



CALS TEST NETWORK

CTN Test Report 91-008

AFTB-ID
90-022



Raster Transfer Test with

CIMAGE Corporation:



MIL-R-28002 (Raster)



Quick Short Test Report

2 April 1992



Prepared for
Air Force Materiel Command

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DISCLAIMER

This report and those involved in its preparation do not endorse any product, process, or company stated herein. Use of these means by anyone does not imply certification by the CALS Test Network.

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1. Introduction

1.1 Background

The DoD Computer-aided Acquisition and Logistics Support (CALs) Test Network (CTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The CTN is a DoD-sponsored confederation of voluntary participants from industry and government managed by the Air Force Logistics Command.

The primary objective of the CTN is to evaluate the effectiveness of the CALS Standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those Standards. Two general categories of tests are performed to evaluate the Standards, formal and informal. Formal tests are large, comprehensive tests that follow a written test plan, require specific authorization from DoD, and may take months to prepare, execute, and report.

Informal tests are used by the CTN technical staff to broaden the testing base by including representative samples of the many systems and applications used by CTN participants. They also allow the CTN staff to gain feedback from many industry and government interpretations of the Standards, to increase the base of participation in the CALS initiative, and to respond, in a timely manner, to the many requests for help that come from participants. Participants take part voluntarily and are benefited by receiving an evaluation of their latest implementation (interpretation) of the Standards, interacting with the CTN technical staff, gaining experience in use of the Standards, and developing increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test reported in this QSTR was to analyze CIMAGE Corporation's interpretation and use of the CALS Standards in transferring technical raster data. CIMAGE used its ImageMaster System to produce raster data in accordance with the Standards and delivered it to the CTN technical staff on a Hi-CAP 5.25 inch floppy disk. The purpose of this test was not to evaluate the transport media.

2. Test Parameters

Test Plan: AFTB 90-22

Date of Evaluation: 21 December 1990

Evaluator: George Elwood
Air Force CALS Test Bed
AFMC(I)/ENCT
Wright-Patterson AFB, OH 45433

Data Originator: CIMAGE Corporation
3885 Research Park Drive
Ann Arbor, MI 48108

Data Description: Raster Test
2 Raster files

Data Source System:

Raster

- Hardware
 - Intel 386
 - Vidar Scanner
- Software
 - ImageMaster

Evaluation Tools Used:

- MIL-R-28002 (Raster)
- SUN 3/60
- CTN Raster Tools
- Agfa Compugraphics CALS
- Rosetta Technology's Preview

Standards
Tested:

MIL-R-28002

3. 1840A Analysis

3.1 External Packaging

The floppy disk files for this test arrived at the Air Force Test Bed enclosed in a Federal Express Envelope. The exterior of the envelope was not marked with the required magnetic tape warning label, MIL-STD-1840A, para. 5.3.1.3.

The purpose of this test was to evaluate the raster files and not the transfer media. For this reason, the files arrived on a 5.25 inch 1.2Meg floppy disk.

3.2 Transmission Envelope

The 5.25 inch floppy disk received by the Air Force Test Bed contained two MIL-R-28002 files. The files were not named per the standard CALS conventions.

3.2.1 Tape Formats

NOT TESTED

3.2.2 Declaration and Header Fields

The MIL-STD-1840A header files were checked visually for errors. No errors were noted in the header information.

4. Raster Analysis

The two files on the disk were group four raster images. CIMAGE scanned both images into their system and added the MIL-STD-1840A header information. The files were read into the AFTB system from the Cheetah Gold 486 and passed to the Sun 3/60 using NCSA Telnet. All evaluation of the files occurred on that system.

4.1 CALSTB.350 Evaluation

The standard raster evaluation tool used by the Air Force Test Bed is CALSTB.350. This tool permits the checking of MIL-STD-1840A header information. This information was visually checked

with this tool. Both files were then read by the tool and displayed on the screen. The first file, NOAA.G4, was over 800K large. It displayed on the screen without problem. No "dirty" areas were noted during scrolling around the image. The second file, FISHING.G4, was displayed on the screen without problem. One "dirty" area was noted in the upper middle.

4.2 Preview

The raster images were evaluated using Rosetta's Prepare and Preview. The raster images were prepared for viewing by the PREPARE software. No problems were noted during this process. The resulting files were then viewed using PREVIEW. The file NOAA.G4 is a large image and the resulting image on the screen was not very clear due to the PREVIEW requirement to display the entire file at one time. By zooming into areas on the image, details could be shown on the screen. The "dirty" area was noted on file FISHING.G4 in the upper middle part of the image. Copies of the images are included in Appendix A.

4.3 Agfa Compugraphics

The third raster set of tools available in the AFTB is in the Agfa Compugraphics CALS tools. The files were renamed to conform with the Agfa product. The files translated without problem. Both images were displayed on the screen without problem.

5. Conclusions and Recommendations

In summary, the MIL-STD-1840A raster files from CIMAGE Corporation were basically correct. The purpose of the test was not to evaluate a MIL-STD-1840A tape.

Both raster images were not named in accordance with MIL-STD-1840A. They both contained the correct header information. Both images were read using three different software tools. No errors were noted on the displayed images.

The CIMAGE Corporation disk provide both the Air Force Test Bed and company personnel a valuable learning tool. This is CIMAGE's first attempt at meeting CALS requirements and it is a good start.

6. **Appendix A - Tape Tool Report Logs**

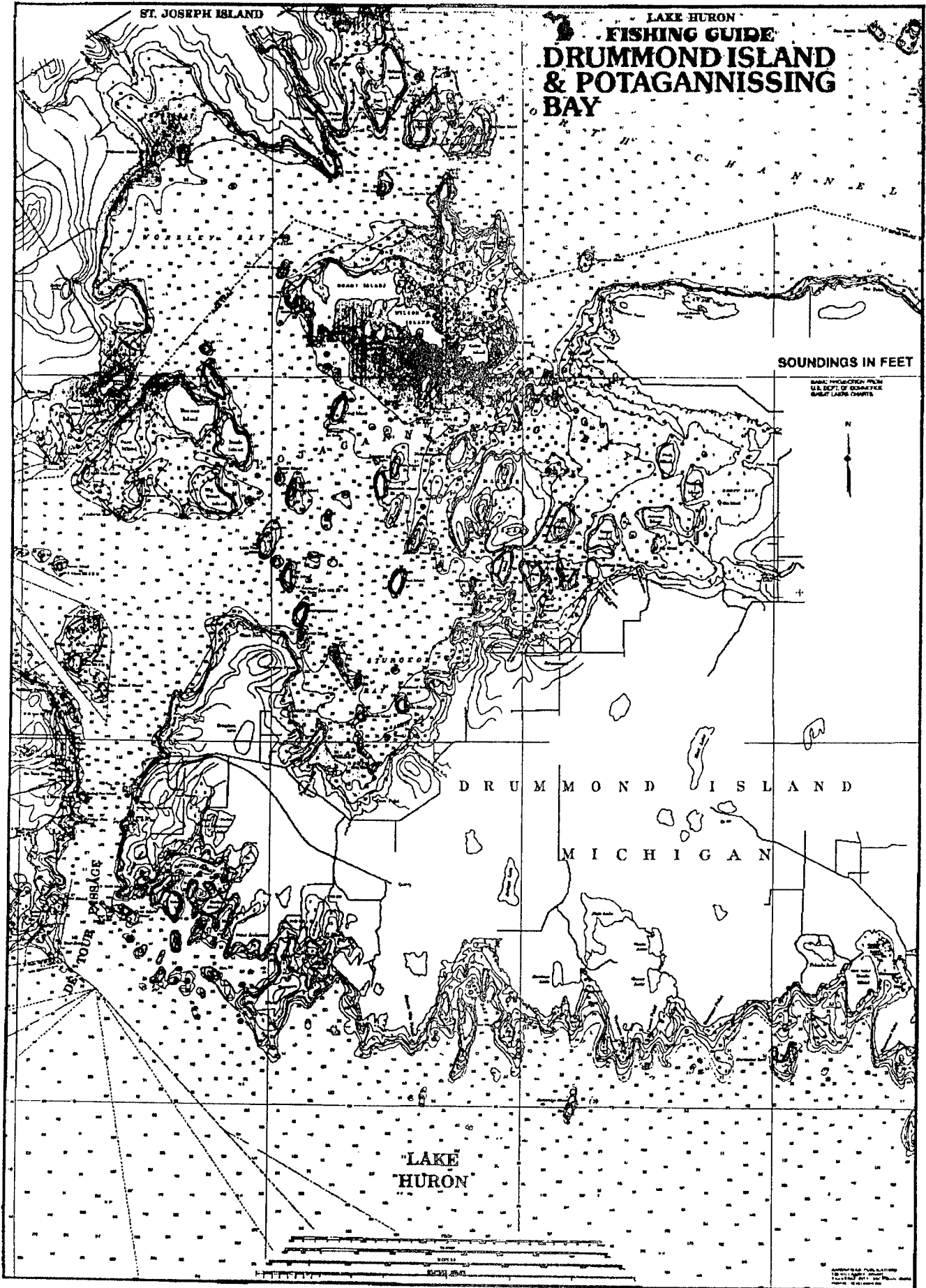
FIG 1 - Complete image FISHING.G4. Note "dirty" area in upper middle area.

FIG 2 - Expanded "dirty" area.

FIG 3 - Expanded upper left corner of NOAA.G4.

FIG 4 - Expanded area of NOAA.G4.

FIG 5 - Expanded area of NOAA.G4.



A-1

Figure 1

DRI & P BAY

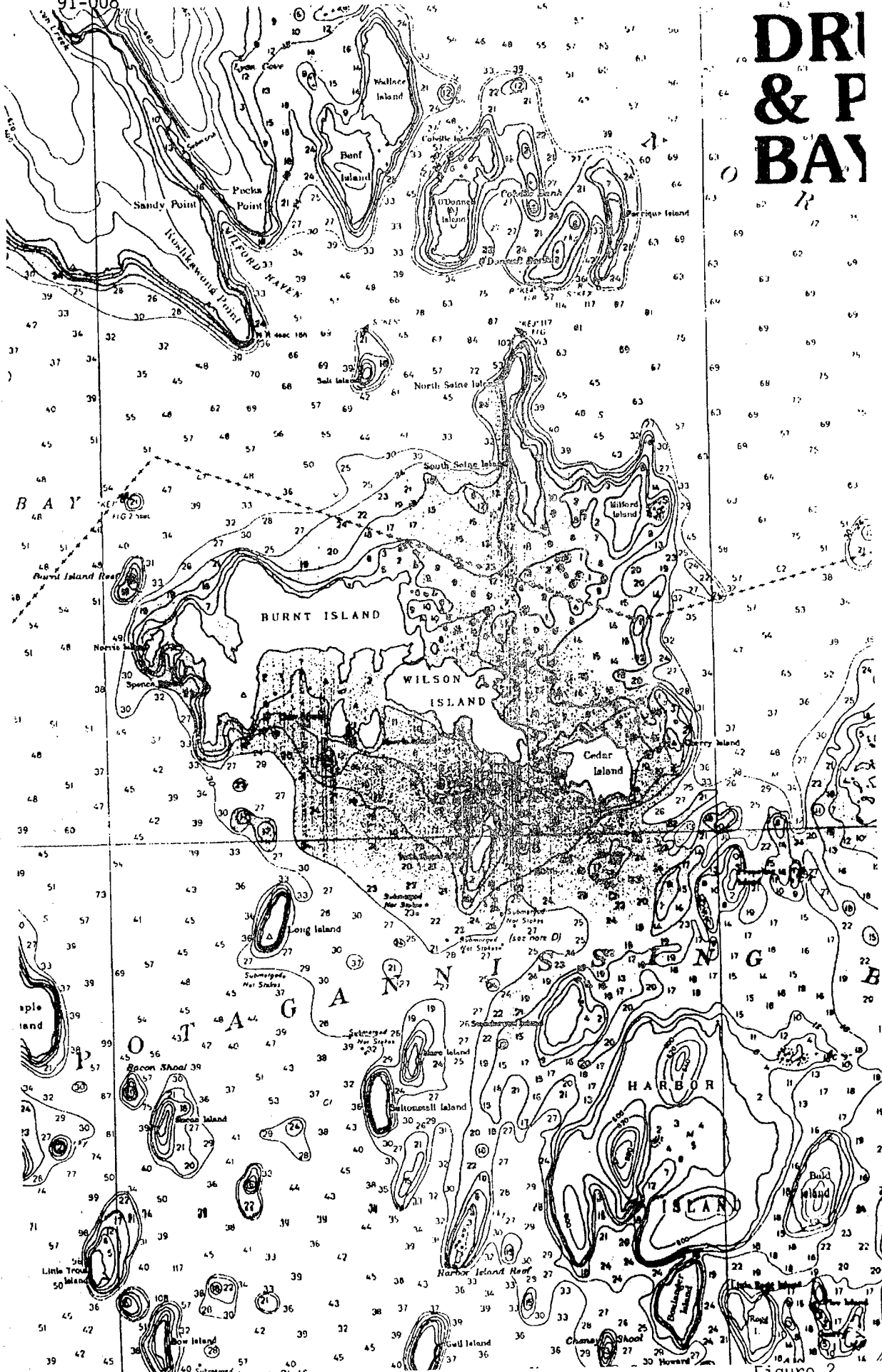


Figure 2

ST. MARYS RIVER

DE TOUR PASSAGE TO MUNUSCONG LAKE

Polyconic Projection

Scale 1:40,000

North American 1927 Datum

270

SOUNDINGS IN FEET

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum). Depths are referred to the sloping surface of the river when the gage below the locks reads 577.5 feet and Lake Huron is at elevation 576.8 feet.

Referred to mean water level at Father Point (Pointe au Père), Quebec, International Great Lakes Datum (1955).

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

