

**18<sup>th</sup> CHRIS MEETING**  
26-29 September 2006, Cairns, Australia

**PRINT-ON-DEMAND STATUS**  
*(August 2006)*  
United States (NOAA)

1. Summary

<b><i>Executive summary:</i></b>	The USA (NOAA) is continuing to make Print on Demand nautical charts. The “official” status of the Print on Demand charts will continue. The technology has been applied to prototype a new product named the BookletChart that recreational boaters may print at home for free, and an On-Line Chart Viewer that is being reported to CHRIS 18 in a separate paper.
<b><i>Actions to be taken:</i></b>	None
<b><i>Related documents:</i></b>	None

2. Introduction / Scope

The Office of Coast Survey, 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 meet U.S. federal chart carriage and updating regulations for all vessels.

3. Analysis/Discussion.

The USA (NOAA) Print on Demand (POD) system, and its accompanying electronic commerce system, continues to work smoothly. User acceptance is strong among commercial mariners even though the POD charts cost 30% more than the traditional, lithographically printed charts. Approximately one-third of all charts sold by NOAA are POD. Elements of the U.S. Navy have recently begun to purchase POD charts for their use.

OceanGrafix, LLC ([www.OceanGrafix.com](http://www.OceanGrafix.com)) 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 16 remote sites in chart agent’s stores. 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.

4. Benefits.

Print-on-Demand permits the manufacture of charts that are up to date with all Notices to Mariners. As implemented in the USA, it also permits:

- customization of charts down to the individual chart (e.g. with or without LORAN),
- printing on a variety of materials as desired by the mariner,
- multiple versions of charts
- new products
- point-of-purchase printing
- lower inventory and warehouse costs
- guaranteed availability of all charts
- elimination of destruction of obsolete charts
- avoidance of reprints

5. Working Groups.

Not Applicable.

6. Other relevant information.

USA (NOAA) developed a new product named the BookletChart™ that uses print-on-demand technology. The BookletChart™ is a chart that has been reduced in scale and divided into letter-sized pages for convenience. It is made to help recreational boaters locate themselves on the water.

Files used to print BookletCharts are the same as those used for POD and are always up to date with Notices to Mariners. Excerpts from the United States Coast Pilot have been included. Chart notes are consolidated on a single page for easy reference. Emergency information is printed on the back cover. BookletCharts are available on the Internet, and can be downloaded for free ([www.NauticalCharts.gov/bookletcharts](http://www.NauticalCharts.gov/bookletcharts)) as Adobe PDF files, and printed on any home printer. USA (NOAA) is now writing production software for the BookletCharts and intends to make them a regular product of NOAA.

7. Priority.

Not Applicable.

8. Target completion date.

Not Applicable.

9. Action Required.

None