LOAD HANDLING

Technology

by Alan R. Earls

Satellite providers offer more weather forecast options at sea

growing range of services is available to deliver weather information underway and even far from shore.

Among them are SpotCast, delivered via satellite phone; KVH, which will transmit AWT's BonVoyage System high-resolution weather data via the IP-MobileCast content delivery service, and plans to offer delivery of AWT's global weather data to subscribing vessels over the mini-VSAT Broadband network; and SiriusXM Master Mariner.

OCENS SpotCast is a worldwide weather delivery service designed specifically for satellite phones. According to the company, it delivers "well-crafted, multi-period weather forecasts across several weather variables in a condensed format. SMS-capable satellite phones with built-in GPS positioning possess the essential architecture to request weather content." The low-bandwidth data capabilities of handheld satellite phones were previously an obstacle for delivery directly to the phone, the company said. OCENS SpotCast overcomes this obstacle with its short-form weather reports that are generated automatically based on the device's GPS position. SpotCast will work with the inReach SE personal messaging and tracking device and virtually any smartphone with built-in GPS.

Jeff Thomassen, chief technology officer at the company, says Spot-Cast Weather service costs \$20 to activate an account and as little as \$6 per month for 24-hour text weather reports. The reports are available in 48-hour or 72-hour formats as well. These reports are delivered on demand to the user's device such as an inReach SE/Extreme, Iridium 9575 satellite phone, Iridium GO phone or Inmarsat IsatPhone Pro.

OCENS offers two other services. One service, called WeatherNet, has warehoused a large collection of weather, ocean and fishing data. A patented WeatherNet data transfer engine helps provide acceler-

ated delivery of content across satellite and wireless platforms. Additionally, a "Content Wizard" personalizes

An iPad Mini displays OCENS GRIB Explorer Plus for iPad, with marine weather imagery for eastern Florida and the Caribbean. WeatherNet's library to the specific weather, ocean and fishing interests of the individual user. WeatherNet costs \$99 per year plus downloads, and each downloaded file costs, on average, between 10 cents and \$1, according to Thomassen.

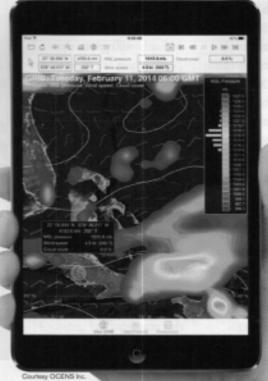
The third OCENS offering is GRIB Explorer for iPad. This app allows you to download GRIB weather files via the Internet and satellite phones that support Wi-Fi connectivity. This app is \$14.99 in the Apple app store and service can be purchased as prepaid unlimited plans, which can be as low as \$15 per month.

"There are no limitations to our

service other

than the limitation that may be imposed by your particular satellite device," said

Thomassen. SpotCast service is available worldwide and WeatherNet includes data world-



wide and is accessible worldwide.

He explained that the SpotCast service requires the user to send their position to the server via an SMS message from the device and then returns an SMS weather report based on that location. "WeatherNet is a service that includes a client software for selecting the weather data you wish. Once you have selected the files that you want, you then click the download button to access the company servers and download the data directly to your computer via any Internet connection," he said.

Thomassen said SpotCast is the only automated service available for delivering text weather information

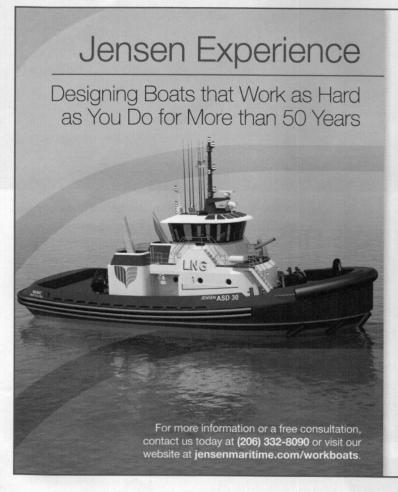
to users of inReach, Iridium and Inmarsat devices. By comparison, WeatherNet is designed primarily to work efficiently and cost-effectively over satellite phones and helps to keep airtime costs low.

Another recent entrant to the field comes from Applied Weather Technology Inc. (AWT), a provider of shore-based ship route advisory services, onboard voyage management systems and fleet management systems. AWT has partnered with KVH Industries Inc., a provider of in-motion satellite TV and communications systems, to deliver AWT's BonVoyage System (BVS) high-resolution weather data via the KVH

IP-MobileCast FORECASTlink service.

AWT said the data will be updated up to four times per day to help ships optimize voyage planning and safety.

The BVS 7 "voyage optimization system" provides onboard and around-the-clock weather-routing information. KVH's IP-MobileCast content delivery service will provide captains with access to BVS 7's global, high-resolution data for wind, waves, visibility and currents with tidal streams, as well as detailed port vicinity forecasts, updated pirate attack reports and rogue wave forecasts.



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