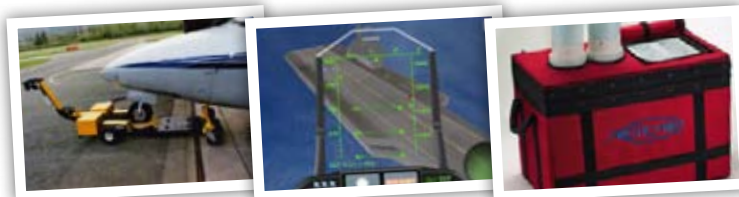


# Gear

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**YOUR GUIDE TO ALL THE LATEST GADGETS AND GIZMOS YOU'LL EVER NEED**

**SOLIDFX FX10 E-READER** \$1595 [www.solidfx.com](http://www.solidfx.com)

**PRODUCT TEST**

## You've got the whole world in your hands

SolidFX produce a Jeppesen e-reader which could make chart books a thing of the past. **Phil O'Donoghue** puts it to the test

**E**-BOOK electronic reading devices have been around for a few years now but have focused mainly on the electronic book and newspaper market. Massachusetts-based company SolidFX has now taken one of these e-reader devices, combined it with Jeppesen eCharts and some custom software to produce the FX10 - a handheld device for viewing and organising Jeppesen terminal charts.

SolidFX has chosen the Digital Reader 1000S from iRex Technologies as the hardware platform for the FX10. This device is one of the largest e-readers available with a 26cm, 16-level greyscale display. With overall dimensions of 267mm x 218mm, and at only 12mm thick, the FX10 fits easily into a flight bag. Despite its generous screen size the unit weighs in at just 580g.

The screen is touch-sensitive and requires the use of a stylus, one of which is supplied. The standard stylus is un-tethered, but both a tethered version and a lanyard are optional extras.

The FX10 uses an SD card to store the Jeppesen chart database and a Jeppesen eChart Reader subscription is required. SD cards are widely available. Updates are applied by connecting the FX10 to a PC running the Jeppesen Services Update Manager (JSUM) program, so should come online as soon as Jeppesen release them.

The unit is charged by connecting it to a PC or other power source using the supplied mini-USB cable.

Starting up the device from cold takes about 50 seconds. It then takes about another 30 seconds to start the FXVIEW application that is used to view and organise terminal charts.

### CHARTS ON TAP

The FXVIEW user interface is very straightforward and easy to use. The application presents seven tabs across the top edge of the screen. Each of the first six tabs is dedicated to the charts for a single airport. It is a very intuitive system which can be picked up quickly without referring



PHOTOS: Duncan Cubitt

# Geartest

to the instruction manual, if you're familiar with computers.

A typical way of using the tabs would be to assign each of the departure, destination and a couple of alternate airports to its own tab before take off. Within a tab the various chart types are listed as a series of headings. For example, with Stansted assigned to a tab the headings include Airspace, Arrival and Departure Procedures, Noise Abatement, Airport Pages, Approach Charts, Chart Notams, and Airport Information.

Touching any of these headings with the stylus expands it to show a list of charts or text pages. For example, touching the Departure Procedures heading for Stansted expands it to show a list of the names of Stansted's 14 SIDs. Tapping on any name in the list then presents the corresponding chart.

Airports are added to tabs by entering the airport's ICAO code or by searching for part of its name. In both cases characters are entered by tapping on a keyboard displayed on the screen. The screen refresh is quite slow so you can easily enter several characters before anything appears on the device. Fortunately, the screen taps are buffered and the FX10 catches up with you after a couple of seconds.

## MULTI TASKING

The last of the seven tabs is called the Chart Clipboard and allows individual charts for multiple airports to be added. This means you can switch from a chart for one airport to that of a different airport with just a couple of screen taps. For example, you might add the expected SID for your departure airport, and the expected arrival and approach charts for your destination and alternates to the clipboard.

When a chart is first viewed it is scaled to show the entire

**'To pan around the chart, you simply use the stylus to drag a point on the chart from place to another'**

chart on the screen. For approach charts the resulting image is about 90% of the size of a Jeppesen paper chart, and so, depending on how sharp your eyesight is, it's possible to use the full screen chart view without zooming in.

However, this does illustrate that the aspect ratio of the screen is not ideally suited to the dimensions of Jeppesen approach charts - while the full screen chart has to be reduced in size there are a couple of centimetres of unused blank space on either side of the chart.

Another way of looking at this is that if the FX10's screen was less than a centimetre taller, a full-size Jeppesen chart could be displayed while still allowing the screen width to be reduced by 4cm.

The FXVIEW provides cleverly implemented zooming and panning functions that are nicely intuitive. To zoom in you simply draw a circle or rectangle around the area of the chart that's of interest and the display re-scales to zoom in on that area. A single tap of the stylus anywhere on the screen returns the view to the previous zoom level.

To pan around the chart, you simply use the stylus to drag a point on the chart from one place on the screen to another. These functions work really well, but each takes 2-3 seconds, which we found to be a bit slow.

Charts can be rotated and viewed in landscape mode or portrait mode to make best use of the screen shape.

In addition to Jeppesen approach charts, the FX10 can be used to carry other documents with you and refer to them in the cockpit. For example, we loaded quite a few PDF format pages from the UK AIP and also an aircraft flight manual onto the unit, and found them to be easily referenced and viewed.



SD memory card slots in here as does USB PC connection

It comes with selected FAA books already pre-loaded and in addition there are hundreds of thousands of e-books available too, for when you're not flying, and reads .pdf, .txt, .html, .jpg, .png, .gif, .tiff, and .bmp file formats for a variety of any other content you might want to load.

## LAPTOP OR KNEEBOARD?

One of the benefits of the FX10 cited by SolidFX is the ability to replace multiple volumes of the Jeppesen Airway Manual with one lightweight portable device when operating away from base. However, many pilots have already solved that problem using a laptop, a JeppView subscription, and a portable printer to print paper charts as required. So does the FX10 offer an improvement on that approach?

## SOLIDFX FX10 SPEC

**SIZE:** 10.6in H x 8.5in W x 0.5in D

**DISPLAY:** 10.2in diagonal, 16-level grayscale

**RESOLUTION:** 1280 x 1024 pixels @ 160 pixels per inch

**WEIGHT:** 570g

**BATTERY:** Built-in rechargeable, 10 hour life, 3 hour charge

**MEMORY:** 128MB Ram

**STORAGE:** 1GB SD card supplied, larger available  
PC requirements (for updates): Windows XP or Vista, minimum 800Mhz processor and 128MB RAM,

minimum 140MB free disk space (up to 1GB depending in Jeppesen subscription level), USB port (USB 2.0 is preferred), Jeppesen Service Update Manager 2.1.4 or later, internet access (Broadband is best).

## JEPPESEN CHARTS

Northern Europe (UK, Belgium, Denmark, Faeroe Is., Finland, France as far south as Paris, Germany, Ireland, Luxembourg, Netherlands, Norway, Sweden) \$1055 + \$85 updates subscription.

All other territories available at individual cost.  
www.jeppesen.com

## COMES WITH

- Preloaded FXVIEW terminal chart module
- Stylus
- USB cable
- Manual
- Quick reference card
- Quick start guide

## OPTIONAL ACCESSORIES

- Protective cover \$54.95
- Professional stylus \$69.95
- Power bundle plus wall/car charger - this includes a slim charger and battery pack, a 100-240v AC to USB power adapter, a DC to USB car adapter, 34in retractable USB charging cable, and a carrying case for the power bundle. \$59.95
- Lanyard and tether \$8.95 and \$7.95
- Spare stylus \$23.95



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**In this zoomed in view, a quick tap will return to full view**

There are a number of benefits to using one of these devices over a traditional laptop. The key points about e-reader devices are that they have a non-backlit and non-refreshed display that has an appearance similar to real paper and consumes very little power. We found the display of the FX10 to be very easy and comfortable to read and the display appearance is indeed remarkably paper-like. SolidFX claim battery life of up to 10 hours – which was borne out by our testing – and that's considerably better than most laptops. Power supplies can be attached if needed.

Likewise, the FX10's low weight and slimness are even better than many ultraportable laptops. Furthermore, the FXVIEW software is excellent, and much simpler and easier to use in the cockpit than JeppView.



**A tethered stylus can be bought as an optional extra**

The biggest issue we had with using the FX10 was working out a means to secure it in the cockpit. It's too big to attach to a kneepad, and no method for mounting it is provided. It seems that SolidFX expect pilots to simply rest it on their lap.

We didn't find this method to be satisfactory and think that some simple mounting options appropriate to a single pilot cockpit environment would make the FX10 a much more practical proposition.

All in all we found the FX10 e-reader to be an excellent device and a serious alternative to paper Jeppesen charts, and far easier to use than a laptop and portable printer set-up. On this occasion we'll hold back full marks, in lieu of the necessary mounting options we hope SolidFX will introduce.

[www.solidfx.com](http://www.solidfx.com)



**As legible as any paper chart, even in bright sunlight, and more practical than a laptop and portable printer set-up**