

NOTAM – the AIS website

The AIS website at www.ais.org.uk takes a lot of flak. Mike Cross, AOPA UK representative on NOTAM issues, provides some explanations

What's available?

- Free Pre-flight Information Bulletin (PIB) for a flight anywhere in the world.
- Free Access to all current UK Aeronautical Information Circulars (AICs)
- Free access to the entire UK AIP, you can download and print aerodrome information including fully up to date charts and approach plates.
- A worldwide database of aerodromes, nav aids, and significant points
- Flight Plan form

How to brief

The Narrow Route Brief meets most requirements and the online Website User Guide at <http://www.ais.org.uk/aes/en/image/PIBGuide.pdf> will lead you through the process.

- For a basic brief you simply fill in the yellow boxes. There are five of them, and one's already filled in leaving four for you:-
- Briefing ID – anything you like. It's designed for a Flight Number but anything between 3 and 7 characters will do.
- Departure and Arrival Aerodromes – 4 letter ICAO indicators. Clicking the down arrow will take you to a search tool if you're unsure.

- Flight Level – How high you want to fly, 3 digits or "VFR" to give you everything up to 12,000 feet.
- Click SUBMIT. Didn't take long did it? The result is a briefing valid for 48 Hrs, suitable for VFR and IFR flight for 10 miles either side of the track between your departure and arrival aerodromes.

More sophistication?

OK, let's go through the boxes and see what they do. (see the panel below)

Briefing for a Bimble

If you just want a brief for an area, simply pick a pair of aerodromes that straddle the area you're interested in. Use them as your departure and arrival aerodromes. The direct track between them should pass through your area of interest. Now set the Narrow Route Width to produce a box that extends far enough either side of the track to cover the required area. To get aerodrome NOTAM add the aerodromes as alternates. Aerodrome NOTAM are only issued for licensed a/d (those in the AIP), all of which have ICAO indicators. However some aerodromes have ICAO indicators even though they are unlicensed

and not in the AIP, examples include Popham (EGHP) and North Weald (EGSX).

Top Tips

When registering to use the AIS site, choose "UK and Foreign States" rather than "British Isles Only"

If there's anything you don't understand, call AIS on 020 8745 3450/3451, they're there 24 hours a day and will be happy to assist.

If you don't have Internet Access call the AIS Information Line On 0500 354802. This provides recorded information on ALL Restricted Areas (Temporary), Emergency Restrictions of Flying and Temporary Airspace Upgrades for the current day.

What's wrong with the AIS site?

Validation checks are poor or non-existent. This is currently the subject of a formal complaint form AOPA. The site won't throw up an error if you try to brief for a date in the past, or a date way into the future. It won't detect if the "Validity From" is a date that falls AFTER the "Validity To" date. The error messages that do exist are opaque and not easily understood.

FAQs

Q. Why is the date in YYMMDD format and not the normal DDDMMYY?

A. Because it's the ICAO standard format, also used in Flight Plans and all other aeronautical publications. YYMMDD is also more logical for computer sorting. If you sort 070506 and 060507 into ascending order the computer will put 060507 first, which is correct if you're talking about 7 May 2006 (YYMMDD format) because it comes before 6 May 2007. If however you used DDDMMYY the sort would be wrong. It's not even a simple reversal of order. Try adding 20 May 2006 and DDDMMYY format will place it after the other two in an ascending sort, even though it's in between them chronologically.

Q. Why is the text written in upper-case gibberish?

A. Wherever you are in the world, your TAF, METAR and NOTAM are served up in the same ICAO standard format, so whether you're in Adelaide, Azerbaijan or Addis Abbaba you'll be able to understand them. NOTAM are delivered in upper case, in English, using ICAO standard abbreviations. Those are listed in AIP GEN 2-2, which is available on the AIS site. Learn it once and you'll never have to learn it again.

Q. Why can't we have NOTAM displayed on a map?

A. You can, however it's very tricky to achieve. The problem is that ICAO lays down the format of the Q Line but does not lay down the format of the E line, which is simply plain text, containing detail of the activity. The Q line includes the geographic centre and Radius of Activity, which describes a circle that would encompass the activity. A

Briefing ID	You must enter between 3 & 7 characters. You'll find your brief filed away in the Briefing Handbook under this ID so you can easily find and re-use it.
Briefing Content	Snowtam – Snow clearance info Ashtam – Volcanoes – going to Italy? Birdtam – Migrating flocks can spoil your day
UTC date & Time of flight	Makes no difference to the result. Used for Flight Plan filing (Estimated Off Blocks Time, not implemented in the UK)
Departure/Arrival a/d	If you make them both the same, with no waypoints, the software will assume you're staying within the ATZ. (See "Briefing for a Bimble" below for how to get a local area brief.)
Traffic	Filter out stuff that's only scoped for IFR if you wish.
UTC Validity Period	If left blank it's 48 Hrs from when you click SUBMIT. If you do fill it in, make sure you get the Date format correct! (YYMMDD)
Purpose Exclude NOTAM with effective date earlier than x days	Leave at General + Misc. In ICAO speak Nav Warnings are "Miscellaneous". If you're flying a regular route you can use this to filter out NOTAM you've seen before.
Flight Level	3 digits. It won't mind if you enter 020, even though it's not a FL. You'll get surface to 4000 feet above this on your climb and descent legs. For legs that don't include your departure or arrival a/d you'll get 4000 feet above and below the entered level. Or if you put "VFR" you'll get surface to 12,000 feet.
Narrow Route Width	The distance either side of your track you want NOTAM for. The default 10nm gives you a 20nm wide corridor.
Route	Anything you're allowed to put in an ICAO Flight Plan. That does NOT include 4 letter aerodrome identifiers but it does include 3 letter nav aids and 5 letter significant points (e.g. SAM or ORTAC) You can also enter bearing and distances from nav aids and lat/long. See the Website User Guide for more detail. Just like a Flight Plan you should start and finish with DCT and put DCT between each of your waypoints.
Additional Crossed FIR's	You'll only get NOTAM for the FIR's that your aerodromes and waypoints are in. So if for instance you were going from Lydd direct to Brussels Charleroi you'd need to put LFFF in here to get NOTAM for the Paris FIR affecting your route.
Alternate Aerodromes	Any alternates, you'll get aerodrome NOTAM for these.

recent example was a powered parachute event. The E line said it was to take place within a 15nm radius of one of six listed locations, which would be chosen on the day. The Q line radius described a big circle that would take all of them but the correct plot would have been 6 circles, each of radius 15nm. Well nigh impossible for any computer-based software to interpret. Also don't assume NOTAM are only issued for geographic activities. NATS/AIS are required to make briefings available that comply with ICAO Standards & Recommended Practices, which geographic plots would not. They do however make the data available to others who can then produce geographic plots. This can be done by you, running software on your own PC (e.g. NotamPlot) or via a Website (e.g. fly.dsc.net).

Q. Why do I have to register?

A. Registration helps UK AIS to guard against Denial of Service attacks. People who cause problems to the service can have their access barred. It also allows briefs to be located and retrieved. If you can provide your user credentials and the approximate date and time that you took your brief, AIS will be able to find your briefing. This could get you off the hook if something vital was not included in your brief

Alternative Sources

If the AIS "one size fits all" briefing is not to your taste here are a few alternatives, in no particular order. It's up to you, as commander of the aircraft, to ensure the flight can safely be made.

Name	Website
Free	
NotamPlot	www.notamplot.flyer.co.uk
Fly	http://fly.dsc.net
Notam Map	www.notam-map.co.uk
Notam Pro	www.notampro.com
Alt.ais	http://altais.org.uk/
Notam View	http://www.aqqt30.dsl.pipex.com/notamview
Fee-based	
AvBrief	www.avbrief.co.uk
SkyBook GA	www.skybook.co.uk
Navbox ProPlan	www.navbox.nl
Flymap	www.flymap.co.uk

NOTAM - Changes on the Horizon

The current NOTAM system was devised by ICAO many years ago, long before computer technology advanced to where it is now. As a result its capabilities are limited when it comes to describing spatial data, like the shape of a piece of restricted airspace.

AIP data suffers from similar limitations. Modern developments such as Navigational Databases and Electronic Flight information Systems (EFIS) as well as route planning software demand data in machine-readable form. The process of translating data from the traditional paper-based format to a machine-readable form is labour intensive and hence error-prone. It's clearly better if the data can be originated and held in a machine-readable format.

Until recently each State maintained its own databases and information was exchanged between State AIS's by means of paper copies of the AIP and NOTAM messages sent over the Aeronautical Fixed Network (AFN). Change has been taking place with the introduction of EAD, the European AIS Database. Up to now the UK has continued to provide service from its own databases and using its own website, although the data has also been available from the EAD website at www.ead.eurocontrol.int

Work has been going on in parallel with the development of EAD to produce a language for the interchange of data that will provide greatly enhanced capabilities, while maintaining backward compatibility with the existing ICAO system. Eurocontrol has led development, with support from the FAA. The new system is known as AIXM (Aeronautical Information Exchange Model), which may eventually replace the existing ICAO standards.

AIS data can be subdivided into two classes, Static Data, such as the information in the AIP, and Dynamic Data, such as NOTAM. The two interact in many ways, for example a NOTAM about the unavailability of a nav-aid would use the static data from the AIP to determine what the area of coverage of the nav-aid is, and hence the area that needs to be covered by the NOTAM. It's therefore clear that both static and dynamic data needs to be described using the same language.

So where does this lead? The following is simply speculation.

Over the next few years we are likely to see further developments in EAD and AIXM, moving away from individual State databases and towards States maintaining their own data within a common European database. This clearly has the potential to provide cost

savings. The responsibility for data interchange with foreign NOTAM offices will shift from individual State AIS's to Eurocontrol but the complexity of the data being fed into the system will increase as a result of the adoption of AIXM.

AIXM in turn will lead to great improvements in the way data is exchanged with data users such as airlines, briefing services, and suppliers of navigational equipment such as GPS and EFIS. It will also make possible greatly improved presentation, allowing graphical information such as mapping data to be presented to the user.

Transition

The following countries already maintain their NOTAM databases on EAD.

Albania, Belgium, Bosnia & Herzegovina, Croatia, Denmark, Germany Civil & Military, Greenland, Hungary, Ireland, Macedonia, Malta, Netherlands Military, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Turkey

It's likely that more States will move to maintaining their own data on the EAD database within the next few years.

There will initially be little change to existing briefing services, which will simply pull their data from the EAD database rather than a State database. Until ICAO adopts changed standards briefings will continue to be in the existing text-based format. However as AIXM develops we are likely to start seeing alternate presentations becoming available alongside the ICAO standard format. Standards are still changing, EAD Release 4, introduced in May 2007 uses AIXM 4.5 the standard for maintaining static data within EAD. Dynamic data has yet to migrate to AIXM. Supporters of AIXM hope that the ICAO standard will eventually migrate to AIXM, and with both Eurocontrol and the United States' FAA behind it, it probably will.

UK AIS has additional problems of its own. It's no secret that the old Control Tower Building at Heathrow is scheduled for demolition and redevelopment. Thames Radar moved out a couple of years ago and AIS are likely to be forced to move soon. That, coupled with pressure to move to EAD, is likely to keep them very busy. It's a common misconception to think of UK AIS as a monolithic faceless bureaucracy. The reality is that they have slimmed down from around 30 staff when the present NOTAM system was installed to around 14 now. With a requirement to provide services 24 hours a day, 365 days a year, they are going to have their work cut out. ■

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