licence fee of £50 for each aeronautical navigational aid ground station licence issued,

Licences can be granted for short-term use and will attract a fee of 1/12 of the annual fee for each month or part month, subject to a minimum of £20. Fees exceeding £20 will be rounded to up to the nearest £.

### **Access and inspection**

Civil Aviation Publication (CAP) 670 ([www.caa.co.uk/CAP670](http://www.caa.co.uk/CAP670)) describes the safety requirements for equipment providing Air Traffic Services (ATS) and Air Ground Communication Services (AGCS).

## Frequency Assignment

Navigational aids are provided with a National protected assignment from the Civil Aviation Authority. They are subject to international coordination according to the process defined by the International Civil Aviation Authority (ICAO) Frequency Management Group and adopted for use within Europe. This may result in a delay of several weeks before a WT Act Licence and ANO Approval can be issued.

## Radio equipment use

For frequency management purposes, the CAA reserves the right to restrict the range of communication to limits lower than those requested, to change frequencies where necessary or revoke frequency allocations. Allocations of aeronautical radio frequencies are for aeronautical use only. Frequencies can only be allocated for use within the UK Flight Information Region.

The Licensee must ensure that the Radio Equipment is constructed and used only in accordance with the provisions specified in the documentation issued by Ofcom and the CAA. Any proposed changes must be agreed with Ofcom and the CAA in advance and implemented only after the appropriate documentation has been varied and/or reissued accordingly.

**The remainder of these guidance notes provide help on specific questions**

### SECTION B – Customer details

#### Question B1a – Existing customers

If you already hold an Ofcom radio licence, you should write your Ofcom customer reference number in the box provided. Your customer reference number will be quoted in licence documentation or correspondence that we have previously sent to you.

#### Question B1b – Harmonising a licence

Ofcom can align invoices for similar licence products to one consolidated date. This makes invoicing and payments easier to manage. The conditions for harmonising a licence are:

- The licence must be under an existing customer reference number;
- Must be the same licence product;
- Must have identical payment terms (e.g. every 12 months);
- Must have an identical payment contact; and
- Must be no outstanding invoice against the licence.

#### Question B2 – All applicants

A licence can only be issued to a legal entity. You should complete the appropriate option provided or if these are not appropriate then provide your details under other legal entities. For a partnership, please give the full name of one partner and supply a list of all other partners. The main partner is also required to sign the declaration in Section E.

#### Question B3 –Registered charities

Registered charities may be eligible for a 50% reduction in licence costs if they have as the objective the safety of human life in an emergency.

#### Question B4 – Licensee address

If you are applying on behalf of a Limited Company, a Public Limited Company or a Registered Charity, the registered address of the organisation must be used. The licensee will receive all licensing documentation and correspondence.

#### Question B5 – Licence contact name and address

This can be an additional contact who should also receive licensing documentation and correspondence.

#### Question B6 – Third party contact

If the licence is being handled by a third-party contact such as a radio supplier, then this can be provided.

### SECTION C – Navigational aid system options

Navigational aids are provided with a National protected assignment from the Civil Aviation Authority. Unlike some aeronautical ground station products, the licence fees are not derived from the DOC dimensions. They attract a fee of £50 per licence irrespective of the region of use (i.e. within the United Kingdom or Crown Dependencies. Licences can be granted for short-term use and will attract a fee of 1/12 of the annual fee for each month or part month, subject to a minimum of £20. Fees exceeding £20 will be rounded up to the nearest £.

#### Questions C1 – Navigational aid system type

You should tick the navigational aid type from the following options:

- a. VHF omnidirectional radio range (VOR)
- b. Distance measuring equipment (DME) terminal/ en-route
- c. Instrument Landing System (ILS) (localiser and glide path)
- d. Non-directional beacon (NDB) – land based
- e. Non-directional beacon (NDB) – offshore

Note that if DME and ILS are both ticked they will be paired. This combination is used at airports. Occasionally there will be some stand-alone DME usage that can be either en-route (NATS) or for an airport DME. Also, if VOR and DME are both ticked then they will be paired. VOR with DME is used for en-route navigation. An instrument landing system has two components where a localiser and glide path will be always paired.

The question lists which sections and questions should be answered accordingly. Incomplete forms or inaccurate information provided may result in the application being returned.

## SECTION D – Site and location details

### Question D1 –Site/location/platform/vessel name

You should provide the details as required.

### Question D2 –Site/antenna location

The preferred format for the site/antenna location is for numerical values in latitude and longitude expressed in degrees, minutes and seconds. To convert decimal degrees, use the formula:

degrees = decimal degrees

minutes =  $[60 \times (\text{decimal degrees} - \text{degrees})]$

seconds =  $3,600 \times (\text{decimal degrees} - \text{degrees}) - (60 \times \text{minutes})$

As an example:

Decimal	51.1537°N	
Degrees	= 51	<b>51 N</b>
Minutes	= $60 \times (51.1537 - 51.0)$	<b>09</b>
Seconds	= $3600 \times (51.1537 - 51.0) - (60 \times 9)$	<b>13.32</b>

Decimal	0.1821°W	
Degrees	= 0	<b>00 W</b>
Minutes	= $60 \times (0.1821 - 0.0)$	<b>10</b>
Seconds	= $3600 \times (0.1821 - 0.0) - (60 \times 10)$	<b>55.56</b>

### Question D3 –Confirm whether the mobile vessel is onshore or offshore

Tick the appropriate option between onshore and offshore.

### Question D5 –Site height

You should provide the site height in metres above sea level.

## SECTION E –Navigational aid system details

### Question E1 –Transmitter manufacturer and model

You should provide the manufacturer and model number of the navigational aid equipment.

### Question E2 –Emission code

You should provide the emission code for the intended navigational aid equipment.

### Question E3 –Transmitter power

You should provide the power of the intended navigational aid equipment and clearly identifier whether this is in dBW or watts.

### Question E4 – Antenna manufacturer and model

You should provide the manufacturer and model number of the navigational aid equipment.

### Question E5 –Antenna gain

You should provide the antenna gain specified in dBi.

### Question E6 and E7 –Antenna mast height

You should provide the height in metres above ground level. The mast height should be specified for the highest point of the mast.

## SECTION F – Non-directional beacon equipment details

### Question F1 – For land based and offshore NDB systems

You should provide the maximum range of the device in nautical miles (NM). As relevant, you should provide the Morse identifier for an onshore a system or the 'platform sea block' for an offshore system.

## SECTION G – Distance measuring equipment details

### Question G1 – For Distance Measurement Equipment (DME) paired with ILS

You should tick the appropriate antenna option from the options: 1) directional, 2) omni-directional or 3) bi-directional. If the antenna is something different, then please describe in the space provided.

### Question G2 – Coverage details

You should provide the names of all sites. For each site you should further give the details of the service, sector, coverage height and range. Additionally, you should also provide the details of any sectorised antennas giving the bearings of the start and stop angles in degrees. If this is omni-direction, then tick the 360° box.

### Question G3 – Specific for VHF omni-directional radio range (VOR) equipment

You should provide VOR identifier if an ICAO Morse identifier exists. And you should tick the box if it is associated distance measuring equipment is available.

### Question G4 – Specific for Distance Measuring Equipment (DME) Terminal / En-route equipment

You should provide DME identifier if an ICAO Morse identifier exists. And you should tick the box if it is VHF omni-directional radio is available.

## **SECTION H – Localiser and glide path only**

### **Question H1 – Runway designator**

You should provide the runway designator. This is the direction of a runway centreline, published and marked as two digits.

### **Question H2 – Runway true heading**

This should be the orientation of the runway measured in degrees from true North.

### **Question H3 – Runway ILS identifier**

You should provide the ILS identifier if an ICAO Morse identifier already.

### **Question H4 – Runway ILS category**

You should tick one of the options from 1) uncategorised, Cat I, Cat II or Cat III. If relevant, then enter the number of array elements.

### **Question H5 – Localiser transmitter details**

You should provide the manufacturer and model number of the localiser transmitting equipment. You should also provide the power of the localiser transmitter and clearly identifier whether this is in dBW or watts.

### **Question H6 – Localiser antenna details**

You should provide the manufacturer and model number of the localiser antenna. You need to provide the antenna gain in dBi and its location (refer to question D2 for guidance on required format and positional accuracy)

### **Question H7 – Antenna array details**

You should provide the location of the antenna array. The preferred format for the array location is for numerical values in latitude and longitude expressed in degrees, minutes and seconds. Refer to question D2 for more information.

You should also provide the height in metres above ground level. The mast height should be specified for the highest point of the array.

### **Question H8 – Localiser associated ranging equipment**

You should only tick one of the options between:

- 75 MHz marker beacons
- Paired DME

### **Question H9 – Glide path transmitter details**

You should provide the manufacturer and model number of the glide path transmitting equipment.

You should also provide the power of the glide path transmitter and clearly identifier whether this is in dBW or watts.

### **Question H10 – Glide path antenna details**

You should provide the manufacturer and model number of the glide path antenna. You need to provide the antenna gain in dBi and its location (refer to question D2 for guidance on required format and positional accuracy)

### **Abbreviations**

DME	Distance measuring equipment
ICAO	International Civil Aviation Authority
ILS	Instrument Landing System
NATS	National Air Traffic Services
NDB	Non-directional beacon
VOR	VHF omnidirectional radio range

## A. Application purpose

### A.1a Tick the purpose of this application :

New application. Please provide a completed [OfW586b application](#)

Amendment to an existing licence. Please answer question A1b

Surrender of an existing licence. Please answer question A1b

### A.1b Provide your existing licence number

### A.2 If you require a licence for less than 12 months (including Special Events), then indicate both the:

Start date (DDMMYYYY)

End date (DDMMYYYY)

## B. Applicant details

### B.1a Customer Reference Number (for existing licensees only):

You can harmonise the renewal date of your licence with the renewal date of an existing licence providing the conditions are met in the guidance.

### B.1b To harmonise a licence please provide:

Licence number of an existing licence

Required renewal date (DDMMYYYY)

### B.2 Who is the licence to be issued to?

A licence can only be issued to a legal entity (with the named person with contact details entered in question B.4).

Ofcom recognises the following types of entities and you should provide your name and answer any other details as appropriate to the legal entity:

**Individual or sole trader** (Please provide full name and go to Question B.3):

**Business partnership other than a limited company** (Please provide the full name and go to Question B.3):

**Registered Company (UK or non-UK)** (Please answer all parts and go to Question B.3):

Named person responsible for the licence

Full name of company

Company registration number

## B.2 (continued)

### **Limited Liability Partnership** (Please answer all parts, then go to question B.3)

Named partner who should be named on the licence

Full name of the limited liability partnership

Company registration number

### **Unincorporated Association** (Please answer all parts, then go to question B.3)

Named member who should be responsible for the licence

Full name of the unincorporated association

### **Please specify other legal entity if not listed above** (Please provide details, then go to question B.3)

Named person responsible for the licence

The full name of the legal entity (if different to above)

Company registration number (if appropriate)

## B.3 If a registered charity then please answer this question

Does the charity have as its object, the safety of human life in an emergency?

No

Yes. Now answer the following:

The full name of the registered charity

Charity registration number (if appropriate)

## B.4 Licensee address details

- Companies should use the registered address from [Companies House](#)
- Registered charities should use the address from the [Charity Commission](#)

For all other Licensees, please use your main business address

Trading name

Address

Telephone

Mobile

Email

Postcode

Country

Please tick here only to receive documents by post instead of electronically.

**B.5 Licence contact details (where different from above)**

Licensing documentation and correspondence will be sent to this address.

NB: This is the person who is responsible for the licence and will receive all important documents including:

- Validation notice (licence amendment reminder)
- Notice of Proposed Revocation (where applicable)
- Revocation notice (where applicable)
- Surrender letters

Name

Address

Telephone

Mobile

Email

Postcode

Country

Please tick here only to receive documents by post instead of electronically.

**B.6 If you are applying via a third party (e.g. radio supplier, consultant etc.) please complete the following:**

Name

Address

Telephone

Mobile

Email

Postcode

Country

Please tick here only to receive documents by post instead of electronically.



## C. Navigational aid system options

### C.1 Please tick NAVAID type:

VHF Omnidirectional Radio range (VOR). Please answer questions G2 and G3 with sections D, E and J

Distance Measuring Equipment (DME). Please answer sections D, E, G and J

Instrument Landing System (ILS) (localiser and glide path). Please answer sections D, E, H and J

Non-Directional Beacon (NDB) - land based. Please answer sections D, E, F and J

Non-Directional Beacon (NDB) - offshore. Please answer sections D, E, F and J

**Incomplete forms or inaccurate information may result in the application being returned.**

## D. Primary surveillance radar transmitter details

### D.1 Site/location/platform/vessel name (as appropriate)

### D.2 Site/Antenna location (inaccurate information will lead to the application being declined):

**WGS84 Latitude/Longitude of station**

(e.g. 51:30:28.540N 0:5:43.005W)

N

E

W

(select E or W as appropriate)

### D.3 Confirm whether the mobile vessel is onshore or offshore (tick one option only)

Onshore

Offshore

### D.4 Site height (in metres above mean sea level)

metres

## E. Navigational system details

### E.1 Transmitter details

Manufacturer

Model

### E.2 Emission code

### E.3 Transmitter power (select dBW/Watts as appropriate)

#### E.4 Antenna details

Manufacturer

Model

#### E.5 Antenna gain

dBi

#### E.6 Antenna height (in metres above ground level)

meters

#### E.7 Antenna mast height (in metres above ground level)

meters

### F. Non-directional beacon equipment details

#### F.1 For Land Based and Offshore non-directional beacons (NDB) only

Maximum Designated Operational Coverage

NM

NDB (if an ICAO Morse identifier already exists then provide)

If an offshore NDB then also provide the 'platform area block'

### G. Distance Measurement equipment details

#### G.1 For Distance Measurement Equipment (DME) paired with ILS only

**Antenna pattern** (tick one option only)

Directional

Omni-directional

Bi-directional

Other : please specify:

#### G.2 Coverage details for VOR, DME or DME/VOR Terminal/En-route systems

Site name	Service	Height (ft)	Range (NM)	Sector Angle (if applicable)		
				Start (degrees)	Finish (degrees)	360°

### G.3 Details specific for VHF Omni-directional Radio Range (VOR) only

**VOR Identifier** (if an ICAO Morse identifier already exists, please provide):

Please tick if associated distance measuring equipment is available

### G.4 Details specific for Distance Measuring Equipment (DME) Terminal/En-route only

**DME identifier** (if an ICAO Morse identifier already exists, please provide):

Please tick if associated VHF omni-directional range is available

## H. Localiser and glide path

### H.1 Runway designator

### H.2 Runway true heading

degrees (measured from true North)

### H.3 Runway ILS identifier (if an ICAO Morse identifier already exists, please provide)

### H.4 Runway ILS category (tick one option only and provide number of array elements)

Uncategorised

Cat I

Cat II

Cat III

Number of array elements

### H.5 Localiser transmitter details

Manufacturer

Model

Transmitter power (select dBW/Watts as appropriate)

### H.6 Localiser antenna details

Manufacturer

Model

Gain

dBi

**H.7 Antenna array details** (inaccurate information will lead to the application being declined):

**WGS84 Latitude/Longitude of station**

(e.g. 51:30:28.540N 0:5:43.005W)

N

E  
W

(select E or W as appropriate)

Antenna height in metres above ground level  
metres

**H.8 Localiser associated ranging equipment** (tick one option only)

75 MHz marker beacons

Paired DME

**H.9 Glide path transmitter details**

Manufacturer

Model

Transmitter power (select dBW/Watts as appropriate)

**H.10 Glide path antenna details**

Manufacturer

Model

Gain

dBi

**Antenna array details** (inaccurate information will lead to the application being declined):

**WGS84 Latitude/Longitude of station**

(e.g. 51:30:28.540N 0:5:43.005W)

N

E  
W

(select E or W as appropriate)

Antenna height in metres above ground level  
metres

## J. Declaration

**By signing this form, I confirm that I have read and understood all the notes. Any information provided is correct and complete to the best of my knowledge and I have the authority to make this declaration and sign this application.**

I understand and accept that:

- The body (if any) I represent will be responsible for compliance with the licence and has the control and supervision of the station;
- It may be an offence to knowingly make a false statement in support of this application and may lead to the licence being refused or revoked under the Wireless Telegraphy Act;
- Ofcom will not give anyone my information except in accordance with the law;
- Ofcom may share my information to publish a register of licences under the Wireless Telegraphy Act;
- Ofcom may transfer my information to other countries in accordance with commitments entered into by Her Majesty's Government;
- Where I have provided an email address, I consent to receiving notifications, documents and correspondence in electronic form to that email address.

Full name

Position in organisation

Signature of applicant

Date of application (DDMMYYYY)

For self and partners (tick if applicable)

- Partnerships must be applied for by one partner signing 'for self and partners'. A director or authorised person must sign for public limited companies, limited companies and other legal entities;
- If the number of partners exceeds the space, then for each additional partner please provide the name and signature.

Partner 1 name

Partner 3 name

Partner 1 signature

Partner 3 signature

Partner 2 name

Partner 4 name

Partner 2 signature

Partner 4 signature

## Where to send this form

**Please do not include payment with this form, as you will be invoiced at a later date.**

If needed a member of the team will contact you to clarify any requirements of this application.

When you have completed this form you can submit this application in a number of ways:

- by pressing the 'Submit form' button below
- by emailing it as an attachment to our email address shown below, or;
- by posting it to the address shown below.

**Please use one method only**

**Ofcom**

FAO Spectrum Licensing  
PO Box 1285  
Warrington  
WA1 9GL

**Allow 60 days from posting your application for receipt of your licence.**

If you need assistance, then please email

[spectrum.licensing@ofcom.org.uk](mailto:spectrum.licensing@ofcom.org.uk).

There is also information available on our website at

[www.ofcom.org.uk](http://www.ofcom.org.uk).