MAF/TIGER Modernization Acquisition Strategy

1. The U.S. Census Bureau (Census Bureau) intends to issue a solicitation for full and open competition for services in support of the MAF/TIGER Modernization Program. The selected contractor will be expected to provide services for the MAF/TIGER Modernization strategic program objective number 1- *Improve Address/Street Location Accuracy; Implement Automated Change Detection*. The scope of the solicitation is addressed in the accompanying draft "Statement of Objectives" (SOO). The approach in fulfilling the Census Bureau's requirement will involve an acquisition process that is best explained in terms of the order events.

2. Upon review of this document and the SOO

2.1 Potential offerors are invited to suggest feasible methods for pricing the second part of their proposals (see paragraph 3.2 below). Guidelines for these suggestions are that profit must be tied to performance and a valid "Best Value" analysis must be attainable.

2.2 Regarding the Operational Capability Demonstration (OCD) referred to in paragraph 3.3, potential offerors are encouraged to suggest OCD alternatives highlighting their capabilities in the areas of associating TIGER structure locations with MAF addresses and maintaining MAF/TIGER by detecting change.

3. Pre-Award

Based on the RFP, containing the final version of the accompanying SOO, offerors will submit proposals addressing this MAF/TIGER Modernization requirement in two distinct proposal parts.

3.1 The first part will address a fact-finding, planning, and reporting effort that will begin immediately after contract award. For this part offerors will submit a Performance Work Statement (PWS) with performance measures tied to profit that covers this part only. For this part of the proposal, the contract type will be Cost Plus Award Fee (CPAF). In this part, offerors will submit detailed technical and cost proposals for the following effort:

- Fact finding on the sources of data and methods of collection to meet the above stated MAF/TIGER strategic objective 1

- Planning effort to meet objective 1

- Developing formal cost, schedule, and technical baselines to meet objective 1

- Working with the Census Bureau to develop a Quality Assurance Plan, a Test Plan, and a Program Management Plan

- Documenting, reporting, and obtaining Census Bureau approval of above

3.2   The second proposal part will address the offerors' initial best technical and cost estimate for meeting strategic objective 1. Offerors may wish to consider cost sharing where compensating benefits may accrue.

3.3   Technical Evaluation of proposals will be based on the following:

- Capability as demonstrated in:
  - Proposal Part 1
  - Operational Capability Demonstration *
  - Oral Presentation
  - Proposal Part 2
- Key People
- Experience
- Past Performance

* The Operational Capability Demonstration (OCD) is currently envisioned to be aligning TIGER data to source materials within a selected test site (county).

4. Post Award

Immediately after award the actual work listed in paragraph 3.1 will begin. The selected contractor will work on tasks that will lead to a finished Performance Work Statement (PWS) with performance measures tied to profit for the work covered by the second part of the proposal/contract. The contractor will be required to coordinate the development and approval of formal cost, schedule and technical baselines for the remainder of the effort. The Census Bureau envisions this post-award process to take place with full participation of the Census Bureau in co-located space with the selected vendor for a period of time proposed by the contractor in the pre-award proposal.

4.1   Additional contract effort will then be accomplished in accordance with the PWS and other plans and procedures developed as described in paragraph 4 above.

5. This approach will provide offerors the flexibility to structure a sound program with cost effective solutions, and propose innovative alternatives in a "Performance Work Statement" (PWS) designed to satisfy the SOO. This approach also will allow the Census Bureau to more efficiently manage the contractor interface. It is anticipated that the selected contractor will establish agreements with many entities during the course of the program, including other vendors, state, local and tribal governments.

6. This guidance and the accompanying SOO are drafts until such time as the solicitation document is issued. Comments and suggestions on any and all aspects of these documents are welcome. Please direct comments within the next 30 calendar days to tigermodernization@geo.census.gov.   Or you may phone; for Acquisition questions or comments, Phil Hodges at 301-457-4420, for technical requirements questions or comments, Mike Keister at 301-457-4309.

MAF/TIGER Modernization
Statement of Objectives (SOO) - Draft

Overview

The Geography Division, United States Census Bureau (Census Bureau) is conducting a competition to enter into a long-term contract and partnership for the delivery of a more accurate TIGER database, a structure coordinate with an address for each that can be linked with the Master Address File (MAF), and a proposed maintenance mechanism (detecting change) for the TIGER database and the inventory of structures. This Statement of Objectives (SOO) contains the major goals of the partnering arrangements and identifies the program's overall performance objectives.

In the early 1980s, the Geography Division of the Census Bureau created the TIGER database to manage all relevant geographic features (roads, railroads, hydrography), boundaries and area identifiers needed to support the statistical programs of the Census Bureau. In addition to feature type and location information, attributes of the features were compiled (e.g., feature names and street address ranges). The database contains codes for every geographic entity used for the Census Bureau's data tabulation process. Additionally, the TIGER database contains some housing unit location information for non-city-style addresses (digitized housing unit map spots), but does not contain specific addresses; specific addresses are contained in the MAF. A major deficiency in the existing TIGER information is the lack of accurate location information for the streets, other features, and housing unit map spots it contains. In addition, the extent of location accuracy is inconsistent across streets/features/map spots, not all metadata, especially legacy metadata, is documented, and no map spots exist for more than 80 percent of the addresses. The TIGER database is used extensively within the Census Bureau. The TIGER/Line® files, extracts of selected information from the TIGER database, are released to the public and used extensively by state, local and tribal governments, other federal agencies, and private industry.

The MAF, a permanent electronic list of residential and non-residential addresses, was developed following the 1990 decennial census. The MAF includes specific addresses that allow most census and household survey forms to be mailed, provides descriptions of living quarters locations enabling census enumerators to deliver forms and make follow-up visits to non-responding addresses, and provides a mechanism to keep track of overall progress in completing each census and household survey. The MAF is linked to the TIGER database, but is restricted from public use by Title 13 of the *U.S. Code*.

The use of the MAF/TIGER system has greatly improved the accuracy of the data

resulting from the Census Bureau's statistical programs. It also has improved the efficiency of the Census Bureau's operations. Today, however, the functional processes that MAF/TIGER were designed to support have expanded their requirements and expectations significantly, and the technology available to support these processes has improved dramatically. Preparations for Census 2000 highlighted the need for this aging national resource to be updated to successfully execute the geographic support activities required by the Census Bureau up to and including the 2010 Census.

1.0   MAF/TIGER Modernization Strategic Program Objectives

The Census Bureau's 5 Strategic Program Objectives for MAF/TIGER Modernization are:

1. Improve Address/Street Location Accuracy; Implement Automated Change Detection

2. Implement a New Processing Environment

3. Expand and Encourage Geographic Partnership Options

4. Launch the Community Address Updating System (CAUS)

5. Implement Periodic Evaluation Activities/Expand Quality Metrics.

Strategic Program Objective 1 above is the correction of all street/other map features/map spot locations and the addition of all existing, but currently missing, streets/other map features/map spots to TIGER and their association with MAF addresses, and is the subject of this SOO. The remaining strategic program objectives will be developed through separate programs.

2.0   MAF/TIGER Modernization General Contract Objectives

One of objectives of the MAF/TIGER Modernization initiative is to improve the accuracy of the information in the TIGER database by correctly locating every street, every map feature and every structure (with its address) within the database. Improving the accuracy of feature coordinates will facilitate the gathering of accurate housing unit location information in relation to an accurate base map, thereby enabling enumerators to find the correct structures in the field for questionnaire delivery and nonresponse follow-up operations and allow the Census Bureau to tabulate data for each in the correct census block and the other geographic entities used in data presentations. In addition, a more accurate TIGER database will facilitate digital data exchange with federal, state, local and tribal partners, avoiding duplication of effort and expense among those organizations.

Re-alignment capabilities are being sought to correctly locate every street, structure and map feature in the TIGER database. In addition to improving the locational accuracy of the existing features, there is a need to identify and add new features to the database, as well as identify and remove features from the database that do not exist on the ground. The objective is to have an accurate and up-to-date TIGER database for all 3,232 counties and statistically equivalent entities by FY 2008.

Throughout the many federal agencies, the state, local, and tribal governments in the United States, as well as numerous private sector commercial firms there exist files of features that can be used to support the modernization of MAF/TIGER. It is the intention of the Census Bureau to locate and make priority use of as many of these data that meets specified formats, quality, and age requirements and that have no restrictions on their subsequent use. The Census Bureau's intent is to orchestrate the interaction with the government agencies required to find and obtain such files. Recommendations of acceptable commercial files by contractors will be considered. The processing of both government and commercial files to re-align and update MAF/TIGER is an objective of this contract.

The MAF/TIGER contract is intended to provide an accurate TIGER database with associated MAF addresses for every county and statistically equivalent entity within the United States, Puerto Rico, and associated Island Areas. Following a performance-based acquisition approach, the contractor shall furnish the necessary personnel, materials, equipment, application software, development/maintenance, facilities and related services to meet the Census Bureau's program objectives.

Further, given the need to keep the TIGER database accurate over time, a maintenance plan must be implemented to identify new streets and structures current to within one year of reality.

2.1   MAF/TIGER Modernization Specific Contract Objectives

There are 5 specific contract objectives of MAF/TIGER Modernization.

2.1.1   Improve the Accuracy of the TIGER Database

A major objective of this contract is to enhance the accuracy of the coordinates in the TIGER database for all of the counties and statistically equivalent entities in the United States, Puerto Rico, and the associated Island Areas. The specific content of the TIGER database that requires alignment includes roads, hydrography, railroads, structures, landmarks, pipelines, power lines, etc. The horizontal accuracy required for re-alignment of TIGER coordinates (including structures) is such that the geographic positional coordinates will correctly place an enumerator, relying on a GPS receiver, at the desired structure 100 percent of

the time, on the correct side of the street (i.e., in the correct Census Block) 100 percent of the time, and the structure is in the correct relationship to corporate boundaries, other boundaries, and neighboring structures 100 percent of the time.

Federal, state, local and tribal government data, as well as commercial data, that meet acceptable specifications, will be used to re-align TIGER whenever available. When a county or statistically equivalent entity is assigned for re-alignment the federal, state, local and tribal government data, as well as any commercially available data, will be provided by discussions held as part of the Geography Division/contractor partnership. If the assigned contractor is aware of additional data for its assigned county, notification should be made to the Geography Division for consideration of acceptance.

The resulting corrected file must have all features and structures that exist within one year of the time of delivery.

2.1.2   Association of the Accurate TIGER Database with MAF Addresses

The association by the contractor of a city-style mailing address with each structure coordinate is a requirement. When a structure does not have a city-style mailing address, the requirement is to provide a coordinate, the actual mailing address, and an E-911 address, if one exists.

2.1.3   Enhance Relationships with Federal, State, Local, and Tribal Governments

The success of the alignment of the TIGER database and the continuous update of the information in the database requires the interaction of the Census Bureau with the federal, state, local, and tribal governments. A large amount of the data to correct the TIGER database is currently available from these organizations. The use of this already available data must be considered prior to any other options for alignment. The maintenance of the TIGER database must incorporate the updates provided by federal, state, local, and tribal governments.

2.1.4   Maintain MAF/TIGER by Detecting Change

The modernization of MAF and TIGER has an anticipated completion date prior to FY 2008 in preparation for the Census Bureau's 2010 Census dress rehearsal. The MAF/TIGER database must be maintained to a currency of less than 1 year old at all times. The partnerships with federal, state, local, and tribal governments must be maintained as part of the update system put into place. Beginning in FY 2004, updates must be made to the TIGER database that will note the additions and deletions of structures, roads, railroads, hydrography features, etc. This maintenance must remain ongoing indefinitely and ensure that new features are updated within the prescribed time period. When the TIGER database is updated with additions or deletions, the MAF database also must be updated concurrently.

2.1.5   Teaming and Small/Small Disadvantaged/Women-owned Small Business/Service Disabled Veteran Subcontracting

The contractor should establish effective teams in its cadre that bring expert talent and ingenuity to accomplish the varied work under MAF/TIGER Modernization. The contractor is expected to widely and effectively utilize small/small disadvantaged/women-owned small businesses/service disabled veteran businesses in accomplishing its work, which can assist the Census Bureau in meeting and exceeding its socio-economic procurement goals.

3.0   Contract Process

Offerors will submit proposals addressing this MAF/TIGER Modernization requirement in five proposal parts. The first two parts shall address two performance phases of the contract. The last three parts shall address key personnel, experience, and past performance respectively.

3.1   Performance Work Statement

The first part will address a fact-finding, planning, and reporting effort that will begin immediately after contract award (Phase 1 effort). For this part offerors will submit a Performance Work Statement (PWS) with performance measures tied to profit that covers this part only. For this part of the proposal, the contract type will be Cost Plus Award Fee (CPAF). In this part, offerors will submit detailed technical and cost proposals for the following effort:

a) Fact finding on the sources of data and methods of collection to meet the above stated MAF/TIGER strategic objective 1

b) Planning effort to meet objective 1

c) Developing formal cost, schedule, and technical baselines to meet objective 1

d) Working with the Census Bureau to develop a Quality Assurance Plan, a Test Plan, and a Program Management Plan

e) Documenting, reporting, and obtaining Census Bureau approval of above.

3.2 Best Technical And Cost Estimate

The second proposal part will address the offerors' best technical and cost estimate for meeting strategic objective 1 (Phase 2 effort). Offerors may wish to consider cost sharing where compensating benefits may accrue.

4. Partnering Philosophy

The objective of this Statement of Objectives is to create a "partnership" between the Census Bureau and the contractor. The Census Bureau intends to structure the contract in a manner that ensures the contractor's goals and objectives are synchronized with those of the agency. Superior performance on the contractor's part will equate to superior Census Bureau mission accomplishment in correcting TIGER, associating the MAF addresses to accurate structure locations, and maintaining a current TIGER database. Within the context of the Census Bureau/contractor partnership, the Census Bureau does not use the terms "partner" and "partnership" as legal terms. The Census Bureau /contractor partnership will reflect the attributes of an open, collaborative, and customer-oriented professional relationship in which the contractor will:

a) Consistently take steps to understand the Census Bureau's business issues and opportunities.

b) Share the risks and responsibilities of joint implementations and initiatives.

c) Strive to enhance performance and improve quality.

d) Work collaboratively with other contractors and business partners to ensure project success.

e) Resolve the complexities and difficulties that are characteristic of implementing, integrating, maintaining and securing the correct mixture of expertise that will provide the best solutions.

f) Foster small, small disadvantaged, women-owned small businesses, veteran owned small businesses, and service-disabled veteran businesses as part of its overall business strategy.

g) Capture and classify information documenting the efficiency and effectiveness of MAF/TIGER Modernization activities within the scope of strategic objective 1.