



Mississippi River Hydrodynamic and Delta Management Study

October 2013

U.S. ARMY CORPS OF ENGINEERS

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Geomorphic Assessment

Team Leaders: Charlie Little, Engineer Research and Development Center (USACE) and David Biedenbarn, Biedenbarn Group (CPRA)

Team Participants: Coastal Protection and Restoration Authority of Louisiana, USACE New Orleans District

Purpose: The geomorphic assessment provides the foundation for projecting future trends with and without proposed project features. This task integrates field surveys with existing gage data, sediment data, measurements of channel geometry, and hydraulic data to characterize hydrologic trends, process-form interactions of the river and natural and anthropogenic changes to the system.

- Enables the team to identify control points and problem locations
- Supports division of the system into distinct reaches or areas that may be individually classified with respect to morphology
- Critical to the calibration of numerical models and the proper interpretation of numerical model results

Objectives:

- Compile and analyze existing data from multiple sources including stage and discharge measurements, dredge and sand mining records, suspended sediment measurements, aerial and satellite imagery, operations records from diversions and flood control structures, and previous study reports.
- Conduct a detailed assessment of the Lower River region, including all major passes through which flow and sediment are distributed and the reaches that encompass the sites of all proposed large diversions.
- Document the historical trends of the channel system.
- Classify distinct reaches or areas with respect to morphology.
- Establish the current stability of the channel system and identify the dominant processes and features within the system.
- Focused on but not limited to the period from 1960-present

Study Status:

- Draft report received June 2013, agency review in progress
- The geomorphic assessment team will coordinate with the data management team throughout the duration of the study to analyze and archive all collected data.

Anyone seeking additional information on the MRHDM Study can visit the LCA program website at

www.lca.gov, the New Orleans District LCA website at

www.mvn.usace.army.mil/Missions/Environmental/LouisianaCoastalArea.aspx, or the CPRA website at

<http://coastal.louisiana.gov/>.

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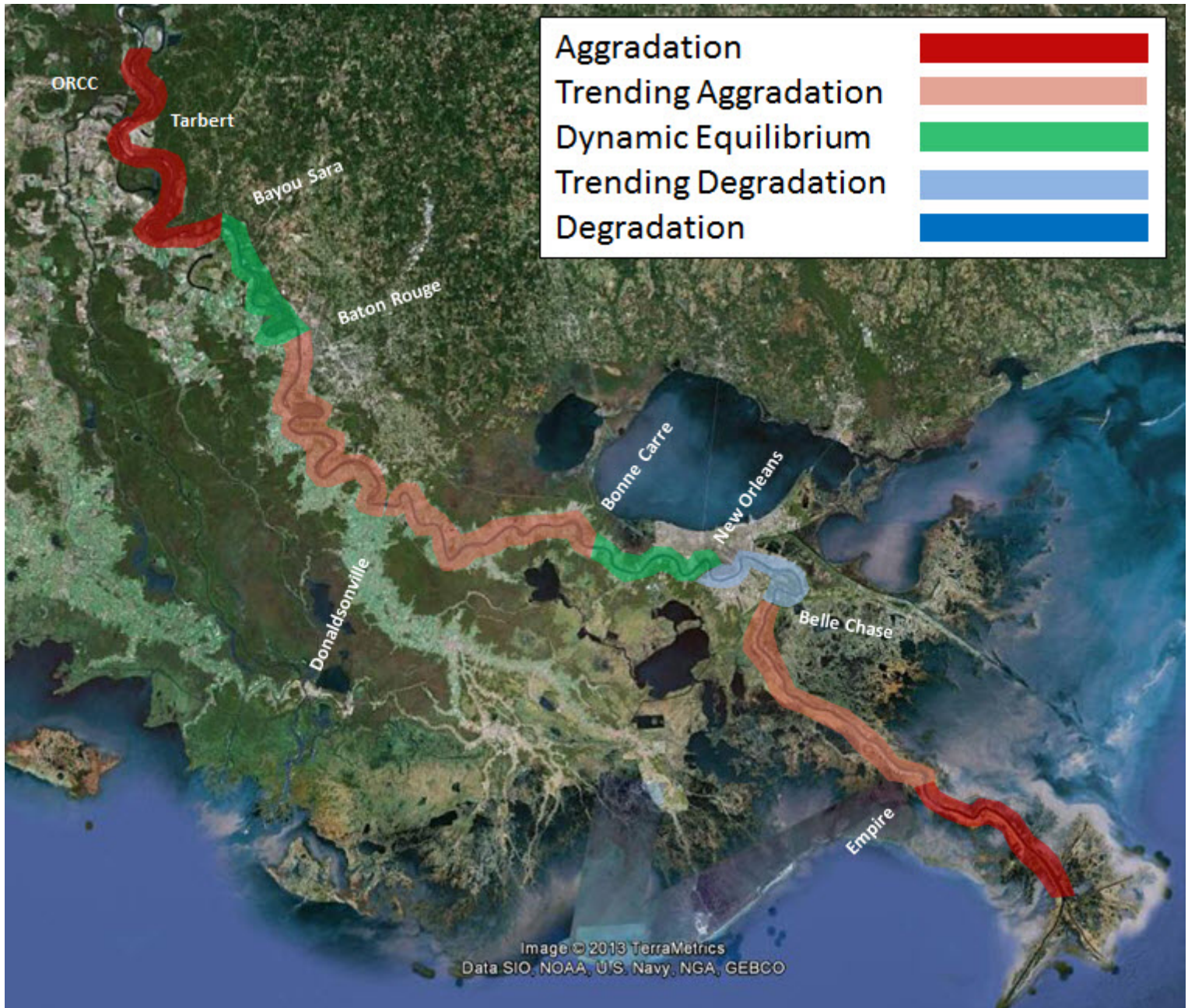
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Analyses of river geometry, gage and discharge, and sediment data were used to classify the morphology of the study reach of the Mississippi River from Old River Control to Head of Passes. This understanding of the river provides valuable insight in development and interpretation of numerical models essential for planning and design of river diversions.

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