OCS Report MMS 2007-065

# Coastal Impact Assistance Program

Technical Documentation of the Methodology for the Allocation Formulas



Herndon, Virginia 2007

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## Technical Documentation of the Methodology for the Allocation Formulas

By Karen Osborne



Herndon, Virginia 2007 This documentation is intended solely to provide a description of the data, calculations, and spatial processing for the Energy Policy Act of 2005, Section 384 Coastal Impact Assistance Program allocations. Please direct all comments or questions to the appropriate CIAP representative listed in Appendix 5.

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#### Introduction

The Energy Policy Act of 2005 (Public Law 109-58) was signed into law by President Bush on August 8, 2005. Section 384 of the Act, which amends Section 31 of the Outer Continental Shelf Lands Act (43 U.S.C. 1356a), establishes the Coastal Impact Assistance Program (CIAP) which authorizes funds to be distributed to Outer Continental Shelf (OCS) oil and gas producing States to mitigate the impacts of OCS oil and gas activities. The complete statutory language is included as Appendix 1 of this document.

Under the CIAP, the Secretary of the Interior is authorized to distribute to producing States and Coastal Political Subdivisions (CPS) \$250 million for each of the fiscal years 2007 through 2010. This money will be allocated to each producing State and eligible CPS based upon a methodology described in the Act. Pursuant to the Act, a producing State or CPS shall use all amounts received under this section for one or more of the following purposes:

- Projects and activities for the conservation, protection, or restoration of coastal areas, including wetland.
- Mitigation of damage to fish, wildlife, or natural resources.
- Planning assistance and the administrative costs of complying with this section.
- Implementation of a federally-approved marine, coastal or comprehensive conservation management plan.
- Mitigation of the impact of OCS activities through funding or onshore infrastructure projects and public service needs.

CIAP fund allocations for fiscal year 2007 and fiscal year 2008 were published on the MMS website in April 2007. Only States that submit a Plan that meets MMS approval will be eligible to receive CIAP funds. Plans must be developed in consultation with eligible CPS's. A Plan for at least the first year's funds is to be submitted to MMS for approval by July 1, 2008. CIAP recipients with an approved Plan may submit grant applications for projects included in the Plan. The MMS will begin accepting grant applications from a State and its CPS's once its Plan has been approved. Full details on the CIAP program, including the statutory language, program guidelines, and grant guidelines, are available on the MMS website link http://www.mms.gov/offshore/CIAPmain.htm.

This document is organized into five sections. Section 1 describes the statutory language and data sources referred to in determining the eligible recipients under the CIAP. Section 2 offers an overview of how the statutory language was interpreted and translated into a methodology and supporting calculations. Section 3 provides details for each of the data sources used in the calculations. Section 4 provides detailed explanations of the spatial calculations used to determine the minimum distance from each leased tract to each producing State and CPS, and the length of the coastline of each CPS. Section 5 specifies the formulas developed to determine the final allocations to each recipient.

Section 1: Eligibility Determination

#### Section 1.A: State Eligibility Rules and Inclusion Determination

#### Narrative

The statutory language (Section 384(a)(3)) defines a <u>coastal State</u> as having the meaning given the term in Section 304 of the Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. 1453), "a State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes". A <u>producing State</u> is defined as a coastal State that has a coastal seaward boundary within 200 nautical miles of the geographic center of a leased tract within any area of the OCS. A producing State does not include a producing State a majority of the coastline of which is subject to leasing moratoria, unless production was occurring on January 1, 2005, from a lease within ten nautical miles of the coastline of that State (Section 384(a)(9)).

The statutory language defines a <u>leased tract</u> as a tract that is subject to a lease under Section 6 or 8 of the Outer Continental Shelf Lands Act (OCSLA) for the purpose of drilling for, developing, and producing oil or natural gas resources (Section 384(a)(6)).

#### Source Data

We used two data sources to determine the eligibility of producing States for CIAP funding. The first data source is the set of coastline points for all coastal States as defined above and in the CZMA, supplied by the Mapping and Boundary Branch of the Minerals Management Service. The second data source is the set of points defining the geographic centers of the leased tracts on the OCS. Each of these data sets is defined in detail in Section 3 of this document. We based the calculations for determining the producing States located within 200 nautical miles of the geographic center of a leased tract on appropriate map projections and great circle distance calculations. These calculations are described in detail in Section 4 of this document.

#### Determination

By the definitions outlined in the statutory language, six States are eligible for funds under Section 384 of the Energy Policy Act – Alabama, Alaska, California, Louisiana, Mississippi, and Texas. (Florida, which was eligible for funds in the Department of Commerce CIAP program of 2001 is not eligible for this program and is excluded due to Section 384(a)(9)(B) - a majority of the coastline of Florida is subject to leasing moratoria, and all production occurring on January 1, 2005 was from leases located further than ten nautical miles from the coastline of Florida.)

## Section 1.B: Coastal Political Subdivision Eligibility Rules and Inclusion Determination

#### Narrative

The statutory language defines a <u>Coastal Political Subdivision</u> (CPS) as a political subdivision of a coastal State any part of which political subdivision is – (A) within the coastal zone (as defined in Section 304 of the CZMA of 1972 (16 U.S.C. 1453)) of the coastal State as of the date of enactment of the Energy Policy Act of 2005; and (B) not more than 200 nautical miles from the geographic center of any leased tract. A <u>political subdivision</u> is defined as the local political jurisdiction immediately below the level of State government, including counties, parishes, and boroughs.

The term coastal zone is defined in the CZMA as the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal States, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of State title and ownership under the Submerged Lands Act (43 U.S.C. 1301 et seq.), the Act of March 2, 1917 (48 U.S.C. 749), the Covenant to Establish a Commonwealth of the Northern Mariana Islands in Political Union with the United States of America, as approved by the Act of March 24, 1976 (48 U.S.C. 1681 note), or Section 1 of the Act of November 20, 1963 (48 U.S.C. 1705), as applicable. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters, and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

#### Source Data

We confirmed the list of political subdivisions within the coastal zone with the delegated contact for each producing State (Appendix 4), and then determined the eligibility of CPS's for CIAP funding using two data sources. The first data source is the set of perimeter points for all CPS's, derived by merging the U.S. Census Bureau TIGER<sup>®</sup> line feature files with the Submerged Lands Act baseline points. The second data source is the set of points defining the geographic centers of the leased tracts on the OCS. Each of these data sets is defined in detail in Section 3 of this document. We based the calculations for determining the CPS's located within 200 nautical miles of the geographic center of a leased tract on appropriate map projections and great circle distance calculations. These calculations are described in detail in Section 4 of this document.

#### Determination

By the definitions outlined in the statutory language, 67 CPS's within the six producing States are eligible for funds under the CIAP. The complete list is included as Appendix 2 of this document. A number of CPS's which were eligible for funds in the Department of Commerce CIAP program of 2001 are excluded from this program due to Section 384(a)(1)(B), because their boundaries are located further than 200 nautical miles from the geographic center of any leased tract.

Section 2: Methodology Overview

#### Section 2: Methodology Overview

In this section we provide an overview of how we established which States and political subdivisions would share the \$1 billion in CIAP funds, and also describe the methodology we developed to calculate the relative shares allocated to each of the eligible recipients.

#### Eligibility Overview

As detailed in Section 1.A, six States are eligible to participate in the CIAP – Alabama, Alaska, California, Louisiana, Mississippi and Texas. To determine the eligibility of political subdivisions within these six States, three important criteria were considered.

The first criterion for a political subdivision to be eligible for the CIAP is that they must be the political subdivision immediately below the state level of government. For four States (AL, CA, MS and TX), counties are the level of government directly below the state level. For Louisiana, parishes meet this requirement. For Alaska, the entire State is not organized into boroughs, which is the level of government directly below the state level. As a result, some areas of Alaska that meet the other two requirements to be eligible for the CIAP were excluded because they did not meet this requirement.

The second criterion for a political subdivision to be eligible for the CIAP is that they must fall within the State's coastal zone. Each State contact (Appendix B) provided us with a list of political subdivisions located within their State's coastal zone.

Finally, the political subdivisions must be located within 200 nautical miles of a leased tract. This requirement served to exclude several counties in northern California and boroughs in Alaska that may otherwise have been eligible. Regarding the State of Alaska, the two northern boroughs, North Slope Borough and Northwest Arctic Borough, are located within 200 nautical miles of the active leases in the Beaufort Sea Planning Area. These leases were the only leases with qualified OCS revenues in Fiscal Year 2006. However, there are a number of active 8(g) leases in the Cook Inlet Planning Area. There is no qualified OCS revenue generated by these leases, but the 8(g) leases are within 200 nautical miles of six boroughs located in the southern part of the State and therefore make these boroughs eligible to participate in the program.

As outlined in Section 1.B, 67 CPS's within the six producing States are eligible for funds under the CIAP. The complete list is included as Appendix 2 of this document.

#### Methodology Overview

Per Section 384(b)(3)(A) – the amounts disbursed to each producing State in each of fiscal years 2007 through 2010 are based on the ratio that – (i) the amount of qualified OCS revenues generated off the coastline of the producing State bears to (ii) the amount of qualified OCS revenues generated off the coastline of all producing States. In a case in which more than one producing State is located within 200 nautical miles of a leased tract, the amount allocated to each producing State for the leased tract shall be

inversely proportional to the distance between – (i) the nearest point on the coastline of the producing State; and (ii) the geographic center of the leased tract.

In both the Alaska and Pacific Regions all of the leased tracts are within 200 nautical miles of only one producing State – Alaska and California, respectively. This circumstance results in a simplified application of the inverse proportional distance formula for determining the qualified OCS revenues generated off the coastlines of these two States. One hundred percent of the qualified OCS revenues generated within each of the two regions were associated with a single State.

In the Gulf of Mexico Region, the majority of the leased tracts are within 200 miles of two or more producing States (AL, LA, MS and TX). Therefore, the precise location of each leased tract, as well as the exact amount of each lease's qualified OCS revenues, determine the total qualified OCS revenues generated off the coastlines of each of these four producing States in the Gulf of Mexico Region. Section 5.A provides the specific details regarding the formulas we developed to determine the qualified revenue allocations and the resulting State shares of the annual authorized CIAP funds.

An additional note regarding the qualified OCS revenues – in the Alaska and Pacific Regions all leased tracts are located within 200 nautical miles of at least one point on their respective coastlines, and as such all revenues are included as amounts generated off the coastline of their respective states. In contrast, many of the leases in the Gulf of Mexico Region are located greater than 200 nautical miles from any State, and are therefore excluded from being counted as qualified OCS revenues.

As detailed in Section 3.C, qualified OCS revenues are revenues received by MMS and deposited in the U.S. Treasury for federal oil and gas leases within 200 nautical miles of at least one of the six producing States. Revenues from Section 8(g) leases are excluded per Section 384(a)(10)(A). Fiscal Year 2006 revenue data was used in the formulas for the Fiscal Year 2007 and 2008 allocations. This data was provided to us by MMS Minerals Revenue Management. Fiscal Year 2008 revenue data will be provided in the same manner when it becomes available, to be used in the formulas for the Fiscal Year 2010 allocations.

The primary necessity in developing the formulas to determine each State's share for each leased tract in the Gulf of Mexico Region was the calculation of the minimum distance between each leased tract and each of the four producing States. We calculated the coordinates of the center of each leased tract on the OCS using standard GIS software, and used those coordinates in conjunction with the coordinates of each point on each State's coastline to calculate the distance from each leased tract to each State's set of coastline points.

We used established spherical distance calculations to calculate the minimum distance from each leased tract to the closest point on each State's coastline. Given that the set of leased tracts generating revenue in the Gulf of Mexico Region changes each year due to expirations and relinquishments of currently held leases, as well as new leases being offered in multiple lease sales held each year, we opted to calculate the distance from each point on each State's coastline to each of the available blocks in the Region, rather than to just the active leases. This decision will save time in calculating the Fiscal Year 2009 and Fiscal Year 2010 allocations, because the distances to all possible leases has already been calculated and we will need only to match the Fiscal Year 2008 revenues to the percent proportions for each State. After performing all the calculations, we created a table recording the minimum distance from each leased tract to each State. We then determined the inverse distance using the formulas detailed in Section 5.A of this document, and created a database of the inverse distance proportion for each of the blocks in the Gulf of Mexico Region to each of the producing States.

We followed the same methodology to determine the proportion of qualified OCS revenue attributable to each of the CPS's within each of the producing States in the Gulf of Mexico Region as well as within California. However, as detailed in Section 5.B of this document, the distances were calculated from each leased tract to every point on each CPS's boundary, both coastal and inland points, rather than just coastal points (Section 384(b)(4)(B)(iii)).

The qualified OCS revenues generated off the coast of Alaska for Fiscal Year 2006 were less than 1% of the total qualified OCS revenues off the coast of all six producing States. The proportion of revenues generated by the other five States was reduced proportionally to raise Alaska's proportion to 1%, as mandated by Section 384(b)(3)(D). At this point, the allocation to each of the six States was complete.

The next step was to determine the amount to be distributed to each CPS within each State. Thirty-five percent of the amount allocated to each State was set aside for the CPS's within that State. For each State, the funds set aside were allocated to the CPS's based on a 3-part formula as follows:

- 25% was allocated to the CPS's based on the proportion of population that the CPS bears to the total population of all the CPS's in the State.
- 25% was allocated to the CPS's based on the ratio of coastline length of the CPS to the total coastline length of all the CPS's in the State. For the State of Louisiana, all CPS's without a coastline were considered to have a coastline length that was 1/3 the average coastline of all CPS's with a coastline, per Section 384(b)(4)(C). For all other States, all CPS's without a coastline were assigned a coastline length of 0.
- 50% was allocated to the CPS's in amounts that were inversely proportional to the respective distance between the geographic center of each leased tract and the closest point on the perimeter of each CPS to the geographic center of each leased tract. These calculations were derived using the same methodology as outlined above to calculate the State shares in the Gulf of Mexico Region.

Upon completion of these computations, the proportion of population, proportion of coastline length, and proportion of qualified OCS revenues associated with each CPS within each State had been calculated. We applied these proportions to the 35% of each State's funds set aside for distribution to the eligible CPS's within the State, and totaled the three proportional amounts to determine the total allocation to

each CPS within each of the producing States. These final allocations for Fiscal Years 2007 and 2008 are published on the MMS website at <a href="http://www.mms.gov/offshore/CIAP/PDFs/StateandCPSShareCalculations2006Links">http://www.mms.gov/offshore/CIAP/PDFs/StateandCPSShareCalculations2006Links</a> .pdf . Section 5 of this document provides specific information on the minimum distance formulas and inverse distance calculations used to determine the allocations.

Section 3: Data Utilized in the Calculations

#### Section 3.A: MMS Submerged Lands Act Baseline

#### Narrative

The term "<u>coast line</u>" means the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limits of inland waters (43 U.S.C. 1301(c)). This line is the same as the mean lower low water (MLLW) line as depicted on the National Ocean Service nautical charts<sup>1</sup>. The MMS Submerged Lands Act (SLA) baseline is the set of (1) isolated points, and (2) points connected by lines, representing the MLLW line in direct contact with the open sea and marking the seaward limit of inland waters. Isolated points generally represent rocks, small islands, irregular coastlines, etc. Points connected by lines represent larger islands, uniform stretches of coastline, river and bay closing lines, etc. For Submerged Lands Act purposes, the "coast line" is the baseline established in accordance with the principles of the United Nations Convention on the Law of the Sea, and is used to compute the Submerged Lands Act Boundary, the Limit of the '8(g) Zone', and the Continental Shelf Boundary, on the OCS.

#### Source Data

The Mapping and Boundary Branch of the Minerals Management Service provided the set of points that define the SLA baseline. These points according to the Submerged Lands Act represent the official coastline and we used them for calculating the great circle distance between the geographic center of the leased tracts on the OCS and the producing States and CPS's.

#### Procedures

We received a separate file of points for each OCS region – Alaska, Pacific, and the Gulf of Mexico (including Alabama, Louisiana, Mississippi and Texas). Each of these files contained the latitudinal and longitudinal coordinates for each of the points defined on the coastline. We imported the coordinates into Microsoft Excel workbooks to use in calculating the minimum great circle distance between each point on each State's coastline and the geographic center of each leased tract. These calculations are described in detail in Section 4 of this document.

Documentation exists that define the legal interstate boundaries between Texas and Louisiana, and between Mississippi and Alabama. However, there is no legal boundary defined between the States of Louisiana and Mississippi. To identify all possible points on the coastline in each State for the purpose of measuring the minimum distance between each State and each leased tract, we calculated the midpoint between the westernmost point on the Mississippi baseline and the easternmost point on the Louisiana baseline to define a point that represents the boundary between the two States. We picked this midpoint because it represents a general precedent in

<sup>&</sup>lt;sup>1</sup> Thormahlen, Leland, "Boundary Development on the Outer Continental Shelf", Minerals Management Service Mapping and Boundary Branch, OCS Report MMS 99-0006

international law, and we used it solely for the purpose of providing these estimates. This point is included, as are all of the legal interstate boundary points, as a point on both States' coastlines for use in identifying the shortest distance between each State and each leased tract.

#### Section 3.B: Minerals Management Service Leased Tracts

#### Narrative

The statutory language defines a <u>leased tract</u> as a tract that is subject to a lease under Section 6 or 8 of the OCSLA for the purpose of drilling for, developing, and producing oil or natural gas resources. Generally, a leased tract is represented as a single block on the OCS in the Alaska, Gulf of Mexico, or Pacific region. In some cases a leased tract is composed of multiple blocks. OCS blocks are defined on a rectangular coordinate system grid and are used to administer the OCSLA (43 U.S.C. 1331 et. seq.), and its amendments.

#### Source Data

For the Gulf of Mexico Region, all of the available blocks on the OCS were extracted from the Minerals Management Service's Technical Information Management System (TIMS) spatial database. For the Alaska and Pacific regions, active blocks on the OCS were extracted from the TIMS database. The set of active blocks in the Pacific Region is not expected to change prior to the completion of all CIAP allocation calculations at the end of Fiscal Year 2008. If any lease sales are held in the Alaska Region prior to the end of Fiscal Year 2008 that result in qualified OCS revenues from leased tracts not included in the Fiscal Year 2006 calculations, (e.g., bonuses), those tracts will be added to the set of blocks already extracted from the TIMS database.

#### Procedures

We calculated the geographic center of every defined block on the OCS in the Gulf of Mexico Region using standard Geographic Information System (GIS) mapping software code<sup>2</sup>, and then exported the corresponding latitude and longitude for the center of each block to an Excel workbook (over 28,000 blocks). For the Pacific Region, we calculated the geographic center of each active leased block on the OCS using the same process as for the Gulf of Mexico Region, and exported the coordinates to another Excel workbook.

In some cases a leased tract extends over multiple blocks. For these leased tracts we first created a single polygon by merging together the blocks included under the lease using the built-in functionality of the GIS software. Then we calculated the geographic center of the merged polygon using similar coding to that used for single blocks, and exported the corresponding latitude and longitude for each merged unit to the Excel workbooks already containing the latitudes and longitudes for each single-block leased tract on the OCS in the specific region.

To calculate the coordinates of the geographic center of a block or merged-block polygon, we performed the following steps with the regional map open in ArcMap:

<sup>&</sup>lt;sup>2</sup> The GIS software used for all spatial calculations under the CIAP is ESRI<sup>®</sup> ArcGIS 8.3<sup>TM</sup>

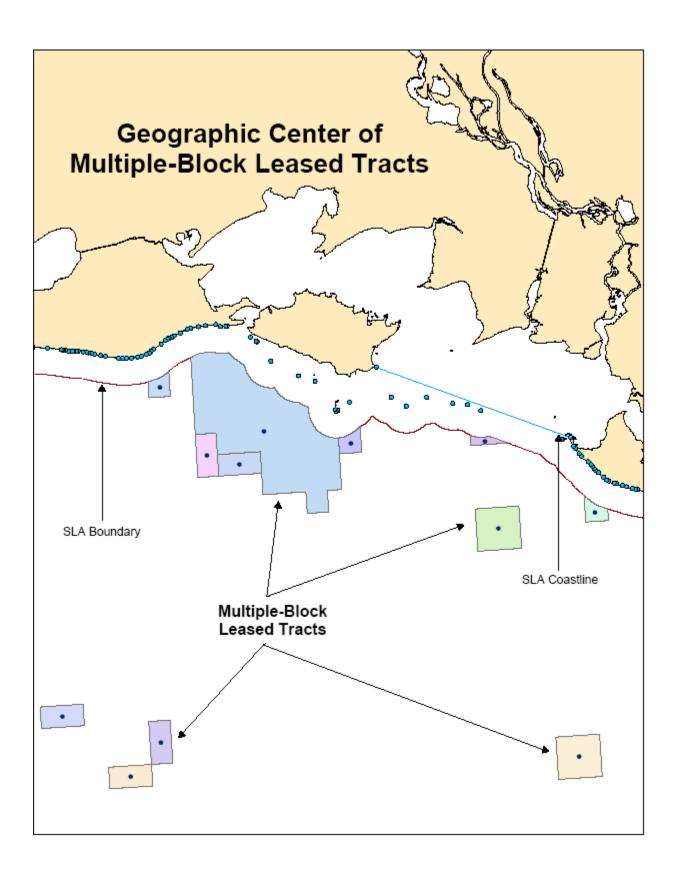
- 1. In an edit session in ArcMap, open the attribute table of the layer containing the leased tracts.
- 2. Click the Options button, then select 'Add Field', name the field 'X', and click OK.
- 3. In the attribute table, right-click the field heading for the X field, and click 'Calculate Values'.
- 4. Check 'Advanced', and type the following VBA statements in the Pre-Logic VBA script code window:

Dim dblX As Double Dim pArea As IArea Set pArea = [Shape] Output = pArea.Centroid.X

- 5. Type the variable 'dblX' in the text box directly under the X= window, and click OK.
- 6. Repeat steps 2 through 8, replacing each 'X' with a 'Y' to calculate the Y values.

These steps calculate the latitude and longitude for the geographic center of every available block and all of the active multi-block leased tracts on the OCS in the Gulf of Mexico Region, and of all active single-block and multi-block leased tracts in the Pacific Region.

We did not calculate the geographic centers of the leased blocks in the Alaska Region, because they were not needed to calculate revenue percent shares to the CPS's within Alaska. Per Section 384(b)(4)(D), for the purpose of allocating the shares to the CPS's in the State of Alaska, the amounts allocated shall be divided equally among the 2 CPS's that are closest to the geographic center of a leased tract. All of the leased tracts with qualified OCS revenue within the Alaska Region are currently located in the Beaufort Sea Planning Area, and the North Slope Borough and the Northwest Arctic Borough are the two CPS's closest to all of these leased tracts. If new leased tracts outside of the Beaufort Sea Planning Area produce qualified revenues prior to the allocation calculations using Fiscal Year 2008 revenues, the geographic centers of the leased tracts will be calculated to determine if any other boroughs are eligible to share in this portion of the allocation.



#### **Section 3.C: Minerals Revenue Management Disbursements**

#### Narrative

The statutory language (Section 384(a)(10)) defines the term <u>qualified OCS revenues</u> as all amounts received by the United States from each leased tract or portion of a leased tract – (i) lying – (I) seaward of the zone covered by Section 8(g); or (II) within that zone, but to which Section 8(g) does not apply; and (ii) the geographic center of which lies within a distance of 200 nautical miles from any part of the coastline of any coastal State. Additionally, the term qualified OCS revenues is defined to include bonus bids, rents, royalties (including payments for royalty taken in kind and sold), net profit share payments, and related late-payment interest from natural gas and oil leases.

For CIAP purposes, the phrase "amounts received by the United States" is interpreted as amounts received and subsequently transferred to Treasury accounts. This interpretation conforms to how these revenues are accounted for by Minerals Revenue Management, the office of MMS that is responsible for management of all revenues associated with both federal offshore and onshore mineral leases.

#### Specifications on Fiscal Year Revenues to be used in Formulas

The statutory language (Section 384(b)(3)(B)) mandates that (i) the amount of qualified OCS revenues for each of fiscal years 2007 and 2008 shall be determined using qualified OCS revenues received for fiscal year 2006; and (ii) the amount of qualified OCS revenues for each of fiscal years 2009 and 2010 shall be determined using qualified OCS revenues received for fiscal year 2008.

#### Source Data

We used Fiscal Year 2006 revenue data in the formulas for the Fiscal Year 2007 and 2008 allocations. This data was provided to us by MMS Minerals Revenue Management Project Management Office. Fiscal Year 2008 revenue data will be provided in the same manner when it becomes available, to be used in the formulas for the Fiscal Year 2009 and Fiscal Year 2010 allocations.

#### Procedures

The revenue data was supplied in a tab-delimited table which we imported into separate Microsoft Access databases for each region, with one record for each lease with recorded revenue during FY2006. We then appended the corresponding OCS block information from the MMS TIMS database to each lease record so that we could match the revenue data to the distance data for each lease. Use of this data in the calculations to determine the revenue share for each State and CPS are described in detail in Section 5 of this document.

### Section 3.D: U.S. Census Bureau TIGER/Line® Files

#### Narrative

The term TIGER<sup>®</sup> comes from the acronym **T**opologically Integrated **G**eographic **E**ncoding and **R**eferencing **S**ystem which is the name for the system and digital database developed at the U.S. Census Bureau to support its mapping needs for the Decennial Census and other Bureau programs<sup>3</sup>.

The TIGER/Line<sup>®</sup> files are a digital database of geographic features, such as roads, railroads, rivers, lakes, legal boundaries, census statistical boundaries, etc. covering the entire United States. The data base contains information about these features such as their location in latitude and longitude, the name, the type of feature, address ranges for most streets, the geographic relationship to other features, and other related information. They are the public product created from the Census Bureau's TIGER<sup>®</sup> database. The most recent version available at the time we extracted the data for use in the CIAP allocation software was the 2000 Redistricting TIGER/Line<sup>®</sup> Files<sup>4</sup>.

#### Source Data

The TIGER/Line<sup>®</sup> files are geographic line feature files. To determine the set of eligible CPS's, we downloaded individual TIGER/Line<sup>®</sup> files for each eligible borough in the State of Alaska, each parish in the State of Louisiana, and each county in the States of Alabama, California, Mississippi, and Texas.

#### Procedures

We downloaded each TIGER/Line<sup>®</sup> file from the U.S. Census Bureau website and ungenerated these line feature files into point feature files using standard ArcGIS<sup>TM</sup> programming code. We then incorporated the point feature files into ArcGIS<sup>TM</sup> maps already developed for each of the three regions. For each coastal CPS we dissolved the TIGER/Line<sup>®</sup> coastal points, and then merged the inland CPS perimeter points with the SLA baseline points to create individual CPS point feature files. We followed this procedure to ensure that States and their CPS's incorporated the same coastal points for determination of great circle distance calculations, so that a CPS coastline point would never be closer to a leased tract than the coastline point of the State within which it is located. (Typically TIGER/Line<sup>®</sup> boundaries are drawn three nautical miles beyond the SLA baseline to the SLA boundary.) We then loaded all CPS perimeter point coordinates into the Excel workbooks that contained the leased tract centroids and State coastline points for each of the OCS regions.

<sup>&</sup>lt;sup>3</sup> Details of the Census Bureau TIGER/Line<sup>®</sup> data are available at: <u>http://www.census.gov/geo/www/tiger/index.html</u>

<sup>&</sup>lt;sup>4</sup> Metadata is available at: <u>http://www.census.gov/geo/www/tlmetadata/tl2krdmeta.txt</u>

#### Section 3.E: U.S. Census Bureau 2000 Census

#### Narrative

The official U.S. Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every ten years, to be used for apportionment of seats in the House of Representatives among the States. Since the first official Census was conducted in 1790, the decennial Census has been conducted every ten years, generally on April 1 in years ending in a zero. The most recent official population census of the United States was conducted in April 2000<sup>5</sup>.

#### Source Data

The population of each CPS was required for use in the CPS allocation formulas. We extracted these numbers directly from the U.S. Census Bureau 2000 Census website, <u>http://www.census.gov/main/www/cen2000.html</u>. They are also included as Appendix 3 of this document.

#### CPS Population Shares Determination

The statutory language (Section 384(b)(4)(B)(i)) mandates that 25 percent of the funds allocated to the CPS's shall be allocated to each CPS in the proportion that – (I) the coastal population of the CPS; bears to (II) the coastal population of all CPS's within the producing State. Section 384(a)(2) defines <u>coastal population</u> as the population, as determined by the most recent official data of the Census Bureau, of each political subdivision any part of which lies within the designated coastal boundary of a State (as defined in a State's coastal zone management program under the CZMA of 1972 (16 U.S.C. 1452 et seq.)). The population for each CPS is used in the final allocation formula spreadsheet. These calculations are described in detail in Section 5 of this document.

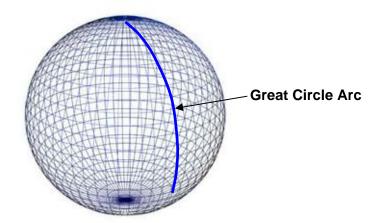
<sup>&</sup>lt;sup>5</sup> Details on the Decennial Census are available at: <u>http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp? pageId=sp4 decennial& submenuId</u>=

Section 4: Spatial Calculations

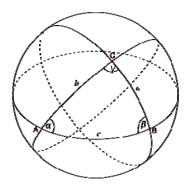
#### **Section 4.A: Great Circle Distance Calculations**

#### Narrative

The statutory language (Section 384(a)(5)) defines the term <u>distance</u> as the minimum great circle distance (GCD), measured in statute miles. The great circle distance is mathematically defined as the shortest distance between any two points on the surface of a sphere measured along a path on the surface of that sphere<sup>6</sup>.



To find the great circle (geodesic) distance between two points on a sphere, two basic laws of spherical trigonometry are employed. For 3 points, A, B and C on a sphere, the Law of Cosines states that the square of any side of the triangle formed by the 3 points equals the sum of the squares of the remaining two sides, less their product multiplied by the cosine of their included angle. In the diagram below, let A, B, and C represent 3 points on the sphere,  $\alpha$ ,  $\beta$ , and  $\gamma$  represent their associated angles, and a, b, and c represent the 3 great circle arcs connecting them. For the spherical triangle formed by the three points A, B, and C, the Law of Cosines states that  $c^2 = a^2 + b^2 - 2ab(\cos \gamma)$ .



<sup>&</sup>lt;sup>6</sup> Details on calculating the GCD can be found on many web sites including: <u>http://mathworld.wolfram.com/GreatCircle.html</u>

By solving the Law of Cosines using standard trigonometric identities, it is possible to derive the standard formula for the length of the great circle arc c between two points (latitude A, longitude A) and (latitude B, longitude B) measured in radians:

cos c = [sin(lat A)\*sin(lat B)] + [cos(lat A)\*cos(lat B)\*cos(long B - long A)],

and taking the arccosine of both sides to solve for the distance c results in:

 $c = cos^{-1}{[sin(lat A)*sin(lat B)] + [cos(lat A)*cos(lat B)*cos(long A - long B)]}$ 

As an example, the latitude and longitude, in radians, of the centroid of a block in the South Timbalier Protraction Area of the Gulf of Mexico Region is (0.495, -1.582), and the latitude and the longitude of the closest point on the SLA baseline of Alabama is (0.527, -1.543). Using the above formula, the great circle distance between the two points is:

 $c = \cos^{-1} \{ [\sin(0.495)^* \sin(0.527)] + [\cos(0.495)^* \cos(0.527)^* \cos(-1.543 - (-1.582))] \} \\ = \cos^{-1} \{ [.239] + [.760] \} \\ = .045 \text{ radians}$ 

This formula is accurate for measuring distance on a perfect sphere. In applying this formula to our measurements, a complication arises because the Earth is not a true sphere but flattens out at the poles, altering the spherical shape into an oblate ellipsoid. This flattening of the Earth cannot be taken into account in deriving the simple formula above, because the ellipsoidal radius is a function of latitude, and this must be accounted for in the equation by introducing two geometric constants – the semi-major axis and the eccentricity *e*, which is a measure of how much the ellipse differs from a circle. The smaller the eccentricity, the closer the ellipse is to a true circle.

To account for the polar flattening, we used the Clark 1866 reference ellipsoid to reflect the North American Datum (NAD) 27 datum. We selected this datum because the MMS baseline points and leased tract points across the Gulf of Mexico Region, which represent the majority of the points needed for the analysis, are based on the NAD27 datum. The length of one radian (in meters) on the Clark 1866 ellipsoid at mean latitude Z is:

 $L = [r^{*}(1 - e^{2})] / [(1 - (e^{2} * \sin^{2} Z))^{3/2}]$ 

where r = 6378206.4 meters is the equatorial radius and  $e^2 = 0.006768658$  is the eccentricity squared<sup>7</sup>. Z represents the mean latitude of point A and point B, [(lat A + lat B) / 2], for each pair of points compared. Putting the two pieces together, the GCD from a leased tract to a specific State coastline point or CPS perimeter point is: GCD = L \* c, using the representations of L and c directly above.

<sup>&</sup>lt;sup>7</sup> Snyder, John, "Map Projections – A Working Manual", U.S. Geological Survey, U.S.G.S. professional paper: 1395, 1997

Continuing the example above:

Z = (0.527 + 0.495) / 2 = 0.511, and

L = { $[6378206.4 *(1 - 0.006768658)] / [1 - (0.006768658 * sin<sup>2</sup> (0.511))]<sup>3/2</sup>}$ = {6335034.502 / 0.99757} = 6,350,466.135 meters

From above, c = 0.045, thus the GCD = L \* c = 285,770 meters, or 154.3 nautical miles. Performing this same calculation for the closest points on the SLA baseline of Louisiana, Mississippi, and Texas, leads to GCD's of 39.7, 137.8, and 183.0 nautical miles, respectively. Although this example shows latitudes and longitudes with only three significant digits, all actual measurements were calculated to ten significant digits.

#### Procedures

The GCD was used in the formulas to determine the minimum distance between each State's coastline and each lease in the Gulf of Mexico Region to identify leases that were within 200 nautical miles of each State's coastline, as well as to record the minimum distance from each lease to each State. It was also used in the formulas to determine the minimum distance between each CPS's perimeter and each lease in both the Gulf of Mexico Region and the Pacific Region. We then used the revenues associated with each of these leases in an inverse-distance formula which is detailed in Section 5 of this document.

## Section 4.B: Coastal Political Subdivision Coastline Length Calculations

#### Narrative

The statutory language (Section 384(b)(4)(B)(ii)) mandates that 25 percent of the funds allocated to the CPS's shall be allocated to each CPS in the proportion that – (I) the number of miles of coastline of the CPS; bears to (II) the number of miles of coastline of all eligible CPS's in the producing State. Section 384(b)(4)(C) mandates that the coastline for CPS's in the State of Louisiana without a coastline shall be considered to be one-third the average length of the coastline of all CPS's with a coastline in the State of Louisiana. The statutory language defines coastline to have the meaning given the term 'coast line' in Section 2 of the Submerged Lands Act (43 U.S.C. 1301); the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters. The Submerged Lands Act (SLA) baseline points developed by the Minerals Management Service Mapping and Boundary Branch are the spatial data used to determine the CPS coastline shares for all eligible CPS within the six producing States.

#### Source Data

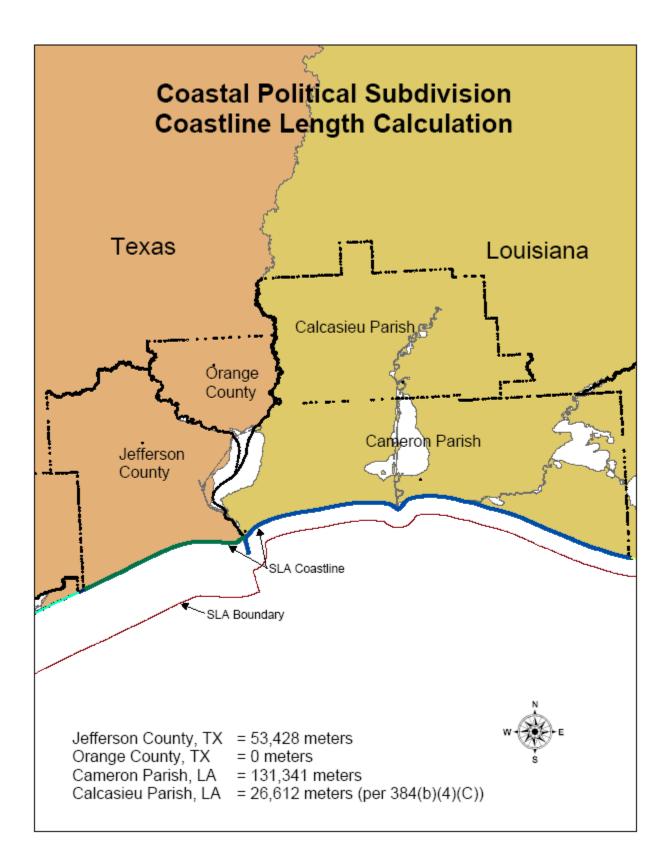
Refer to 3.A - MMS Baseline and 3.D - U.S. Census Bureau TIGER/Line<sup>®</sup> Files for a detailed description of the data.

#### Procedures

Within each State, for each CPS whose perimeter intersected the SLA baseline, the length of the coastline of the CPS was determined with the following procedures:

- Identify and select the end points of the CPS, based on the intersection between the TIGER/Line<sup>®</sup> representation of the CPS and the SLA baseline in the ArcGIS<sup>™</sup> regional map file.
- 2. Identify and select all points on the SLA baseline between the two endpoints of the CPS.
- 3. Create a new point feature layer from the selected points, and select the layer.
- 4. Using Hawth's Analysis Tools for ArcGIS<sup>8</sup>, select Analysis, Convert Locations to Paths, to merge all points on the selected CPS SLA baseline into a single line feature layer.
- 5. Using Hawth's Tools, select Table tools, Distance, to calculate the distance of the line. This is the exact distance that is used for each CPS with a coastline in the allocation formulas detailed in Section 5.B.
- 6. For inland CPS's in all States excluding Louisiana, the distance for each CPS without a coastline is set to zero.
- 7. For inland CPS's in Louisiana, the distance for each CPS is set to be 1/3 the average distance of all CPS's in Louisiana with a coastline (26,612 meters).

<sup>&</sup>lt;sup>8</sup> Beyer, H. L. 2004. Hawth's Analysis Tools for ArcGIS. Available at http://www.spatialecology.com/htools.



**Section 5: Allocation Dollar Calculations** 

#### **Section 5.A: State Allocations**

#### Narrative

The statutory language mandates that, in general – the Secretary shall, without further appropriation, allocate to producing States and CPS's in accordance with this section (Section 384(b)) \$250,000,000 for each of fiscal years 2007 through 2010. Additionally, in general – except as provided in subparagraph (3)(C), (allocating amounts in the case where more than one State is within 200 nautical miles of a leased tracts) and subject to subparagraph (3)(D), (a State shall be allocated a minimum of 1% of the amounts) the amounts available shall be allocated to each producing State based on the ratio that – (i) the amount of qualified OCS revenues generated off the coastline of the producing State; bears to (ii) the amount of qualified OCS revenues generated off the coastline of all producing States.

In the case in which more than one producing State is located within 200 nautical miles of any portion of a leased tract, the amount allocated to each producing State for the leased tract shall be inversely proportional to the distance between - (i) the nearest point on the coastline of the producing State; and (ii) the geographic center of the leased tract. (This situation occurs in the Gulf of Mexico Region.)

In addition, the amount allocated to a producing State under subparagraph (A) shall be at least one percent of the amounts available under paragraph (1).

#### Source Data

The States of Alaska and California are the only producing States within 200 nautical miles of any leased tracts within their respective regions. Additionally, all of the leased tracts within their regions are within 200 nautical miles of their respective coastlines. Accordingly, 100% of the qualified OCS revenues generated off of their coastlines are counted for the purposes of Section 384(b)(1)(i).

In the Gulf of Mexico Region, a number of leased tracts are located further than 200 nautical miles from the coastlines of all four States (Alabama, Louisiana, Mississippi and Texas); accordingly, any revenues associated with these leases are not qualified OCS revenues. For all other leased tracts, the amount allocated to each producing State within 200 nautical miles of the leased tract was calculated based on the inverse proportional distance as outlined below, weighted by the qualified OCS revenues for that leased tract.

#### Procedures

Prior to performing any calculations, the latitudes and longitudes for all leased tract centroids, State coastline points, and CPS perimeter points were converted from spherical coordinates to radians using the standard conversion multiplier of [ $\pi$  /180].

We developed a Visual Basic program to perform the following steps for each leased tract centroid within the Gulf of Mexico Region:

- 1. Select and copy the leased tract centroid's coordinates in radian format to the working spreadsheet reference cells.
- 2. Select the first State spreadsheet in the GOMR regional workbook.
  - a. For each coastline point for the State, calculate the GCD from the leased tract centroid to the point on the coastline using the formula detailed in Section 4.A.
  - b. Sort all the GCD from the State's coastline points to the leased tract centroid in ascending distance.
  - c. Copy the minimum distance and corresponding latitude of the nearest coastline point to the leased tract to the main spreadsheet.
- 3. Select the next State spreadsheet and repeat step 2a through 2c for each of the four States in the GOM Region.

After completing this process, the minimum Great Circle Distance from each leased tract centroid to each State within the GOM Region, along with the corresponding latitudes had been recorded.

The next step in the process runs an internal check to see if the distance from a leased tract centroid is greater than 200 nautical miles from each of the four States. If the GCD from the nearest point on any State is greater than 200 nautical miles from a leased tract centroid, that leased tract is excluded from the inverse distance calculations per (Section 384(a)(10)(A)(ii)). If the GCD from the nearest point on a State coastline is within 200 nautical miles of a leased tract centroid, the distance in nautical miles is calculated, and the inverse distance is calculated using the formula detailed below. For the Gulf of Mexico Region, the revenue share for each State for each leased tract centroid is calculated by dividing the individual State's inverse distance by the total sum of all four States' inverse distance. Note that if one or more States are more than 200 nautical miles from a specific leased tract centroid, the inverse distance, and thus the revenue share, is calculated to be zero for that State for that leased tract.

If  $D_i$  represents the minimum distance from the geographic center of a leased tract to the i=1, 2, ..., n<sup>th</sup> eligible State, then State i would be entitled to the fraction  $F_i$  of the revenue share due all States within 200 nautical miles of the leased tract according to this formula:

$$F_i = \frac{(1/D_i)}{\sum_{i=1...n} (1/D_i)}$$

For the Alaska and Pacific OCS regions there is only one eligible producing State in each region, so it is not necessary to apply the formula to determine the proportional State share within the region – the fraction  $F_i$  for  $_{i=1}$  in those cases is equal to one.

#### Inverse proportional distance example

Continuing the example from Section 4.A above, suppose that \$1MM of qualified OCS revenue is received for the leased tract whose geographic center is located the following distance from the four Gulf of Mexico Region states (in nautical miles):

Alabama – 154.3	Louisiana – 39.7	Mississippi – 137.8	Texas – 183.0
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The four States share the credit in inverse proportion to the distance they are from the revenue source. Using the above mathematical formula, we get:

$$\begin{split} F_A &= (1/154.3) \, / \, (1/154.3 \, + \, 1/39.7 \, + \, 1/137.8 \, + \, 1/183.0) = 0.146 \, x \, \$1MM = \$146,000 \\ F_L &= 0.567 \, x \, \$1MM = \$567,000 \\ F_M &= 0.164 \, x \, \$1MM = \$164,000 \\ F_T &= 0.123 \, x \, \$1MM = \$123,000 \end{split}$$

After accumulating the qualified OCS revenues (QOCSR) generated off the coastlines of the six producing States, the percent shares were calculated for each State. For the Fiscal Year 2007 and Fiscal Year 2008 allocations, which are based on Fiscal Year 2006 QOCSR, the share for the State of Alaska was below one percent of the amount of all qualified OCS revenues. As mandated by Section 384(b)(3)(D), the amount allocated to a producing State under subparagraph (A) shall be at least 1 percent of the amounts available under paragraph (1) (i.e., QOCSR). The proportion of revenues attributed to the State of Alaska was raised to 1% of the total QOCSR using a proportional reduction in QOCSR from the five other producing States. The following table displays the amounts to be allocated to the producing States in each of Fiscal Years 2007 and 2008. In the February 16, 2007 Continuing Resolution, Congress approved a 3 percent appropriation of the CIAP funds to be used by MMS to administer the CIAP program. This amount of \$7.5MM is not included in the table below.

Producing State	% Allocation	Total Allocation	Am	ount Direct to States	Am	ount Direct to CPS's
Alaska	1.00%	\$ 2,425,000.00	\$	1,576,250.00	\$	848,750.00
California	3.07%	\$ 7,444,441.75	\$	4,838,887.13	\$	2,605,554.61
Alabama	10.54%	\$ 25,551,607.04	\$	16,608,544.58	\$	8,943,062.46
Louisiana	52.60%	\$127,547,898.57	\$	82,906,134.07	\$	44,641,764.50
Mississippi	12.76%	\$ 30,939,850.55	\$	20,110,902.86	\$	10,828,947.69
Texas	20.04%	\$ 48,591,202.09	\$	31,584,281.36	\$	17,006,920.73
Total All 6 States	100.00%	\$242,500,000.00	\$	157,625,000.00	\$	84,875,000.00

#### Coastal Impact Assistance Program Fiscal Year 2007 and Fiscal Year 2008 Allocations

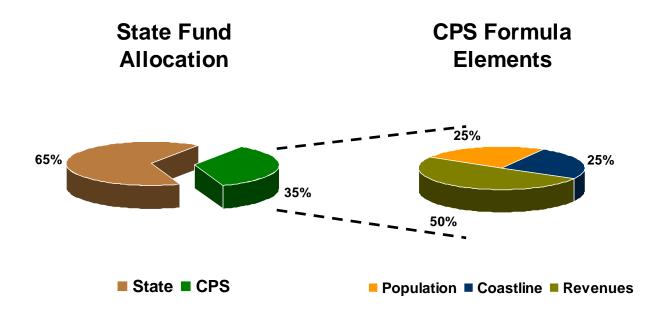
The allocation of the amounts to be distributed directly to the CPS's is based on a threepart formula detailed in Section 5.B.

#### Section 5.B: Coastal Political Subdivision Calculations

#### Narrative

The statutory language (Section 384(b)(4)(A)) mandates that, in general – the Secretary shall pay 35 percent of the allocable share of each producing State, as determined under paragraph (3) to the CPS's in the producing State. Additionally (Section 384(b)(4)(B)), of the amount paid by the Secretary to CPS's under subparagraph (A) – (i) 25% shall be allocated in the proportion that (I) the coastal population of the CPS; bears to (II) the coastal population of all CPS in the producing State; (ii) 25% shall be allocated to each CPS in the proportion that (I) the number of miles of coastline of the CPS bears to (II) the number of miles of coastline of all CPS in the producing State; and (iii) 50% shall be allocated in amounts that are inversely proportional to the respective distances between the points in each CPS that are closest to the geographic center of each leased tract, as determined by the Secretary.

Per Section 384(b)(4)(C), for the purpose of subparagraph (B)(ii) above, the coastline for CPS's in the State of Louisiana without a coastline shall be considered to be 1/3 the average length of the coastline of all CPS's with a coastline in the State of Louisiana. Per Section 384(b)(4)(D), for the purpose of carrying out subparagraph (B)(iii) above in the State of Alaska, the amounts allocated shall be divided equally among the 2 CPS's that are closest to the geographic center of a leased tract.



#### Source Data – 50% allocation based on inverse distances

For the producing State shares the points referenced are the State coastline points, but for the CPS shares the points referenced include all points that constitute the CPS boundary – both inland and coastal points. In some cases, it is possible that the shortest GCD from a leased tract centroid to a CPS is the distance to an interior point on that CPS perimeter – this is especially true for eligible CPS that are located within a State's coastal zone, but do not have any coastal points. California, Louisiana, and Texas all have CPS's that fall within this category.

For each of the CPS's within each State in the Gulf of Mexico and Pacific regions, the Submerged Lands Act baseline points were merged with the TIGER/Line<sup>®</sup> points to define the boundaries of each CPS (see Section 3.D for details). All CPS perimeter point latitudes and longitudes were loaded into the regional Excel workbooks to determine the great circle distance between each leased tract and every point on each CPS's perimeter. A number of leased tracts are located further than 200 nautical miles from the coastlines of all four States and the CPS's within; accordingly, any revenues associated with these leases are not counted as qualified OCS revenues for the purposes of Section 384(b)(1)(i) or Section 384(b)(1)(ii). For all leased tracts within 200 nautical miles of a producing State, the amount allocated to each CPS within each producing State was calculated based on the inverse proportional distance as outlined in Section 5.A, weighted by the qualified OCS revenue for that leased tract.

The percent allocation for each CPS within a State for each leased tract centroid is calculated by dividing the individual CPS's inverse distance by the total sum of all of the CPS's inverse distances within that State, similar to the calculations used to determine the individual State shares in the Gulf of Mexico region.

#### Procedures

Revenue shares for each CPS were calculated for California and for each State in the Gulf of Mexico Region. The procedures outlined in Section 5.A were followed for each CPS in these five States. After completing this process, the minimum GCD from each leased tract centroid to each CPS within California and within each State in the Gulf of Mexico Region, along with the corresponding latitudes had been recorded, as well as the associated inverse distance share for each CPS for each leased tract. One point worth mentioning is that, when calculating the associated shares for each CPS in each State in the Gulf of Mexico Region, the calculations are done separately by State. So although a leased tract centroid may be within 200 nautical miles of every CPS in the States of Alabama, Louisiana, Mississippi and Texas, the shares are calculated within the State, not across States. The following example demonstrates this calculation:

#### Inverse proportional distance example - CPS

Suppose that the geographic center of a leased tract is within 200 nautical miles from Alabama and Mississippi, and greater than 200 nautical miles from both Louisiana and Texas. Further, assume that the leased tract centroid is twice as close to Baldwin County, Alabama as it is to Mobile County, Alabama, and is equally distant from all three CPS's in Mississippi (Hancock County, Harrison County, and Jackson County). To calculate the inverse distance to the five CPS's, the determination is made <u>within</u> each State as follows:

#### <u>Alabama</u>

 $\overline{D_B}$  = (1/50) / (1/50 + 1/100) = 2/3,  $D_M$  = (1/100) / (1/50 + 1/100) = 1/3,

#### <u>Mississippi</u>

 $\dot{D}_{H1} = (1/60) / (1/60 + 1/60 + 1/60) = 1/3,$   $D_{H2} = (1/60) / (1/60 + 1/60 + 1/60) = 1/3,$  and  $D_J = (1/60) / (1/60 + 1/60 + 1/60) = 1/3.$ 

Thus, the shares within each State add up to 100%. These inverse distance shares are weighted by the qualified OCS revenue for each leased tract then added up across all leased tracts to determine the total inverse distance share for each CPS within each State.

It was not necessary to calculate centroids and GCD's for the State of Alaska, because revenue shares are split equally between the only two CPS's that are within 200 nautical miles of every revenue-producing leased tract, per Section 384(b)(4)(D). These two CPS's are North Slope Borough and Northwest Arctic Borough.

#### Procedures – 25% allocation based on population

The population of each CPS was recorded (see Section 3.E for details). Within each State, the proportion of population of each CPS among all CPS's within the State was calculated. Twenty-five percent of the allocation to each CPS was based on the population proportion.

#### Procedures – 25% allocation based on coastline length

The length of the coastline of each CPS was recorded (see Section 4.B for details). For the State of Louisiana, all CPS's without a coastline was considered to be 1/3 the average length of the coastline of all CPS's with a coastline in Louisiana. This length was determined to be 26,612 meters. Within each State, the proportion of coastline of each CPS among all CPS's within the State was calculated. Twenty-five percent of the allocation to each CPS was based on the coastline length proportion.

The amounts allocated to each CPS within a State, based on inverse distance, population proportion, and coastline length, were added together to compute the total allocation for each CPS within each State.

Appendix I: Section 384 of the Energy Policy Act of 2005 – Coastal Impact Assistance Program

#### SEC. 384. COASTAL IMPACT ASSISTANCE PROGRAM.

Section 31 of the Outer Continental Shelf Lands Act (43 U.S.C. 1356a) is amended to read as follows:

#### SEC. 31. COASTAL IMPACT ASSISTANCE PROGRAM.

#### (a) **Definitions**— In this section:

(1) **COASTAL POLITICAL SUBDIVISION**- The term `coastal political subdivision' means a political subdivision of a coastal State any part of which political subdivision is—

(A) within the coastal zone (as defined in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453)) of the coastal State as of the date of enactment of the Energy Policy Act of 2005; and

(**B**) not more than 200 nautical miles from the geographic center of any leased tract.

(2) **COASTAL POPULATION-** The term `coastal population' means the population, as determined by the most recent official data of the Census Bureau, of each political subdivision any part of which lies within the designated coastal boundary of a State (as defined in a State's coastal zone management program under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.)).

(3) **COASTAL STATE**- The term `coastal State' has the meaning given the term in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453).

(4) **COASTLINE**- The term `coastline' has the meaning given the term `coast line' in section 2 of the Submerged Lands Act (43 U.S.C. 1301).

(5) **DISTANCE**- The term `distance' means the minimum great circle distance, measured in statute miles.

(6) **LEASED TRACT**- The term `leased tract' means a tract that is subject to a lease under section 6 or 8 for the purpose of drilling for, developing, and producing oil or natural gas resources.

(7) **LEASING MORATORIA**- The term `leasing moratoria' means the prohibitions on preleasing, leasing, and related activities on any geographic area of the OCS as contained in sections 107 through 109 of division E of the Consolidated Appropriations Act, 2005 (Public Law 108-447; 118 Stat. 3063).

(8) **POLITICAL SUBDIVISION-** The term `political subdivision' means the local political jurisdiction immediately below the level of State government, including counties, parishes, and boroughs.

#### (9) PRODUCING STATE

(A) IN GENERAL- The term `producing State' means a coastal State that has a coastal seaward boundary within 200 nautical miles of the geographic center of a leased tract within any area of the OCS.

(**B**) **EXCLUSION**- The term `producing State' does not include a producing State, a majority of the coastline of which is subject to leasing moratoria, unless production was occurring on January 1, 2005, from a lease within 10 nautical miles of the coastline of that State.

#### (10) QUALIFIED OUTER CONTINENTAL SHELF REVENUES

(A) IN GENERAL- The term `qualified OCS revenues' means all amounts received by the United States from each leased tract or portion of a leased tract—

(i) lying—

(I) seaward of the zone covered by section 8(g); or

(II) within that zone, but to which section 8(g) does not apply; and

(ii) the geographic center of which lies within a distance of 200 nautical miles from any part of the coastline of any coastal State.

(B) INCLUSIONS- The term `qualified OCS revenues' includes bonus bids, rents, royalties (including payments for royalty taken in kind and sold), net profit share payments, and related late-payment interest from natural gas and oil leases issued under this Act.

(C) **EXCLUSION**- The term `qualified OCS revenues' does not include any revenues from a leased tract or portion of a leased tract that is located in a geographic area subject to a leasing moratorium on January 1, 2005, unless the lease was in production on January 1, 2005.

#### (b) Payments to Producing States and Coastal Political Subdivisions-

(1) **IN GENERAL**- The Secretary shall, without further appropriation, disburse to producing States and coastal political subdivisions in accordance with this section \$250,000,000 for each of fiscal years 2007 through 2010.

(2) **DISBURSEMENT**- In each fiscal year, the Secretary shall disburse to each producing State for which the Secretary has approved a plan under subsection (c), and to coastal political subdivisions under paragraph (4), such funds as are allocated to the producing State or coastal political subdivision, respectively, under this section for the fiscal year.

#### (3) ALLOCATION AMONG PRODUCING STATES

(A) IN GENERAL- Except as provided in subparagraph (C) and subject to subparagraph (D), the amounts available under paragraph (1) shall be allocated to each producing State based on the ratio that—

(i) the amount of qualified OCS revenues generated off the coastline of the producing State; bears to

(ii) the amount of qualified OCS revenues generated off the coastline of all producing States.

(B) AMOUNT OF OCS REVENUES-For purposes of subparagraph (A)--

(i) the amount of qualified OCS revenues for each of fiscal years 2007 and 2008 shall be determined using qualified OCS revenues received for fiscal year 2006; and

(ii) the amount of qualified OCS revenues for each of fiscal years 2009 and 2010 shall be determined using qualified OCS revenues received for fiscal year 2008.

(C) MULTIPLE PRODUCING STATES- In a case in which more than 1 producing State is located within 200 nautical miles of any portion of a leased tract, the amount allocated to each producing State for the leased tract shall be inversely proportional to the distance between--

- (i) the nearest point on the coastline of the producing State; and
- (ii) the geographic center of the leased tract.

**(D) MINIMUM ALLOCATION-** The amount allocated to a producing State under subparagraph (A) shall be at least 1 percent of the amounts available under paragraph (1).

#### (4) PAYMENTS TO COASTAL POLITICAL SUBDIVISIONS

(A) IN GENERAL- The Secretary shall pay 35 percent of the allocable share of each producing State, as determined under paragraph (3) to the coastal political subdivisions in the producing State.

**(B) FORMULA-** Of the amount paid by the Secretary to coastal political subdivisions under subparagraph (A)--

(i) 25 percent shall be allocated to each coastal political subdivision in the proportion that--

(I) the coastal population of the coastal political subdivision; bears to

(II) the coastal population of all coastal political subdivisions in the producing State;

(ii) 25 percent shall be allocated to each coastal political subdivision in the proportion that--

(I) the number of miles of coastline of the coastal political subdivision; bears to

(II) the number of miles of coastline of all coastal political subdivisions in the producing State; and

(iii) 50 percent shall be allocated in amounts that are inversely proportional to the respective distances between the points in each coastal political subdivision that are closest to the geographic center of each leased tract, as determined by the Secretary.

(C) EXCEPTION FOR THE STATE OF LOUISIANA- For the purposes of subparagraph (B)(ii), the coastline for coastal political subdivisions in the State of Louisiana without a coastline shall be considered to be 1/3 the average length of the coastline of all coastal political subdivisions with a coastline in the State of Louisiana.

(D) EXCEPTION FOR THE STATE OF ALASKA- For the purposes of carrying out subparagraph (B)(iii) in the State of Alaska, the amounts allocated shall be divided equally among the 2 coastal political subdivisions that are closest to the geographic center of a leased tract.

(E) EXCLUSION OF CERTAIN LEASED TRACTS- For purposes of subparagraph (B)(iii), a leased tract or portion of a leased tract shall be excluded if the tract or portion of a leased tract is located in a geographic area subject to a leasing moratorium on January 1, 2005, unless the lease was in production on that date.

#### (5) NO APPROVED PLAN

(A) IN GENERAL- Subject to subparagraph (B) and except as provided in subparagraph (C), in a case in which any amount allocated to a producing State

or coastal political subdivision under paragraph (4) or (5) is not disbursed because the producing State does not have in effect a plan that has been approved by the Secretary under subsection (c), the Secretary shall allocate the undisbursed amount equally among all other producing States.

(B) **RETENTION OF ALLOCATION-** The Secretary shall hold in escrow an undisbursed amount described in subparagraph (A) until such date as the final appeal regarding the disapproval of a plan submitted under subsection (c) is decided.

(C) WAIVER- The Secretary may waive subparagraph (A) with respect to an allocated share of a producing State and hold the allocable share in escrow if the Secretary determines that the producing State is making a good faith effort to develop and submit, or update, a plan in accordance with subsection (c).

#### (c) Coastal Impact Assistance Plan-

#### (1) SUBMISSION OF STATE PLANS

(A) IN GENERAL- Not later than July 1, 2008, the Governor of a producing State shall submit to the Secretary a coastal impact assistance plan.

(**B**) **PUBLIC PARTICIPATION-** In carrying out subparagraph (A), the Governor shall solicit local input and provide for public participation in the development of the plan.

#### (2) APPROVAL

(A) IN GENERAL- The Secretary shall approve a plan of a producing State submitted under paragraph (1) before disbursing any amount to the producing State, or to a coastal political subdivision located in the producing State, under this section.

**(B) COMPONENTS-** The Secretary shall approve a plan submitted under paragraph (1) if--

(i) the Secretary determines that the plan is consistent with the uses described in subsection (d); and

(ii) the plan contains--

(I) the name of the State agency that will have the authority to represent and act on behalf of the producing State in dealing with the Secretary for purposes of this section;

(II) a program for the implementation of the plan that describes how the amounts provided under this section to the producing State will be used;

(III) for each coastal political subdivision that receives an amount under this section--

(aa) the name of a contact person; and

(**bb**) a description of how the coastal political subdivision will use amounts provided under this section;

**(IV)** a certification by the Governor that ample opportunity has been provided for public participation in the development and revision of the plan; and

(V) a description of measures that will be taken to determine the availability of assistance from other relevant Federal resources and programs.

(3) AMENDMENT- Any amendment to a plan submitted under paragraph (1) shall be--

(A) developed in accordance with this subsection; and

(B) submitted to the Secretary for approval or disapproval under paragraph (4).

(4) **PROCEDURE**- Not later than 90 days after the date on which a plan or amendment to a plan is submitted under paragraph (1) or (3), the Secretary shall approve or disapprove the plan or amendment.

#### (d) Authorized Uses-

(1) IN GENERAL- A producing State or coastal political subdivision shall use all amounts received under this section, including any amount deposited in a trust fund that is administered by the State or coastal political subdivision and dedicated to uses consistent with this section, in accordance with all applicable Federal and State law, only for 1 or more of the following purposes:

(A) Projects and activities for the conservation, protection, or restoration of coastal areas, including wetland.

(B) Mitigation of damage to fish, wildlife, or natural resources.

(C) Planning assistance and the administrative costs of complying with this section.

(**D**) Implementation of a federally-approved marine, coastal, or comprehensive conservation management plan.

(E) Mitigation of the impact of outer Continental Shelf activities through funding of onshore infrastructure projects and public service needs.

(2) **COMPLIANCE WITH AUTHORIZED USES**- If the Secretary determines that any expenditure made by a producing State or coastal political subdivision is not consistent with this subsection, the Secretary shall not disburse any additional amount under this section to the producing State or the coastal political subdivision until such time as all amounts obligated for unauthorized uses have been repaid or reobligated for authorized uses.

(3) LIMITATION- Not more than 23 percent of amounts received by a producing State or coastal political subdivision for any 1 fiscal year shall be used for the purposes described subparagraphs (C) and (E) of paragraph (1).

## Appendix II: Producing States and Eligible Coastal Political Subdivisions

Alabama	Alaska	California	Louisiana	Mississippi	Texas
Counties	Boroughs	Counties	Parishes	Counties	Counties
Baldwin	Anchorage	Alameda	Assumption	Hancock	Aransas
Mobile	Bristol Bay Borough	Contra Costa	Calcasieu	Harrison	Brazoria
	Kenai Peninsula	Los Angeles	Cameron	Jackson	Calhoun
	Kodiak Island	Marin	Iberia		Cameron
	Lake & Peninsula	Monterey	Jefferson		Chambers
	Matanuska-Susitna	Napa	Lafourche		Galveston
	North Slope	Orange	Livingston		Harris
	Northwest Arctic	San Diego	Orleans		Jackson
		San Francisco	Plaquemines		Jefferson
		San Luis Obispo	St. Bernard		Kenedy
		San Mateo	St. Charles		Kleberg
		Santa Barbara	St. James		Matagorda
		Santa Clara	St. John the Baptist		Nueces
		Santa Cruz	St. Martin		Orange
		Solano	St. Mary		Refugio
		Sonoma	St. Tammany		San Patricio
		Ventura	Tangipahoa		Victoria
			Terrebonne		Willacy
			Vermilion		

Note: These States and CPS are eligible for 2007 and 2008 disbursements. Due to lease sales and/or lease tract relinquishments, terminations, and expirations after 2006, this list may change for 2009 and 2010 disbursements.

## Appendix III: U.S. Census Bureau Census 2000 Population

<u>Alabama Counties</u>	CPS Population
Baldwin	140,415
Mobile	399,843
Alaska Boroughs	<u>CPS Population</u>
Anchorage	260,283
Bristol Bay	1,258
Kenai Peninsula	49,691
Kodiak Island	13,913
Lake and Peninsula	1,823
Matanuska - Susitna	59,322
North Slope Borough	7,385
Northwest Arctic	7,208
California Counties Alameda Contra Costa Los Angeles Marin Monterey Napa Orange San Diego San Francisco San Luis Obispo San Mateo Santa Barbara Santa Clara Santa Clara Santa Cruz Solano Sonoma Ventura	CPS Population 1,443,741 948,816 9,519,338 247,289 401,762 124,279 2,846,289 2,813,833 776,733 246,681 707,161 399,347 1,682,585 255,602 394,542 458,614 753,197
<u>Mississippi Counties</u>	CPS Population
Hancock	42,967
Harrison	189,601
Jackson	131,420

Louisiana Parishes Assumption Calcasieu Cameron Iberia Jefferson Lafourche Livingston Orleans Plaquemines St. Bernard St. Charles St. James St. James St. John the Baptist St. Martin St. Mary St. Tammany Tangipoha Terrebonne Vermillion	CPS Population23,388183,5779,99173,266455,46689,97491,814484,67426,75767,22948,07221,21643,04448,58353,500191,268100,588104,50353,807
Texas Counties Aransas Brazoria Calhoun Cameron Chambers Galveston Harris Jackson Jefferson Kenedy Kleberg Matagorda Nueces Orange Refugio San Patricio Victoria Willacy	CPS Population22,497241,76720,647335,22726,031250,1583,400,57814,391252,05141431,54937,957313,64584,9667,82867,13884,08820,082

## **Appendix IV: CIAP State Contact Information**

#### State of Alabama

Commissioner M. Barnett Lawley Alabama Department of Conservation and Natural Resources 64 N. Union Street Montgomery, AL 36130

#### State of Alaska

Mr. Randy Bates Acting Director, Office of Project Management and Permitting Alaska Department of Natural Resources 302 Gold Street, Suite 202 Juneau, AK 99801

#### State of California

Mr. Mike Chrisman Secretary, California Resources Agency 1416 9<sup>th</sup> Street, Suite 1311 Sacramento, CA 95814

#### State of Louisiana

Mr. Scott A. Angell Secretary, Louisiana Department of Natural Resources P.O. Box 94396 Baton Rouge, LA 70804-9396

#### State of Mississippi

Dr. William Walker Executive Director, Mississippi Department of Marine Resources 1141 Bayview Avenue, Suite 101 Biloxi, MS 39530

#### **State of Texas**

Mr. Auburn Mitchell Budget Planning and Policy, Office of the Governor State Capitol, 4<sup>th</sup> Floor P.O. Box 12428 Austin, TX 78711

## **Appendix V: MMS CIAP Contact Information**

State and CPS contacts should contact the appropriate regional CIAP representative with any questions pertaining to this documentation.

Other interested parties should contact their State CIAP representative listed in Appendix 4 for information regarding the individual State Plans.

#### Alaska Region

Bill Gissel 3801 Centerpoint Drive, Suite 500 Anchorage, AK 99503-5823 (907) 334-5231

### Gulf of Mexico Region

Stephanie Gambino 1201 Elmwood Park Boulevard New Orleans, LA 70123-2394 (504) 736-2856

#### **Pacific Region**

Cathie Dunkel 770 Paseo Camarillo Camarillo, CA 93010 (805) 389-7830