

## Project Status Report 98-09

Upper Mississippi River Long Term Resource Monitoring Program U.S. Geological Survey

## Providing On-line Access to Oblique Aerial Photographs of the Mississippi and Illinois Rivers and their Floodplains

by Mary R. Craig

In 1997, staff at the Environmental Management Technical Center (EMTC), in cooperation with the U.S. Fish and Wildlife Service, photographed the Mississippi and Illinois Rivers and their floodplains from the air. Approximately 2,000 oblique photographs, in slide format, were acquired for ongoing research to evaluate changes in floodplain structure along the navigable length of the Mississippi River (Minneapolis, Minnesota to the Gulf of Mexico). Nearly 300 photographs were obtained along the Illinois River between Chillicothe, Illinois and the mouth of the River at Grafton, Illinois. These photographs capture aspects of the rivers' landscapes (Figure 1) as well as document river-management activities such as channel maintenance practices (Figure 2) and habitat rehabilitation and enhancement projects (Figure 3).

River managers and scientists have expressed great interest in this collection of oblique aerial photographs. To date, we have received requests for more than 600 duplicate slides from a variety of sources including federal and state agencies, universities, and a private, natural resource group seeking to establish a sanctuary. Staff at the EMTC are in the process of making this valuable collection of photographs of the Mississippi and Illinois Rivers easily accessible to a wide audience.

We have received financial assistance from the National Biological Information Infrastructure initiative of the U.S. Geological Survey's Biological Resources Division to make the photographs broadly available to interested parties through the World Wide Web. To provide on-line access to these photographs, we are preparing to serve high-resolution images of them from our web site (http://www.emtc.nbs.gov). Slides are being electronically scanned and their locations are being geo-referenced. Our web page will be updated and modified



Figure 1. Looking downstream from about River Mile 565 on Navigation Pool 13 of the Upper Mississippi River (EMTC photo by Mary Craig).



Figure 2. Dredging at about River Mile 75 on the Illinois River, October 15, 1997 (EMTC photo by Mark Wenger).



Figure 3. A Habitat Rehabilitation and Enhancement Project located at Mc Cartney Lake, River Mile 599 on Navigation Pool 11 of the Upper Mississippi River (EMTC photo by Mark Wenger).

in order to serve these oblique aerial photographs along with the color-infrared aerial photographs we now serve. The first oblique aerial photographs to be served will be of the Upper Mississippi River reach that extends from Cairo. Illinois to St. Louis, Missouri. They should be available on our web site by February 1999, and the entire collection of 2,300 oblique aerial photographs should be electronically accessible by November 1999.

This collection of aerial photographs of the Mississippi and Illinois Rivers will serve as a rich and invaluable resource for river managers and scientists for assessing habitat needs, planning habitat rehabilitation and enhancement projects, developing decision support systems, executing adaptive ecosystem assessments, and planning emergency responses to potentially hazardous and toxic spills. These photographs will be a great "river map" source for the public, and they will continue to be used to further research and support ongoing resource management and planning activities on the Mississippi and Illinois Rivers. □

## For further information, contact

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