

Supplemental Questions for DOC/NOAA Customer Survey clearance (OMB Control Number 0648-0342)

1. Explain who will be conducting this survey. What program office will be conducting the survey? What services does this program provide? Who are the customers? How are these services provided to the customer?

NOAA's National Geodetic Survey (NGS) is conducting a series of online surveys for the purpose of obtaining feedback from core users of its geospatial positioning products and services. It is NOAA's goal to provide counties in the United States with the infrastructure, models and tools, and capacity for accurate positioning to the centimeter level. To this end, feedback and interaction with local county geospatial representatives is required to ensure NOAA is meeting their local positioning needs and to obtain feedback on NOAA's products and services for the purpose of improving them. Completing this survey is also a requirement for counties to be graded as "fully enabled" with accurate positioning capacity in accordance with NGS' Government Performance and Results Act (GPRA) performance measure, which is also an outcome measure for NOAA in the Navigation Services Program Performance Assessment Rating Tool (PART) completed by OMB in 2006. This GPRA measure tracks NOAA's progress toward its goal, which is "to increase the percentage of counties rated as substantially or fully enabled, with the infrastructure, tools, and demonstrated local capacity for accurate positioning" from 25% in 2004 to 83% in 2011.

NOAA's National Geodetic Survey (NGS) will be conducting surveys for the fifth distribution in FY11 in the same manner as the distributions in FY06 - FY09. This method involves distributing a web-based customer survey available only to a targeted group of individuals who have been identified to accurately represent their County's geospatial needs.

NGS defines and manages a national coordinate system. This network, the National Spatial Reference System (NSRS), provides the foundation for transportation and communication; mapping and charting; and a multitude of scientific and engineering applications. NGS develops Federal standards for geodetic surveys and helps to coordinate surveying methods. NGS' customers include surveyors (government and private), private industry, recreational users of GPS, and all other industries and other users of GIS, remote sensing, and surveying.

NGS' services are provided to customers through access to our numerous databases including Online Positioning User Service (OPUS) and the National Spatial Reference System Integrated Database. Furthermore our services can be obtained via our website <http://www.ngs.noaa.gov/>. In addition, NGS State Geodetic Advisors are stationed in several states to work with local communities to expand surveying capabilities.

The first distribution of the survey was sent to 175 County Surveyors who were members of the National Association of County Surveyors (NACS). The second distribution was sent to other surveyors who may not be NACS members, as well as engineers and Graphical Information System Managers, including those in private industry, who

perform the same or similar services as County Surveyors in Counties which do not have County Surveyors. For the third distribution of the County Scorecard, NGS worked with State Geodetic Associations and other resources to identify and survey other individuals who can represent their Counties' geodetic needs. Some of these were NACS members not previously completing the survey or geospatial representatives in counties not yet covered. In the fourth, NGS targeted 500 members of the National Association of County Engineers who were County Engineers. The fifth distribution, which has a revised set of questions tailored to further improve NGS' geospatial products and services, will target counties which have not yet had a representative respond, with a focus on the roughly 880 counties who have met the GPRA requirements of being fully enabled in all other respects and only lack a county scorecard web survey.

Previous distributions of the NGS County Scorecard have been compiled and disseminated both internally and externally. The results were provided in the Geodesy GPRA measure and presented to the National Association of County Surveyors (NACS) Membership Meeting during the American Congress of Surveying and Mapping Annual Conference. They are also posted internally on NGS Intranet for use within NGS to improve NGS' products and services based on the feedback provided. The most recent extensive presentation (2008) is attached.

2. Explain how this survey was developed. With whom did you consult during the development of this survey on content? statistics? What suggestions did you get about improving the survey?

This survey was developed in consultation with high level management including division chiefs who manage our services and products. It was also developed in consultation with the American Congress on Surveying and Mapping (ACSM), whose membership roster includes core users of our products and services. The survey questions were introduced to a variety of stakeholders at a recent NGS-sponsored conference. NGS has a newly created stakeholder feedback committee, which was created to analyze stakeholder feedback (collected through the County Scorecard as well as other stakeholder activities) in order to maximize the use of this feedback to better inform management decisions and improve NGS geospatial products and services. This committee reviewed the questions and offered suggestions for improving the survey.

Furthermore, NGS State Advisors and Coordinators were consulted on the content of the survey. The NGS State Geodetic Advisor Program is a cost-sharing program that provides a liaison between NOAA and the host state, usually with a jointly-funded NOAA employee residing in the state to guide and assist the state's geodetic and surveying programs. NGS also fosters a State Geodetic Coordinator Program wherein a participating state designates an employee to be its State Geodetic Coordinator, acting as a liaison between the state and NGS. Suggestions to improve the content of the survey included reduction in the length of the survey to simplify the survey and improve response rate; providing unit conversions in several cases to allow the user to see examples in both English and metric systems to reduce confusion; addition of questions dealing with new technology, and reducing the technical nature of response choices. The

revised questionnaire has simpler and shorter questions that are easier to understand and whose answers will better inform improvements to NGS products and services.

3. Explain how the survey will be conducted. How will the customers be sampled (if fewer than all customers will be surveyed)? What percentage of customers asked to take the survey will respond? What actions are planned to increase the response rate? (Web-based surveys are not an acceptable method of sampling a broad population. Web-based surveys must be limited to services provided by Web.)

NGS is seeking to obtain feedback from one Geospatial Representative per County, who will be asked to rate NGS' web-based products and services. Because Counties and States differ widely in the makeup of their County governments, these recipients include County Engineers, GIS Coordinators, County Surveyors, Executive Judges, etc. or others who have been identified by NOAA as being able to speak for the geospatial needs of their County. NGS will be using Survey Monkey (www.surveymonkey.com) as the web service provider.

Previous distributions have had a response rate of 30% - 50%. The most recent survey of NACE representatives had a response rate of almost 40%. NGS expects a similar response rate for this survey, especially given the simplification and reduced technical nature of the revised questions.

4. Describe how the results of this survey will be analyzed and used. If the customer population is sampled, what statistical techniques will be used to generalize the results to the entire customer population? Is this survey intended to measure a GPRA performance measure? (If so, please include an excerpt from the appropriate document.)

NGS has compiled the results of previous distributions in a database and is using them to determine ranges and average levels of use and satisfaction for its models and tools as a baseline. The fifth distribution will follow the same analytical response as the first four distributions. NGS' newly formed constituent feedback committee will conduct an in depth analysis of the responses and present the findings to senior NGS leadership. Responses from each county will provide information for determining whether a county is considered "fully enabled" with accurate positioning. The GPRA performance measure for which this survey is a critical component includes the following:

Percentage of U.S. counties rated as enabled or substantially enabled with accurate positioning capacity (Goal: Increase percentage of counties rated as substantially or fully enabled, with the infrastructure, tools, and demonstrated local capacity for accurate positioning, from 25% in 2004 to 83% in 2011). The *level* of capacity varies across the nation. This variation is measured as deficient, sufficiently enabled, and fully enabled as follows:

- 1) *Deficient* capacity to conduct accurate positioning:
 - a) Indicates county has not demonstrated that it has the NOAA-enabled infrastructure, tools, and local capacity needed for accurate positioning. This is indicated by fewer than 25 OPUS solution generations in a given county in the last year and no capacity validation (such as by OPUS project submission).
 - b) Color indicator on a US counties map – Red or Blank.
- 2) *Substantially enabled* capacity to conduct accurate positioning:
 - a) Indicates county has demonstrated it has the NOAA-enabled infrastructure, tools, and local capacity needed for accurate positioning. This is indicated by 25 or more OPUS solution generations in a given county in the last year.
 - b) Color indicator on a US counties map – Yellow.
- 3) *Fully enabled* to conduct accurate positioning:
 - a) Indicates county validated NOAA-enabled infrastructure, tools, and local capacity needed for accurate positioning. This is indicated by having the four following elements:
 - i) NGS has identified a County Designated Representative (e.g. County Surveyor)
 - ii) The county participates in the State Advisor/Coordinator program or has a State Designated Equivalent.
 - iii) The county has submitted accepted “blue book” data to NGS through activities such as: OPUS DB (Note the OPUS project tool is not yet publicly available) and leveling project software.
 - iv) The county completes a county-based, accurate-positioning scorecard (County Scorecard).
 - b) Color indicator on a US counties map – Green.

The results to date have provided NGS feedback for future planning decisions, such as improvements in NGS capacity building and outreach. Using the information gathered from this survey so far, NGS has:

- Reviewed and strengthened the NGS Workshop Program.
- Held a State Plane Coordinates and Datum Transformations Workshop on May 20, 2008 in Upper Michigan in direct response to the analysis of feedback from local geospatial representatives.
- Responded to the specific questions from survey respondents.
- Gave survey results to State Advisors to use for local analysis.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

There are approximately 3,142 counties in the United States from which NGS would ultimately like to receive responses. NGS will be seeking to obtain responses from at least one Geospatial Representative per county before this series of surveys is completed. Previous distributions have had a response rate of 30% - 50%. To date, we have received over 1,000 fully completed responses from representatives in over 700 counties (including almost 100 responses in the first distribution, over 200 in the second distribution, over 400 in the third, and over 350 in the fourth). NGS is expecting 40% of distributed surveys to be completed in the fifth distribution (based on similar successes in previous surveys and improvements in reducing the technical nature of the survey to appeal to a broader constituent base. Based on this estimated number of responses, and assuming there may be more than one respondent per county, we expect to hear from up to 350 additional counties.

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

The fifth distribution, which has a revised set of questions tailored to further improve NGS' geospatial products and services, will target counties which have not yet had a representative respond, with a focus on the 880 counties who have met the GPRA requirements of being fully enabled in all other respects and only lack a county scorecard web survey which is the final requirement.

The first phase targeted the 175 County Surveyors who are National Association of County Surveyors (NACS) members, for whom we have contact information. This group of surveyors is from 20 states, including all regions except for New England. The second phase targeted those Counties which are located in states that are associated with NGS' State Geodetic Advisor Program. The third distribution of the survey included greater numbers of County Surveyors or their equivalents, identified with the help of NGS' State Geodetic Advisor Program and other state and county associations. For the third distribution in FY08, State Geodetic Advisors compiled names of individuals in their representative states who could complete the survey as spokespersons for their counties' geodetic needs. The fourth distribution was sent to 513 members of the National Association of County Engineers and included a number of question revisions tailored to NACE members.

The reliability and accuracy of the information is adequate for this purpose.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

Using a web-based survey allows respondents to respond at their convenience and submit their responses quickly and easily. We found it highly effective to send out periodic email reminders to those who had not submitted the survey and this method will be used in the fifth distribution. Using this technique, we achieved response rates from 30-50% in the first 4 distributions, which reflects the care with which potential respondents are selected and the relevance of the survey questions to their work. We will continue to use this technique, expecting the response rate to be approximately 40% in the fifth distribution.

For the first three distributions, information was provided by individuals distributed fairly evenly throughout the U.S., who use NGS' products and services and who have an incentive to receive better products and services from NGS. The fourth distribution added supplemental information, relatively efficiently, to the broadly distributed responses received thus far, since it was focused on County Engineers who were not adequately surveyed in previous distributions. The fifth distribution expects to collect information similar to the first three distributions, providing a range of responses from a broad group of stakeholders across the U.S. who use NGS' products and services.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

There are no tests of procedures or methods to be undertaken in this survey.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

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