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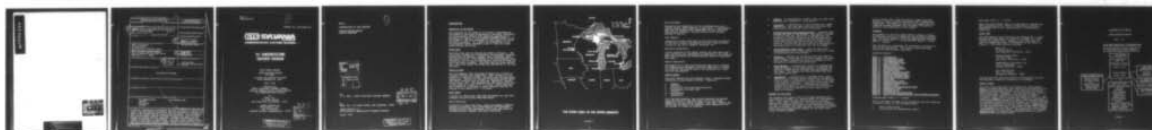
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SEAFARER SITE SURVEY, UPPER MICHIGAN REGION. BOOK 1. INTRODUCTI--ETC(11)
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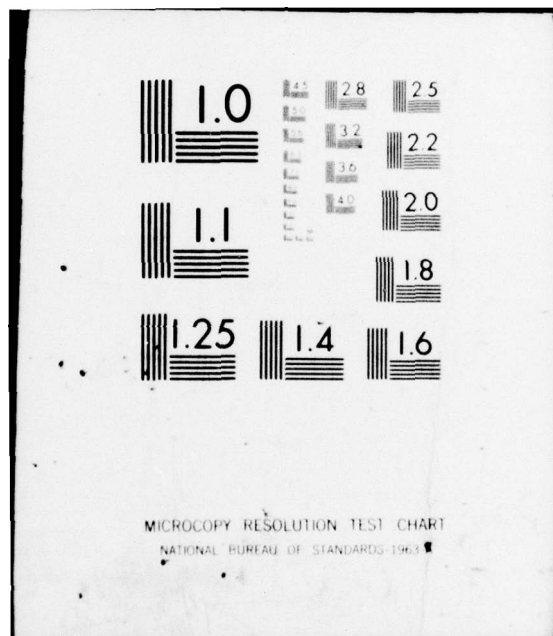
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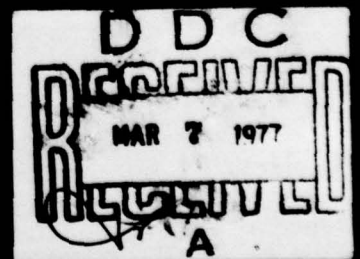


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BOOK 1
INTRODUCTION

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CONTROL NO. 0309-B006-001

GTE SYLVANIA
INCORPORATED
COMMUNICATION SYSTEMS DIVISION ✓

**ELF COMMUNICATIONS
SEAFARER PROGRAM**

SITE SURVEY REPORT
UPPER MICHIGAN REGION
EIS DATA

Contract no. N00039-75-C-0309
CDRL SEQUENCE NO. B005

April 1976

Prepared for
NAVAL ELECTRONIC SYSTEMS COMMAND
Special Communications Project Office
ELF COMMUNICATIONS DIVISION

by
EDAW, Inc.
50 Green Street
San Francisco, California 94111

Under Contract to
GTE SYLVANIA, INC.,
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Needham Heights, Massachusetts 02194

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BOOK 1

INTRODUCTION TO DATA REPORTS

UPPER MICHIGAN REGION
PROJECT SEAFARER

①

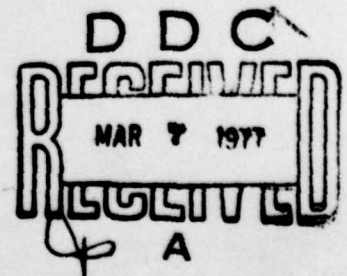
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INTRODUCTION

Objective of the Study

The objective of the study is to provide a comprehensive environmental data base portraying all physical, biological, and socioeconomic factors that should be considered in assessing the impact of the proposed SEAFARER system on the environment. The data presented in this report will serve two major purposes: (1) a basis for preparation of the Environmental Impact Statement, and (2) input for final system design and siting.

Study Area

The Study Area and its setting are shown in Figure 1. The Study Area includes all of Marquette and Dickinson Counties and portions of Houghton, Baraga, Iron, Menominee, Alger and Delta Counties. For purposes of the Socioeconomic Data discussion, all of the two easternmost counties of Alger and Delta have been included. Utilities data are shown extending a few miles beyond the Study Area boundaries on the east and west.

Types of Data

The environmental data have been grouped into a series of nineteen distinct data categories. Each category is presented as a separate booklet, including text and maps where appropriate. Factors of interest in detailed system design and impact analysis such as land use, vegetation, archaeological sites, etc., are presented for the entire Study Area on work maps at a scale of 1" = 2 miles. These maps have been reduced to 20 percent of their original size for inclusion in the report at 1" = 10 miles.

Work Tasks

A series of common work tasks were performed for each data category and are briefly described below.

Data Collection

Collection of data from local, state and federal agencies; personal interviews; site investigation and field work; discussions with base personnel; collection and review of related studies, reports, and other literature.



THE STUDY AREA IN THE UPPER MIDWEST

Figure 1

Data Synthesis

Evaluation and compilation of the collected data into a useable format; where mapping is applicable, a "manuscript" base map was prepared that summarizes the data collected from various sources at various scales and at various degrees of quality.

Data Mapping

Preparation of data base maps of the Study Area in support of the data category, delineating various classifications of data by the use of symbols, patterns, etc.

Narrative Preparation

Initial drafting of the report section for each data category, detailing the information as specified in the scope of work and describing the classifications shown on associated data maps.

Report Compilation

Refinement of all data narratives and maps into a coherent and comprehensive document; revisions required as a result of review of the interim report; and preparation of final copy and map graphics.

Report Format

Each data booklet has been prepared using a standard format consisting of seven major sections. These are:

- o Summary
- o Evolution
- o Distinctive Units and Characteristics
- o Relationship to Other Data
- o Validity
- o Bibliography
- o Appendices

In a few data booklets, one or more sections are omitted where the nature of the data does not fit the format. Appendices are not always included. Data maps, figures and tables are included in the booklets where appropriate and are listed in a table of contents.

- o Summary: an introduction, usually about one page long, outlines the information in the section.
- o Evolution: a description of the processes and, where appropriate, the time span leading to existing conditions and of anticipated future conditions.
- o Distinctive Units and Characteristics: typically comprising the bulk of the booklet, this section includes a fold out data map (where one is appropriate) and describes in detail and explains the characteristics of the various units shown on that map as well as on other small scale maps which may be included in the section. The section may also contain a discussion of characteristics or conditions that are not mapped.
- o Relationship to Other Data: lists the other data categories that have a relationship to the one in hand and describes that relationship.
- o Validity: outlines the procedures that were used to gather data, lists some of the major sources for these data and where possible may give an estimate of its reliability, accuracy and limitations.
- o Bibliography: a conventional listing in alphabetical order by author, of the publications, references and personal communications gathered for the purposes of the study. All sources are listed whether they were actually used or not.
- o Appendices: a presentation in expanded form, often consisting of original sketch material of information that is given in condensed or graphic form in the body of the booklet (generally in the Distinctive Units and Characteristics section). Appendices may contain figures and tables but these (unlike the figures and tables of the main reports) are not listed in the Table of Contents.

Conduct of the Study

The original site survey work on the Upper Michigan Site was conducted by EDAW, Inc. between March 1973 and February 1974. Basic tasks included data collection, synthesis, mapping and report preparation. The work effort resulted in a set of nineteen data booklets and associated data maps, printed in February 1974 under contract to Northern Division, Naval Facilities Engineering Command for the Naval Electronic Systems Command.

During October 1975, EDAW was asked to update the data package to reflect current conditions and a reduced Site Study Area. The update of the 1973 site survey work was conducted between November 1975 and March 1976 and resulted in the production of this report.

Products

The products of the site survey effort include a variety of materials which are grouped into the following categories: Narrative Reports, including reduced maps; Planning Maps at a scale of 1" = 2 miles and Work Maps at a scale of 1" = 2 miles.

The following is a breakdown of the material available in each of the categories. The asterisk indicates those narratives that include a data map.

Narrative Reports

Book 1 - Introduction
Book 2 - Socioeconomic Data
Book 3 - Governmental Data*
Book 4 - Land Ownership Data*
Book 5 - Land Use Data*
Book 6 - Market Value Data*
Book 7 - Transportation Data*
Book 8 - Utilities Data*
Book 9 - Mineral Extraction Data*
Book 10 - Bedrock Geologic Data*
Book 11 - Surficial Geologic Data*
Book 12 - Slope and Terrain Data*
Book 13 - Soil Data*
Book 14 - Surface Water Data*
Book 15 - Subsurface Water Data*
Book 16 - Climatic Data*
Book 17 - Cultural and Recreational Data*
Book 18 - Vegetation Data*
Book 19 - Wildlife Data*
Book 20 - Air Quality and Noise Data
Book 21 - Right-of-Way Opportunities* and Avoidance Features*

Planning Maps--Scale 1" = 2 miles

Each of the maps included in the narratives are also supplied in greater detail in the following forms:

- o hand colored copies
- o ozalid prints or reproducible sepias

Work Maps--Scale 1" = 2 miles

These are mylar sheets used in the process of transferring and interpreting data. Notes on these sheets indicate assumptions used in the interpretation of conflicting or vague data.

Study Team

The environmental data collection was prepared by an interdisciplinary team under the direction of EDAW, Inc. under contract to GTE Sylvania. Members of the EDAW Team and their corresponding areas of responsibility are shown in Figure 2. The firms involved included:

EDAW, Inc.
50 Green Street
San Francisco, California 94111

Earth Sciences Assoc.
701 Welch Road
Palo Alto, California 94304

Commonwealth Associates, Inc.
209 E. Washington
Jackson, Michigan 49201

Cory Laboratories
815 - 7th Street
Menominee, Michigan 49858

Utility data have been furnished by IIT Research Institute and Williams & Works for inclusion in the report.

Scope of Work

The total site study effort is divided into three phases: Phase I includes research, data collection and mapping of all required environmental factors to be considered in system design and impact assessment. The twenty-one books listed on the previous page, together with their back-up maps at 1"=2 miles scale, make up the total product of Phase I. Subsequently, Phase II will include the analysis of the environmental data package prepared in Phase I and the development of a recommended Corridor Plan that attempts to optimize engineering and environmental as well as social costs. Phase III will include the determination of the preferred detailed alignment (an approximately 25' wide right-of-way) within each corridor (approximately one mile wide). The preparation of the Draft and Final EIS is occurring simultaneously with all three phases of the site study effort.

SEAFARER SITE SURVEY

UPPER MICHIGAN REGION

1975 - 76

STUDY TEAM ORGANIZATION & RESPONSIBILITIES

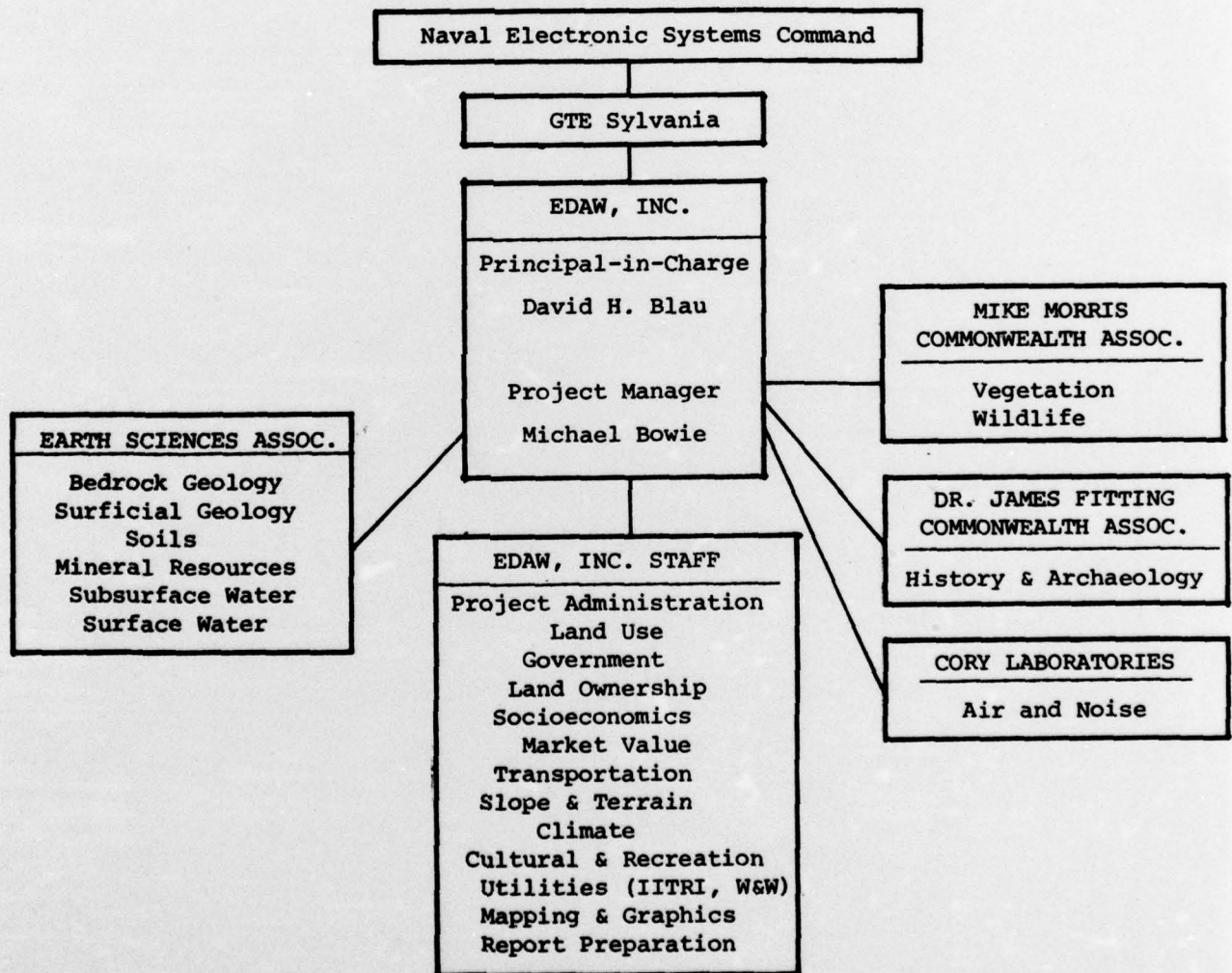


Figure 2