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# Print-on-Demand Nautical Charts Status USA (NOAA)

#### 1. Introduction

The USA (NOAA) and OceanGrafix, LLC of St. Paul, Minnesota, collaboratively developed, and jointly produce Print-on-Demand (POD) nautical charts for the USA. Print-on-Demand charts are up to date with all Notices to Mariners corrections when they are printed. POD has become an important and successful contributor to safe, efficient, and environmentally sound marine transportation in the USA. They are official charts of USA waters and meet chart carriage and updating regulations for all vessels.

#### 2. Status

The USA (NOAA) Print on Demand (POD) system continues to work smoothly. A computer security incident involving illegal electronic access from outside of the chart agent network required discontinuing the electronic commerce front-end of the POD system. Orders are now place directly with OceanGrafix.

User acceptance is strong among commercial mariners even though the POD charts cost 20% more than the traditional, lithographically printed charts. It is estimated that in 2008, more than half of all charts sold by NOAA will be POD in spite of their greater cost.

OceanGrafix, LLC (<a href="www.OceanGrafix.com">www.OceanGrafix.com</a>) continues to be NOAA's partner in this activity. They print POD charts themselves, and ship the results to mariners by overnight mail. They have also installed systems at 19 remote sites in chart agent's stores including 3 outside of the USA. They support these sites with automatic updating of all the preprocessed digital files, with technical support of the equipment and software, and with marketing support.

USA (NOAA) is developing and installing a new ENC/RNC/paper chart production system based on software from ESRI. The output of this system is being designed to be suitable for Print-on-Demand. Under discussion is the possibility of eliminating lithographic printing and converting entirely to POD.

### 3. On-Line Chart Viewer

The technology used to update, assemble, and manage Print-on-Demand charts is also used for the NOAA On-Line Chart Viewer. In this case, the files are "printed" to a digital format that can be readily displayed over the Internet. The On-Line Chart Viewer, at <a href="http://ocsdata.ncd.noaa.gov/OnLineViewer/">http://ocsdata.ncd.noaa.gov/OnLineViewer/</a>, is proving to be one of NOAA's most popular services. The public's comments are posted on the Internet site for member states to evaluate in considering a similar service.

During the preceding year, NOAA switched to a different, fast raster display software named Zoomify (<a href="http://www.zoomify.com">http://www.zoomify.com</a>). This provided an improved user interface. Like the previous software, it does not permit downloading the files nor permit printing anything other than a screen capture.