



US Army Corps
of Engineers®

Engineer Research and
Development Center

Inland Electronic Navigational Charts

Description Development of Inland Electronic Navigational Charts (IENCs) to cover the Mississippi River and tributaries began in 2001 with pilot projects on the Atchafalaya River, LA, and on the Lower Mississippi River near Vicksburg, MS. These projects involved a combination of in-house and contract activities. They were the first efforts to collect and convert inland waterway data, commonly used for river and channel maintenance, into the international S-57 hydrographic data exchange. This highly structured data format is commonly used for electronic chart applications and will be used for all Corps IENCs.

Issue Following recommendations by the National Transportation Safety Board, the National Academy of Science, and the American Waterways Operators, Congress directed the Corps of Engineers to develop and publish electronic charts for the inland waterways of the US. Funds were appropriated beginning in 2002 through the Civil Operations and Maintenance Program. The IENCs follow the international S-57 hydrographic data exchange standard, the most used and accepted format for electronic charting application. Inland waterway data commonly used for channel maintenance and flood control is leveraged for IENCs, and field data is collected where information does not exist. Currently, 15 Corps districts are involved in data collection and compilation and chart maintenance activities. ERDC-TEC serves as the Program Coordinator, involving funds dissemination, activity scheduling, progress review, quality assurance, data publication, coordination with other federal agencies, and participation in international standards development.



Users All who navigate the inland waterways of the United States.

Products IENCs, available for download from the Corps E-Charting web site (www.tec.army.mil/echarts), currently cover 5,698 miles, including the following rivers; Allegheny, Arkansas, Atchafalaya, Black Warrior-Tombigbee, Cumberland, Green, Illinois, Kanawha, Lower Mississippi, Monongahela, Ohio, Red, Tennessee (partial), Tenn-Tombigbee, and Upper Mississippi. IENCs currently under development will cover an additional 1585 miles, and include the following rivers; Alabama, Kaskaskia, Missouri, Ouachita, Tennessee. Further developments will include additional features and more accurate data from new waterway surveys or other sources. The Missouri River IENCs are currently being created.

Benefits Large-scale, accurate, and up-to-date IENCs, such as those being developed, enable electronic chart systems that provide accurate and real-time display of vessel position relative to waterway features, voyage planning and monitoring, training tools for new

personnel and integrated display of river charts, radar, and Automatic Identification Systems.

Point of Contact

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Partners

ERDC-TEC serves as the Program Coordinator; 15 Corps districts are involved in data collection and compilation and chart maintenance activities.