

# SKYDEMON LIGHT

NATS comes good on graphical Notam presentation. By Brian Hope

**>** There are many of us who for years have bemoaned the complexities of the Notam system. We've either struggled to try and learn how to use it, or more often than not given up and simply checked the list of events to see where the Reds are flying – and for the rest, we've trusted to good luck.

I am fortunate in that I have a friend with whom I regularly fly and he's a bit of a computer geek; he sussed the system years ago and I have tended to rely on him. He thinks I'm dim because I can't work the system, but I counter that if I can't, then many other people can't and don't either, so it's the system that is wrong, not the user.

Well, at last NATS has unknowingly taken my side and realised that preaching to pilots about checking Notam doesn't work if the system isn't simple and intuitive. It has, in association with software company SkyDemon, launched a pre-flight planning tool that enables the VFR pilot to plot his route on a UK chart and automatically receive not only a list of Notam for a ten-mile narrow route, but also warnings of any controlled airspace, danger areas, ATZs etc that his route infringes. And the great thing about it is that it's simple enough even for me to use!

Called SkyDemon Light, this is a basic version of SkyDemon, a commercially-available software package that covers Europe (Light is UK only) and does many more useful things including weather briefs and lodging flight plans (see the sidebar for further details and purchase options for the fully-featured version).

The software is designed to run on a Microsoft product called Silverlight, and if you go to the SkyDemon website at [www.skydemonlight.com](http://www.skydemonlight.com) it will guide you through the installation procedure. Bookmark the homepage and in future you can open it from your favourites; click the 'I Agree' option and the map will load very quickly.

The program will also run on a Mac, but for those using Linux, as supplied on some popular netbooks, it currently runs rather slowly, using Moonlight. Hopefully somebody will soon provide the necessary tweak in this open-source software to speed the application.

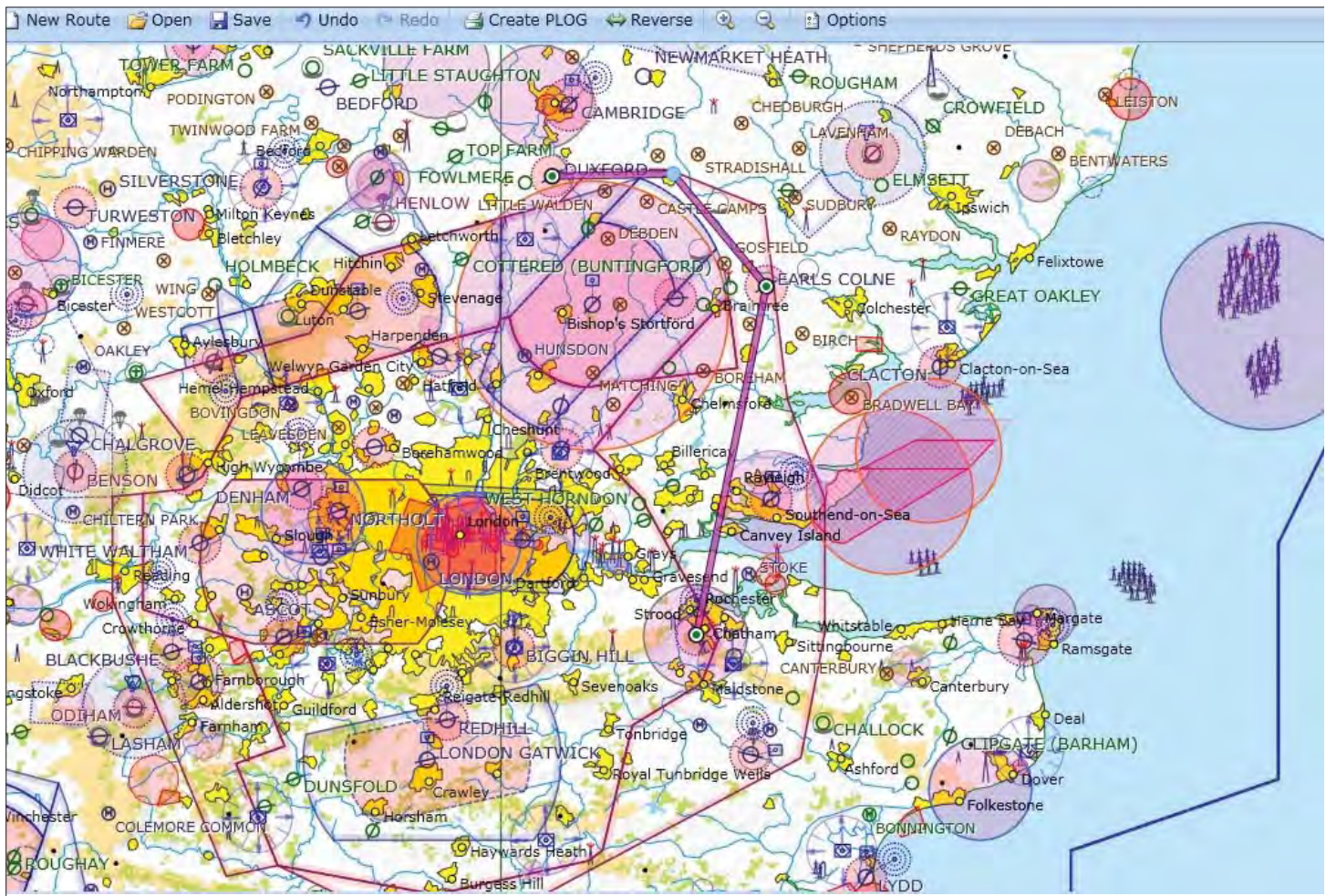
## SIMPLICITY OF USE

On the opening map you will see two boxes down the RHS. The top one is for Notam and the bottom is labeled 'Flight details'. In this you can specify height to fly, wind speed and direction, and indicated airspeed. The default

The screen above shows the general presentation, with the chart, the top toolbar and the information boxes on the RHS. I have plotted a direct route from Rochester to Duxford, which takes us right across the top of Stansted. The top box lists the Notam relevant to the flight, and the Stansted TMZ one is showing. If I clicked the magnifying glass icon, the purple circle over Stansted would pulse to show that was the area referred to in the Notam. The lower box highlights all the airspace my track would take me through, and if I thought this was going to be a simple little cross-country where I didn't have to bother talking to anybody, then I would be in for a rude surprise, and no doubt a large fine and some additional training

height to fly is 3000ft so set this to the height you are likely to fly the majority of the route. In my example I have chosen to fly at 3000ft for the majority of the route but will change the height to fly the first leg to 2200ft. Once you have plotted a route, the top box will contain the relevant Notam, and the bottom details of any airspace your route might be infringing. The Flight details remain so you can change

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Here I have 'bent' the track line in a couple of places to take it clear of controlled airspace. At the SE end of the Stansted zone I have decided to route to Earle's Colne, and at the top via the small unmarked town (actually Haverhill). The lower box is now showing the flight to be far less adventurous

## Rochester - Duxford

Total Distance: 61 nm, Total Time: 33 min  
Aircraft: G-ABCD (LAA Mk1)

Takeoff Time: 01/05/2011 12:00 Z

Startup	Brakes Off
Takeoff	Landing
Brakes On	Shutdown

From	To	MSA	Level	IAS (kt)	Track (T)	Track (M)	Wind	Hdg (M)	GS (kt)	Dist (nm)	Time	ETA	ATA
Rochester (EGTO)	Earls Colne (EGSR)		2200	108	011	012	000/00	012	111	34	19	12:18 Z	
Earls Colne (EGSR)	N520807 E0002147		3000	108	318	320	000/00	320	113	18	9	12:28 Z	
N520807 E0002147	Duxford (EGSU)		3000	108	253	254	000/00	254	111	8.9	5	12:32 Z	

The plog printout for the route as presented in the photo at the top of this page



**Above left:** this shows the box that will appear centre screen if you double-click on a magenta trackline and it gives you the option of changing the height to fly for that leg. You will see that the 'Use Route Level' box is ticked and the level is shown as 3,000ft. **Above right:** shows the box after I have changed the height to fly by cancelling the tick in 'Use Route Level' and typing in the chosen height of 2200ft. This is a useful feature because if that particular leg passed through some airspace with a base of 2500ft, a height to fly of 3000ft would flag up a host of warnings in the Flight details box; by reducing your height to 2200ft you would be under the airspace and the warnings would not be necessary

your height to fly but a minor niggle with the original software was that you could not change heights for different legs of the route. Ever keen to offer the best product they can, SkyDemon has monitored the feedback from early users who rightly considered this an unfortunate omission, and have now included the ability to do just that. You can, by the way, close the Notam and Flight details boxes if you wish to enable more map area to be shown while planning the route. They will reopen by placing your cursor over tabs on the right-hand edge of the chart.

As you move your cursor over the chart, information boxes open giving details of any controlled airspace, danger area, etc., and if over an airfield it will give the name, ICAO identifier, elevation and runway details. Some also provide radio frequencies and even contact telephone numbers.

#### ENTERING YOUR ROUTE

You have two options for entering your route. You can either click 'New Route' on the toolbar, upon which a box appears centre page. You then simply write in the 'Taking off' and 'Landing' locations, and your route will be depicted on the chart as a magenta line. Alternatively, you can click 'Return to Map' on the bottom of the box and simply click on your start point and any waypoints, such as used or disused airfields, nav aids or VRPs. You cannot, at this stage, introduce your own waypoints. Should your track pass through airspace you wish to avoid, you can pull the track line to bend it around, and the new waypoint that is created can now be at any point on the chart. Unfortunately, it cannot be named and will only show on the plot as a lat and long.

You can add roads and railways to the map under the 'Options' button on the toolbar – useful when pulling a track to avoid some airspace as there may well be a convenient road or rail feature to use as a waypoint. This option does, however, clutter the screen somewhat, particularly when zoomed out to get more map onto the screen for initial plotting.

When your route is complete, you can check the Notam, which will have automatically appeared in the top right-hand box. Any which applies to a specific location will have a

magnifying glass icon on it to click so that the position is highlighted on the map, allowing you to see how close your intended track will come to it and giving you the opportunity to decide whether you want to modify your route to give it a wider berth.

My only real niggle, which I know is currently not able to be fixed, because it has something to do with the way the original Notam data is presented, is that all the locational Notams are depicted as circles; fine if the Notam refers to an area centred on a point and a certain radius, but not so good if the Notam location is an obscure shape. A good example of this problem is the Stansted Transponder Mandatory Zones. These are the ground-to-1,500ft stubs at the NE and SW ends of the Stansted Zone but are depicted by one large circle centred on the airport. This means large areas north and south of the Stansted CTR are shown as part of the TMZ, which they are not.

The Notam in the right-hand side box does give a clue that it's not the entire circle that is the TMZ, but it isn't abundantly clear. Until a new system of digital Notam comes online, the issue of irregular-shaped Notam areas is difficult to address, so it's unfair to criticise SkyDemon for this shortcoming. When you mark your paper chart you will no doubt check where the actual TMZs are. You do mark up your paper chart, don't you?

My assessment of SkyDemon Light is that it very effectively does what it says on the tin. It's simple and intuitive to use; it presents a narrow route Notam brief pretty well automatically; it warns of potential airspace incursions so that you can modify your track; and it will produce a plot for you to fly by.

Once again, very well done to Jonathan Smith and his colleagues at NATS for bringing some GA-biased practicality to the table. I have no doubt this will be as successful as the Aware GPS program that he so successfully saw through to launch not much more than a year ago. Well done too to the team at SkyDemon for making the software so simple that even an adult can use it. And if you are an active long-distance or continental traveller, you could do a lot worse than consider the full SkyDemon Plan package, which pretty well covers all you need for flight-planning in one easy-to-use solution. ■

#### SKYDEMON UPGRADE

THE ALL-SINGING and dancing version of this planning package is called SkyDemon Plan, the Light version having been developed from Plan to provide the free-to-user basic planning tool NATS was looking for. For the serious air-touring flyer though, there is much to commend trading up to the Plan option as it offers a single, comprehensive, flight-planning tool that can be used throughout Europe.

For planning it includes charts for most of Europe; these are regularly updated. There is an en route features window for vertical navigation and there is a custom data creator for you to put in your own waypoints, private strips, etc.

In Briefing mode, TAFs and Metars are plotted and decoded, winds aloft provided, and performance calculations are available including weight and balance.

You also have the ability for full route kit printing (charts, en route features, plot, Notam and weather brief, and airfield plates) and you can update data to Garmin, Magellan or SkymapIIIC devices. A very useful option is being able to file your flight plans with EuroFPL (£10 add-on for unlimited use in 2011).

You can also install SkyDemon in-flight software onto a generic Windows GPS/PND device and, finally, post-flight, you can upload SkyDemon logs for flight analysis.

SkyDemon Plan costs £119 (incl VAT) for the first year subscription, which includes any charts, 13 chart updates, any software updates, and Notam and weather subscription. For subsequent years, the subscription drops to £59. As mentioned, there is an additional £10 cost to take advantage of the flight plan filing system.

[www.skydemon.aero](http://www.skydemon.aero)