LAKE ERIE WATER TEMPERATURE DATA
SANDUSKY BAY, OHIO 1961-1993

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1. INTRODUCTION

Water temperature data from several sites around the Great Lakes were obtained to determine if any regional climatic changes or trends could be detected based upon these data sets. The study was partially supported by the NOAA Office of Global Programs. Site selection was based upon location and reasonable data access.

This technical memorandum contains data for Sandusky Bay, Ohio on Lake Erie. The water temperature data were collected by the Ohio Department of Natural Resources, Lake Erie Fisheries Unit, Sandusky Bay. The data were recorded from 1961-1993 using an analog temperature recording unit made by Taylor Instruments Co., Rochester, New York. The temperature traces were made on 11 inch diameter paper disks that could hold 7 days of data before the disks had to be changed. The data are scaled to °F.

The data were transcribed into digital format using a CalComp digitizer and appropriate software. A digitizer was used to measure the radial distance from which a temperature could then be calculated. The digitizer was set to continuously measure the radii every 0.01 inches of arc length for each day and calculate an average daily temperature in degrees Celsius. Throughout 1961-1993 there were numerous occasions when the paper disk was not changed on a weekly interval. Also, there were several periods when all data were lost. Consequently, some significant data gaps are present.

The data are plotted and shown in the accompanying figures. Prior to final plotting all data were checked for consistency, and all questionable values were deleted. All missing data are denoted by -999.

Data files are identified as TM098Dxx.edt where xx identifies the data year. Data are organized into four columns: month, day, year, and temperature. Although the data are reported to the nearest 0.1°C, given all the uncertainties with the raw data, a more reasonable estimate of their accuracy is 0.5°C.

All data are available in a simple ASCII format. The data files are available from GLERL’s WWW site or from the anonymous FTP site. From the GLERL home page (www.glerl.noaa.gov) select FTP server, or point your browser to: ftp://ftp.glerl.noaa.gov/publications/tech_reports/glerl-98.

Although great care has been used in checking these data, mistakes may still be present. If errors are found please contact the author at michael.mccormick@noaa.gov.
Days of data = 350
Sandusky Bay 1973

Days of data = 345
Sandusky Bay 1974

Days of data = 353
Sandusky Bay 1975

Days of data = 303
Sandusky Bay 1976
Sandusky Bay 1981
Days of data = 301

Sandusky Bay 1982
Days of data = 269

Sandusky Bay 1983
Days of data = 233

Sandusky Bay 1984
Days of data = 47
Sandusky Bay 1993

Water Temperature (C) vs. Julian Day

Days of data = 204