

CRUISE REPORT

U.S. GEOLOGICAL SURVEY
BRANCH OF ATLANTIC MARINE GEOLOGY
WOODS HOLE, MA 02543

Vessel: *RV NEPTUNE*
67 feet long, 18.5 foot beam, 6 foot draft, twin screw
Registered at Morgan City, Louisiana
Home port at Chicago, Illinois

Vessel Owner: Richard Race, President
Hydrographic Survey Co.
1830 N. Narragansett Ave
Chicago, Illinois
Home: (312) 637-3535 Boat: (312) 822-9684

Cruise no.: NPTN92-1

Project: Regional Great Lake Mapping

Area of Operations: Gary, Indiana to Michigan City, Indiana

Dates and Ports: May 18: Chicago, Illinois (mobilize)
May 19: Burns Harbor, Indiana
May 20-24: Michigan City, Indiana
May 25: Chicago, Illinois (demobilize)

Scientific Party: D. Foster (AMG), Chief Scientist
A. Brill (AMG), Scientist
K. Parolski (AMG), Technician
B. Irwin (AMG), Navigator
W. Wood (Purdue), Scientist
T. Thompson (Indiana Geological Survey), Scientist

Purpose of Cruise: Acquisition of high-resolution seismic reflection, sidescan sonar, and bathymetric data for the Regional Great Lakes Mapping Project.

Navigation: Ashtech Differential Global Positioning System (DGPS) with LoranC backup; Navigation software provided by B. Irwin; DGPS Station located on the roof of the Dunescape Condominium, Michigan City, Indiana. Trackline locations are shown in figure 1.

Scientific Equipment: Klein sidescan sonar (100 kHz) with QMIPS digital data acquisition system

Datasonics 3.5 kHz (10 kW) subbottom profiling transceiver and ORE transducers; EPC graphic recorder

Odem 200 kHz echosounder

Days at Sea: 6 days

Data Collected: 235 line kilometers sidescan sonar

- Analog paper (7 rolls)
- Raytheon TDU thermal paper (3 rolls)
- 8 mm digital tape (6 tapes)

235 line kilometers echosounder

- Analog paper (2 rolls)
- Logged digitally with navigation on 3.5" diskettes (5 diskettes)

228 line kilometers 3.5 kHz subbottom

- Analog 20" EPC paper (7 rolls)
- Analog VHS tapes (14 tapes)

REGIONAL GREAT LAKES MAPPING PROJECT

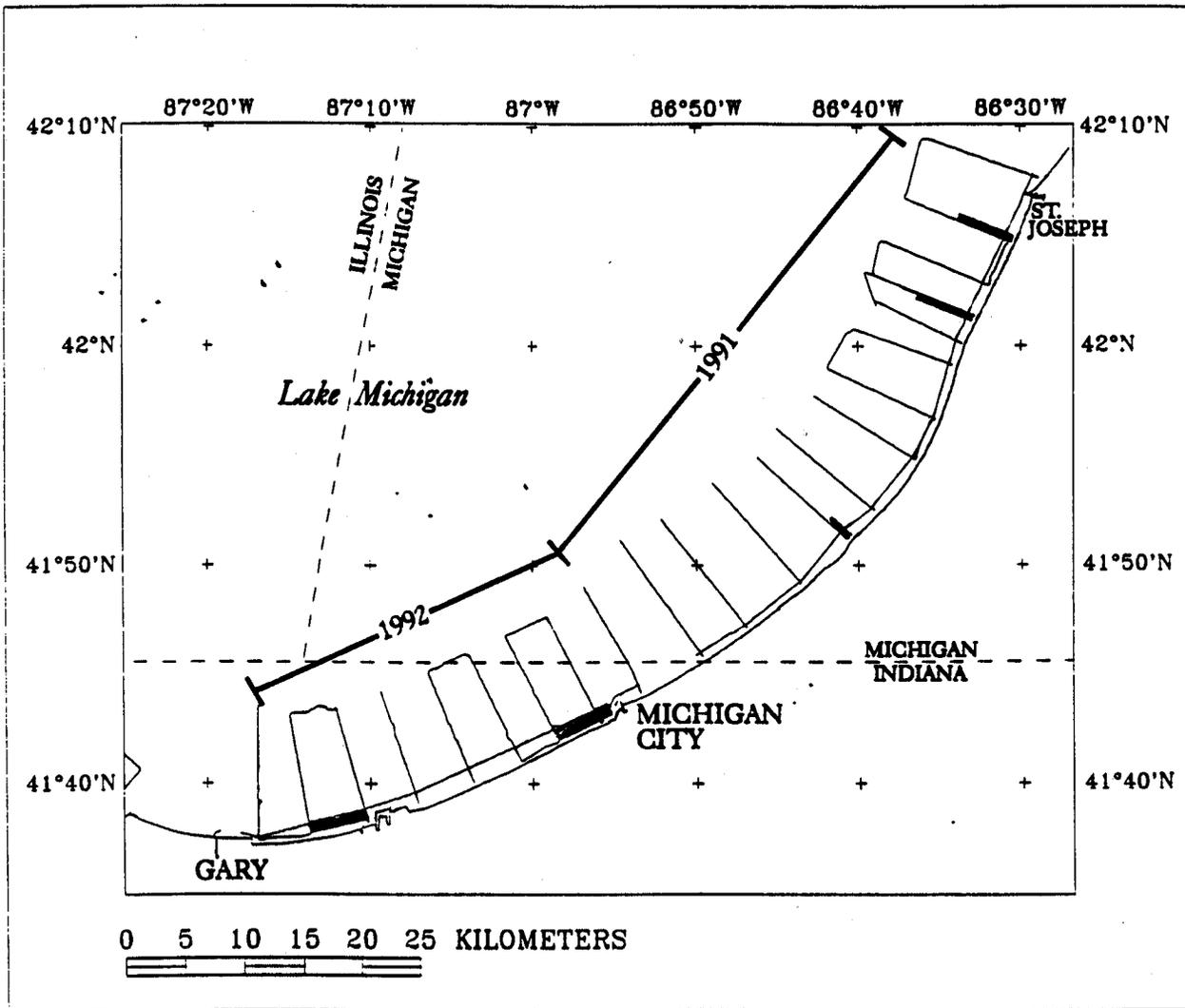


Figure 1. Map showing the location of tracklines along which geophysical data was collected on this cruise (NPTN92-1) as well as from the 1991 cruise (NPTN91-1). The solid black areas are where tracklines were spaced 125 m apart, so sidescan sonar mosaics could be constructed.