CATALOG DOCUMENTATION
MAIA-ESTUARIES SUMMARY DATABASE
1997 and 1998 STATIONS
STATION LOCATION DATA: “STATIONS”

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1. DATASET IDENTIFICATION

1.1 Title of Catalog document
MAIA-Estuaries Summary Database
1997 and 1998 Stations
Station Location Data

1.2 Authors of the Catalog entry
John Kiddon, U.S. EPA NHEERL-AED
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1.3 Catalog revision date
April 30, 2000

1.4 Dataset name
STATIONS

1.5 Task Group
MAIA Estuaries

1.6 Dataset identification code
001

1.7 Version
001

1.8 Request for Acknowledgment
EMAP requests that all individuals who download EMAP data acknowledge the source of these data in any reports, papers, or presentations. If you publish these data, please include a statement similar to: "Some or all of the data described in this article were produced by the U. S. Environmental Protection Agency through its Environmental Monitoring and Assessment Program (EMAP)”.

2. INVESTIGATOR INFORMATION (for full addresses see Section 13)

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J. Ananda Ranasinghe, Chesapeake Bay Program, Versar, Inc. (CBP-VER)

2.3 Sample Processing Investigators
Not applicable

3. DATASET ABSTRACT

3.1 Abstract of the Dataset
The STATIONS data file reports information regarding the planned sampling locations designated by MAIA planners for the 1997/1998 MAIA-Estuaries monitoring program. One record is presented per station. Each record reports the *planned* values of latitude and longitude, the MAIA partner nominally responsible for the station, and the partners' original station identifying code. The actual values for these parameters, recorded at the time of sampling, are reported in the EVENTS data file. Each record also includes the names of the estuary, sub-region and state associated with the station, a parameter classifying the station according to the MAIA sampling design, and various statistical weighting factors (inclusion probabilities) used when performing analyses with the data.

3.2 Keywords for the Dataset
Station location, latitude, longitude, date, estuary name, region, state, inclusion probability

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective
The main objectives of the MAIA-Estuaries program are: (1) to evaluate the ecological condition of the Mid-Atlantic estuaries by measuring key properties of the water, sediment, and the community of organisms; (2) to focus attention on small estuaries in order to develop better monitoring approaches for these critical systems; and (3) to develop partnerships among federal and state environmental organizations.

The Environmental Monitoring and Assessment Program (EMAP) is an EPA research and monitoring program designed to provide unbiased assessments of the condition of selected resources over a wide region. A key feature of the program is a probabilistic sampling strategy that randomly selects sampling sites and assigns weighting factors based on area to all measured results. EMAP's strategy was adopted by the Mid-Atlantic Integrated Assessment (MAIA) program, which was designed to assess the conditions of the estuaries, forests, streams and lakes, and agricultural lands in the eight-state Mid-Atlantic region. This file contains data measured in MAIA estuaries during the Summers of 1997 and 1998. Samples were collected for water and sediment analyses primarily in 1997, with a few additional sites sampled in 1998. Fish samples were collected only in 1998. Several estuaries were designated as intensive sites and were sampled in greater detail.

The partners in MAIA-Estuaries program are: (1) The U.S. Environmental Protection Agency (USEPA), including both the Atlantic Ecology Division (AED) and the Gulf Ecology Division (GED); (2) National Park Service (NPS) under their project "Maryland Coastal Bays Monitoring"; (3) National Oceanographic and Atmospheric Administration (NOAA) which conducted sampling both in the Delaware Bay (DB) under their "National Status and Trends Program" and in the Carolinian Province (CP); and (4) The Chesapeake Bay Program (CBP), which is a consortium of federal, state, and local governments and nongovernmental organizations. Each partner was responsible for collecting, processing, and reviewing data. The USEPA Atlantic Ecology Division was responsible for final assembly and review of all data. Laboratories contracted to process samples are specified by the parameter LABCODE included in all data files (Section 4.4). Details regarding use of partner and LABCODE information are presented in the EVENTS metadata file.

4.2 Dataset Objective

To report information about the planned location of sampling stations, including: latitude, longitude, and area; the names of the estuaries, sub-regions, and states containing the stations; and codes that identify the MAIA partner responsible for sampling a station and that classify stations according to the MAIA sampling design.

4.3 Dataset Background Discussion

The STATIONS data file reports information regarding the *planned* sampling locations designated by MAIA planners. The actual locations are reported in the EVENTS data file The geographical information provided for a station (the names of the estuary, sub-region, and state containing the station) are useful when interpreting the results of other data files. The weighting factors for a station (called the inclusion probabilities) are used when performing statistical analyses. One record is presented per station.

4.4 Summary of Dataset Parameters

*STATION	Station name	
STA_TYPE	Classification of the station according to a MAIA stratification plan:	
	CBP-BNT	Chesapeake Bay Program benthic monitoring site
	CBP-WTR	Chesapeake Bay Program water monitoring site
	CP	Carolinian Provence
	Intensive	Spatially intensive sampling site
	Intensive/Small	Small estuaries subjected to intensive sampling
	Main Stem	Mainstem sites
	NPS	National Park Service
	Sed, Water, & Fish	Sed, Water, & Fish samples collected
	Small Estuary	Randomly selected small estuary site
	Water & Fish	Water & Fish samples collected
ORGSTATN	Partners' original station identifier	
ORG_CODE	MAIA partner nominally responsible for the station:	
	EPA-ORD	EPA ORD, including the AED and GED labs
	NPS	National Park Service
	CBP	Chesapeake Bay Program
	CBP-BNT	Chesapeake Bay Program (Benthic Monitoring Program)
	CBP-WTR	Chesapeake Bay Program (Water Monitoring Program)
	NOAA	NOAA (Carolinian Province and Delaware Basin)
	UNC	University of North Carolina- Wilmington
STA_SYS	Subregion of the estuary system:	
	AP	Albemarle/Pamlico Sound
	ATL	Atlantic Ocean
	CB	Chesapeake Bay
	DB	Delaware Bay
	MDC	Maryland Coastal Bays
	VAC	Virginia Coastal Bays

4.4 Summary of Dataset Parameters, continued

ESTUARY	Name of estuary
STA_LAT	Nominal latitude of station, planned by MAIA partners
STA_LNG	Nominal longitude of station, planned by MAIA partners
STA_AREA	Area represented by station km^2 (inclusion probability), used to weight parameter values when performing statistical analyses. Complete list will be provided in a future revision of the STATIONS data file.
STASTATE	Name of state or district containing station
	DC District of Columbia
	DE Delaware
	MD Maryland
	NC North Carolina
	NJ New Jersey
	PA Pennsylvania
	VA Virginia
YEAR	Year of sampling; 1997 or 1998

* denotes parameters that should be used as key fields when merging data files

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition / Field Sampling

Data in this data file were not acquired in the field or in laboratories; rather values were assigned by MAIA program planners.

5.2 Data Preparation and Sample Processing

No analytical processing was involved with the STATIONS parameters

6. DATA ANALYSIS AND MANIPULATIONS

6.1 Name of New or Modified Values

Not applicable

6.2 Description of Data Manipulation

Not applicable

7. DATA DESCRIPTION

7.1 Description of Parameters

7.1.1 Components of the Dataset

PARAMETER	TYPE	LENGTH	LABEL
STATION	Char	10	Station name
STA_TYPE	Char	20	Station type
ORG_CODE	Char	12	Sampling organization code
ORGSTATN	Char	20	Sampling organization station id
ESTUARY	Char	25	Estuary name
STA_SYS	Char	3	Subregion of estuarine system
STA_STATE	Char	2	Name of state containing estuary
STA_LAT	Num	8	Latitude: decimal degrees
STA_LNG	Num	8	Longitude: decimal degrees
STA_AREA	Num	8	Area represented by station
YEAR	Num	4	Year of sampling

7.1.2 Precision of Reported Values

STA_LAT and STA_LNG are reported to 0.0001 decimal degree units. STA_AREA is reported to 0.01 square km.

7.1.3 Minimum Value in Dataset

EVNTDATE	07/07/97
STA_LAT	34.9670
STA_LNG	-77.4717
STA_AREA	1.56
YEAR	1997

7.1.4 Maximum Value in Dataset

EVNTDATE	10/08/98
STA_LAT	40.1460
STA_LNG	-74.7250
STA_AREA	376
YEAR	1998

7.2 Data Record Example

7.2.1 Column Names for Example Records

STATION	STA_TYPE	ORGSTATN	ORG_CODE	STA_SYS	ESTUARY
STA_LAT	STA_LNG	STA_AREA	STASTATE	YEAR	

7.2.2 Example Data Records

STATION	STA_TYPE	ORGSTATN	ORG_CODE	STA_SYS	ESTUARY
MA97-0001	Main Stem	MAIA-01	NPS	MDC	Sinepuxent Bay
MA97-0002	Main Stem	MAIA-02	NPS	MDC	Sinepuxent Bay
MA97-0003	Main Stem	MAIA-03	NPS	MDC	Chincoteague Bay

STA_LAT	STA_LNG	STA_AREA	STASTATE	YEAR
038.3270	-075.1040		MD	1997
038.2460	-075.1490		MD	1997
038.2380	-075.2070		MD	1997

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude (Westernmost)
-77.4339 decimal degrees

8.2 Maximum Longitude (Easternmost)
-74.7230 decimal degrees

8.3 Minimum Latitude (Southernmost)
34.8702 decimal degrees

8.4 Maximum Latitude (Northernmost)
40.1470 decimal degrees

8.5 Name of Region
MAIA estuary region, consisting of Delaware Bay, Chesapeake Bay, the Delmarva coastal bays, Albemarle-Pamlico Sound, and contiguous estuaries

9. QUALITY CONTROL AND QUALITY ASSURANCE

9.1 Measure Quality Objective
Not applicable

9.2 Data Quality Assurance Procedures
Not applicable

9.3 Actual Measurement Quality
Not applicable

10. DATA ACCESS

10.1 Data Access Procedures
Data can be downloaded from the web

10.2 Data Access Restrictions
None

10.3 Data Access Contact Persons
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10.4 Dataset Format
ASCII (CSV) and SAS Export files

10.5 Information Concerning Anonymous FTP
Not available

10.6 Information Concerning WWW
No gopher access, see Section 10.1 for WWW access

10.7 EMAP CD-ROM Containing the Dataset
Data not available on CD-ROM

11. REFERENCES

Holland, A.F., ed. 1990. Near Coastal Program Plan for 1990: Estuaries. EPA 600/4-90/033. U.S. EPA, Office of Research and Development, NHEERL-AED, Narragansett, RI. November 1990.

Valente, R. and Strobel, C.J. 1993. Environmental Monitoring and Assessment Program- Estuaries: 1993 Virginian Province Quality Assurance Project Plan. U.S. EPA,NHEERL-AED, Narragansett, RI. May 1993.

12. TABLE OF ACRONYMS

AED	Atlantic Ecology Division
AP	Albemarle/Pamlico Sound
ATL	Atlantic Ocean
BNT	Benthic Monitoring Program
CP	Carolinian Province
CTD	Conductivity, Temperature, and Depth
DB	Delaware Bay
DBC	Delaware Coastal Bays
EMAP	Environmental Monitoring and Assessment Program
EPA	U.S. Environmental Protection Agency
GED	Gulf Ecology Division
km	Kilometer
MAIA	Mid-Atlantic Integrated Assessment
MDC	Maryland Coastal Bays
NHEERL	National Health and Environmental Effects Research Laboratory
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NPS	National Park Service
ODU	Old Dominion University
ORCA	Office of Ocean Resources Conservation and Assessment
ORD	Office of Research and Development
QA/QC	Quality Assurance/Quality Control
UNC	University of North Carolina at Wilmington
USEPA	United States Environmental Protection Agency
VAC	Virginia Coastal Bays
VER	Versar, Inc.
WTR	Water Monitoring Program
WWW	World Wide Web

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