

# ***GeoSpatial Information and Services, Digital Data Requirements***

**Attachment # \_\_\_\_\_**

Unless otherwise instructed, the Contractor shall perform the following:

## **1. Geospatial Data Deliverables**

### **a. Geospatial Data Format and Projection:**

When vector geospatial (i.e., geographically referenced) information is prepared for this project, it shall be delivered in one of the following formats:

- 1) Arc/Info<sup>1</sup> (v. 7.3) Export, double precision, incl. metadata (preferred format)
- 2) AutoCad DXF
- 3) Intergraph Export
- 4) NIMA VPF (Vector Product Format)
- 5) Federal Geographic Data Committee "Spatial Data Transfer Standard" (FGDC SDTS)

Raster data shall be delivered in one of the following formats:

- 1) World TIFF File (.tif & .tfw)
- 2) MrSid<sup>2</sup> Compressed
- 3) Erdas<sup>3</sup> Imagine

for inclusion in the the Marine Corps Air Ground Combat Center's GeoSpatial Information System known as "Virtual MCAGCC" (VMCAGCC).

All geographic data shall be stored in current National Imagery and Mapping Agency (NIMA) standards<sup>4</sup>:

Datum: WGS84 (aka NAD-83);  
Geographical Units: UTM<sup>5</sup> coordinate system for Zone 11  
Spheroid: GRS80

Note: Latitude/Longitude, Decimal Degrees may be substituted upon approval.

Each 'Layer' or 'Coverage' shall have an appropriate 'projection' file.

Attribute data stored in an external database, those separate from the internal attribute tables, shall be recorded in a MS ACCESS -compatible format (.mdb).

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<sup>1</sup>Arc/Info is a GIS software application produced by ESRI, Redlands, Calif.

<sup>2</sup> MrSid is raster compression software produced by LizardTech Inc.

<sup>3</sup> Erdas Imagine and Virtual GIS are applications produced by Erdas, Inc.

<sup>4</sup> <http://www.nima.mil/> Further information is given in Defense Mapping Agency (DMA) Technical Report 8350.2, "Department of Defense World Geodetic System 1984, Its Definition and Relationships with Local Geodetic Systems," Second Edition, 1 September 1991 and its supplements. The report is available from the DMA Combat Support Center and its stock number is DMATR83502WGS84. Non-DoD requesters may obtain the report as a public sale item from the U.S. Geological Survey, Box 25286, Denver Federal Center, Denver, CO 80225 or by phone at 1-800-USA-MAPS.

<sup>5</sup> Universal Transverse Mercator

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## **b. Geographic Data Structure:**

All geographic or spatial information shall be developed in a structure consistent with the latest release (currently v1.9) of "Spatial Data Standards for Facilities, Infrastructure, and Environment" (SDS), "Facility Management Standards for Facilities, Infrastructure, and Environment" (FMS) and/or Federal Geographic Data Committee Standards (FGDC). The contractor shall consult with the Government concerning modifications, deletions, or additions to the SDS/FMS or FGDC requirements. Note: Not all SDS/FMS or FGDC data fields may need to have full attribution. Contractor will confirm with the government the appropriate data fields to be populated. Modifications to the Standards may be approved if it is determined that standards do not adequately address subject datasets. Copies of FGDC standards may be obtained by contacting the address in subsection 'c' of this document. Copies of the SDS/FMS may be obtained by contacting:

Director, U.S. Army Engineer Waterways Experiment Station  
CADD/GIS Technology Center  
For Facilities, Infrastructure, and Environment  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
(800) 522-6937  
<http://tsc.wes.army.mil/>  
<mailto:tssds@fwgcom.wes.army.mil> (or) <mailto:carpenb@wes.army.mil> (or)

## **c. Geographic Data Documentation (Metadata):**

In support of the National Spatial Data Infrastructure (NSDI), all geographic or spatial information shall be documented in a manner consistent with the latest standards (currently June, 1998) published by the FGDC in "Contents Standards for Digital Geospatial Metadata" FGDC-STD-001-1998. Copies of the Standard may be obtained by contacting:

FGDC Secretariat  
c/o U.S. Geological Survey  
590 National Center  
Reston, Virginia 22092  
(703) 648-5514  
or online at: <http://www.fgdc.gov/>

## **d. Geographic or Spatial Data Delivery:**

Small datasets (<1.44 megabytes, compressed) shall be delivered on a High Density, Double-sided 3.5 inch diskette. The diskette shall include an ASCII text file labeled README.TXT. The README file is to describe the contents of the diskette (e.g., file names, data dictionary, file contents, etc.) and any other pertinent information that may be required by the project proponent.

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Large geographic datasets (>1.44 megabytes, compressed) shall be delivered on CD-ROM (in accordance with current ISO Standards). The Contractor shall include information and the means required (if necessary) for the retrieval of the archived data.

### **e. Geographic or Spatial Data Collection Methodology:**

Unless otherwise addressed, the contractor shall consult with the Government concerning specific protocols and collection methods prior to commencement of field investigations.

### **f. Geographic or Spatial Data Acquisition:**

Any new and/or all archival GIS or Spatial data (imagery) will be acquired through or in cooperation/liaison with the National Imagery and Mapping Agency (NIMA):

Chief, Marine Corps Customer Support Team  
Headquarters NIMA  
Attn: ATCM MS A-13  
8613 Lee Highway  
Fairfax, VA 22031-2137  
(703) 275-8386  
<http://www.nima.mil/>

### **g. Miscellaneous:**

The digital geographic maps, related data, and text documents shall be included for review in the draft and final contract submittals. The reviews shall include a visual demonstration of the data on one of the computer systems located at the MCAGCC GIS & Remote Sensing Lab. Actual loading of data will be conducted by MCAGCC GIS/RSL personnel. However, the Contractor shall have a technical consultant available at each review to assist with any digital data discrepancies.

The data will be analyzed for subject content and system compatibility. Review comments to data and text shall be incorporated by the Contractor prior to approval of the final submittal.

## **2. Document (Text) Deliverables**

All documents are to be produced using Microsoft Word, or other approved wordprocessing software (e.g., PagerMaker, Adobe Acrobat), readable on PC-DOS compatible computers. The document is to be submitted on 3.5", High Density (1.44MB) Diskettes or CD-ROM (in accordance with current ISO Standards). Files must include all 'style sheets,' macros, linked objects, graphics, and fonts.

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## ***3. Photographs and/or other Imagery Deliverables***

All photographs, slides or images acquired for this project shall become USMC property and shall be submitted with the final report. Technical specifications will be determined on a project by project basis.

## ***4. Dissemination of Data***

The Contractor shall not disseminate any data collected under this contract without the express permission of the NREA Division, I&L Directorate; and/or Public Affairs Officer, MCAGCC.

Note: No endorsement of software or hardware is implied.