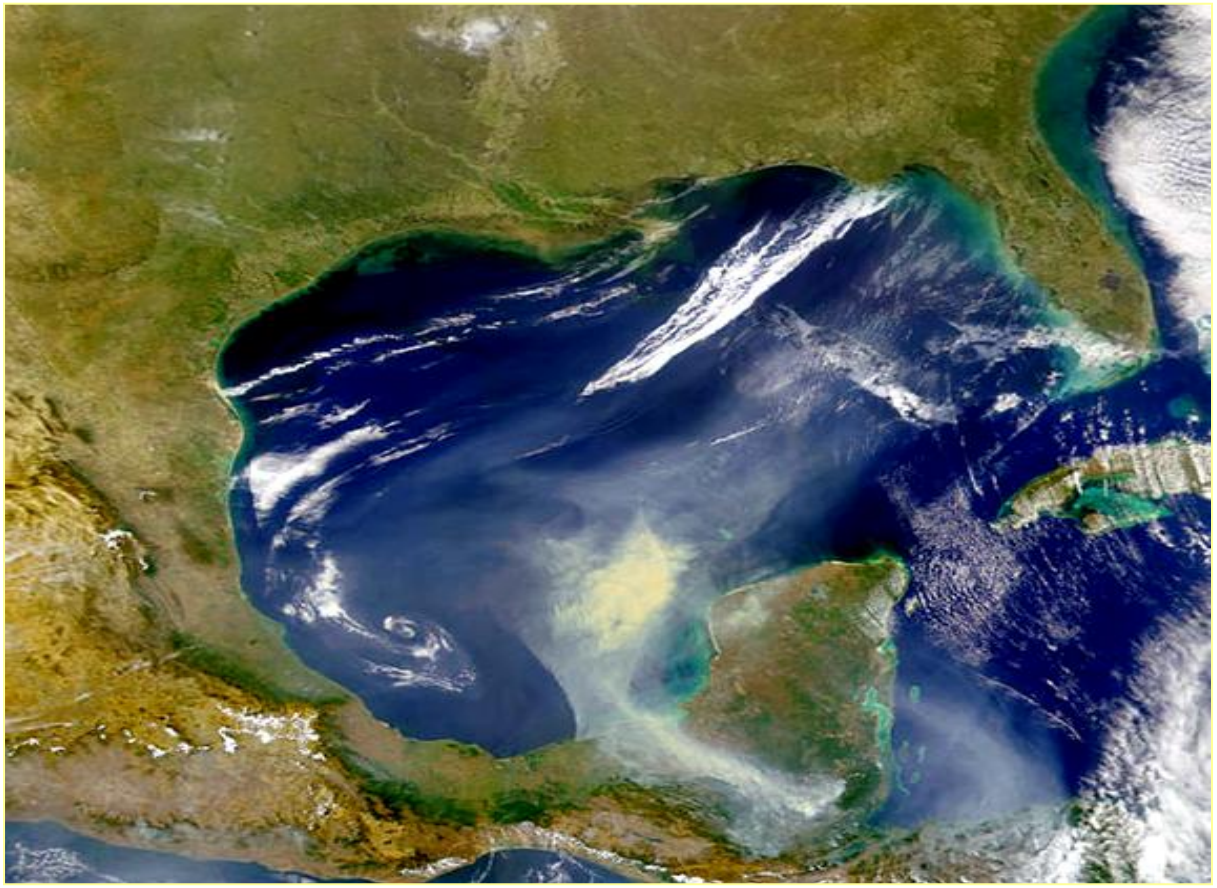
‘Idle Iron’ versus ‘Rigs to Reefs’: Surviving Conflicting Policy Mandates in the Gulf of Mexico

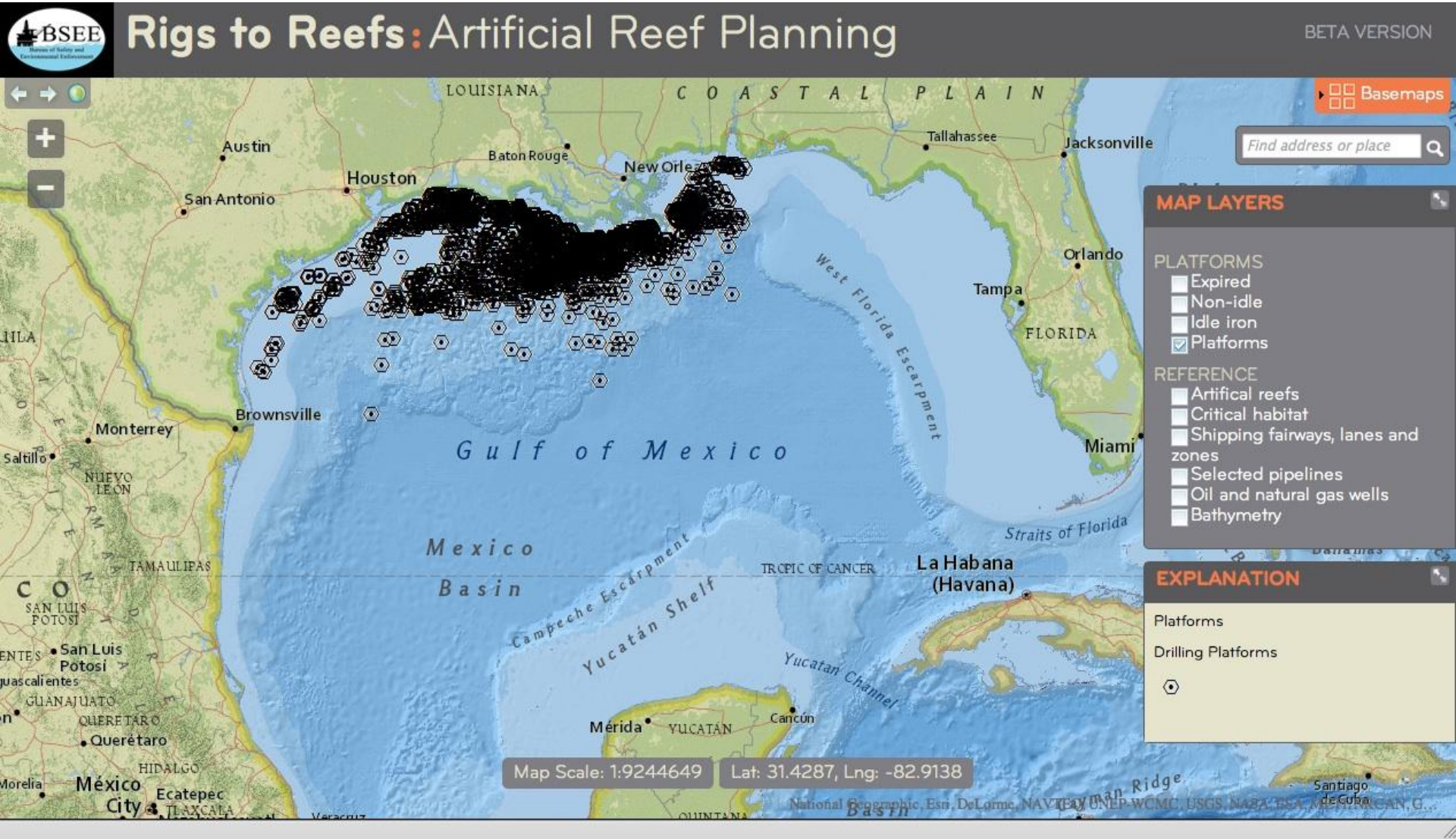


by

Richard J. McLaughlin
Harte Research Institute for Gulf of Mexico Studies
Texas A&M University-Corpus Christi

About 3500 Platforms in Gulf

(85% in Less Than 60 Meter water Depth)

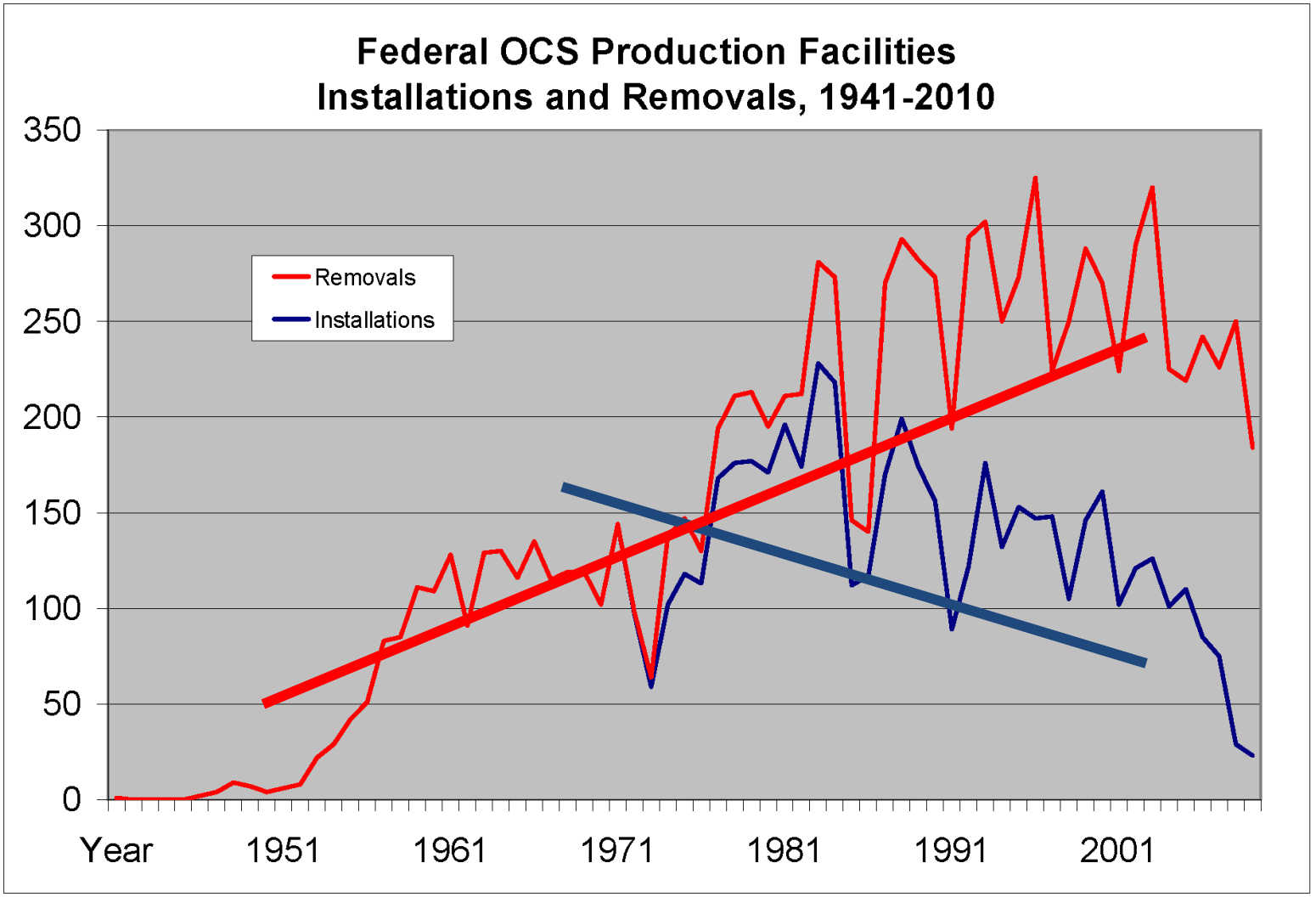


Rig Installations and Removals 1942 to 2012

Special acknowledgement to the National Ocean Council And Director Deerin Babb-Brott for assistance in gathering data from federal agencies for following graphics

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

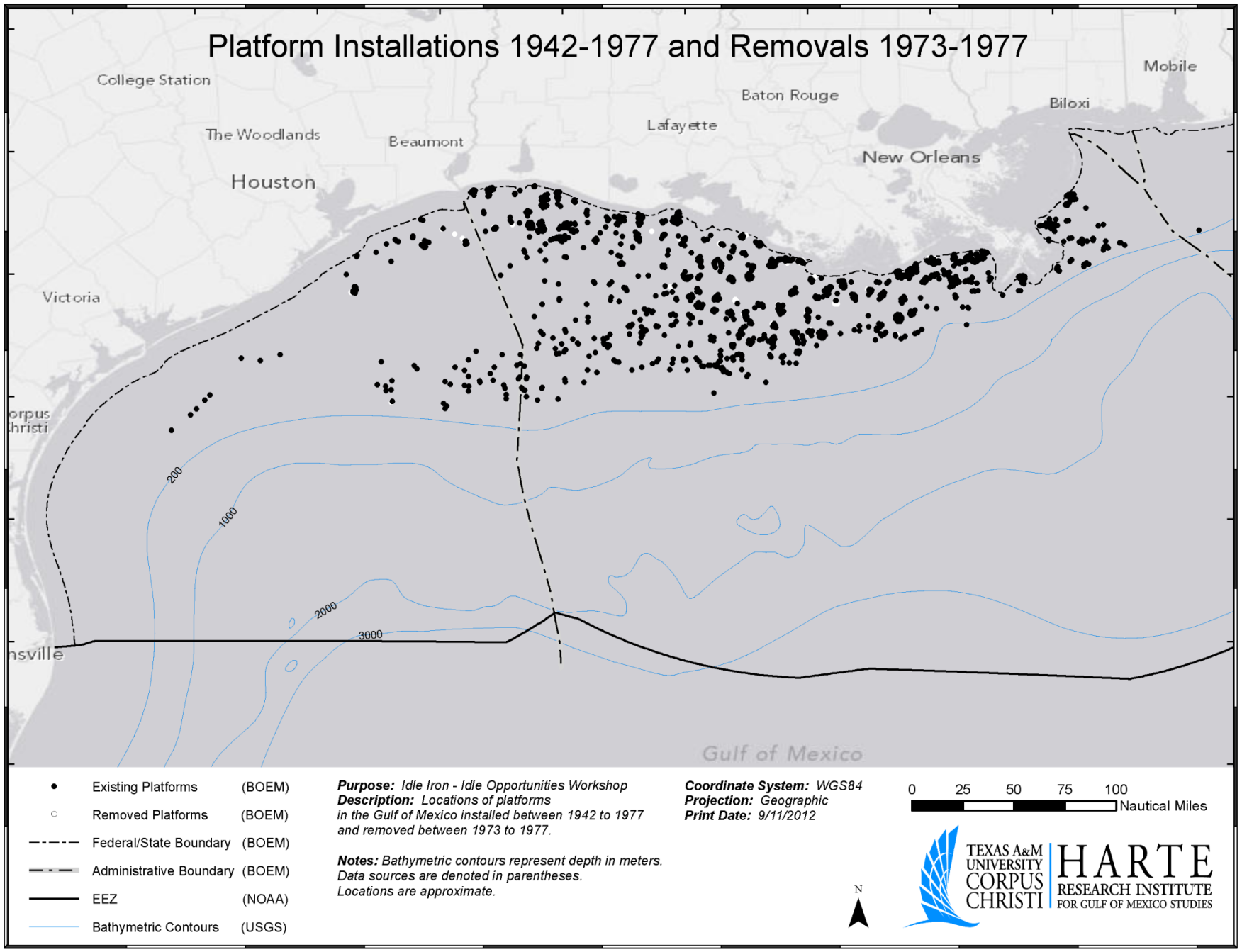
Installations vs. Removals



SOURCE: BOEM.gov

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations 1942-1977 and Removals 1973-1977



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 1977 and removed between 1973 to 1977.*

Notes: *Bathymetric contours represent depth in meters.*
Data sources are denoted in parentheses.
Locations are approximate.

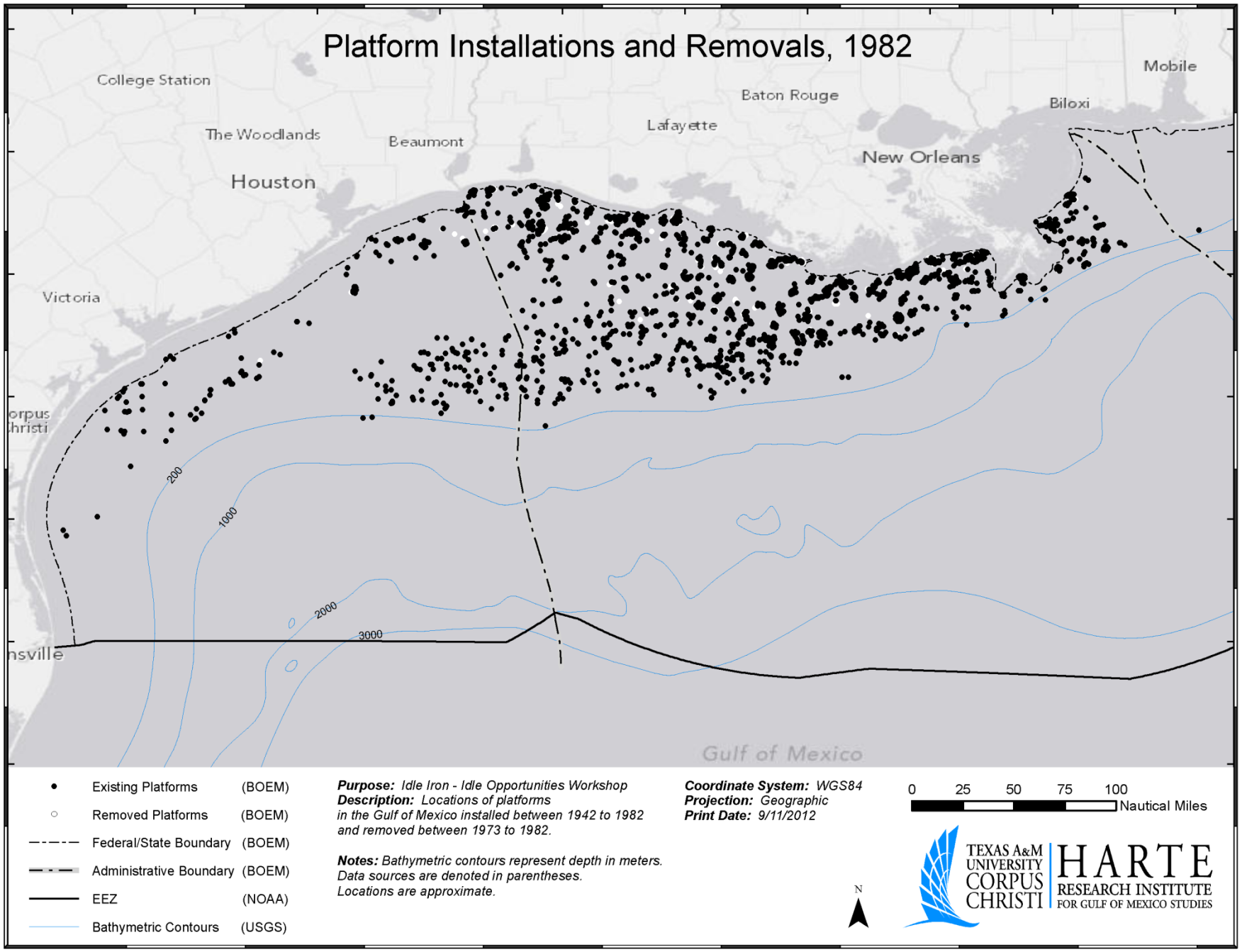
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations and Removals, 1982



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 1982 and removed between 1973 to 1982.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

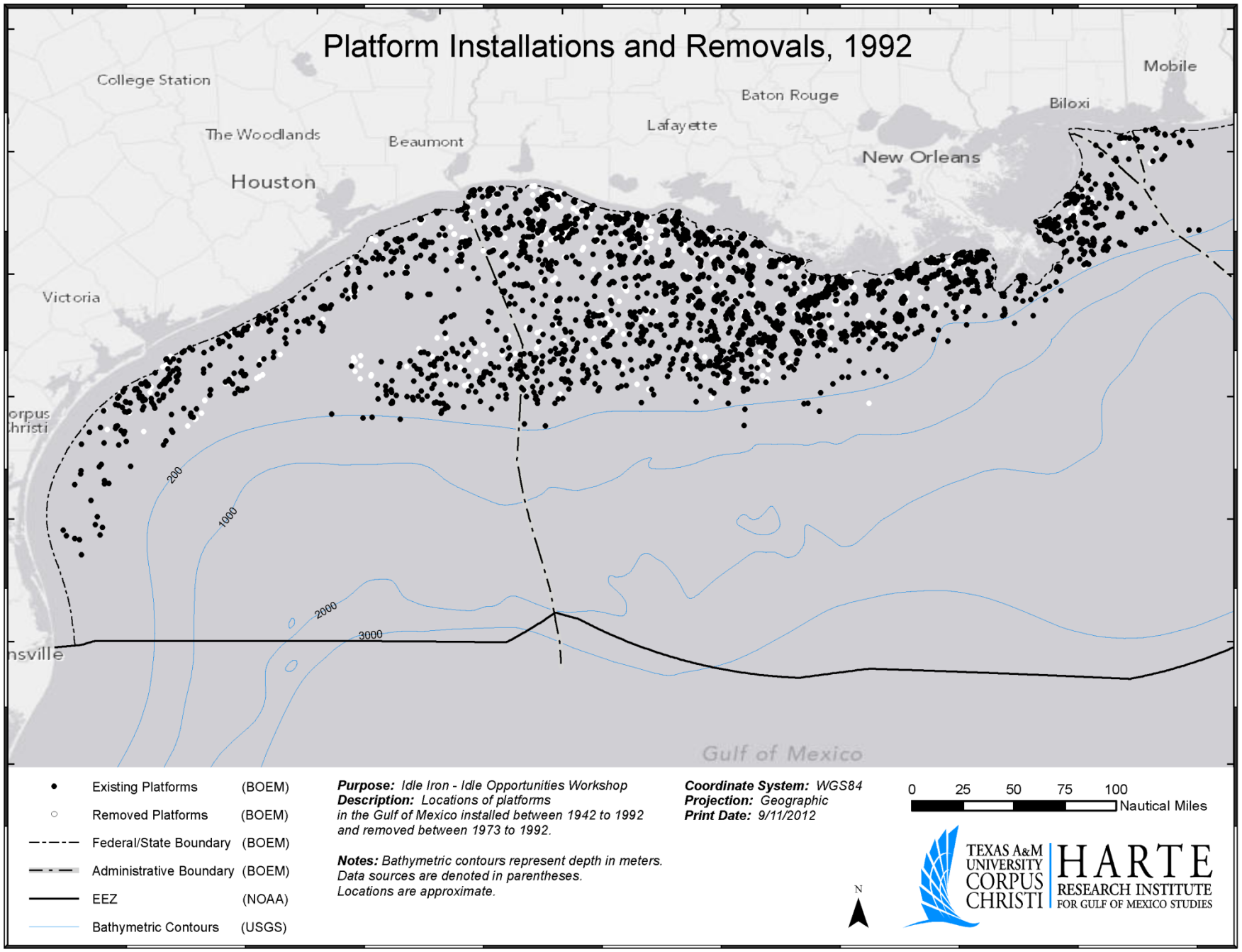
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations and Removals, 1992



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 1992 and removed between 1973 to 1992.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

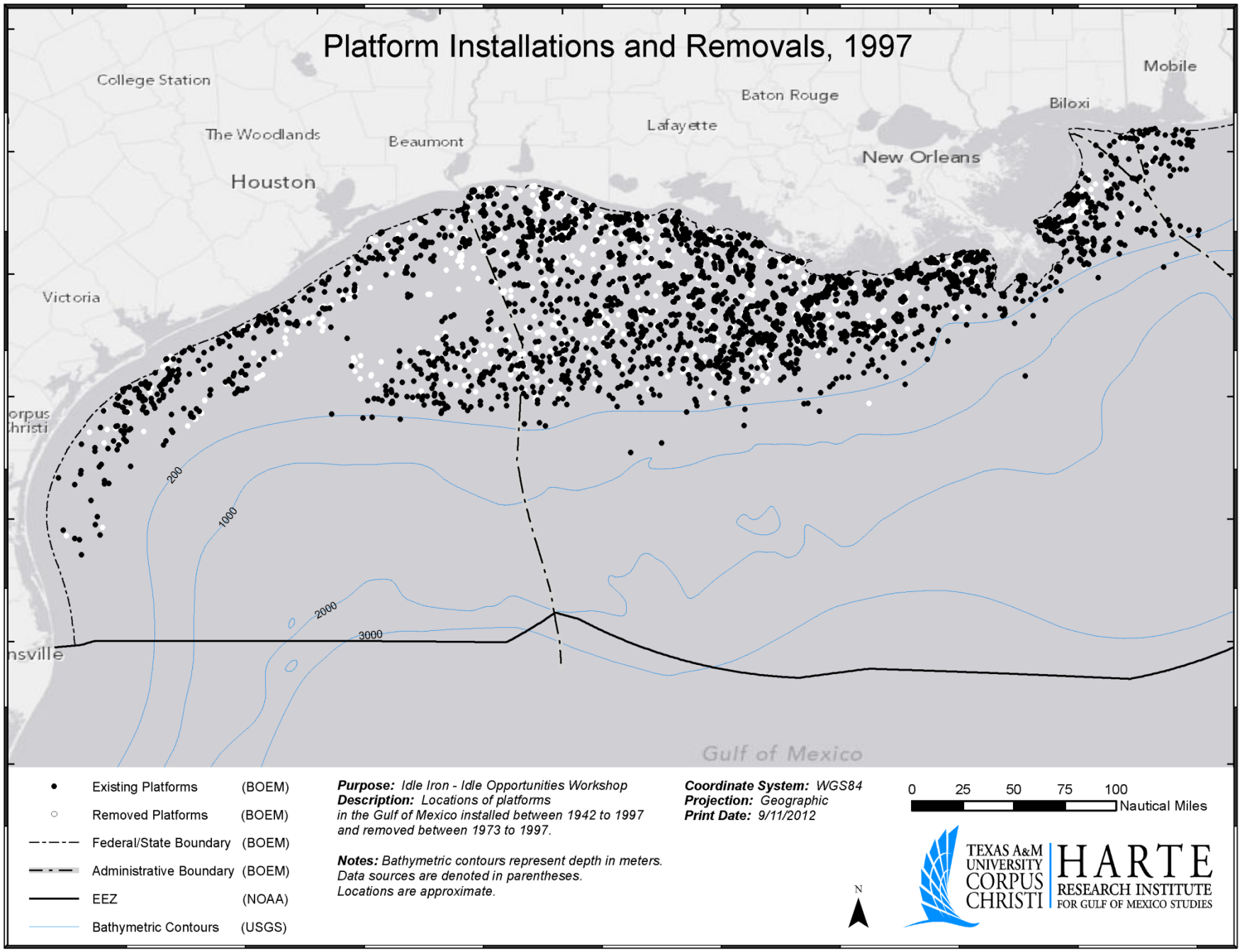
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations and Removals, 1997



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 1997 and removed between 1973 to 1997.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

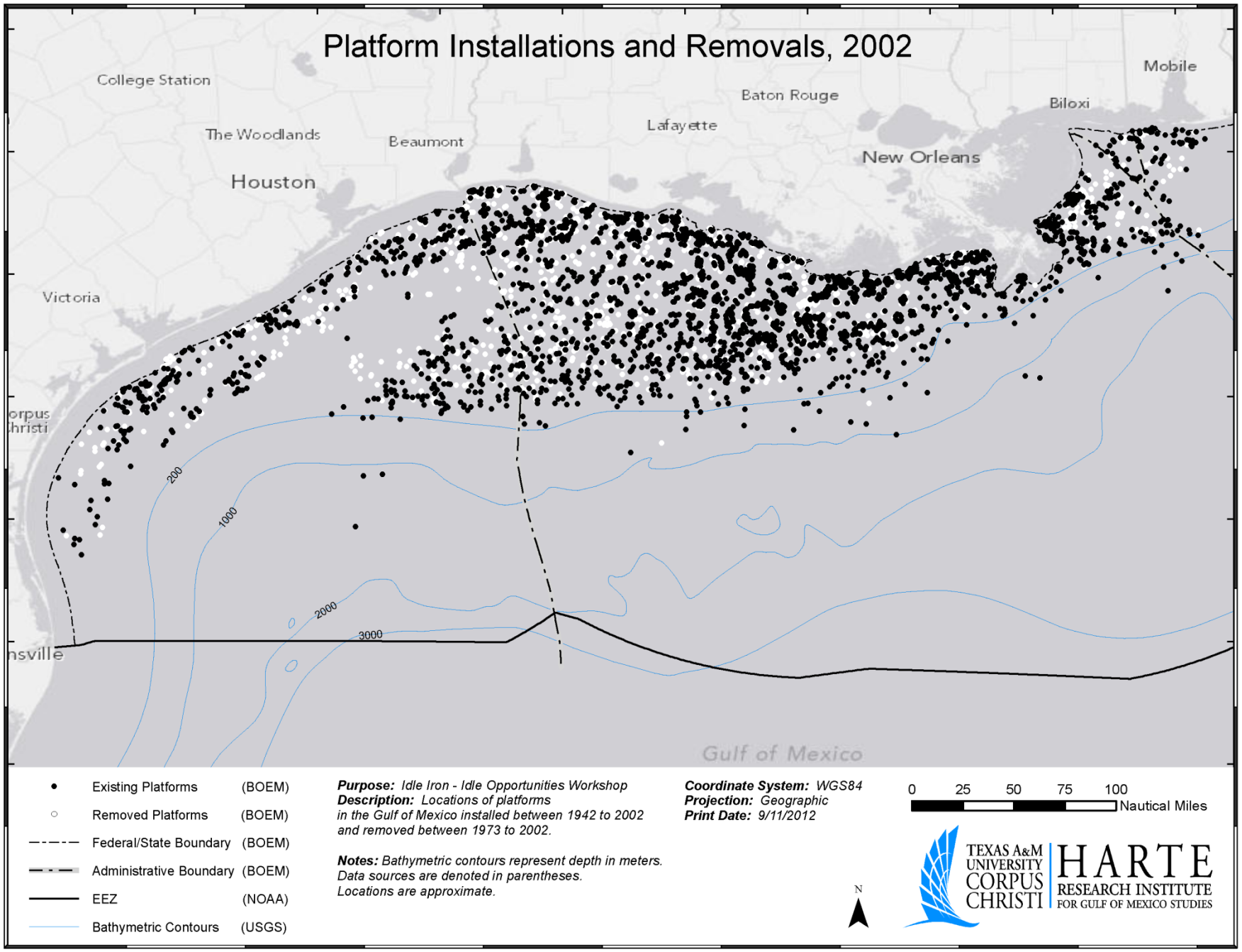
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations and Removals, 2002



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 2002 and removed between 1973 to 2002.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

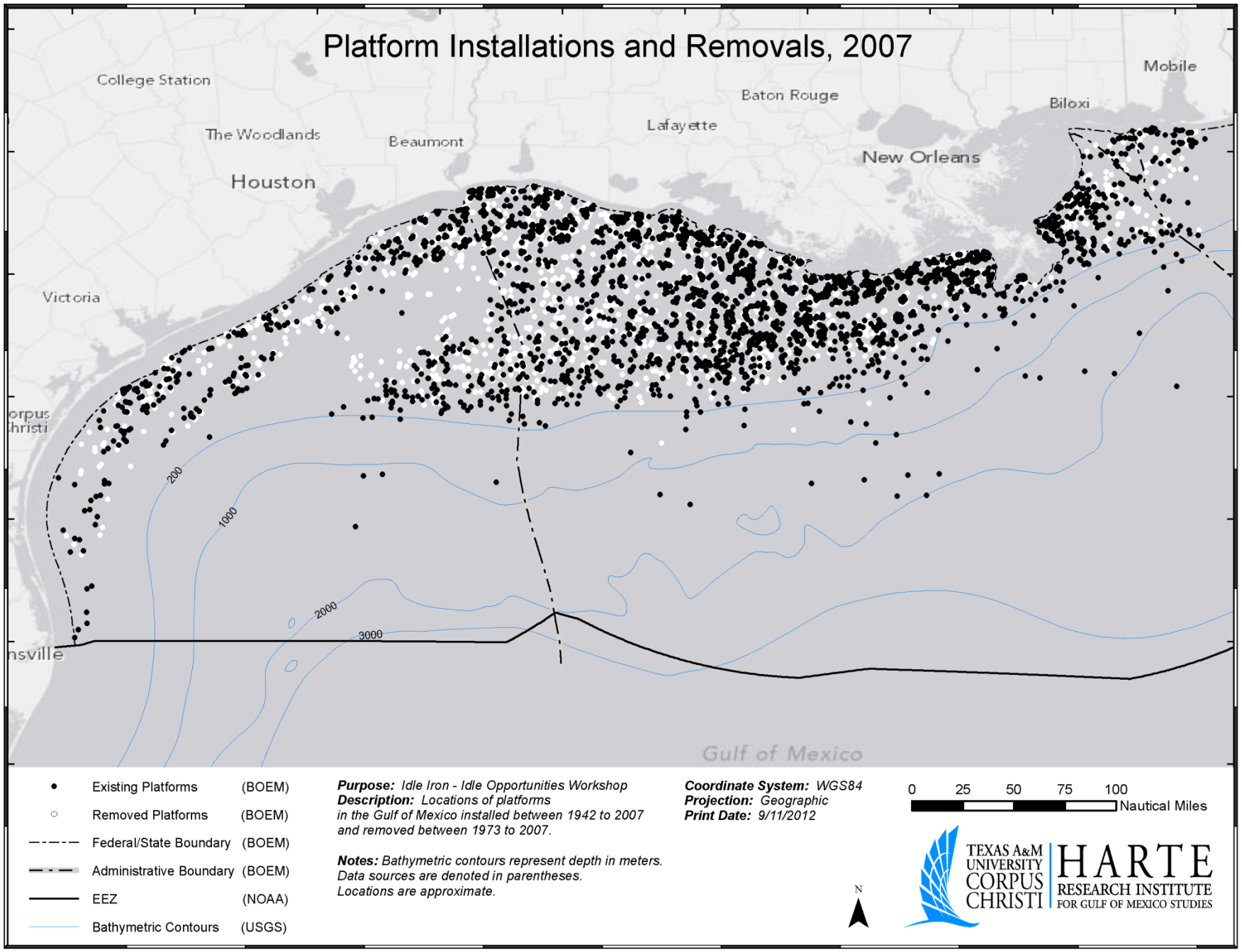
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations and Removals, 2007



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 2007 and removed between 1973 to 2007.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

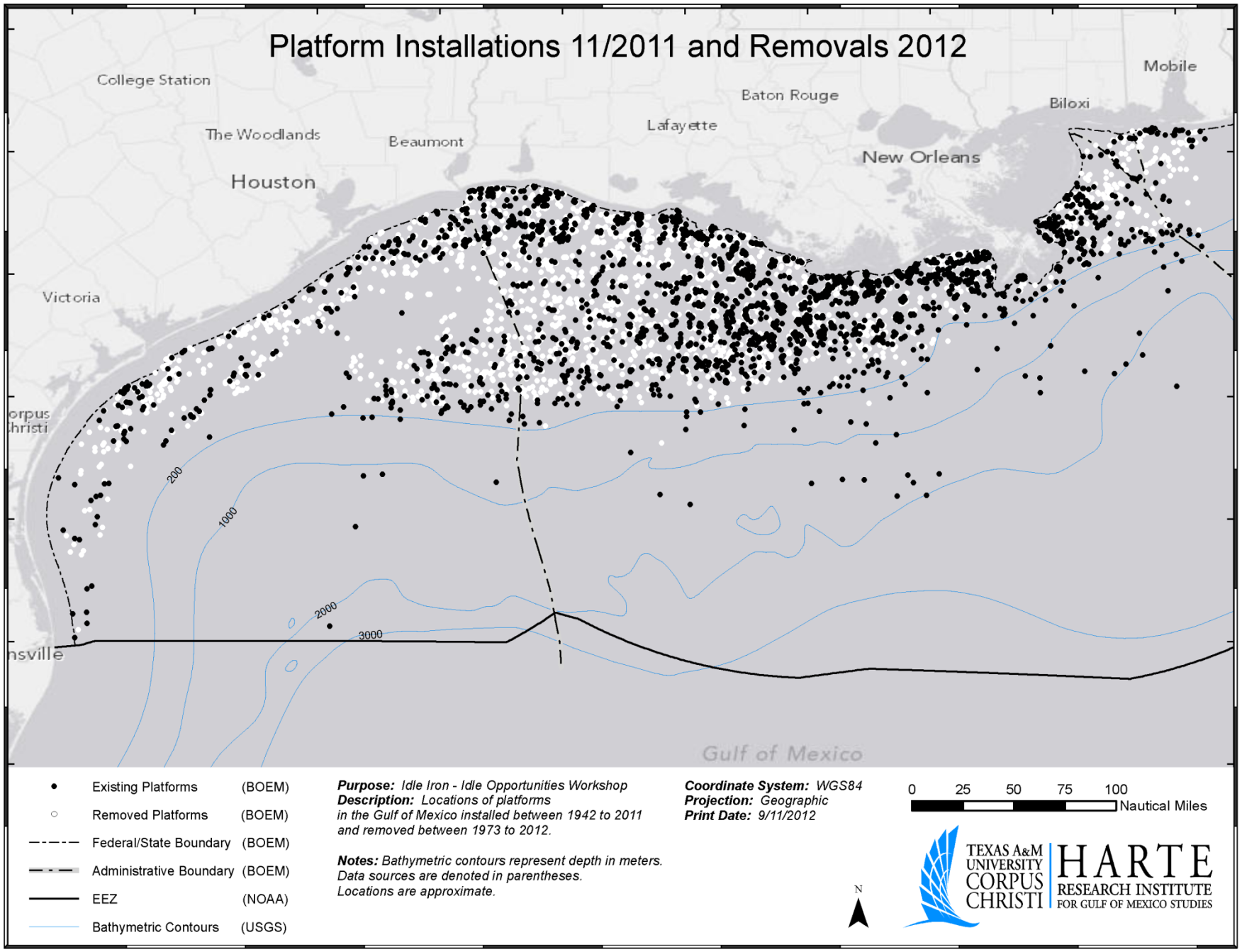
Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Platform Installations 11/2011 and Removals 2012



- Existing Platforms (BOEM)
- Removed Platforms (BOEM)
- Federal/State Boundary (BOEM)
- Administrative Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: *Idle Iron - Idle Opportunities Workshop*
Description: *Locations of platforms in the Gulf of Mexico installed between 1942 to 2011 and removed between 1973 to 2012.*

Notes: *Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.*

Coordinate System: *WGS84*
Projection: *Geographic*
Print Date: *9/11/2012*

0 25 50 75 100 Nautical Miles

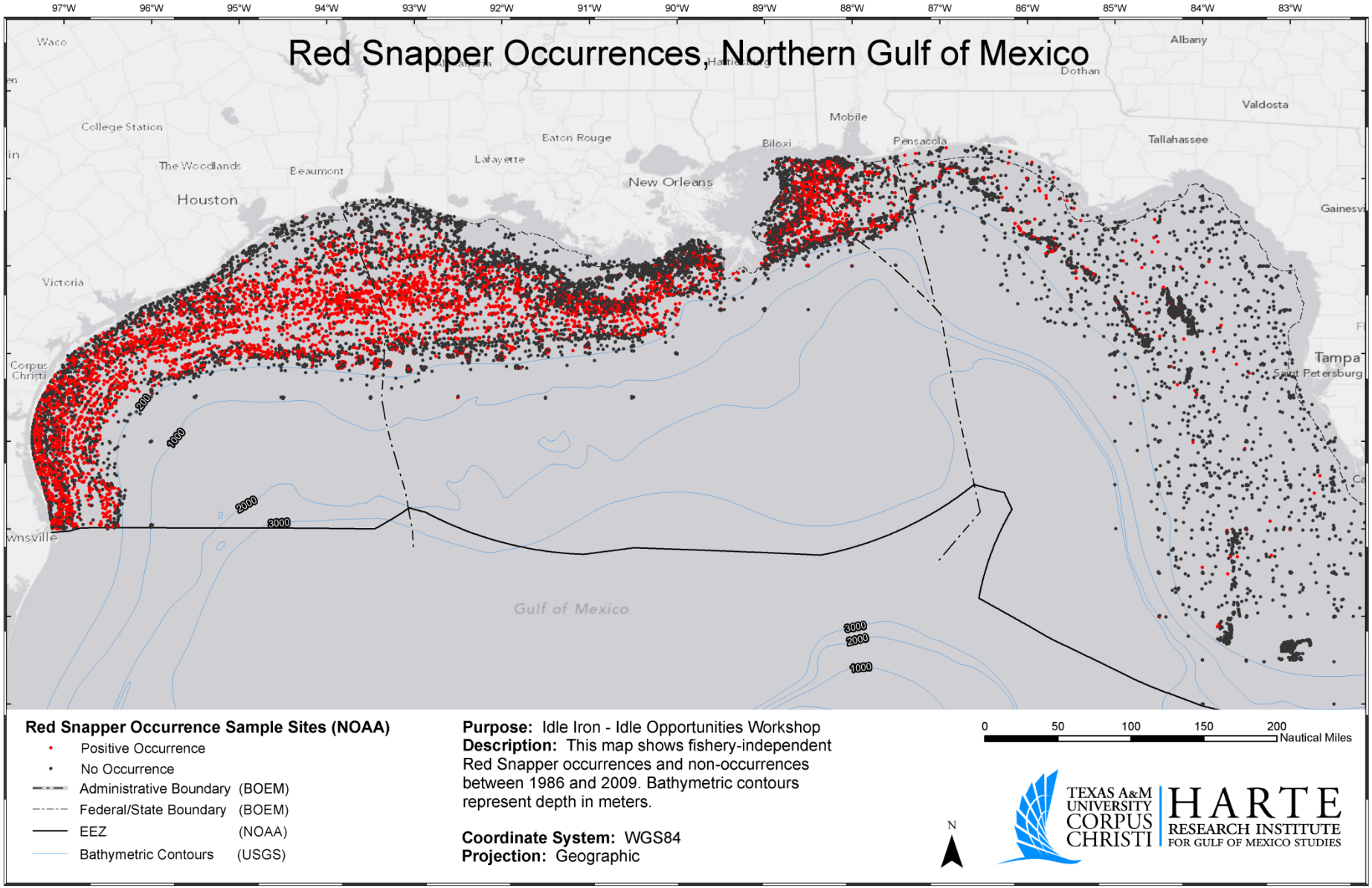
N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Offshore Platforms
and
Red Snapper

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Red Snapper Occurrences, Northern Gulf of Mexico



Red Snapper Occurrence Sample Sites (NOAA)

- Positive Occurrence
- No Occurrence
- Administrative Boundary (BOEM)
- Federal/State Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: Idle Iron - Idle Opportunities Workshop
Description: This map shows fishery-independent Red Snapper occurrences and non-occurrences between 1986 and 2009. Bathymetric contours represent depth in meters.

Coordinate System: WGS84
Projection: Geographic

0 50 100 150 200 Nautical Miles

N

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Red Snapper Killed By Rig Demolition

Source: Ben Raines AL.com

Why Remove Non-Producing Rigs?

- Abandoned platforms deteriorate and are susceptible to structural failure
- Danger is heightened during storms and hurricanes
- Causes environmental pollution from release of hydrocarbons into surrounding water
- Damages nearby operating infrastructure
- Creates navigation and safety hazards

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

International Legal Basis for Removal

- Article 5(5) of 1958 Convention on Continental Shelf – "any installations which are abandoned or disused *must be entirely removed*."

- Slightly more flexibility in 1982 United Nations Convention on Law of the Sea Article 60(3) – nations shall remove from EEZs and Cont. Shelves all abandoned or disused structures taking into account any generally accepted int'l standards established by competent int'l organizations = Int'l Maritime Organization

1989 IMO Standards

- Reiterates general principle that there is an obligation to remove abandoned and disused offshore structures
- However, allows non-removal and partial removal on case-by-case basis
- Criteria include: impact on surface and sub-surface navigation; commercial fisheries; military activities; pollution of marine environment; dangers of removal; and assignment of liability
- Standards are ***not binding*** but recommended for IMO member states – Still very influential in domestic legislation

U.S. Law

- The Federal OCSLA and its implementing regulations require operators to *decommission platforms and other structures within one year* of the end of the lease or after they are no longer useful for production
- Decommission = remove or put to another approved use like rigs-to reefs

U.S. Rigs-to-Reefs Program

- Fishing Enhancement Act of 1984 requires a National Artificial Reef Plan
- Plan encourages Federal/State Partnerships for operators to donate decommissioned offshore platforms to coastal states to serve as artificial reefs
- **Louisiana**, **Texas**, **Mississippi**, and **California** enacted Rigs-to-Reefs legislation

State Rigs-to-Reefs Programs

- States locate and work with willing operator to donate decommissioned rig (**Donation Worksheet**)
- Cooperate to secure required federal permits from USACE, Coast Guard, and BSEE
- Negotiate an agreement with operator to accept title and liability for structure as reef (**liability shifts for reef structure only not well itself**)
- Agreement generally requires operator to donate 50% of cost savings associated with reefing for use by State for maintenance and conservation

The actual donation amount may differ.

Donor _____

Lease Block Number _____ **Depth of Water** _____

Structure Type _____ **Weight of Jacket** _____

Complete Removal & Salvage Costs	Estimated Time	Rate	Cost
Derrick barge (size and class) _____			
Mobilization/Demobilization of derrick barge			= _____
Removal of deck & equipment	_____		
Secure deck and equipment to cargo/launch barge	_____		
Sever(☐ explosively ☐ mechanically) and remove ___ conductors	_____		
Sever(☐ explosively ☐ mechanically) and jet soil plugs in ___ piles	_____		
Deballast jacket	_____		
Rig slings and lift jacket	_____		
Rotate jacket to horizontal and secure jacket on cargo/launch barge	_____		
Subtotal of hours and cost for derrick barge	_____	x _____	= _____
Cargo/launch barge #1 for transporting deck (size and class) _____			
Mobilization/Demobilization of cargo/launch barge #1 for deck			= _____
Onsite time for cargo/launch barge #1 for preparing deck	_____		
Transport deck on cargo/launch barge #1 to shore	_____		
Offload and dispose of cargo	_____		
Subtotal of hours and cost for cargo/launch barge #1	_____	x _____	= _____
Cargo/launch barge #2 for transporting jacket (size and class) _____			
Mobilization/Demobilization of cargo/launch barge #2 for jacket			= _____
Onsite time for cargo/launch barge #2 for preparing jacket	_____		
Transport jacket on cargo/launch barge #2 to shore	_____		
Offload and dispose of cargo	_____		
Subtotal of hours and cost for cargo/launch barge #2	_____	x _____	= _____
Site clearance	_____	x _____	= _____
Subtotal for Complete Removal			= _____

Partial Mechanical Removal in Place Costs	Estimated Time	Rate	Cost
Derrick barge (size and class) _____			
Mobilization/Demobilization of derrick barge			= _____
Removal of deck & equipment	_____		
Secure deck to cargo/launch barge using derrick barge equipment	_____		
Sever(☐ explosively ☐ mechanically ___ conductors	_____		
Sever(☐ explosively ☐ mechanically ___ piles	_____		
Deballast upper portion of jacket if necessary	_____		
Rig slings for lifting upper jacket and setting it next to standing structure	_____		
Reposition vessel to set upper jacket on bottom	_____		
Reposition vessel and retrieve rigging	_____		
Verify clearance over jacket and attach buoy	_____		
Subtotal of hours and cost for derrick barge	_____	x _____	= _____
Cargo/launch barge for transporting deck (size and class) _____			
Mobilization/Demobilization of cargo/launch barge #1 for deck			= _____
Onsite time for cargo/launch barge #1 for preparing deck	_____		
Transport deck on cargo/launch barge #1 to shore	_____		
Offload and dispose of cargo	_____		
Subtotal of hours and cost for cargo/launch barge #1	_____	x _____	= _____
Total Costs for Partial Removal			= _____

Calculation of Donation Amount

Complete Removal Costs	_____
Partial Removal Costs -	_____
Realized Savings =	_____
50% of Realized Savings	_____
Buoy Cost (if applicable) +	$30,000.00
Total Donation =	$30,000.00

SAMPLE COPY

STATE OF TEXAS

COUNTY OF TRAVIS

MATERIAL DONATION AGREEMENT FOR
TOWED PETROLEUM STRUCTURES

High Island A-572 "C"

Apache Corporation, Northwestern Mutual Life Insurance Company, and Offshore Shelf LLC, collectively hereinafter called "Grantor", in consideration of the payment of Ten Dollars ($10.00), receipt of which is hereby acknowledged, and the mutual covenants and conditions set forth below and pursuant to the provisions of the National Fishing Enhancement Act of 1984 (P.L.980623, Title II), and the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (February 2007; NOAA Technical Memorandum NMFS OF-6), and the Texas Artificial Reef Act of 1989, in accordance with Subtitle H, Chapter 89 of the Texas Parks and Wildlife Code, does hereby, for the purpose of enhancing fishing resources in waters within and adjacent to the coast of the State of Texas, irrevocably grant, transfer, assign, and deliver unto the Texas Parks and Wildlife Department acting on behalf of the State of Texas, hereinafter called "Grantee", the following described donated structure, which is hereinafter collectively referred to as "said structure(s)", to-wit:

One 8-Pile jacket structure of a certain oil and gas production platform located in High Island A-572 Outer Continental Shelf leasing block. Said structures' dimensions are as follows:

Height of Jacket	Approximately 323-ft
(Includes top portion of jacket structure	(+)15-ft above water)
Dimensions: Jacket Base	Approximately 140-ft x 221-ft
Dimensions: Jacket Top	Approximately 46-ft x 125-ft

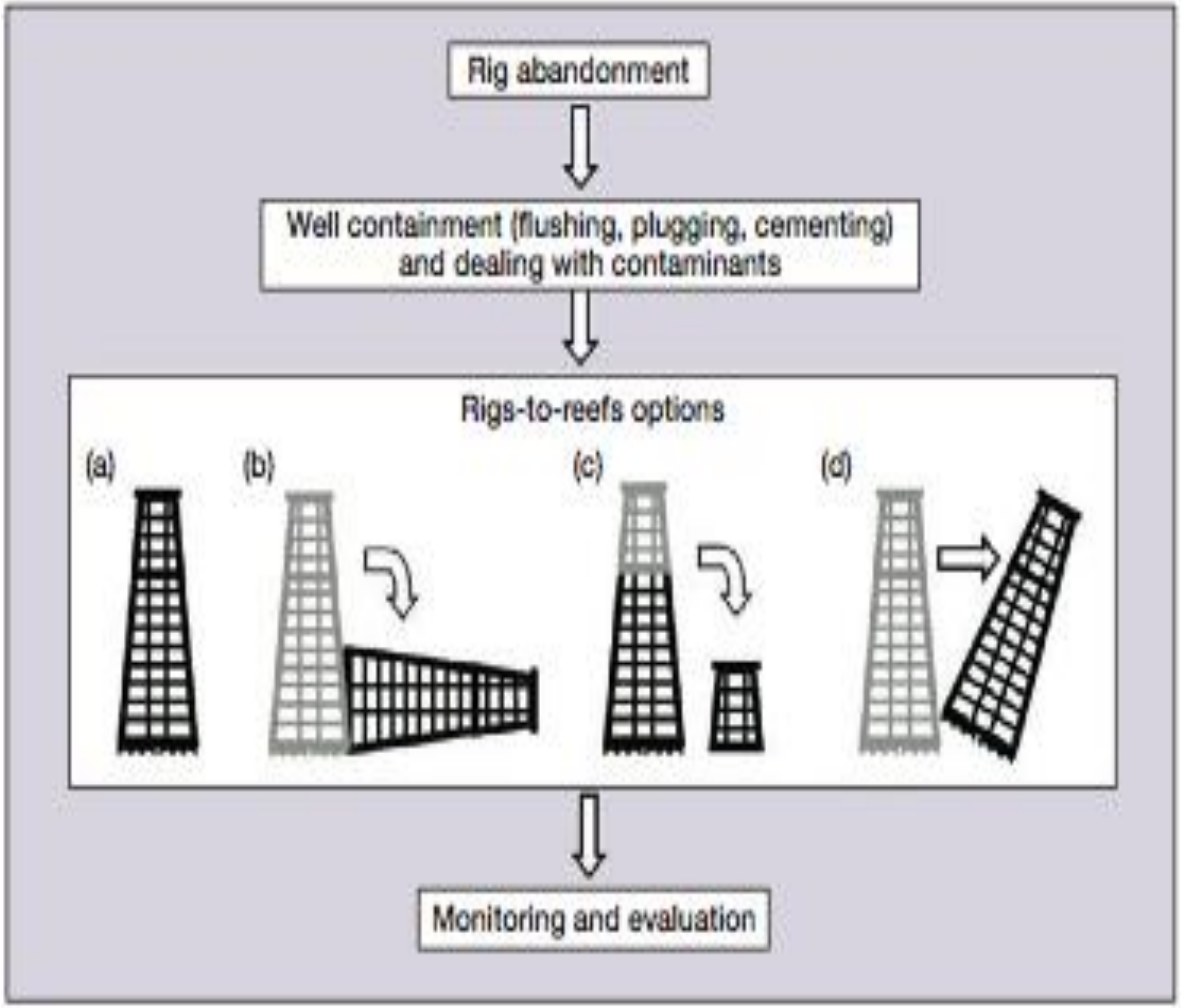
To have and to hold said structure unto Grantee and its assigns forever, subject to

Primary Provisions

- Operator has sole control and responsibility for proper placement at the reef site
- Once State is satisfied that all conditions have been met – title and liability transfers to State
- Operator then has no obligation or duty for maintenance, repair or any other legal requirement
- However, ownership and maintenance of well remains with the operator

- Leaving the rig unaltered
- Toppling the entire structure in current location
- Partially dismantling the rig in its current location
- Relocating to another location
- Coast Guard requires **85 ft. clearance** below the surface W/O maintenance of buoys

• Methods of Creating Rigs-to-Reefs



Source: Peter Macreadie

Numbers of Platforms Converted to Reefs

- Louisiana - 302
- Texas – 103
- Mississippi – 8
- Alabama – 4
- Florida - 3

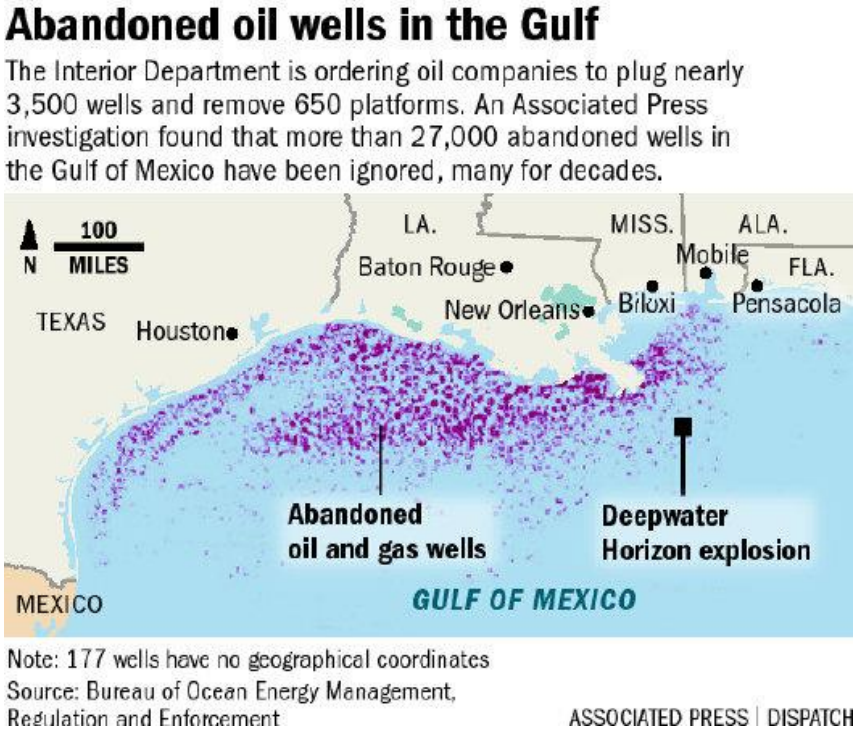
- **Rigs-to-Reefs Locations in the Gulf of Mexico**

Two Events Change Federal Policies

- Hurricanes Katrina and Rita (2005)

- 113 Offshore Rigs Destroyed
- 52 Rigs Damaged
- 183 Pipelines Damaged

- News Revelations That 3,500 Wells "Temporarily Abandoned" (2010)



Federal “Idle Iron” Policy

- Any platform that becomes “idle” (no production in five years) prior to Oct. 2010 must be decommissioned by Oct. 2015
- Any platform that becomes “idle” after Oct. 2010 must be decommissioned within 5 years
- **813 platforms** and structures will have to be decommissioned within next 5 years
- Many of these platforms are located in shallow waters and heavily used for recreational fishing and diving and are viewed as important marine habitat

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

Source: Black Elk Energy

Idle Iron versus Rigs-to-Reefs

- Idle Iron Policy accelerating removal of platforms directly affects politically powerful stakeholders = coalition of recreational fishing/diving and environmental groups + oil/gas producers

- Coastal legislators have introduced bills calling for a moratorium on Idle Iron policies

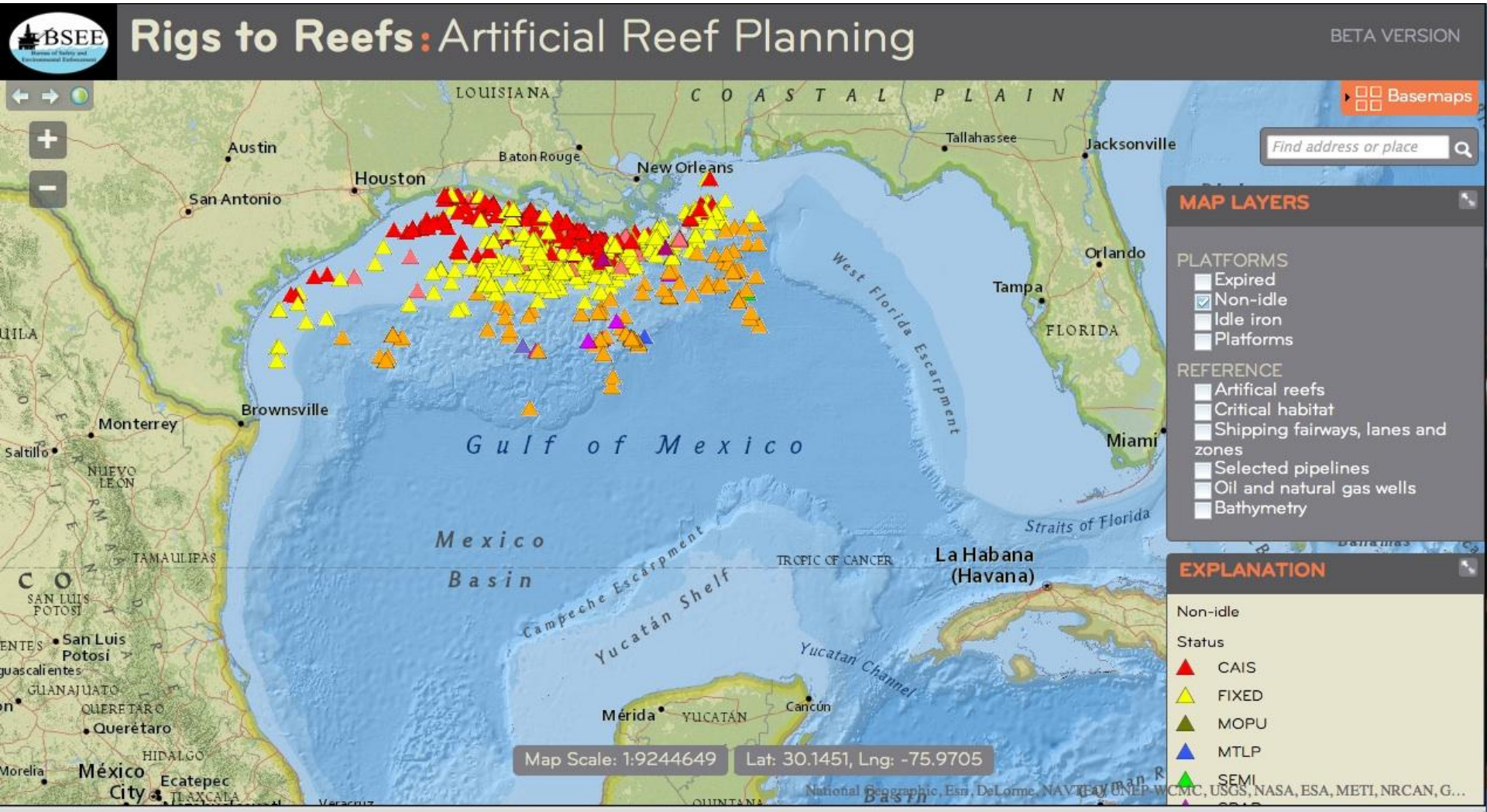
- BSEE has recently taken steps to reduce the political damage

TEXAS A&M UNIVERSITY CORPUS CHRISTI | HARTE RESEARCH INSTITUTE FOR GULF OF MEXICO STUDIES

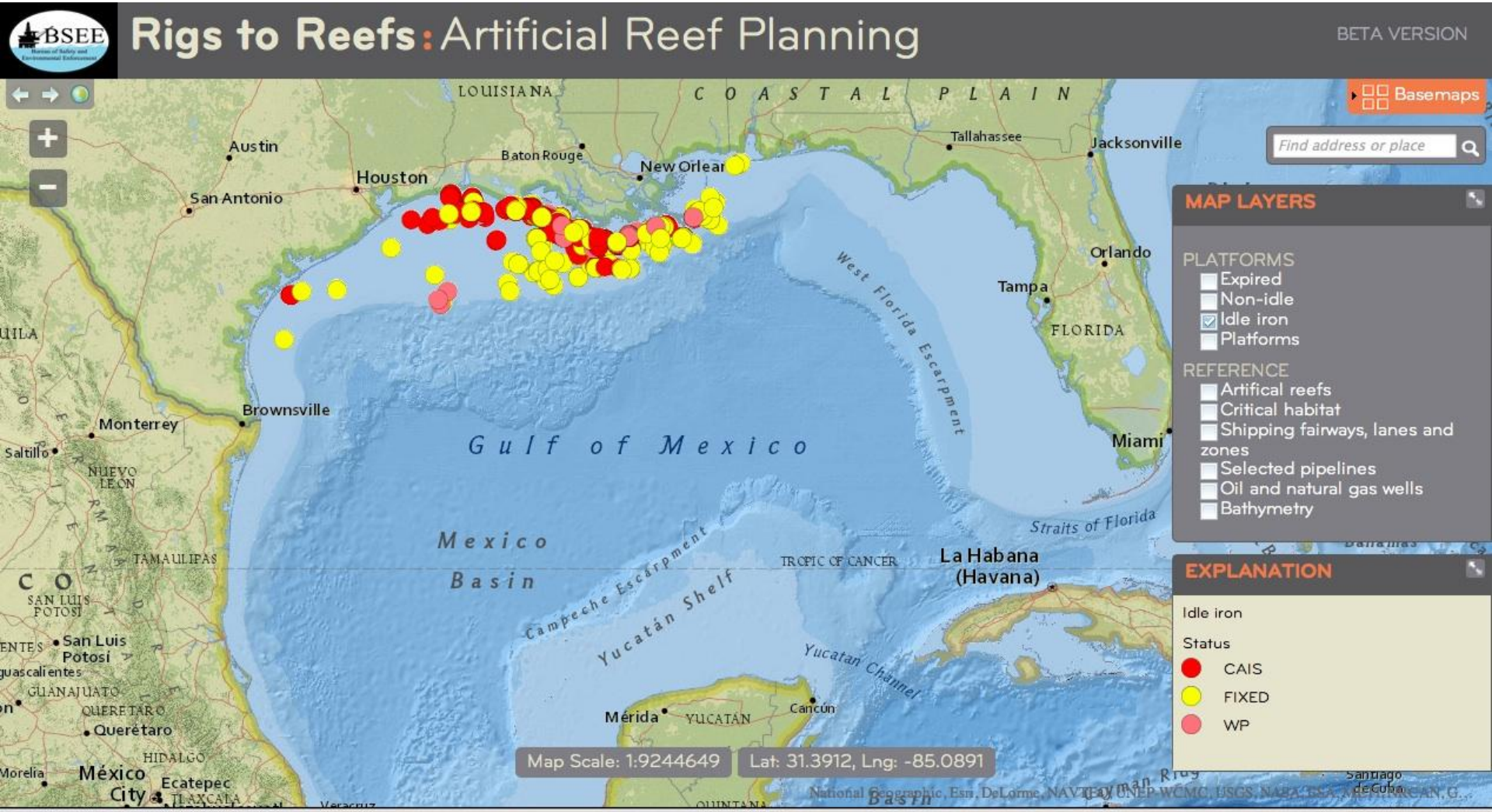
June 2013 Interim Policy Document

- Explicitly states “BSEE supports and encourages the reuse of obsolete oil and gas structures as artificial reefs…”
- Provides greater flexibility to States and operators to complete rigs-to reefs agreements
  - Gives extensions to time requirements
  - Provides latitude in reducing the initial five-mile buffer zone between designated reefing areas and certain restrictions to reefing in place

BSEE Coastal and Marine Spatial Planning Tool http://23.20.246.238/Rigs2Reefs/index.html



BSEE Coastal and Marine Spatial Planning Tool http://23.20.246.238/Rigs2Reefs/index.html



BSEE Coastal and Marine Spatial Planning Tool http://23.20.246.238/Rigs2Reefs/index.html