Census 2010 Participant Statistical Areas Program Verification Guidelines for all Participants

United States Census 2010

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Acronyms for the Participant Statistical Areas Program

BAS   Boundary and Annexation Survey
BG   Block Group
CCD   Census County Division
CDP   Census Designated Place
FTP   File Transfer Protocol
HU   Housing Unit
MTDB   MAF/TIGER Database
MTPS   MAF/TIGER Partnership Software
PSAP   Participant Statistical Areas Program
RCC   Regional Census Center

1. Introduction

1.1 Background

This document is designed to provide all the procedures necessary to allow local participants to take part in the verification stage of the 2010 Participant Statistical Areas Program (PSAP). These guidelines are intended to supplement the *Census 2010 Participant Statistical Areas Program Guidelines for all Participants,* which describes the procedures to be used for the earlier stages of the project.

The 2010 PSAP is the Census Bureau program that provides local officials with the opportunity to review and revise statistical geographic entities in preparation for the 2010 Census. The program includes census tracts, block groups, census designated places, and census county divisions. Starting with the delineation of Census Tracts for the 1940 Census, the Census Bureau has been working with local governments to delineate these entities. The 2010 PSAP delineation materials were distributed to participants in November of 2008. Data from the Census 2010 as well as the American Community Survey will be tabulated for each of these geographic areas.

The verification stage represents the last step in the 2010 PSAP process. Verification begins only after the Census Bureau has updated our MAF/TIGER database (MTDB) with the participant changes. All participants who submitted 2010 PSAP changes are eligible to take part in the verification stage and are encouraged to do so. The purpose of the verification stage is to allow the participant to determine whether the Census Bureau has correctly transferred their proposed changes to the MTDB, as well as to review any other changes deemed necessary by the Census Bureau to meet the program criteria and guidelines.

The Census Bureau will provide the participants with a Web Viewer tool and a set of downloadable shapefiles to assist with the verification process. Using these materials, and following the procedures in this document, the participant will either verify that all their original proposed changes were correctly reflected in MTDB or identify specific cases where their original proposed changes were not correctly transferred. If a participant finds cases where their original proposed changes have not been incorporated into MTDB, the participant will notify the Census Bureau so that we can make the necessary corrections before the final 2010 tabulation geography is created.

The Census Bureau appreciates all your work on the 2010 PSAP and hopes to continue to work with you during the verification stage to help prepare useful geographic areas for reporting the Census 2010 results. The knowledge provided by our local partners allows the Census Bureau to meet many of the statistical

and spatial data needs that are part of the agency's mission: to be the statistical source for a better understanding of our Nation.

1.2 Schedule

The verification stage will commence when the Census Bureau has updated the MTDB and created the verification review files. This is currently scheduled to occur in February 2010.

Geography staff in the Census Bureau's Regional Census Centers (RCCs) will notify each participant when their area is ready for verification by sending the participant an e-mail.

The Census Bureau requests that participants complete verification for their delineation area within 30 calendar days of receiving the notification e-mail from the RCC. This is to ensure that the Census Bureau has time to make the requested corrections to our database prior to the creation of final tabulation geography. The verification schedule is so tight because the subsequent creation of tabulation geography must undergo an extensive quality check and meet a legally mandated schedule.

2. Verification Procedures

2.1 Before You Begin

The primary purpose of verification is to check whether the changes which you have already submitted to the Census Bureau have made it into the Census Bureau's geographic database. Verification will consist primarily of comparing Census-provided verification files to the files which you actually submitted during the earlier stage of the PSAP. The participant will access the verification files either through the provided Web Viewer tool (described in Section 4) or by directly downloading the data as ESRI shapefiles (described in Section 5). The basic guidelines to be followed remain the same regardless of which of the two verification methods is used. Participants will review the files and report any problems that they see back to the Census Bureau, which will then, after reviewing the case, make any needed corrections to the area. The verification process is designed to be flexible and the participant should never hesitate to contact their RCC if they have any questions during verification (RCC contact information is provided in Appendix A).

The verification stage is meant to be a final **review** of the submission and insertion of PSAP changes. It is not meant to be an extension of the earlier delineation stage. Thus the Census Bureau will generally not accept **new** changes to PSAP entity boundaries or attributes during the verification stage. You should limit your review to a comparison between your original submitted

files and the verification review files and only report cases where the two files do not match (exceptions described in scenarios below). In most cases, verification should be a quick and straightforward process. It is likely that the majority of participants will not find any problems to report at all. However, it is still important that you thoroughly review the boundaries and attributes of all PSAP entities because this process represents your last chance to point out any errors to the Census Bureau before the 2010 Census data is tabulated for these entities.

The sections below will go over the verification process for each type of change in detail. Before starting the review of specific files, however, you should be aware of the following general scenarios which you are likely to repeatedly encounter during the verification process. These are common situations that may initially appear to be errors needing correction but are most often not problems at all. While keeping these scenarios in mind, do not hesitate to contact your RCC if you are unsure of whether any particular case requires correction.

SCENARIO A: *Spatial Shifts in the Underlying Data*

When you first compare the verification files to your original submissions, you may see areas where the entity boundaries in the two files are in slightly different spatial locations. While this situation sometimes can indicate a true error, it is more often the case that slight spatial differences are merely due to minor shifts in the spatial location of the underlying linear features (such as roads or streams) being used for the boundary. The single most important thing to keep in mind when reviewing boundaries during verification is that there have been numerous changes to these underlying features since the delineation phase of PSAP began. The MTDB is constantly being updated to improve its spatial accuracy and small spatial shifts are frequent. When such a shift to a linear feature occurs, the Census Bureau will generally also move the *boundaries* associated with the feature to the new location of the feature. While the location of the PSAP entity boundary in the verification file may appear incorrect in relation to the *original submitted* file, **as long as the PSAP entity boundary actually continues to follow the intended feature (road, stream, county boundary, etc.) this should not be considered an error at all**. This scenario is fairly common and you should expect to encounter it frequently.

SCENARIO B: *Post-Submission Criteria-Based Modifications*

While in most cases, the Census Bureau accepted the original submitted participant plans for Census Tracts, Block Groups, CCDs, and CDPs, in certain cases modifications had to be made in order to meet the mandated criteria for these entities. Certain entities may not, for example, have met the minimum housing unit criteria in the original submission. In many areas the delineation process entailed significant discussion and negotiation between the Census Bureau and participants after the original submission was made. Because these

changes were made after submission, they may not be reflected in the original submitted files which you are comparing to the verification files and during verification may falsely appear to be errors. If you have any questions about whether a criteria-based modification was made to any PSAP entity, please contact your RCC. They will research the changes and determine whether the difference was intentional or not.

SCENARIO C: Added Features in File

You may notice that the verification files contain additional features (especially roads) that were not present in the files used during the delineation stage. This is expected and should not cause alarm. Many new roads were added to the MTDB during the recent 2010 Census Address Canvassing project, updates from which are present in the verification files but which were not present in the files used for the delineation stage.

2.2 Verifying Linear Changes

During the delineation stage, many participants submitted linear changes, most commonly adding linear features to serve as PSAP entity boundaries. It is generally advisable to verify these line changes before moving onto a review of the entities themselves. Verifying line changes is the most straightforward part of the verification process.

Note that some participants did not submit any line changes. If this is the case, you may skip this section.

Either using the Web Viewer (see Section 4) or the downloadable shapefiles (see Section 5) display your original submitted linear changes as well as the verification file lines. Using the tools provided in the Web Viewer or your own GIS software, verify that each of your submitted line adds are also present in the verification file.

The verification file for lines will be named as follows, depending on your method of access:

Layer Name In Web Viewer	"All lines"
Shapefile Name (<stcou> will be your state/county code)	PVS_2009_v3_edges_<stcou>.shp

If you are using the Web Viewer, your original submitted changes will also appear among the layers, named as "**All lines-P**". The "P" stands for "participant".

Please note that the Census Bureau may have intentionally rejected or modified some of your line adds, especially where your lines duplicate or closely follow already existing features in the MTDB. If you have any question about why a particular line was not added, please contact your RCC.

If no problems are found with lines or if you had no line changes to review, mark "No Changes" in the "Line" area of the submission form and move on to review the entity boundaries.

If problems are found, report them to your RCC. Minor problems can be reported simply by taking a screenshot of the area of the missing or incorrect line and e-mailing it to the RCC along with a short description of the problem. For more complicated cases, you may have to modify the linear verification shapefile using the MTPS and return it to the RCC. See Section 3 for more details on how to report problems to the RCC.

2.3 Verifying Census Tract Changes

During the delineation stage, some participants made changes to the boundaries and/or attributes of their Census Tracts. During verification, you will compare your submitted changes to the verification file to ensure that your changes have been made to the MTDB.

Note that some participants did not submit any Census Tract changes. If this is the case, you may skip this section.

Also note that the Census Bureau may have intentionally rejected or modified some of your Census Tract changes if they resulted in tracts which did not meet PSAP program criteria. If you have any questions, please contact your RCC.

Either using the Web Viewer (see Section 4) or the downloadable shapefiles (see Section 5) display your original submitted tract changes as well as the tract verification file. Using the tools provided in the Web Viewer or your own GIS software, verify that each of your submitted tract changes is reflected in the verification file.

The verification file for tracts will be named as follows, depending on your method of access:

Layer Name In Web Viewer	Census Tract
Shapefile Name (<stcou> will be your	PVS_2009_v3_tract_<stcou>.shp

state/county code)	

If you are using the Web Viewer, your original submitted changes will also appear among the layers, named as "**Census Tract-P**". The quickest way to make the tract comparison is to use the "Census Tract Changes" view function in the Web Viewer (See Section 4, page 24)

Common Tract Problems You May See During Verification

Note that these problems may occur alone or in combination with each other.

1) **Attribute Problems**. You may have submitted a tract code or other attribute (i.e. non-spatial) change that is not reflected in the verification file.

2) **Minor Spatial Problems**. You may have submitted a small boundary correction that is not reflected in the verification file. Remember to always keep in mind "Scenario A" described on page 6 when you examine minor spatial differences.

3) **Major Spatial Problems**. You may have made a major spatial change (for example, split an existing tract into two suffixed tracts) that is not reflected in the verification file.

If **no** problems are found with tracts or if you had no tract changes to review, mark "No Changes" in the "Tract" area of the submission form and move on to review the other entity boundaries.

If problems are found, report them to your RCC. Any problems that solely relate to tract attributes (tract code, etc.) can be communicated to the RCC by phone or e-mail. Small spatial problems can be reported simply by taking a screenshot of the area and e-mailing it to the RCC along with a short description of the problem. For more major spatial problems you may have to modify the tract verification shapefile and return the modified shapefile to the RCC. See Section 3 for more details on how to modify the shapefile and report problems to the RCC.

2.4 Verifying Block Group Changes

During the delineation stage, most participants made changes to the boundaries and/or attributes of their Block Groups. During verification, you will compare your submitted changes to the verification file to ensure that your block group changes have been made to the MTDB.

Note that some participants did not submit any block group changes. If this is the case, you may skip this section.

Also note that the Census Bureau may have intentionally rejected or modified some of your block group changes if they resulted in block groups which did not meet PSAP program criteria. If you have any questions, please contact your RCC.

Either using the Web Viewer (see Section 4) or the downloadable shapefiles (see Section 5) display your original submitted block group changes as well as the block group verification file. Using the tools provided in the Web Viewer or your own GIS software, verify that each of your submitted block group changes is reflected in the verification file.

The verification file for block groups will be named as follows, depending on your method of access:

Layer Name In Web Viewer	Census Block Group
Shapefile Name (<stcou> will be your state/county code)	PVS_2009_v3_blkgrp_<stcou>.shp

If you are using the Web Viewer, your original submitted changes will also appear among the layers, named as "**Census Block Group-P**". The quickest way to make the block group comparison is to use the "Census Block Group Changes" view function in the Web Viewer (See Section 4, page 24)

Common Block Group Problems You May See During Verification

Note that these problems may occur alone or in combination with each other.

1) **Attribute Problems**. You may have submitted a block group code change that is not reflected in the verification file. Note, however, that the Census Bureau has recoded block groups to be sequential within Census Tract. For this reason, you should not expect the block group numbers in the original submission to always match the block group numbers in the verification file. For example, you may encounter a case where the block group "1" in your submission has been recoded as block group "2" in the verification file, while the block group which was "2" in your submission has now been recoded as "1". As long as there are no block group numbering gaps within the tract, **this kind of code-swapping is not a problem and should not be reported to the RCC**. Further information on the Census Bureau guidelines regarding block group numbering can be found on page 44 of the *PSAP Guidelines For All Participants* which can be found at the following location:
   http://www.census.gov/geo/www/psap2010/psap2010_main.html

2) **Minor Spatial Problems**. You may have submitted a small boundary change that is not reflected in the verification file. Remember, however, to always keep in mind "Scenario A" described on page 6 when you examine minor spatial differences.

3) **Major Spatial Problems**. You may have made a major spatial change (for example, split an existing block group into two block groups or merged two block groups into one) which is not reflected in the verification file.

If no problems are found with block groups, mark "No Changes" in the "Block Group" area of the submission form and move on to review the other entity boundaries. If problems are found, report them to your RCC. Any problems that solely relate to block group attributes (block group code, etc.) can be communicated to the RCC by phone or e-mail. Small spatial problems can be reported simply by taking a screenshot of the area and e-mailing it to the RCC along with a short description of the problem. For some major spatial problems you may have to modify the block group verification shapefile using the MTPS and return the modified shapefile to the RCC. See Section 3 for more details on how to modify the shapefile and report problems to the RCC.

2.5 Verifying CCD Changes

During the delineation stage, some participants made changes to the boundaries and/or attributes of their CCDs. During verification, you will compare your submitted changes to the verification file to ensure that your CCD changes have been made to the MTDB.

Note that many participants did not submit any CCD changes. If this is the case, you may skip this section.

Also note that the Census Bureau may have intentionally rejected or modified some of your CCD changes if they resulted in CCDs which did not meet PSAP program criteria. If you have any questions, please contact your RCC.

Either using the Web Viewer (see Section 4) or the downloadable shapefiles (see Section 5) display your original submitted CCD changes as well as the CCD verification file. Using the tools provided in the Web Viewer or your own GIS software, verify that each of your submitted CCD changes is reflected in the verification file.

The verification file for CCDs will be named as follows, depending on your method of access:

Layer Name In Web Viewer	CCD
Shapefile Name (<stcou> will be your state/county code)	PVS_2009_v3_cousub_<stcou>.shp

If you are using the Web Viewer, your original submitted changes will also appear among the layers, named as "**CCD-P**". The quickest way to make the CCD comparison is to use the "Census CCD Changes" view function in the Web Viewer (See Section 4, page 24)

Common CCD Problems You May See During Verification

Note that these situations may occur alone or in combination with each other.

1) **Attribute Problems**. You may have submitted a CCD code or name change that is not reflected in the verification file.

2) **Minor Spatial Problems**. You may have submitted a small boundary change that is not reflected in the verification file. Remember, however, to always keep in mind "Scenario A" described on page 6 when you examine minor spatial differences.

3) **Major Spatial Problems**. (This is extremely rare for CCDs) You may have made a major spatial change to a CCD boundary that is not reflected in the verification file.

If no problems are found with CCDs or if you have no CCD changes, mark "No Changes" in the "CCD" area of the submission form and move on to review the other entity boundaries. If problems are found, report them to your RCC. Any problems that solely relate to CCD attributes (code, name, etc.) can be communicated to the RCC by phone or e-mail. Small spatial problems can be reported simply by taking a screenshot of the area and e-mailing it to the RCC along with a short description of the problem. For major spatial problems you may have to modify the CCD verification shapefile using the MTPS and return the modified shapefile to the RCC. See Section 3 for more details on how to modify the shapefile and report problems to the RCC.

2.6 Verifying CDP Changes

During the delineation stage, some participants made changes to the boundaries and/or attributes of their CDPs. During verification, you will compare your submitted changes to the verification file to ensure that your CDP changes have been made to the MTDB.

Note that many participants did not submit any CDP changes. If this is the case, you may skip this section.

Note that the Census Bureau may have intentionally rejected or modified some of your CDP changes if they resulted in CDPs which did not meet PSAP program criteria.

Either using the Web Viewer (see Section 4) or the downloadable shapefiles (see Section 5) display your original submitted CDP changes as well as the CDP verification file. Using the tools provided in the Web Viewer or your own GIS software, verify that each of your submitted CDP changes is reflected in the verification file.

The verification file for CDPs will be named as follows, depending on your method of access:

Layer Name In Web Viewer	CDP
Shapefile Name (<stcou> will be your state/county code)	PVS_2009_v3_cdp_<stcou>.shp

If you are using the Web Viewer, your original submitted changes will also appear among the layers, named as "**CDP-P**". The quickest way to make the CDP comparison is to use the "Census CDP Changes" view function in the Web Viewer (See Section 4, page 24)

Common CDP Problems You May See During Verification

Note that these situations may occur alone or in combination with each other.

1) **Attribute Problems**. You may have submitted a CDP code or name change that is not reflected in the verification file. Note, however, that the Census Bureau may have intentionally modified the name to meet CDP program criteria. For example, while reviewing participant submissions, the Census Bureau removed **hyphens** from most CDP names.

2) **Minor Spatial Problems**. You may have submitted a small boundary change that is not reflected in the verification file. Remember, however, to always keep in mind "Scenario A" described on page 6 when you examine minor spatial differences. Note also that the Census Bureau in some cases did make boundary revisions to ensure that CDPs did not overlap with each other or with legal incorporated places.

3) **Major Spatial Problems**. You may have made a major spatial change to a CDP boundary that is not reflected in the verification file.

If no problems are found with CDPs or if you have no CDP changes, mark "No Changes" in the "CDP" area of the submission form. If problems are found, report them to your RCC. Any problems that solely relate to CDP attributes (code, name, etc.) can be communicated to the RCC by phone or e-mail. Small spatial problems can be reported simply by taking a screenshot of the area and e-mailing it to the RCC along with a short description of the problem. For major spatial problems you may have to modify the CCD verification shapefile using the MTPS and return the modified shapefile to the RCC. See Section 3 for more details on how to modify the shapefile and report problems to the RCC.

3. Submitting Verification Corrections to the U.S. Census Bureau

No Changes

If you review all the entities and have no corrections to report, either return the submission form by mail or fax to your RCC with all of the entities marked "No Changes" or call/e-mail the RCC to inform them that you have completed verification and have found no problems.

Types of Changes

If you do find problems, you need to report them to the RCC. The method of reporting differs, however, according to the nature of the problem. The table below shows how to report each type of error. Note that if there are ANY **major** spatial problems within your county, you should include ALL corrections for the county (including corrections for attribute and minor spatial problems) in the verification shapefile so that the RCC can make all the corrections at once.

NOTE: The definition of what is a "minor" and what is a "major" spatial problem is admittedly somewhat subjective, but generally speaking these are cases where the area of needed change is both small and easily identifiable in a simple screenshot and/or written description.

Error Type	Reporting Method
Attribute Problem (Name, Code, etc.)	Simply e-mail or call the RCC. Fully identify the entities with the incorrect codes/names and provide the correct codes/names for the entities.
Minor Spatial Problem	If you are using the Web Viewer, zoom to the area in question and use the Web Viewer "E-Mail Map" tool (see page 27) to e-mail a map of the area to the RCC. If you are not using the Web Viewer tool, create a screenshot of the area in question and e-mail it. In either case, also provide a brief description of the needed corrections in the e-mail.
Major Spatial	If there are major spatial problems, you may have to modify

Problem	the verification shapefile using the MTPS software and return it to the RCC. Instructions for how to do this are provided below. Before submitting a shapefile, however, always check with the RCC first to see if it is necessary or if the change can be described by an e-mail and/or screenshot.

Reporting Attribute Problems via e-mail: Example

- In this example, you have identified an attribute problem in the verification file using the Web Viewer. In your original submission, you had submitted a new CDP with the name of "Yankleysville". However, in the verification file the CDP name has been misspelled as "Yankeysville".

- In this case, assume that this misspelling happens to be the only problem found in the county.

- Since this is a simple attribute problem, all you have to do is e-mail the RCC a written description of the correction to be made. If you wanted, you could also e-mail a screenshot, but this is not strictly necessary for attribute problems.

- Make sure to always include the full identifying information for entities. You will want to fully identify the entity by code and location to ensure there is no ambiguity. For example:

  "The name of Yankleysville CDP (CDP FIPS code 456738 located in Hale County) is misspelled in the verification file. Please correct the CDP name from "Yankeysville" to the correct spelling of "Yankleysville""

Reporting Minor Spatial Problems via e-mail: Example

- In this example, you have identified a minor spatial problem in the verification file using the Web Viewer. In your original submission, the boundary between block group 1 and block group 2 ran along Maureen Stream for its entire length. You notice that in the verification file there is one small area where the boundary does not follow the stream. This small area needs to be moved from block group 1 to block group 2.

- The change that needs to be made can be easily described and captured in a screenshot, so it is not necessary to go through the trouble of modifying and resubmitting the verification shapefile.

- In the Web Viewer, zoom in close to the area in question. Make sure you remain zoomed far enough out, however, that you can see the geographic context of the area.

- Use the Web Viewer "E-Mail Map" function to send a screenshot of the area to the RCC.

- Make sure to also include a description of the necessary change. In this case, this is easy. Again, give as much identifying information as possible in the e-mail:

  "Please correct the boundary between BG 1 and BG 2 (in tract 450000, Johnson County) to match the original submission by moving the specified area from BG 1 to BG 2."

- NOTE: If the change you are requesting cannot easily be described in a short e-mail of a sentence or two or with a phone call, you should probably consider it to be a "major problem" requiring correction/resubmission of the shapefile.

Correcting Major Spatial Problems in the MTPS*: Example*

- In this example, you have identified a major spatial problem in the verification file using the Web Viewer. In your original submission, you had requested that tract 540200 be split into two tracts: 540201 and 540202. You notice that the verification file does not reflect the requested split.

- First discuss the case with the RCC to determine if this was an intentional omission made in order to meet PSAP criteria and guidelines.

- If the omission was not intentional, discuss with the RCC how best to handle correcting the case. Even many "large" spatial changes may be easily describable in an e-mail and thus not require re-submission of a shapefile.

- For purposes of this example, assume that after discussing with the RCC, you have determined that this tract split is too large and complex a correction to be handled via e-mail. This change will require correcting and resubmitting the verification file.

- First you will need to download the verification shapefiles from the Census site. Instructions for downloading the verification shapefiles are found in Section 5 of this document.

- Open up the MTPS software (the same software you used for the delineation stage). If you no longer have the software installed on your computer, see Section 5.

- Set up your MTPS data (See Section 5)

- Choose your county.

- Choose the entity type you wish to edit (in this case, tracts)

- Start editing the file in the MTPS, splitting tract 540200 in order to create the tracts 540201 and 540202. The editing process itself is identical to what you did during the delineation stage. The MTPS editing tools will not be described in detail here as they already have been described in the guidelines for the delineation phase (the document *Census 2010 Participant Statistical Areas Program Guidelines for all Participants*), which can be found at the following location:

    http://www.census.gov/geo/www/psap2010/psap2010_main.html

- Note that if you had any additional changes in this county (whether major, minor, or even attribute), you should make them at this time as well. To reduce the risk that a correction is overlooked, all of the county's verification changes should be included in a single submission.

- Once you have completed making all your edits to the verification file, it is critical that you run all the MTPS data validations, just as you did during the delineation phase.

When you have completed the data validations, you will transfer the file using the Census Bureau's Public *Send a File Utility*. Follow these steps:

1. Navigate to the Census Bureau's *Send a File Utility*:

    https://secure.census.gov/cgi-bin/sendfile

2. See the verification email for the username and password:

3. Under **Source Information (Local)**, click on the **Browse** button to navigate to the **PSAP_ssccc_Return.zip** file to send. Select the file from the **Choose file** window by clicking on it. Click **Open**. The **File to Send** field now contains the file name.
    NOTE: Only one file can be sent at a time.

4. In the **Target Information (Remote Directory)** section, select the appropriate RCC from the pull down menu.

5. Do not make an entry for **New File Name**.

6. Under **Notify by E-mail**, type the participant e-mail address in the **Sender's Email Address** field. In the **Census Bureau Employee's E-Mail Address** field, enter the appropriate RCC email address.

7. After filling in all the fields correctly, click on **Upload**. If an error occurs, **Clear** and repeat the steps.

   NOTE: If a file must be resubmitted for any reason, **rename the file**. If not, the utility produces an error message. Please retain the default naming convention of **PSAP_ssccc_Return** when renaming it. For example:

   - PSAP_42027_Return_revised.zip
   - PSAP_42027_Return_2.zip.

4. Using the Web Viewer

For most participants, the Web Viewer will be the primary tool used during the verification stage. It was developed by the same company that developed the MAF/TIGER Partnership Software (MTPS) which you have already used in the delineation stage of the project. The Web Viewer is a website which allows you to view all the Census Bureau verification review files, as well as all your original requested changes. The Web Viewer also allows participants to upload their own shapefiles to further assist in comparison.

The Web Viewer does not allow any changes to be made to the files. The tool is designed only to allow participants to identify any potential problems; corrections must be made via other methods. Section 3 describes what to do when you find problems that you believe need to be corrected by the Census Bureau.

4.1 Accessing the Web Viewer

- To access the Web Viewer, open a standard web-browser (Internet Explorer works the best) and go to the following site:

  http://ecots1.geo.census.gov/mtpsmaps/index.php

- You should see the screen below:
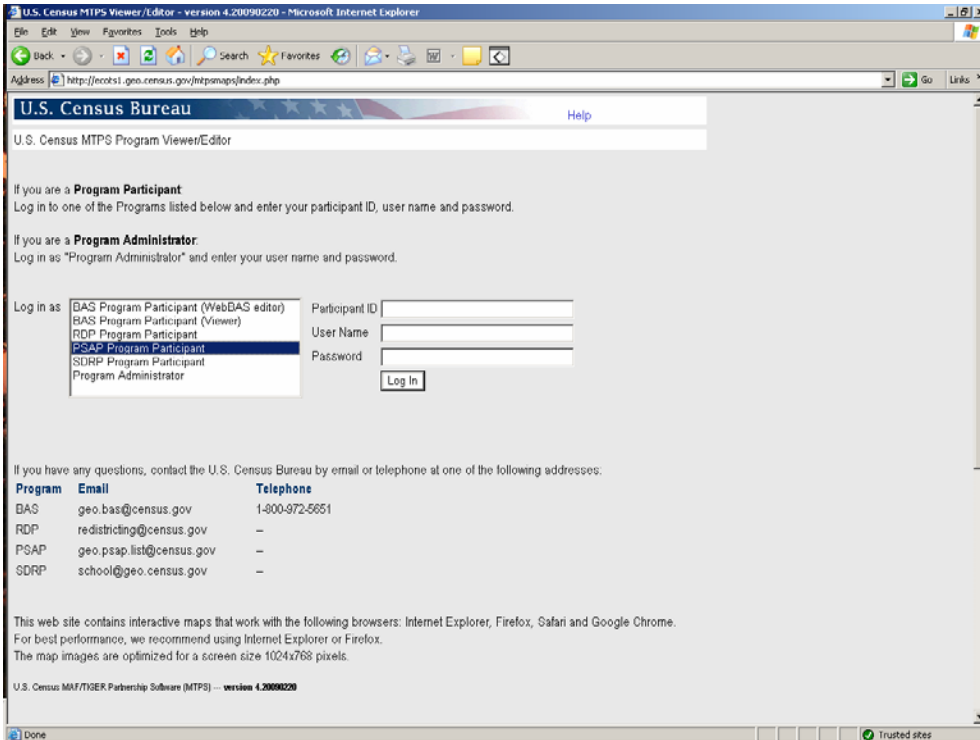
- In the left hand box ("Log in as:") choose "PSAP Program Participant":
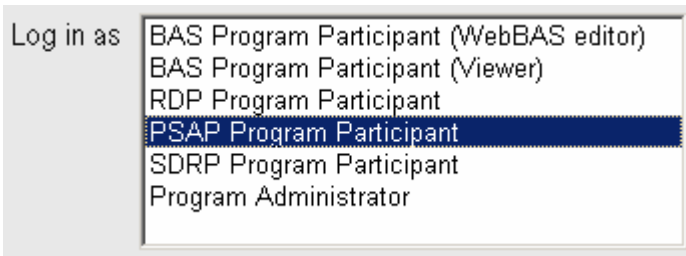
- Fill in the three right-hand boxes with your Participant ID, User Name, and Password.
- Your Participant ID is unique for each participant and should appear in the e-mail you received at the start of verification.
- For User Name, type in a lower-case **psap** as shown below.
- For Password, type in **pwpsap** (all lower case)
- Then click on the "Log In" button.

- You should see the screen below:
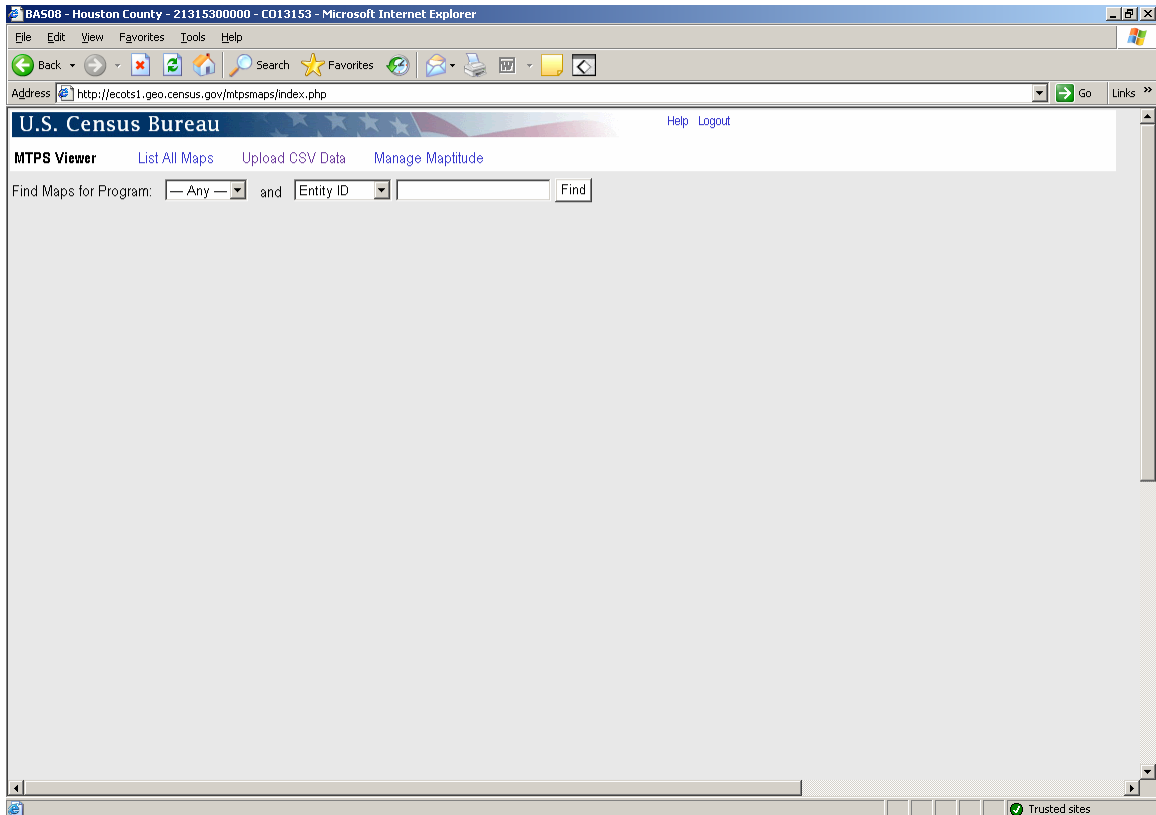
- You may choose either the "Entity Name" or "Core County" from the second drop-down.
- If you choose "Core County", you must type in the five-digit FIPS code of the county you want to review.
- If you choose "Entity Name", you must type in the full name of the county you want to review.
- You may also click on the "List All Maps" link to display all the maps for your area.

- A list of maps will appear as below:

- Generally, you will want to select the map that solely contains the data for your county. In this case, our example is Madison County, Iowa.

- Left-click on the magnifying glass to bring up the map.

- The map will open up:
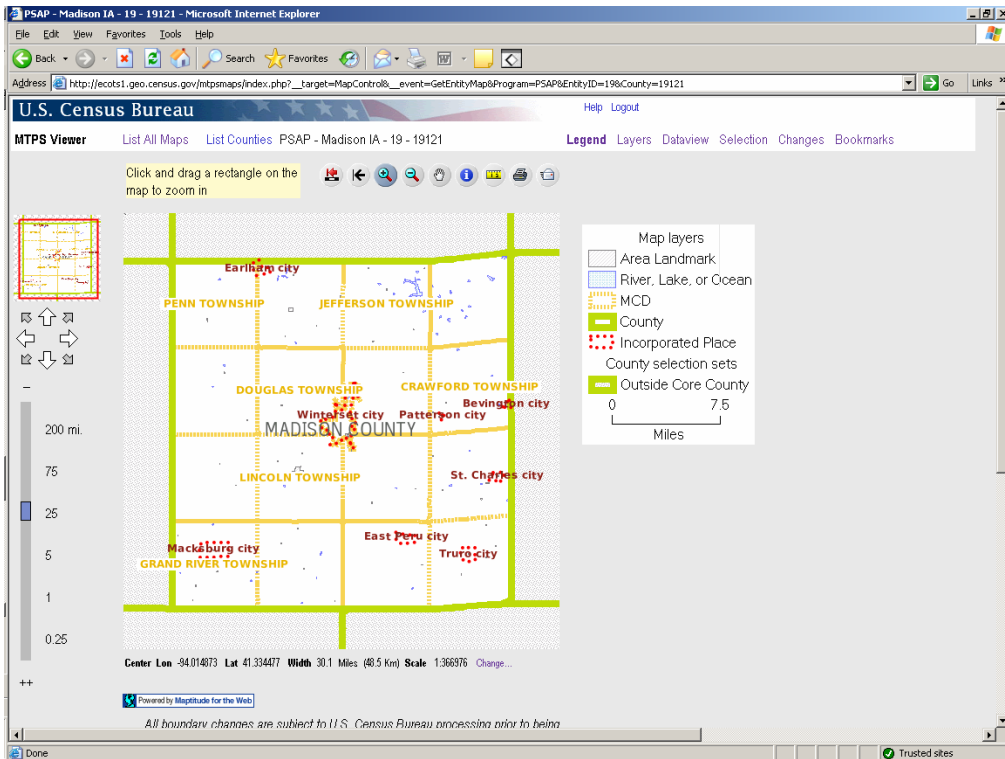
- Note that not every geographic entity will immediately appear when you first open the map. You may need to zoom in further in order to see certain entities.

4.2 Viewing the Legend

The legend does not immediately appear on the screen. One of the first things you want to do is to display the legend.

- Click on the "Legend" tab in the upper-right hand corner of the screen:

- The Legend will appear on the screen:
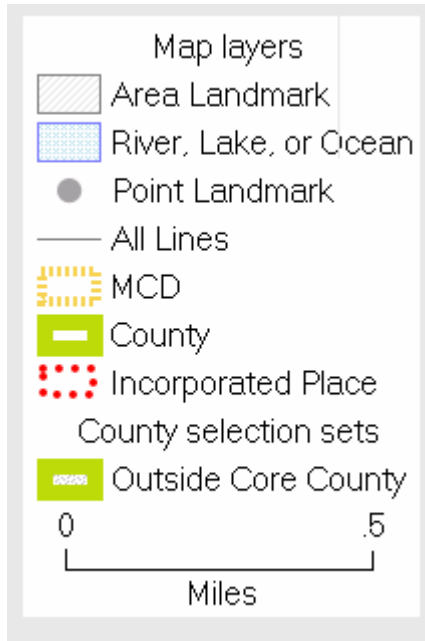
Note: the legend will only contain features that are visible at the current scale. Some features are scale dependent and therefore you may have to zoom in further to view them. See the next section for more information on turning layers on and off and modifying the scale at which they can be viewed.

4.3 Modifying the Layer Display

The Web Viewer allows you to change the layers that appear on the screen, select pre-determined views, and add your own files to the display. In order to access all these options, you must first click on the "Layers" tab on the top right hand side of the screen:

- The layers window will appear:

Layer Name	Show Layer	Show Labels	Layer Smallest Scale	Layer Largest Scale	Label Smallest Scale
Area Landmark	☑	☑	1:500,000	1:1	1:25,0
River, Lake, or Ocean	☑	☑	1:500,000	1:1	1:25,0
Point Landmark	☑	☑	1:200,000	1:1	1:12,0
Census Block	☐	☑	1:50,000	1:1	1:25,0
Census Tract	☐	☑	1:500,000	1:1	1:250,0
All Lines	☑		1:100,000	1:1	
MCD	☑	☑	1:3,000,000	1:1	1:3,000,0
County	☑	☑	1:15,000,000	1:1	1:15,000,0
Incorporated Place	☑	☑	1:1,000,000	1:1	1:1,000,0
Urbanized Area 2000	☐		1:10,000,000	1:1	
Census Block Group	☐	☑	1:200,000	1:1	1:200,0
Census Block 2000	☐		1:10,000,000	1:1	
Census Tract - P	☐	☑	1:500,000	1:1	1:500,0
Census Block Group - P	☐	☑	1:200,000	1:1	1:200,0

Views [- - - - - ▼] [Redraw Map] [Reset]

Suffix:

-P=Participant Change

-C=Census Proposed Boundaries

-F=Census Final TIGER

Current Map Scale: 1:366,976

Upload Layer

Showing/Hiding Layers

- Notice that certain layers are checked (visible) by default, while other layers are unchecked (hidden).
- To make a layer visible or hidden, simply check or uncheck the box under "Show Layer" for that layer.
- **Important:** After you have made all your changes, make sure to click the **Redraw Map** button. Until you click Redraw Map, your changes will not be applied.

Showing/Hiding Labels

- You may also want to check or uncheck the "Show Label" boxes, depending on whether you also want the label for a feature to appear on the screen.

- **Important:** After you have made all your changes, make sure to click the **Redraw Map** button. Until you click Redraw Map, your changes will not be applied.

Using Pre-determined Views

- Oftentimes, the participant only needs to view the final boundaries and the original submitted changes to see if the Census has made the changes correctly. The Web Viewer allows you to quickly view only the final boundary and the changes for each PSAP entity by selecting a pre-set view.

- **REMINDER: During the Census Bureau's review of your original submission, changes may have been made to entities based on PSAP criteria. These changes should have been discussed with you. In these instances, the original submission may not match the verification file.**

- Click on the **Views** dropdown to see all the possible options:
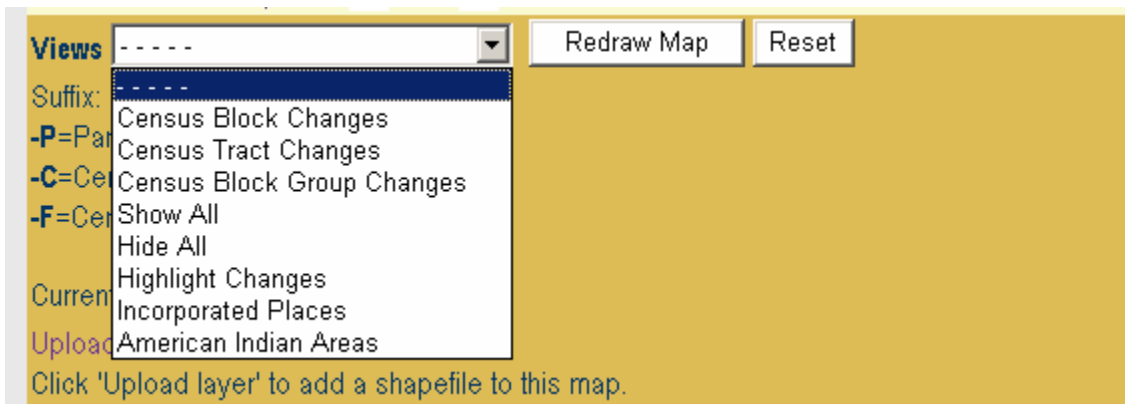
- For example, if you select "Census Tract Changes" (do not forget to click **Redraw Map**), all layers will disappear from the display other than the final Census Tract boundaries and your original submitted Tract changes:
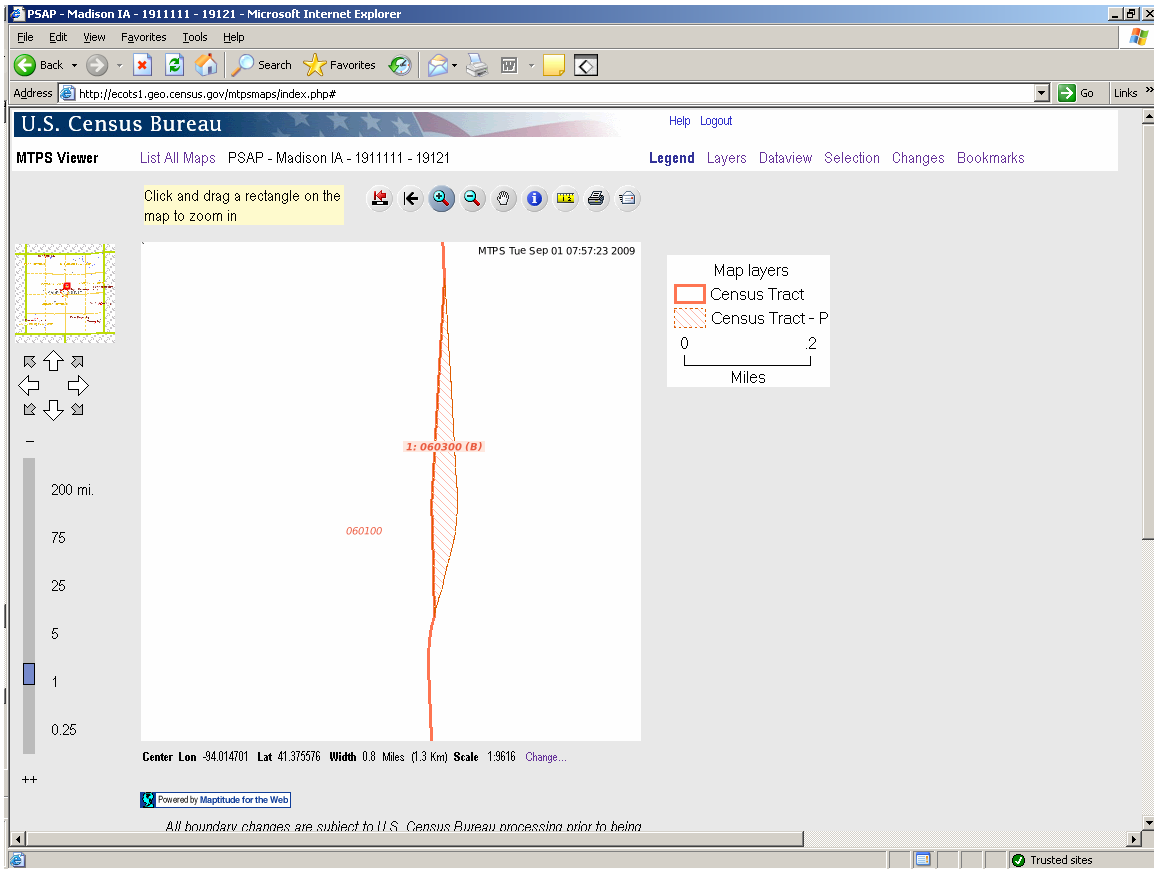
- Note that for PSAP, you have the option of choosing four views:
  1) Census Tract Changes
  2) Census Block Group Changes
  3) Census CDP Changes
  4) Census CCD Changes

- In every case, when the view is selected, two layers will appear on the map, as shown above.
- The plain, unsuffixed layer (e.g. the "Census Tract" layer above) will show the final boundaries in the Census database.
- The layer with the –P suffix (e.g. the "Census Tract—P" layer above) will show your original submitted changes.

Adding Your Own Shapefile(s) to the Map

- The Web Viewer allows you to upload your own shapefile(s) and display them on the screen as a layer.
- Participants may also want to compare the final file to one or more of their own shapefiles to help determine if their changes were correctly made. On the bottom of the screen, click on the "Upload Layer" link:

Upload Layer
Click 'Upload layer' to add a shapefile to this map.

- The window below will appear:

Upload Shapefile (Zipped): _____ Browse...

Layer Name in the Map _____

Upload

You can upload a zip file with the data files required for your layer (Your zip file should include at least three files: .shp, .shx and .dbf).

- You can click on the "Browse" button to navigate to wherever you have your shapefile(s) stored.
- Note that in order for the Web Viewer to upload shapefiles, they must first be stored in a zip file.
- Your zip file must contain at least three files (.shp, .shx, and .dbf) in order for upload to proceed.
- In the **Layer Name in the Map** box, type in whatever name you want to appear in the legend for this layer when it appears on the map.
- Your shapefile should now appear in the map display and should be listed as a layer in the layer view.

4.4 General Web Viewer Tools

	Zoom to whole county	Click this icon to zoom out to the entire county
	Choose a previous zoom to display	Use this tool to choose one of the last 5 map displays and zoom to it.
	Zoom in	Click or draw a rectangle to zoom into an area
	Zoom out	Click or draw a rectangle to zoom out of an area

|		
	Drag	Click and drag the map to re-adjust the center
	Get info	Click a feature to get information on it.
	Measure a distance	Use this tool to draw a line between features and click to display the distance. Draw a polygon to display area.
	Print map	Print the current map view
	Email map	Email the current map view. You can use this function to report minor problems to the RCC

4.5.1 Zoom to Previous Extent

- When you click this tool, you will be able to choose a previous map extent. Click on the map you wish to display.
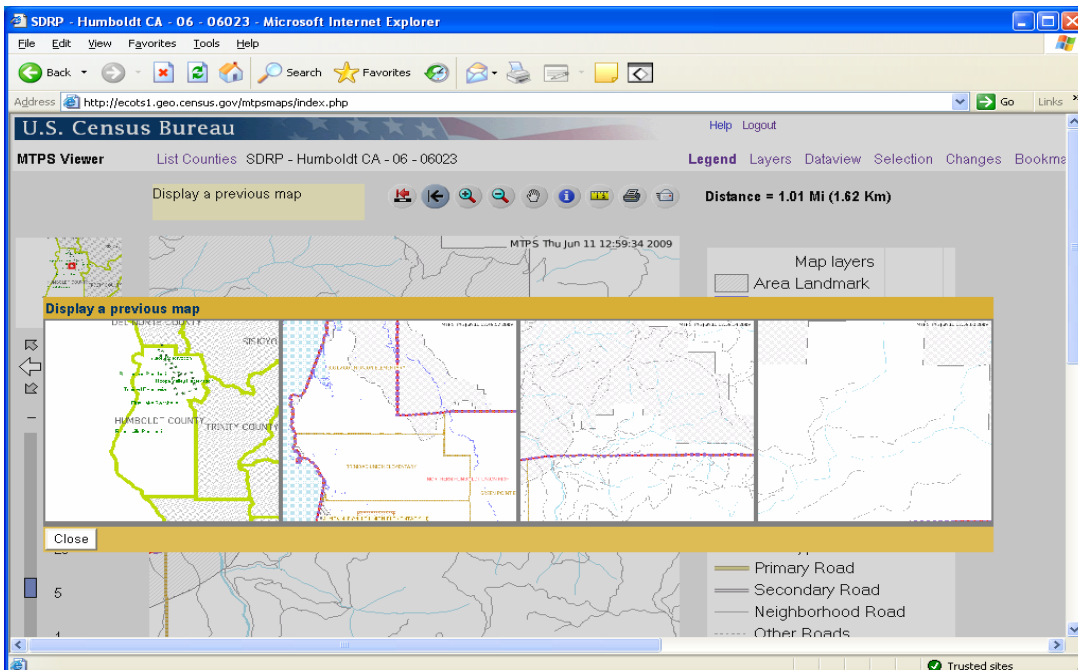
4.5.2 Measurement Tool

- This tool can be used to measure distance or area

- In order to measure distance, draw a line between two features. To draw a line click on the starting point of the line and then click on the end point. You do not need to double click.

- After you click the end of the line, the line will disappear. The distance will appear in the upper right corner of the screen.
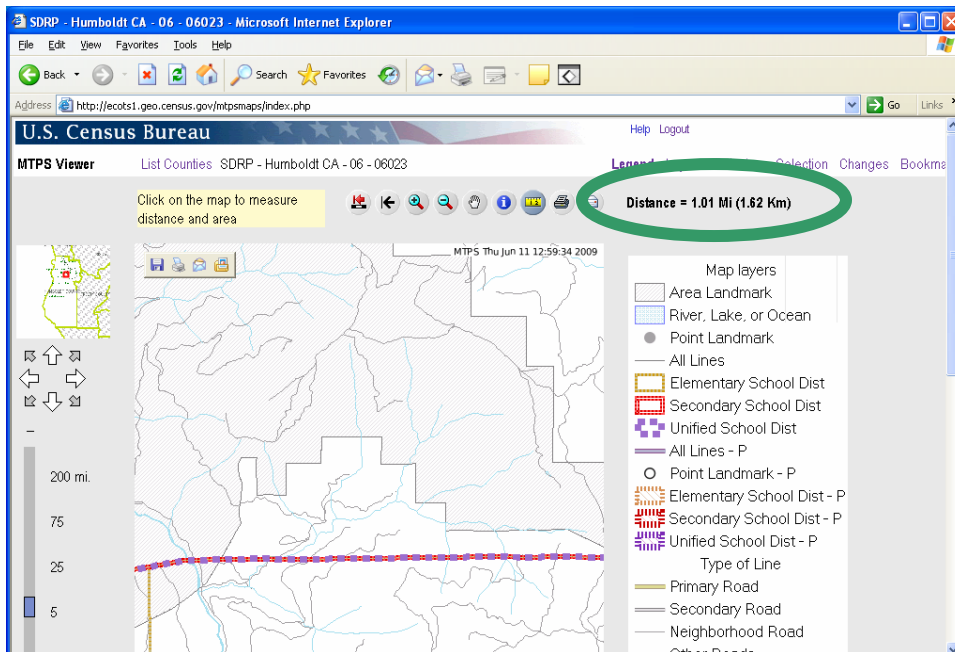
- To measure an area, draw a polygon, clicking on each shape point. Double click to close the polygon.

- The area and length of the perimeter is displayed in the upper right corner of the screen. Again, the lines used to create the polygon will disappear.

4.5 Selection Tab

The selection tab is used with the get info tool . Users should use the selection tab to choose an "active" selection layer so that they may get information about the features in that layer. The get info tool will only get information about features that are in the current layer in the selection tab.

- Once the selection tab is active, the user must select the layer from which they want information.

- Note: In order for a map layer to show when the selection tab is active, the layer must be turned on in the layers tab. For example, in order to select a Block Group, the Census Block Group layer must be turned on. To turn on a layer (and make it available to get information) click the layers tab and then click "Show Layer" and "Show Labels" for that layer.

- Select the appropriate layer for the feature. In this case, let's assume you want to examine one of your submitted changes for Block Groups. You will select the "Census Block Group—P" layer:
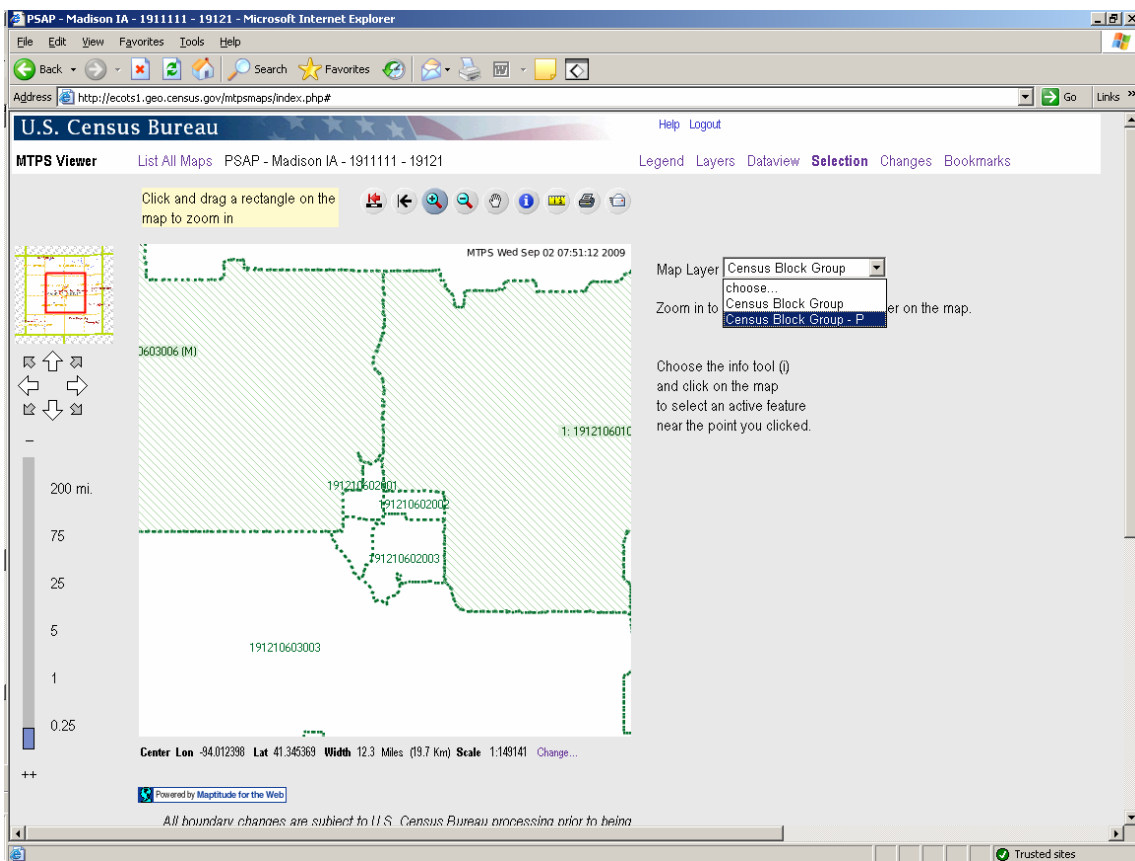
- Once you have selected the correct layer, you may now use the info tool

   and left-click on the map to get the information for a specific change. The attributes will appear on the right side of the screen:
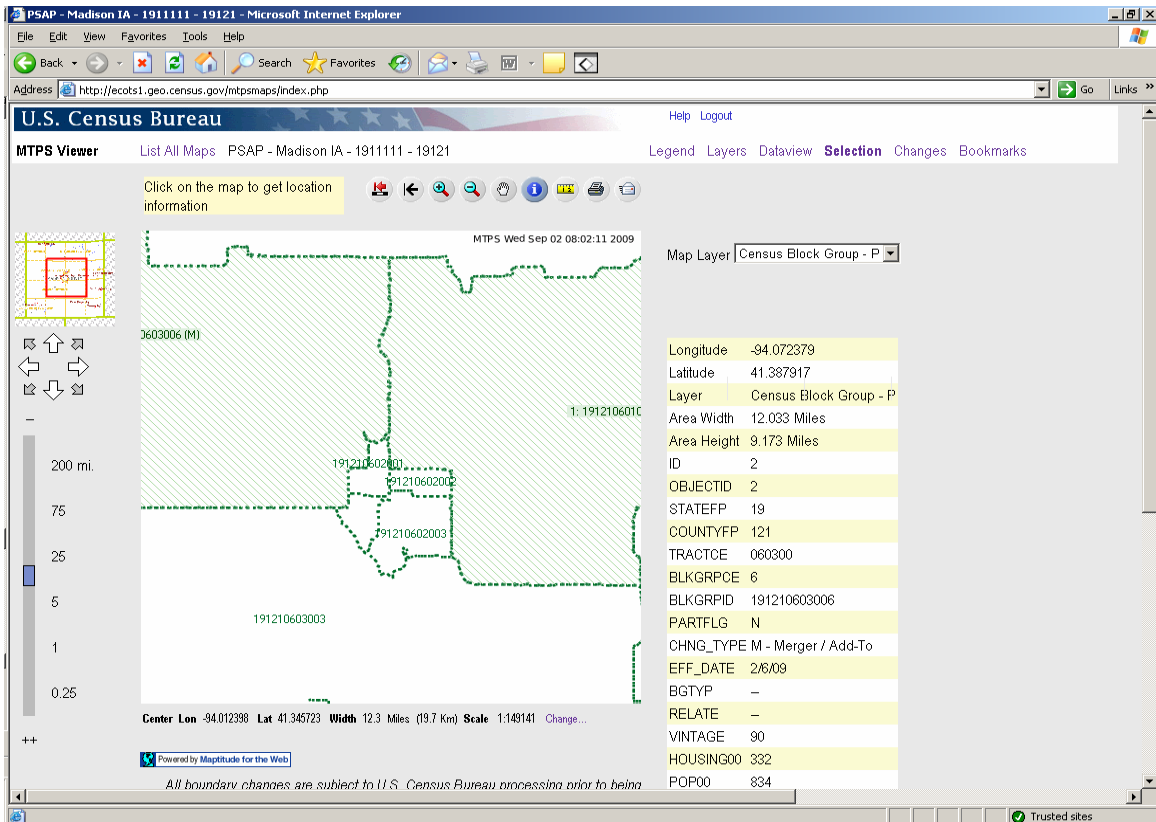
4.6 Dataview Tab

The Dataview tab is useful for zooming into a specific entity or seeing a complete list of a certain feature or entity type.

- Click on the **Dataview** tab in the top right hand side of the screen.

- Select the Dataview Layer. For example, pick Census Tract if you want to see a list of all the Census Tracts in the county.

- All of the tracts will appear and you can zoom to a specific one by clicking on the magnifying glass icon.

- You can also search entities by specific attributes. For example, if you were looking specifically for a tract with a TRACTCE code of 060100, but did not want to scroll through the entire list, you could choose TRACTCE from the Column drag-down and then type in '060100' in the box to the right:

Dataview Layer	Census Tract	▾	Refresh	List Changes
Search for	TRACTCE ▾	060100		
and	Column... ▾			
	Find			

- Now only the one specified tract (060100) will show up in the list:

4.7 Changes Tab

The changes tab allows the user to view changes by layer (Block Group, Tract, etc.) The user can zoom to each change to verify that the Census Bureau's MAF/TIGER database incorporated the submitted changes correctly. This will likely be one of the most useful tools in the Web Viewer for PSAP Verification as it is the quickest way to systematically check that all changes have been correctly made.

- Click on the Changes Tab.
- The **List Changes for Layer** box will immediately pop up:

List Changes for Layer

choose... ▾

Close

- Choose a layer (note that all of the layers in the list will have a "P" suffix, indicating that they are change layers)
- All the submitted changes for that feature (tract, BG, etc.) will appear on the right hand side of the screen and you can now zoom to each one by one to check that each change has been correctly made:

Found 1 feature.

	ID	chng_type	NAME	OBJECTID	STATI
🔍	1	B - Bound. Corr./Add-To, Remove-...	603	1	19

5. Downloading Verification Shapefiles

In addition to the Web Viewer, the Census Bureau will also provide shapefiles which represent the PSAP entities after we have made all the participant's requested changes to the MTDB.

The Web Viewer only allows participants to *view* the changes submitted during the annotation phase of the project. If extensive updates to the entities are necessary, you must download these shapefiles from our partnership shapefile download site. You will then modify the shapefiles using the regular MTPS module and return them to us.

If only small boundary corrections or a few code changes are needed, you do not need to return a shapefile to us. In that case, feel free to contact us directly and we'll zoom to the same area in the Web Viewer, see the update(s) that we may have missed, and make the needed corrections. If you are unsure whether or not you need to return a corrected shapefile, just contact your RCC and they will let you know how to proceed.

To download, modify, and re-submit the shapefiles, follow the steps below:

Before downloading shapefiles, make sure you have the MTPS software installed on your computer.

- If you are using the MTPS already installed on your computer:

    o You must ensure that you have a folder on your C: drive named **MTPSData.** Check to see if you have such a folder on your C: drive.

    o If you do not have such a folder, create one. Make sure it is named exactly as **MTPSData** (this is case-sensitive).

    o If you do already have a folder named **MTPSData** on your C: drive, open it.

    o If you notice any files already existing in the folder save them elsewhere (if they are still needed) and remove them from the folder.

- If you no longer have the MTPS installed, follow this link

    http://www.census.gov/geo/www/psap2010/psap2010_main.html

    and follow the installation instructions (when the software initially asks you for the "data discs", select "Skip" and continue the setup process).

- Once you have verified that MTPS is installed on your computer, use any standard web-browser to go to the Participant Verification Shapefile Download Page at

http://www.census.gov/geo/www/pvs/PVS_main.html
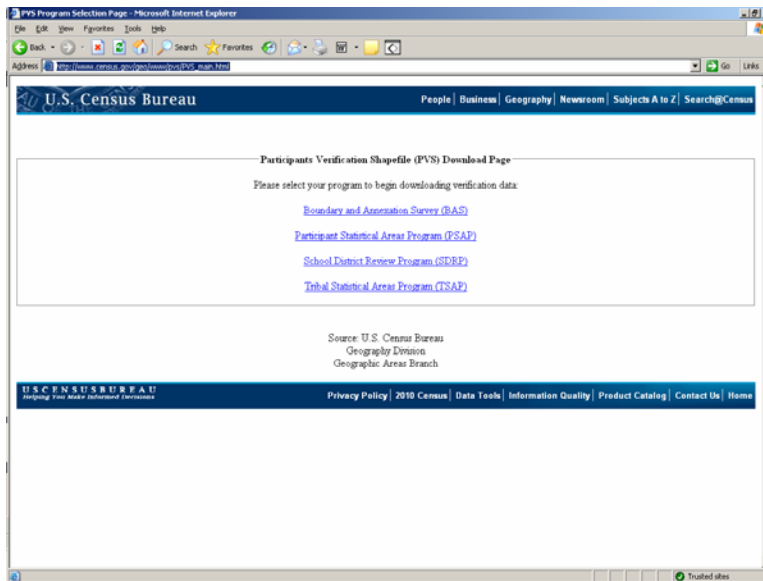
- Several programs will be listed. Choose **PSAP**.

- This will take you to the page below:
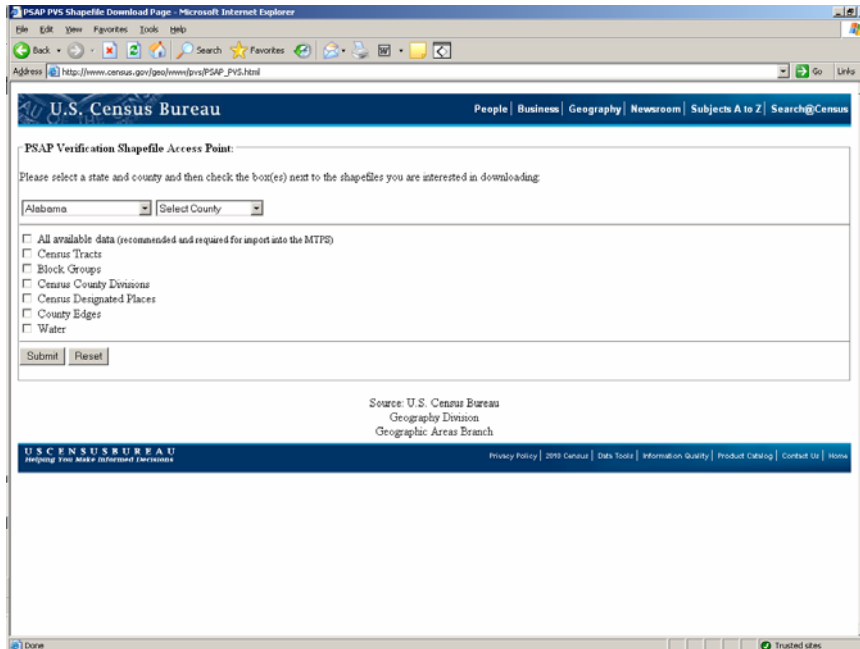
- Select your state and county from the dropdowns.

- Although you have the option of choosing various layers by checking on individual layers, as PSAP participants you will **always** check the "All available data" option.

- Click **Submit.**

- Choose the **MTPSData** folder on your C: drive as the destination folder for the shapefiles.

- Add the file named **SetupFile_PSAP.xml** to the the **MTPSData** folder. This file is available from the data discs you received during the delineation portion of the program. If you no longer have this disc, please contact geo.psap.list@census.gov for a replacement.

- Add the file named **MTPS1.txt** to the **MTPSData** folder. This file is available on the same data discs mentioned above.

- Then open MTPS and proceed to edit the files as needed, using the same basic procedures used during the delineation stage.

Appendix A. Regional Census Center Contact Information

	Atlanta RCC: Geography 285 Peachtree Center Avenue NE Marquis II Tower, Suite 1000 Atlanta, GA 30303-1230 Phone: (404) 332-2711 Fax: (404) 332-2787 E-mail: atlanta.geography@census.gov	Detroit RCC: Geography 300 River Place Drive, Suite 2950 Detroit, MI 48207 Phone: (313) 396-5002 Fax: (313) 567-2119 E-mail: detroit.geography@census.gov	
	Boston RCC: Geography One Beacon Street, 7th Floor Boston, MA 02108-3107 Phone: (617) 223-3600 Fax: (617) 223-3675 E-mail: boston.geography@census.gov	Kansas City RCC: Geography 2001 NE 46th Street, Suite LL100 Kansas City, MO 64116-2051 Phone: (816) 994-2020 Fax: (816) 994-2033 E-mail: kansas.city.geography@census.gov	
	Charlotte RCC: Geography 3701 Arco Corporate Drive, Suite 250 Charlotte, NC 28273 Phone: (704) 936-4200 Fax: (704) 936-4225 E-mail: charlotte.rcc.geography@census.gov	Los Angeles RCC: Geography 9301 Corbin Avenue, Suite 1000 Northridge, CA 91324-2406 Phone: (818) 717-6701 Fax: (818) 717-6778 E-mail: los.angeles.geography@census.gov	
	Chicago RCC: Geography 500 West Madison Street, Suite 1600 Chicago, IL 60661-4555 Phone: (312) 454-2705 Fax: (312) 488-1510 E-mail: chicago.geography@census.gov	New York RCC: Geography 330 West 34th Street, 13th Floor New York, NY 10001-2406 Phone: (212) 971-8800 Fax: (212) 971-8990 E-mail: new.york.rcc.geography@census.gov	
	Dallas RCC: Geography 2777 N Stemmons Freeway, Suite 200 Dallas, TX 75207 Phone: (214) 267-6920 Fax: (214) 267-6970 E-mail: dallas.geography@census.gov	Philadelphia RCC: Geography 1234 Market Street, Suite 340 Philadelphia, PA 19107-3780 Phone: (215) 717-1000 Fax: (215) 253-8001 E-mail: philadelphia.geography@census.gov	
	Denver RCC: Geography 6950 W Jefferson Avenue, Suite 250 Lakewood, CO 80235-2032 Phone: (720) 475-3600 Fax: (720) 962-4606 E-mail: denver.rcc.geography@census.gov	Seattle RCC: Geography 19820 North Creek Parkway N, Suite 100 Bothell, WA 98011 Phone: (425) 908-3010 Fax: (425) 908-3020 E-mail: seattle.geography@census.gov	

Appendix 2. Disclosures to Respondents

The Geography Division manages programs to continuously update features, boundaries, addresses, and geographic entities in the Master Address File / Topologically Integrated Geographic Encoding and Referencing System (MAF/TIGER) database that is used to support programs and to conduct the census and surveys. The PSAP program was developed to give local participants the opportunity to review and update, if necessary, statistical entities for use in tabulating and publishing data from the 2010 Census, the American Community Survey, and other surveys.

Public reporting burden for this collection of information is estimated to average 24 hours per respondent, including time for reviewing instructions, assembling materials, organizing and reviewing the information, and reporting any needed changes. We anticipate that an estimated 1400 participants will respond. Remaining entities may be worked by Census Bureau regional staff. For larger areas or areas with many changes, however, the respondent burden may be 90 hours or longer to complete. Please send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

Paperwork Project
0607-0795
U.S. Census Bureau
4600 Silver Hill Road
Room 3K138
Washington, D.C. 20233

You may e-mail comments to Paperwork@census.gov. Use "Paperwork Project 0607-0795" as the subject.

Responses to this survey are voluntary. The authority for conducting these activities is covered under the legal authority of Title 13 U.S.C. Sections 141 and 193.

No agency may conduct and no person may be required to respond to a collection of information unless it displays a valid Office of Management and Budget (OMB) approval number. The OMB approval number for this information collection is 0607-0795.