

Preparation For Flight



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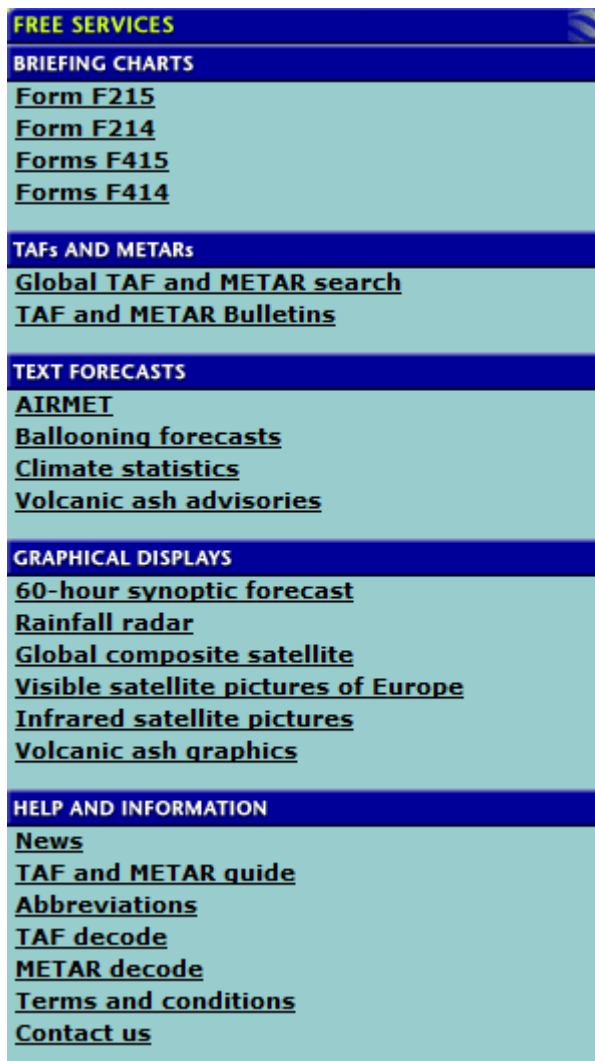


Aviation Weather Forecasts

It is a legal requirement that all pilots check the weather forecast for the area they will be flying in.

Standard weather forecasts do not give enough information for a pilot to make a sensible, informed decision about whether to fly or not.

The Met Office provides an aviation service for free. The aviation forecast includes much more information, such as cloud height and winds aloft. You must register to use these services which can be done on the aviation section of the Met Office website. This can be accessed by visiting <http://www.metoffice.gov.uk/aviation/ga>



Once you have logged in to the aviation section, you will see these options on the left hand side of the page.

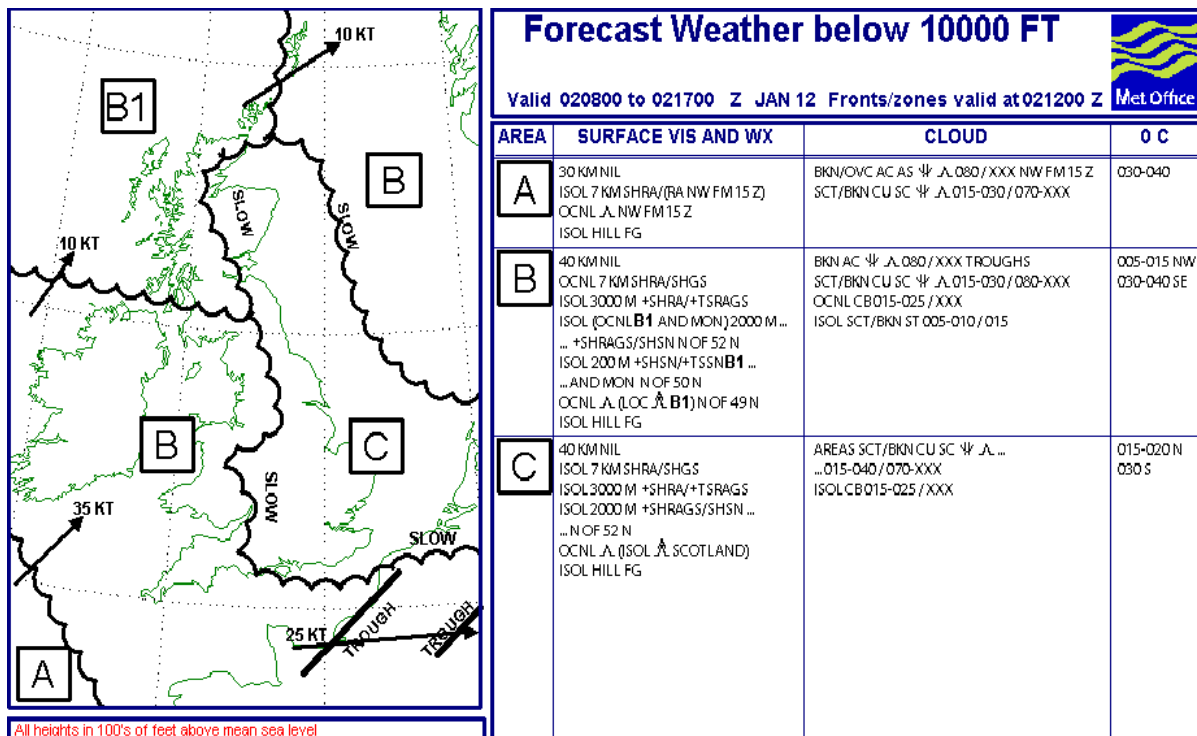
This guide explains how to use the F215, F214, TAFs and METARs and Synoptic Charts.



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F215- Forecast weather below 10,000ft



The F215 provides an in depth forecast of the weather below 10,000ft. The document is written in a code. The code can be deciphered using a booklet called 'Get Met. This booklet is available for download from the Met Office Aviation section, or you can have it sent to you free of charge if you post them a stamped addressed envelope. It also explains how to decode TAFs and METARs (explained later).

The documents are published usually through the night for the next day, so you are only able to check the forecast on the morning of the flight. Ensure that you select the correct flight times.

This document gives an insight into any weather you will be encountering across your route. You will see that the picture of the UK is split into several parts, each with its own forecast. Here is an example forecast for section C.

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C	<p>40 KM NIL ISOL 7 KM SHRA/SHGS ISOL 3000 M +SHRA+TSRAGS ISOL 2000 M +SHRAGS/SHSN N OF 52 N OCNL A. (ISOL A SCOTLAND) ISOL HILL FG</p>	<p>AREAS SCT/BKN CU SC W A 015-040 / 070-XXX ISOL CB 015-025 / XXX</p>	<p>015-020 N 030 S</p>
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Part 1. Surface visibility and weather.

40km visibility with Nil weather.

Isolated areas of 7km visibility with showers of rain/ showers of hail.

Isolated areas of 3000m visibility with heavy showers rain / heavy thunderstorm rain and hail.

Isolated areas 2000m visibility of heavy rain and hail/showers snow North of 52deg North.

Occasional turbulence (Isolated heavy turbulence in Scotland.

Isolated Hill Fog.

Part 2 – Cloud

Areas Scattered/Broken Cumulus and Stratocumulus with Icing and turbulence.

Cloud bases between 1500ft and 4000ft, ceilings from 7000ft onwards

Isolated Cumulonimbus(i.e thunderstorms) with bases from 1500ft to 2500ft, ceilings above 10,000ft.

Part 3 – Freezing Level

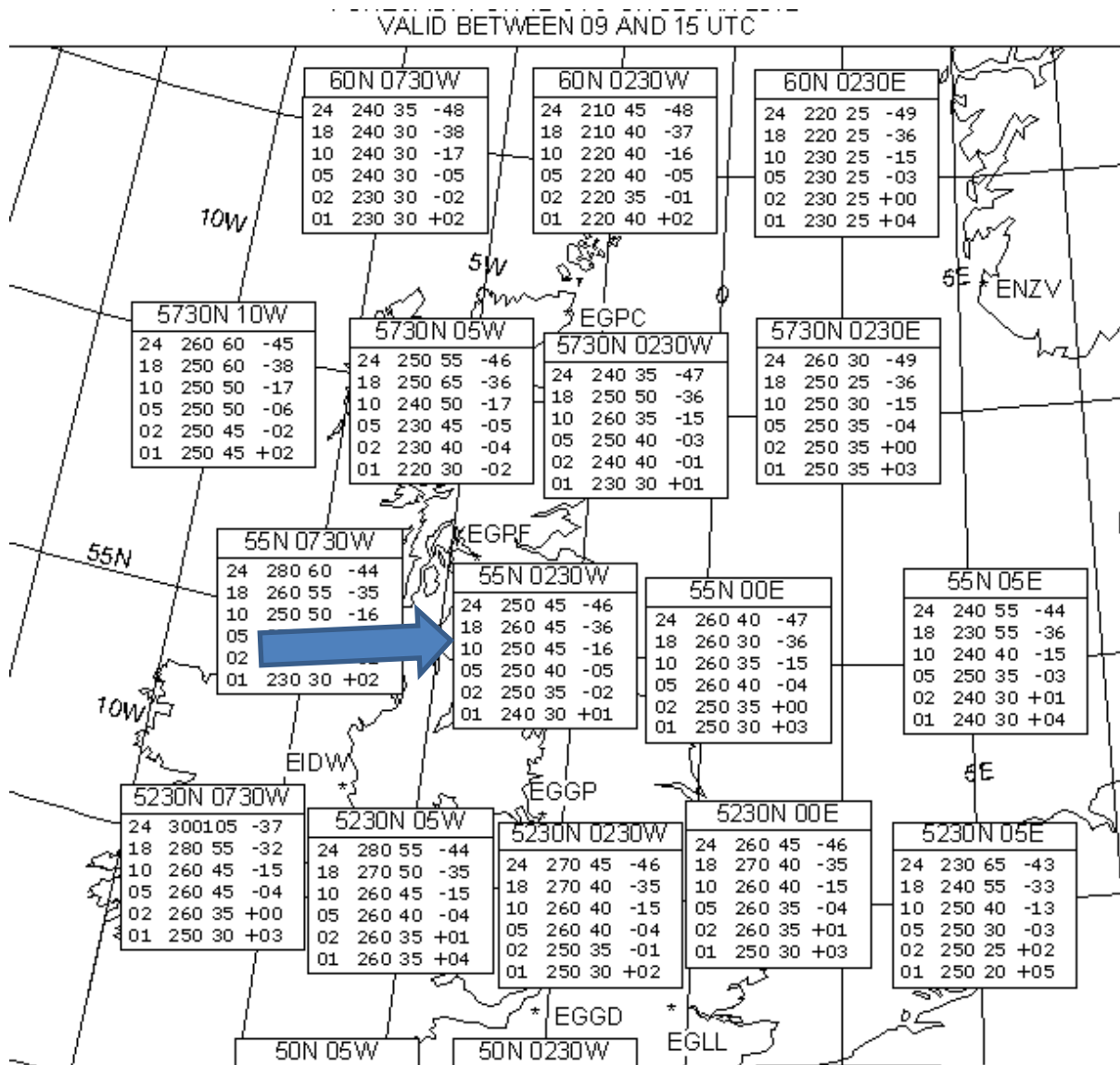
Expected between 1500ft-2000ft in the North and 3000ft in the South.

Notice the document does not include any wind information.

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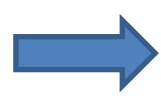
F214 –Spot Wind Forecast



The F214 provides wind information and different altitudes and different parts of the UK. Notice the picture of the UK in the document. You should look at the boxes which are closest to the areas you plan to fly in. The document does not give surface wind.

Example

55N 0230W			
24	250	45	-46
18	260	45	-36
10	250	45	-16
05	250	40	-05
02	250	35	-02
01	240	30	+01



The top line represents the lat/long of the forecast
 The first column shows altitude
 Second shows wind direction
 Third shows wind speed
 Fourth shows outside air temperature.
 E.g
 This document says at 2000ft the wind will be out of 250 at 35kts and the outside air temperature will be -2deg C

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TAFs and METARs

TAFs and METARs are weather reports given by aerodromes with a dedicated weather forecaster/station. They are regularly updated and give precise information regarding the weather and forecast at a given aerodrome.

TAF – Terminal Aerodrome Forecast

METAR – Meteorological Aerodrome Report

Like F215 documents, they are written in code which can be deciphered using the 'Get Met' booklet.

This information should be reviewed for your departure and destination aerodrome before every flight. They are available from the Met Office website and in flight they are available from a radio frequency called Volmet. At larger airports, the METAR and important airfield information are broadcast on a radio frequency called ATIS. This information must be listened to prior to departure.

In order to access the information on the Met Office website, you are first asked to enter the aerodrome 4-digit identifier code. If you do not know the code for the aerodrome, you can use the search function.

Here are some local codes to help you.

EGNT- Newcastle International airport

EGNC- Carlisle Airport

EGNC – Durham Tees Valley Airport

EGPH – Edinburgh

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After clicking on "Global TAF and METAR Search" you will see the following screen

Query for TAFs and METARs

If you know the airfields' ICAOs, type them directly into the box below (separated by whitespace). Alternatively, pan and zoom the map and click on the airfields you require. You can also enter the name of a city into the "Query for ICAOs" box below.

TAF METAR BOTH

Query for ICAOs

Enter the name of an airport or a city in the box below. The ICAO code of the airfield, or of any airfields close to the city will then be shown underneath this box.

Search on airfield Search on city

← This is where you enter the 4 digit Airfield Identifier code. Then select whether you wish to view the TAF, METAR or both.

← If you are not sure of the 4 digit Airfield Identifier, you can search for it here.

Example Information

METAR for Newcastle International Airport-

EGNT 041120Z 24017KT 9999 BKN028 06/03 Q1005

This decodes to read

- Issued on 4th at 11.20
- Wind is 240° at 17kts
- Visibility greater than 10km
- Broken Clouds at 2800ft
- Temperature 6° C , Dew point 3° C
- Atmospheric pressure 1004mb

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TAF for Newcastle International Airport-

EGNT 041111Z 0412/0512 26022G34KT 9999 SCT020 PROB40 TEMPO
0412/0421 25035G45KT 6000 RA BKN012 BECMG 0418/0421 30035G55KT
PROB40 TEMPO 0421/0503 8000 SHRA

This decodes to read

- Issued on the 4th at 11.11
- Valid from 12.00 on the 4th to 12.00 on the 5th (the next 24 hrs)
- Wind forecast 260° 22kts Gusting to 34kts
- Visibility greater than 10km
- Scattered clouds at 2000ft
- 40% probability of the following:
- Temporarily between 12.00 and 21.00 on the 4th
- Wind 250° 35kts gusting 45kts
- 6000m visibility
- Rain
- Broken clouds 1200ft
- Becoming from 18.00 to 21.00 on 4th
- Wind 300° 35kts Gusting 55Kts
- 40% Probability of the following
- Temporarily between 21.00 on 4th to 03.00 on 5th
- 8000m visibility
- Showers of Rain

Whilst these may appear complicated they can be deciphered quickly once you are familiar with them. As well as the 'Get Met' book, the Met Office website also gives information on how to decode these reports. You can see how they are much more detailed than a standard weather report and therefore aide you much more in making decisions regarding flying.

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Occluded front



Quasi-Stationary Front. (Stationary and normally brings cloud and precipitation)



Trough (area of relatively low pressure along the line which can bring increasing cloud and possible precipitation)



Weakening front (can be warm front or cold)



Developing front (can be warm front or cold)

Other Sources of Information

Eshott airfield has a dedicated automatic weather system which records atmospheric pressure, temperature and wind information. This information can be accessed in the clubhouse, or on our website. This is useful for checking the current wind speed at the airfield.

<http://www.eshottairfield.co.uk>

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Notices to Airmen (NOTAMS)

NOTAMs are very important. They give key aeronautical information along your route or area of operation, such as airspace changes, royal flights, unlit obstacles, red arrows flights, military training and much more.

It is a legal requirement that you check the NOTAMS for your area of operation on the day of your flight.

They are published by the Aeronautical Information Service (www.ais.org.uk). As with the Met Office, you must register for this service.

Once you have registered and accessed the NOTAM page you will see the following options.

You are here > [Home](#) > [NOTAM](#)

NOTAM

This web site provides FREE access to the following products:

- **Aerodrome Brief**
Delivers a briefing containing Aerodrome NOTAM for the selected aerodromes between the time period set. At least 12 hours but may be changed by the user.

- **Area Brief**
Delivers a briefing containing FIR and Aerodrome NOTAM for the selected Flight Information Regions between the time period set. At least 12 hours but may be changed by the user.

- **Route Brief**
Delivers a briefing containing NOTAM for the selected FIR and Aerodrome between the time period set. The system user can also add FIR and Aerodrome to be included. The default time is from now until + 12 hours but may be changed by the user.

- **Narrow Route Brief**
Delivers a briefing containing FIR and Aerodrome NOTAM for the selected flight plan route and between the time period set. At least 12 hours but may be changed by the user. The default time is from now until + 12 hours but may be changed by the user.

- **Point Brief (UK FIR/UIR Only)**
Delivers a briefing containing FIR NOTAM affecting a circle from an aerodrome, navaid or Lat/Long co-ordinate. The default time is from now until + 12 hours but may be changed by the user.

- **VFR FIR Brief - EGTT**
Delivers a briefing containing all FIR and Aerodrome NOTAM for the selected FIR EGTT between the time period set. At least 12 hours but may be changed by the user.

The Route Brief is useful for showing all NOTAMs along your route. If you only intend to fly locally, you may want to use the Point Brief. This can give you information around a given aerodrome/location.

Example

You intend to operate within 50 nautical miles of Newcastle International Airport. In this situation a Point Brief will give you all the information you need regarding NOTAMs.

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After selecting point brief, enter the origin and radius. The origin is given as the 4-letter identifier code if you are using an aerodrome. Alternatively, you can provide coordinates. Select VFR under the flight rules section.

A screenshot of a flight preparation form. The form is divided into several sections. At the top, there is a "Briefing Id *" field with the value "1201041311" and a red "R" icon. To the right, under "Briefing Content", there are three checkboxes: "SNOWTAM" (checked), "ASHTAM" (unchecked), and "BIRDTAM" (unchecked). Below this is the "Origin *" field with the value "EGNT" and a sub-label "ICAO Aerodrome, Navaid or Lat/Long (e.g. 51N001W, 5100N00100W)". To the right of the origin field is the "Radius NM 5-99 *" field with the value "50". The "UTC Validity Period" section has "From" and "To" fields, each with dropdown menus for day, month, and year. The "Flight Rules" section has three radio buttons: "IFR", "VFR" (selected), and "IFR/VFR". Below this is the "Aerodromes" section with a grid of empty input fields. At the bottom are "Submit" and "Reset" buttons. Three blue arrows point to the "Briefing Id", "Origin", and "Flight Rules" sections.

Once this information has been submitted all of the NOTAMs which affect you will be listed.

Example NOTAM – this NOTAM warns of military training in Hawes Valley, North Yorkshire.

```
Q) EGTT/QWELW/IV/BO/W/000/060/5417N00204W005
B) FROM: 12/01/04 09:00C) TO: 12/01/04 16:00
E) FORWARD AIR CONTROL EXER. UP TO 2 FAST JET ACFT WILL CONDUCT
MANOEUVRES WI 5NM RADIUS CENTRED ON 5417N 00204W (HAWES VALLEY, NORTH
YORKS). ACFT MAY OPR OUTSIDE THE GIVEN AREA AND BE UNABLE TO COMPLY
WITH RAC. NON-PARTICIPATING CREWS INTENDING TO TRANSIT THE AREA ARE
REQUESTED TO CONTACT JACKPOT CONTROL 241.950 OR 137.075 MHZ. CTC
01677 456161 OR 07768 928490. 12-01-0071/AS 3.
LOWER: SFC
UPPER: 6000FT AMSL
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Another website Purple Aviation recommends is NotamInfo.com (www.notaminfo.com/ukmap). This website plots the NOTAMS visually on a map for easy viewing - although you should be aware this is not an official source.

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This document was produced by Lawrence Bell on behalf of Purple Aviation. Please contact us if you wish to publish the document from another source.