

FREEDOM TO ROAM

Does Airbox's wallet-sized Freedom Clarity give us a clear direction?

£599

Review and photos by Dan Tye



TOP The Airbox start-up screen

MIDDLE Comparing the FC to a CAA chart

BOTTOM Airspace warning near Le Touquet

Technology moves quickly and those seeing the Freedom Clarity for the first time will be astounded that an aviation GPS can come in such a tiny package.

But here it is, at the size of a wallet (or a Blackberry Curve phone) this will easily fit in a pocket. Priced at £599, it's aimed at those of us who don't have the budget for a bigger seven-inch display but still want a touch screen and a moving CAA 'map'. To date, there's been no other model like this available. It uses the same software as in Airbox's larger 'Foresight' model (reviewed in July 09 Pilot) so those who like to see their position related to a CAA chart will love this. Surprisingly, there is no external antenna; this means the unit houses all the electronic goodies to talk straight to the satellites. Phones and pocket PDAs use similar technology but will this small unit be up to the job in an aircraft?

Airbox certainly hopes so. The company says the FC uses the most advanced chipset for talking to both US and European satellites. It's this technology that allows the FC to be so small, thin and sleek. I used the unit on a day of flying from Cambridge Airport to Le Touquet in France, joining Cambridge Aero Club on a group fly out. Despite the high-end chipset, I found the FC needed a direct line of sight to the sky to initially pick up signal; it took a while to lock on from the back seat of a Cessna 172 and when indoors. This can be solved by placing the unit near a window to find satellites. You can then move further indoors after 'lock on' and you should find the unit holds signal thereafter.

It comes with a 'sucker' mount to fix to the cockpit window and has a built-in battery which lasts about an hour and a half. I lost power halfway across the Channel on my return journey and was given a 'Low battery,

please charge it!' warning with only about two minutes of time to find additional power. In this scenario you'll have to switch to a 12V socket or connect to a Power Gorilla battery (available to buy separately). You can also buy a pocket sized 'Power Chimp' which will let you charge the unit once on the ground but won't actually give sustained power in the air. With such a short battery life, I would have liked to have seen a 'power remaining' symbol. Practically it means you'll need to charge this fully from mains electricity prior to each use.

On start-up I noticed an unrelated screen flashed up which then disappeared as the Airbox software booted in. The unit itself has been sourced from an outside manufacturer and Airbox assures me this screen relates to the launch platform which allows the Airbox software to boot up. It still felt disconcerting to see it though!

So after initial signal-gaining issues, when the FC was locked on to the satellites, it was very accurate; when overhead Waits Farm the on-screen aircraft symbol was bang on where it needed to be - even when zoomed right in. You will find that with the small screen on the FC, you may have to zoom in more than you would on other GPS units for general use though. This is fine for aircraft up to 140kt - but any faster and the aircraft symbol will move off the page too quickly. The FC doesn't automatically centre the aircraft symbol when it reaches the end of the screen, so you'll have to press the 'centre aircraft' symbol regularly. The map scrolling during normal operation was very smooth though, the screen's clarity lived up to its name and I couldn't fault the accuracy of the positioning. Coasting out over Lydd -



Airborne with the Freedom Clarity and showing a departure from Le Touquet at a speed of 95kt and a distance of 112.5nm to go to Cambridge Airport

and then over the Channel - it gave perfect position fixes. The airspace warnings all worked as advertised and I was given ample time to navigate around the Lille TMA near Boulogne just north of Le Touquet. All good stuff Airbox.

It's when you come to touching the screen that things didn't sparkle as I'd hoped. After the bigger brother Foresight model I had high

hopes for this. I found that my finger press on the menu screen would give me the next selection down or above. Another issue was my difficulty in scrolling down through a list of airfields or navigation aids - the scroll bar is simply far too small for a finger. I also found scrolling the map to see other parts of the map beyond my route awkward too; sometimes it would go where I wanted, on other occasions it would bring up the menu screen. Touch this is down to the quality of the screen's 'touchability' or maybe more time spent getting used to the unit's sensitivity would help me? There is a stylus which neatly tucks away in the back of the unit which helps touch screen operation but it's fiddly to use while flying at the same time. Putting it away after use creates another cockpit task and you don't want it falling on to the floor. There is a slot in the unit to store the stylus after use but you'll have to make sure the plastic mounting bracket (see left)

is the right way up (yes I did find this out the hard way). The sucker mount itself is very good though and you can position it at most angles once you loosen the thumbwheel, meaning the FC should fit at home in most cockpits. Be warned though, don't loosen it too much or the screw will fall out along with a tiny locking nut. Thankfully this didn't happen to me in the cockpit but it did at home.

VERDICT

Hats off to Airbox for bringing an aviation GPS as unique as the Freedom Clarity to market. There's no doubt it's novel and unlike anything

we've seen before. There's been a definite shift in direction towards these thin-screened displays with the FC the smallest (and most affordable) of the bunch.

The various little niggles I've had during my test have taken the edge off my initial expectations though. Yes it looks great but even the silver surround picked up dirt, grease and finger marks after just a few hours of use; then the battery went quite quickly and the touchscreen was cumbersome on occasions. Having said this, when the unit was up and running it worked just as well as the Foresight - and that's good going. The FC will be featuring high on our shortlist of 'potential buys' simply because of the low price point of £599. In short then, the FC will do a good job of giving position confidence for those weekend flyers that don't want to spend £1000 plus on a GPS.

www.airboxaero.com

FINAL WORD

"IF YOU'RE DESPERATE TO HAVE A GPS THAT SHOWS YOUR POSITION RELATED TO A CAA CHART THEN THIS IS FOR YOU BUT TRY OUT THE TOUCHSCREEN BEFORE YOU BUY TO AVOID DISAPPOINTMENT"

PILOT RATING ★★★★★

Thanks to Cambridge Aero Club.



The grey plastic bracket can be removed from the black stand making it easy to pack away