

# AQ Summary & Plan of Action for Next Few Days for Onshore Team

May 10, 2019

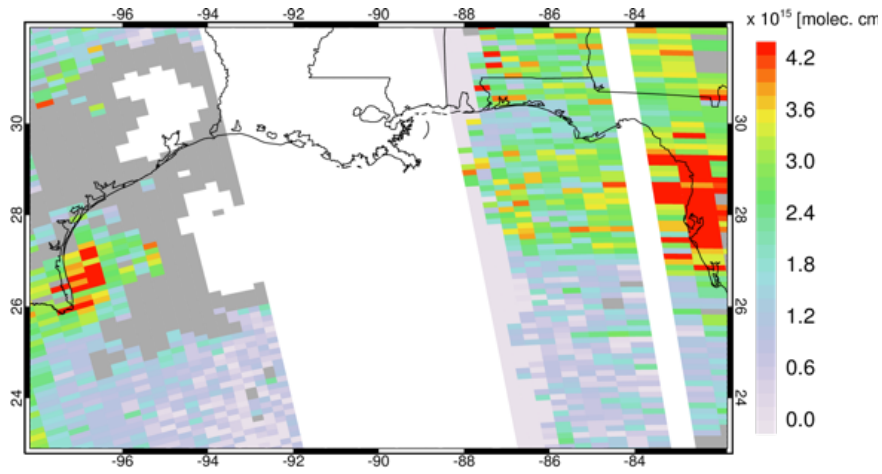
LUMCON, Cocodrie, LA

Onshore Team: Bryan Duncan (NASA), Mirjam den Hoed (KNMI), Jose  
Hernandez (BOEM)

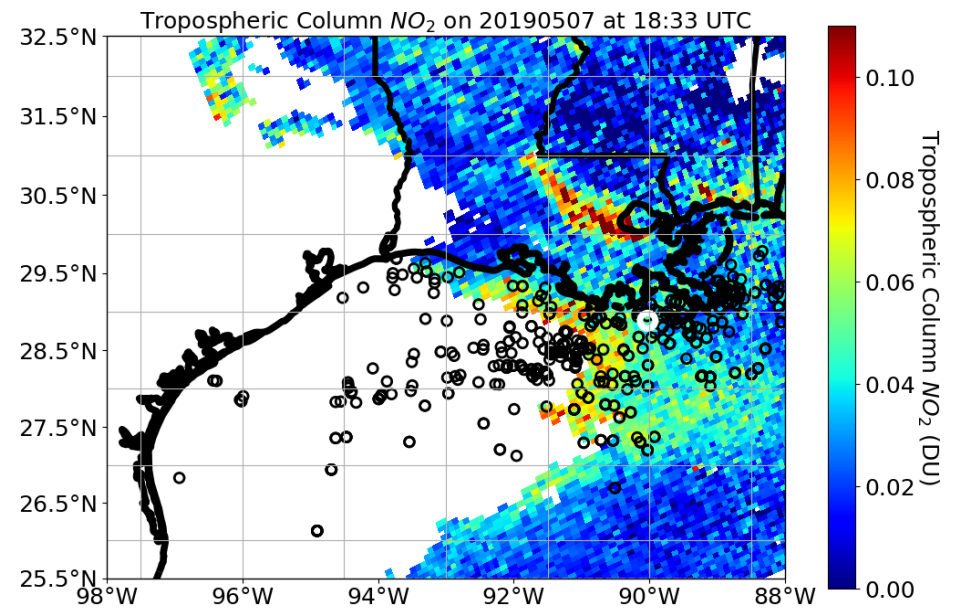
# Satellite Data

# May 7, 2019

OMI Trop Col NO<sub>2</sub>



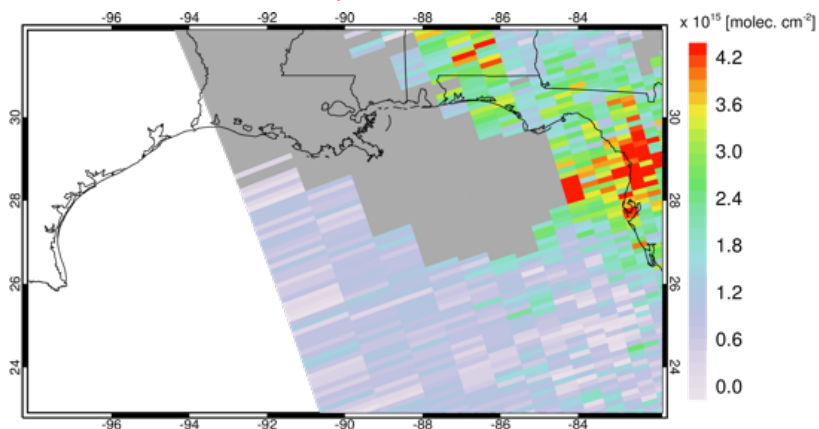
TROPOMI Trop Col NO<sub>2</sub>



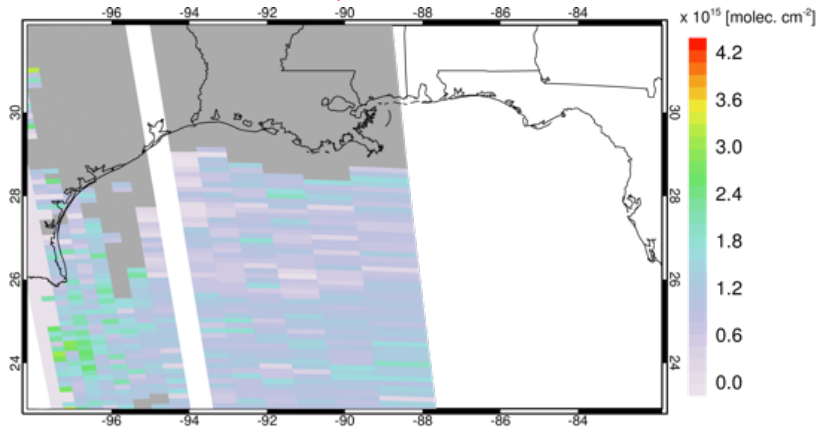
\* Top 500 2014 NO<sub>x</sub>-emitting platforms are black points

# May 8, 2019

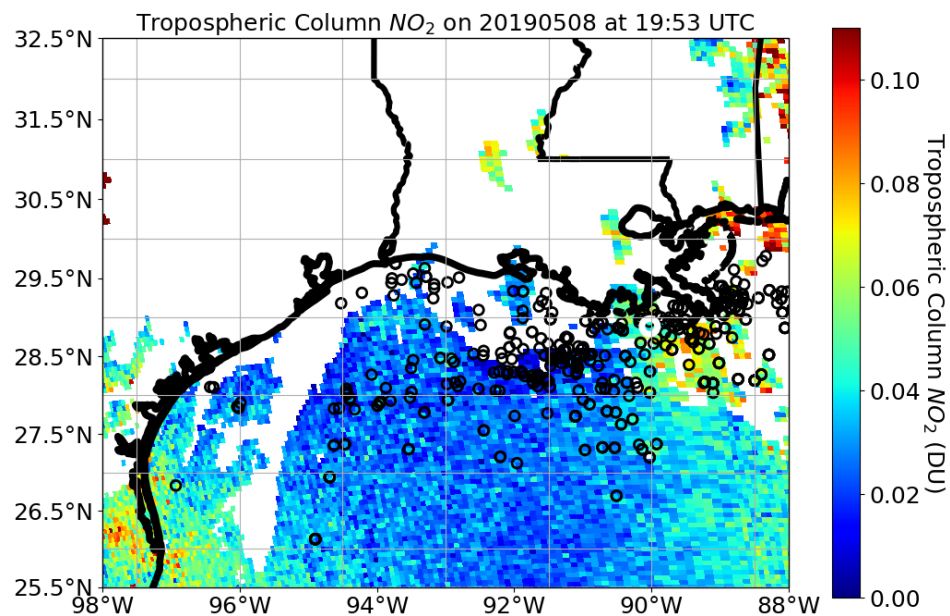
OMI Orbit1 Trop Col NO<sub>2</sub>



OMI Orbit2 Trop Col NO<sub>2</sub>



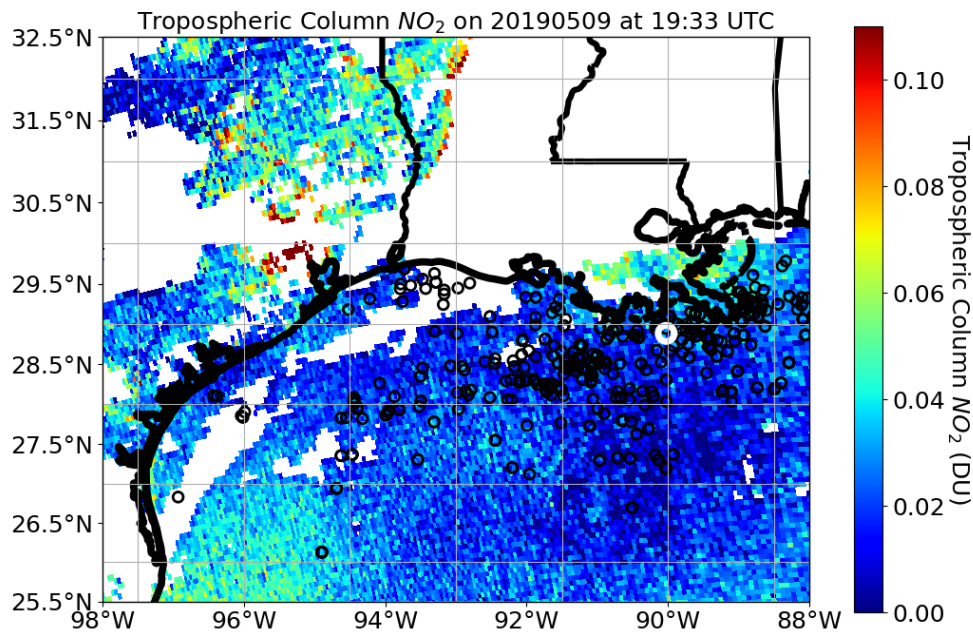
TROPOMI Trop Col NO<sub>2</sub>



\* Top 500 2014 NO<sub>x</sub>-emitting platforms are black points

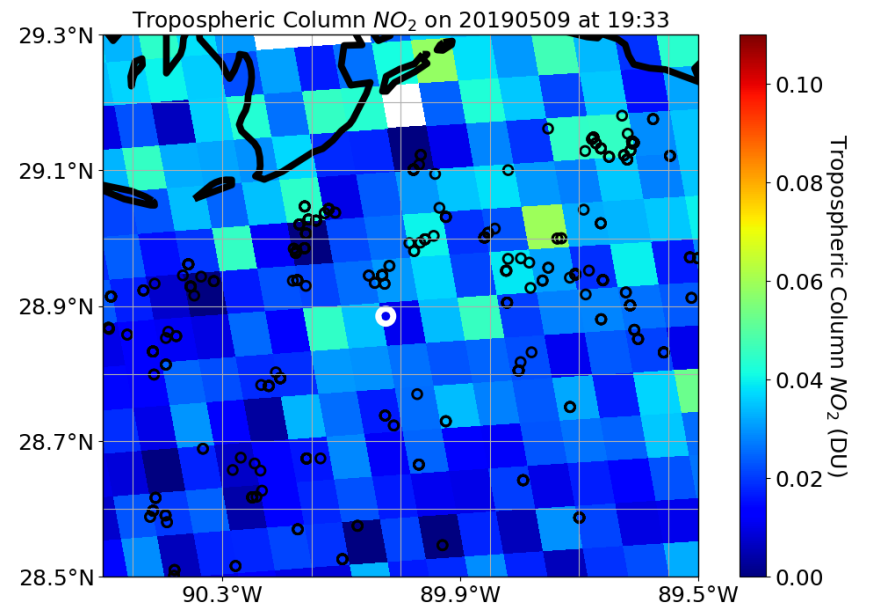
# May 9, 2019

TROPOMI Trop Col NO<sub>2</sub>



\* Top 500 2014 NO<sub>x</sub>-emitting platforms are black points

TROPOMI Trop Col NO<sub>2</sub> Over LOOP

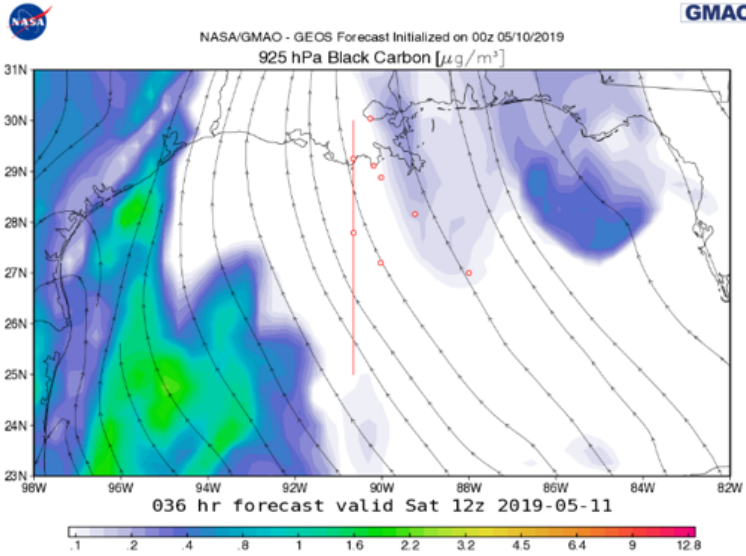


\* All 2014 NO<sub>x</sub>-emitting platforms are black points here and LOOP is white circle.

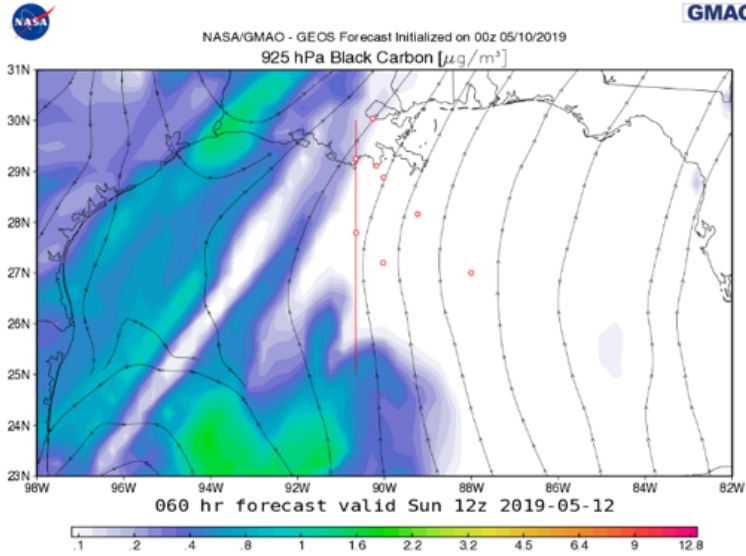
# GEOS Chemical Forecasts

# Surface level Black Carbon

**Saturday 12 PM: SSE winds bring clean sea air to the Cocodrie area coast**

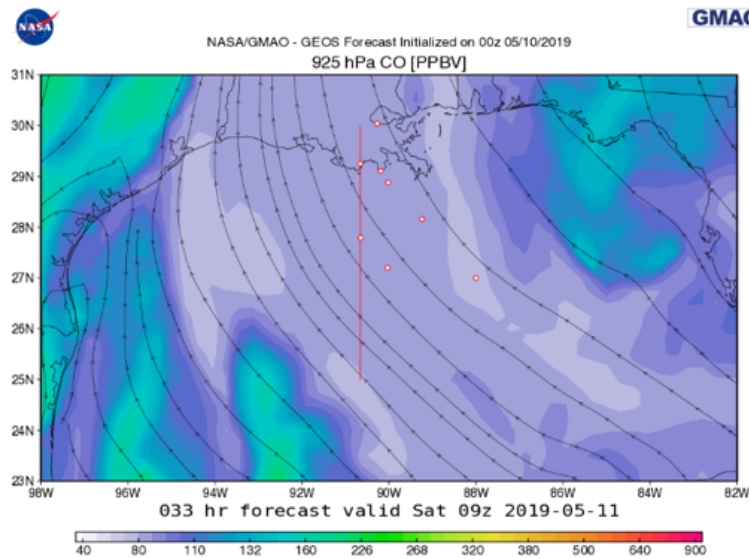


**Sunday 12 PM: SSW winds bring clean sea air to the Cocodrie coast area**

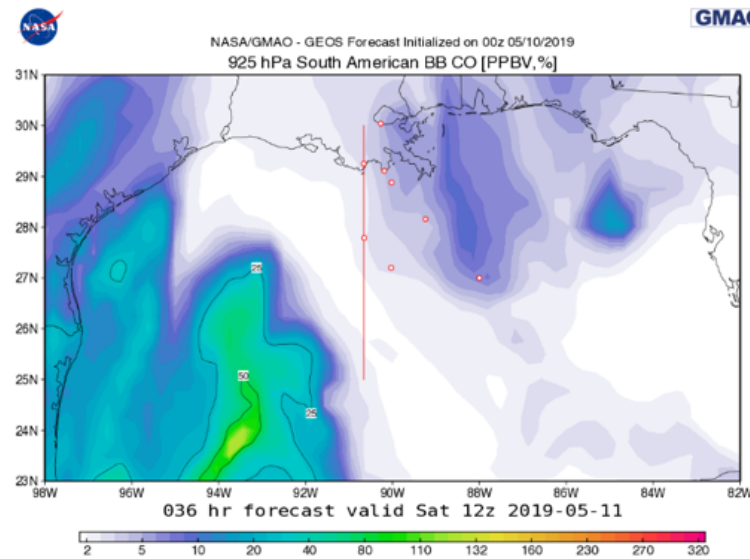


Total CO from incoming winds is low (left) and CO from South American biomass burnings does not seem to affect the Cocodrie area

**Total surface CO, Saturday 12 PM**



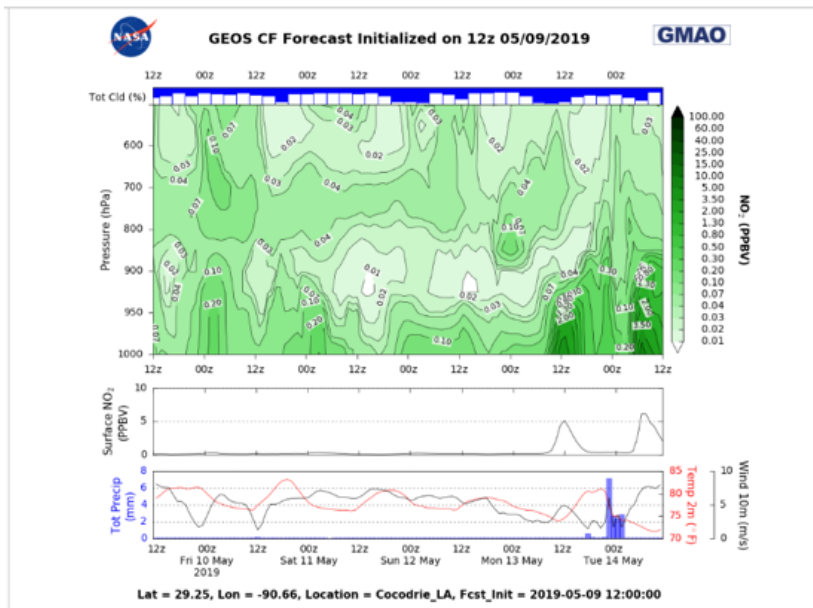
**CO from South America biomass burnings**



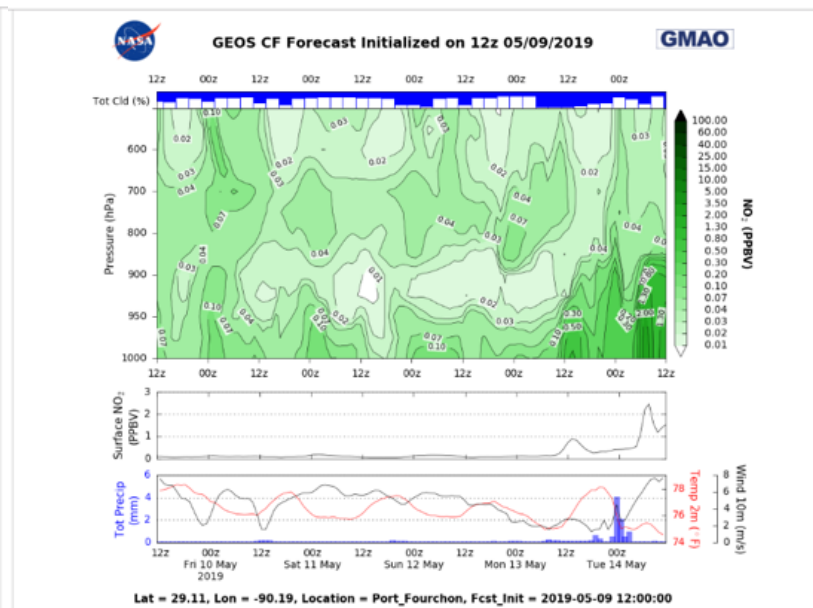


No elevated NO<sub>2</sub> levels/NO<sub>2</sub> plumes are expected to affect the area until Monday May 13<sup>th</sup>

### NO<sub>2</sub> forecast Cocodrie Fri-Tue



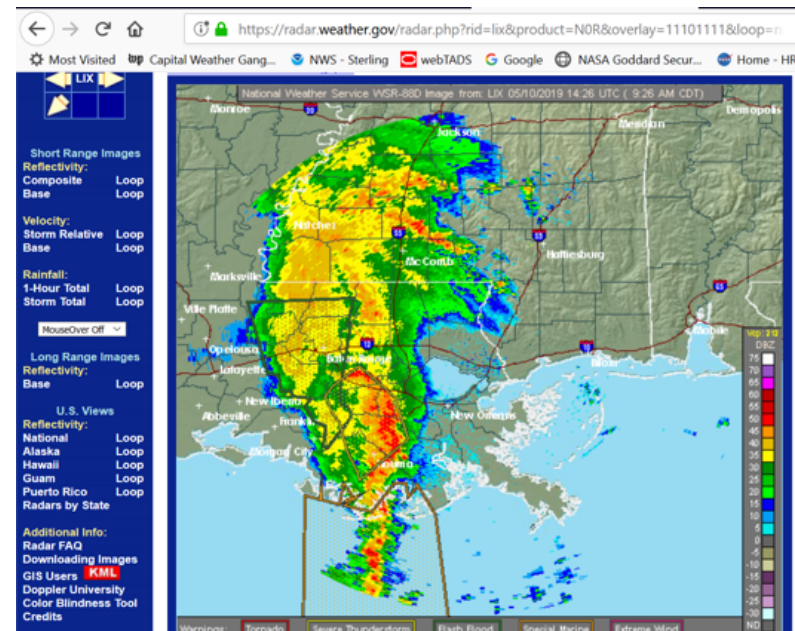
### NO<sub>2</sub> forecast Port Fourchon Fri-Tue



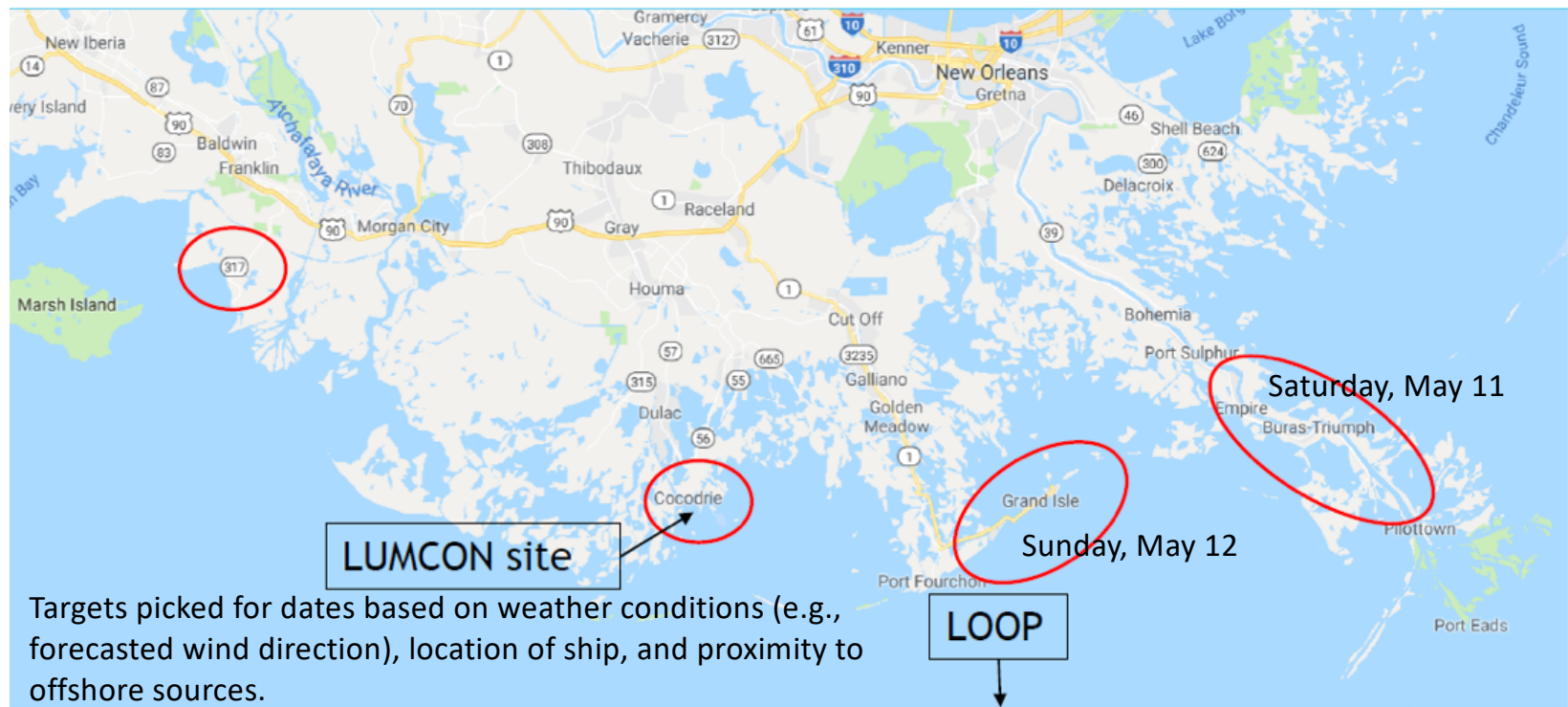
# Onshore Team Plan of Action

# Onshore Team Plan of Action: Friday, May 10<sup>th</sup>, 2019

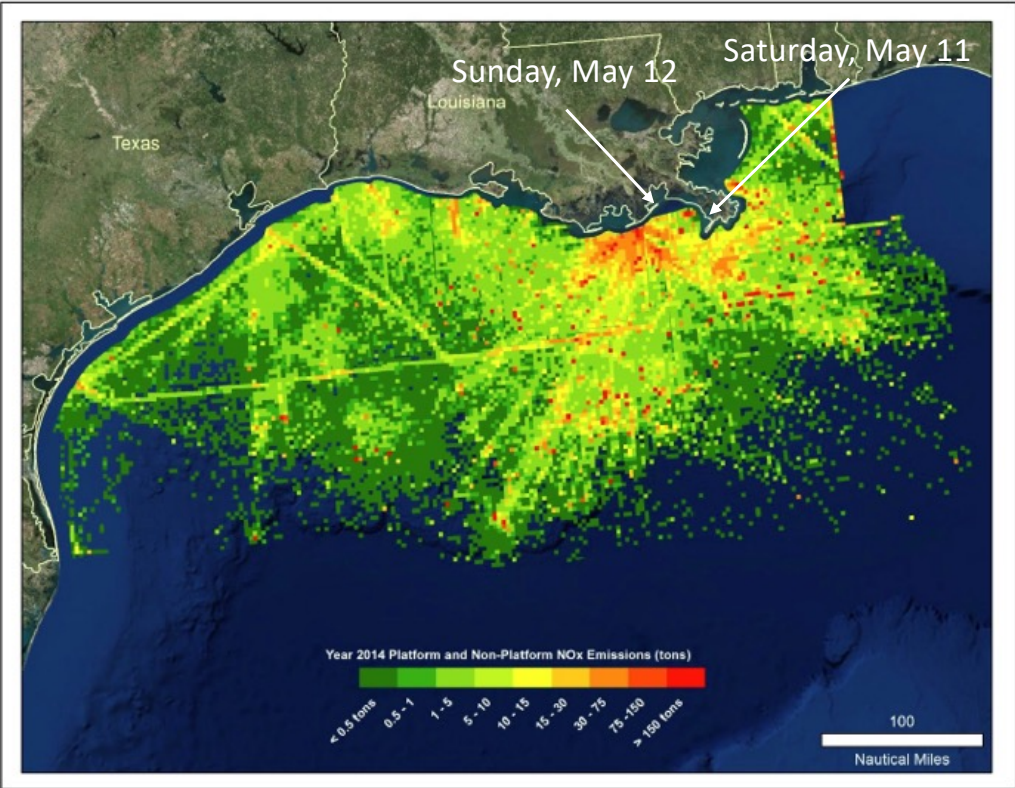
- Stay at LUMCON – weather too bad for travel on Friday
- Prepare NO<sub>2</sub>sondes and set up two on LUMCON balconies
- Prepare for travel on Saturday & Sunday to various points (see next slides).
  - Put 1 NO<sub>2</sub>sonde in car & take one spare.
  - Take 2 VOC canisters.



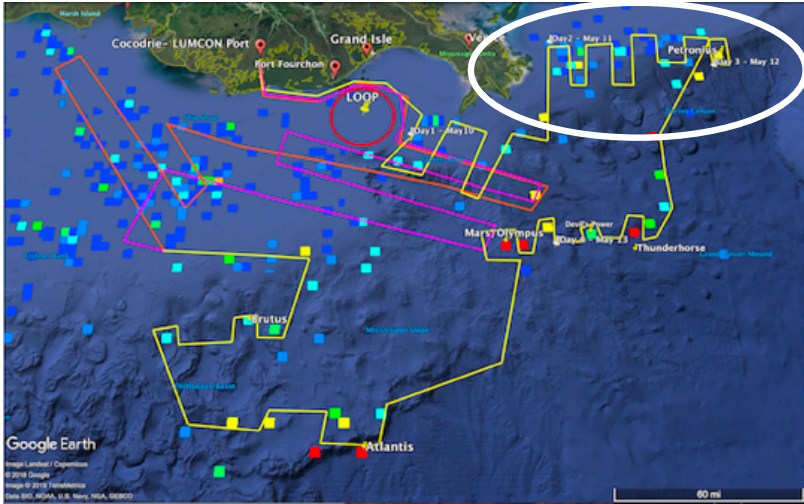
# Onshore Team Plan of Action: Targets on Saturday, May 11<sup>th</sup> and 12<sup>th</sup> 2019



# Onshore Team Plan of Action: Targets on Saturday, May 11<sup>th</sup> and 12<sup>th</sup> 2019



Because of bad weather farther west, ship following yellow route over weekend.



In summary: Saturday/Sunday May 11/12 seem to be good days to capture off-shore pollution from ships/platforms in the absence of influences from land activities and influences from outside the target area.

On sunny days we could target to be at a point of interest (Saturday: Venice area; Sunday: Port Fourchon area) during the TROPOMI/OMI overpass

#### VENICE

- May 11
  - TROPOMI: 13:53:41 (LT)
  - OMI: 14:04:16 (LT)
- May 12:
  - TROPOMI: 13:35:11 (LT)
  - OMI: 14:47 (LT)

#### PORT FOURCHON

- May 11
  - TROPOMI: 13:53:44 (LT)
  - OMI: 14:04:19 (LT)
- May 12
  - TROPOMI: 13:35:17 (LT)
  - OMI: 14:47:06 (LT)

# NO<sub>2</sub> Sonde Placement at LUMCON

# KNMI NO<sub>2</sub>-sonde operation during SCOAPE



## 4 KNMI NO<sub>2</sub>-sondes available

- 2 sondes run continuously at LUMCON
  - Aim: Capture as much off-shore NO<sub>2</sub> as possible.
- 1 sonde is deployed mobily from a car
  - Aims: i) support off-shore measurements with surface NO<sub>2</sub> measurements at different points of interest; ii) identify places of interest for monitoring during 2020 NASA/BOEM campaign; iii) preparation of NO<sub>2</sub> vertical column measurements from a drone during 2020 campaign