

Surveillance and Broadcast Services

FAA Gulf of Mexico Sustainment Team Update

Presented to FAA-Industry Gulf of Mexico
Agreement Implementation Committee

By: FAA Gulf Team

Date: May 18, 2022



Federal Aviation
Administration



FAA-Agreement Implementation Committee “AIC”

Why are we here?

- The AIC is a product of the 2006 FAA-Industry Gulf of Mexico Memorandum of Agreement and subsequently carried over by the 2021 Memorandum of Understanding between FAA, HSAC, and HAI for aviation safety in the Gulf of Mexico
- The purpose of the AIC is to foster cooperation, commitment, accountability, and trust to improve and sustain quality Air Traffic Services in the Gulf
- The AIC assists the FAA in strategic planning by providing feedback / recommendations
- The AIC is used to assess the coverage of installed FAA equipment and weather additional areas should be addressed

Safety / Service

Agenda

- Regular Business
 - FAA Infrastructure Projects
 - AWOS, ADS-B, & VHF Comm Coverage
 - Installation Updates
- New Business

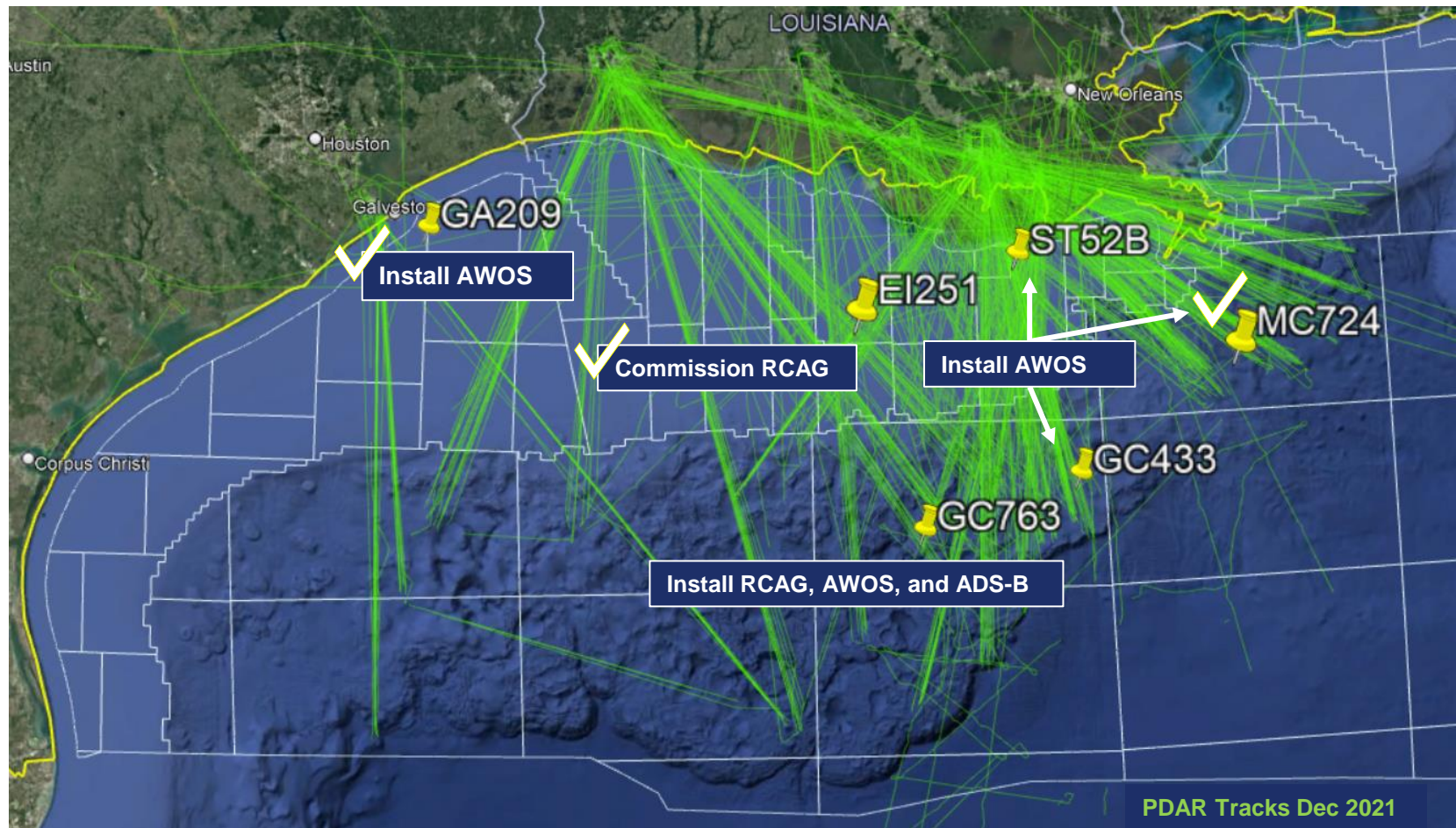


FAA Infrastructure Status

Rana Obeid, Federal Lead

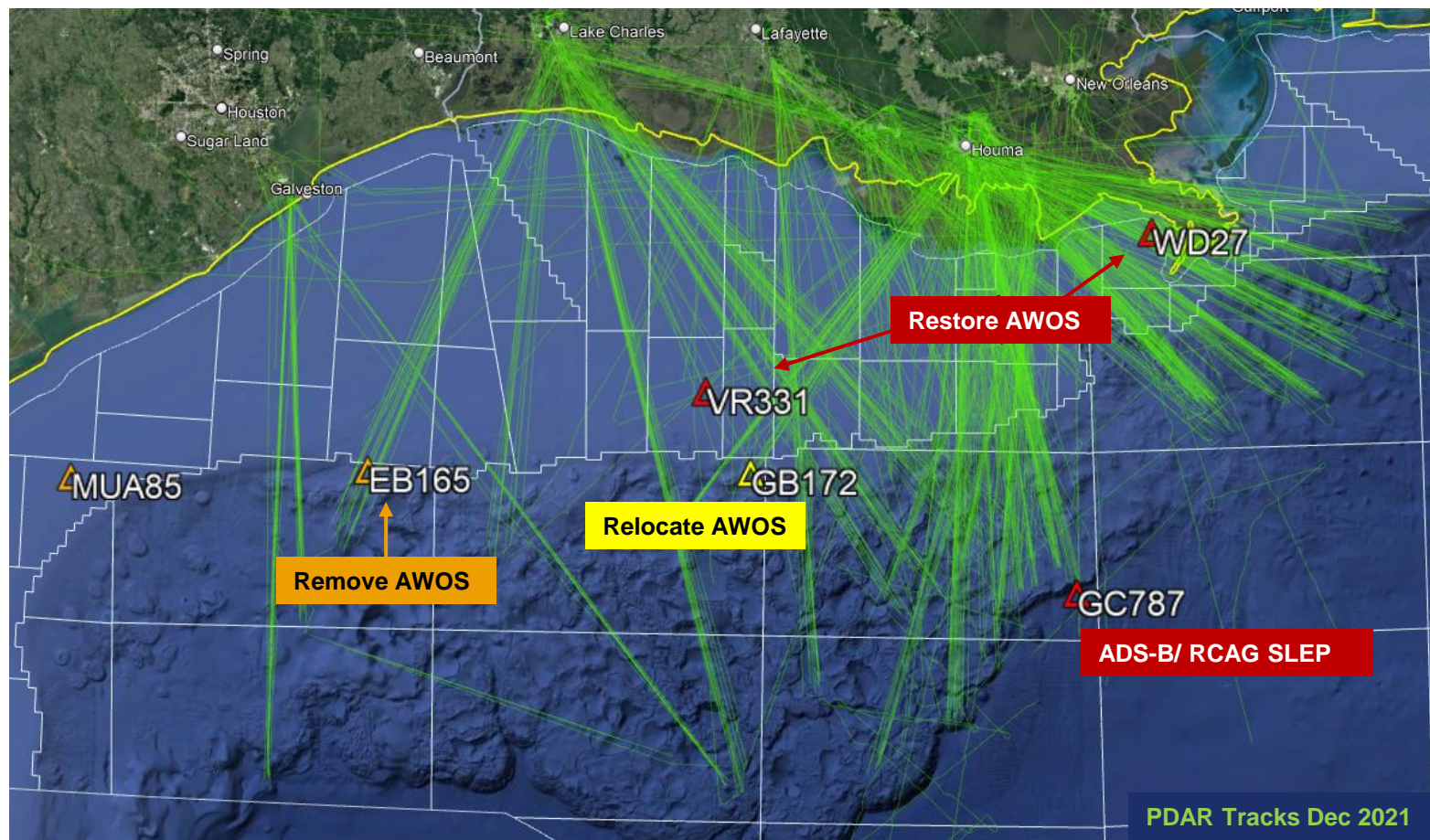


2022 Offshore Installation Projects



- ✓ Commission AWOS Mississippi Canyon 724 (Jan)
- ✓ Install AWOS Galveston 209B (Jan)
- ✓ Commission RCAG Eugene Island 251A (Mar)
- Install AWOS South Timbalier 52B (Dec)
- Install AWOS Green Canyon 433 (Dec)
- Install ADS-B, AWOS, RCAG Green Canyon 763 (2023)

2022 Offshore Sustainment Projects

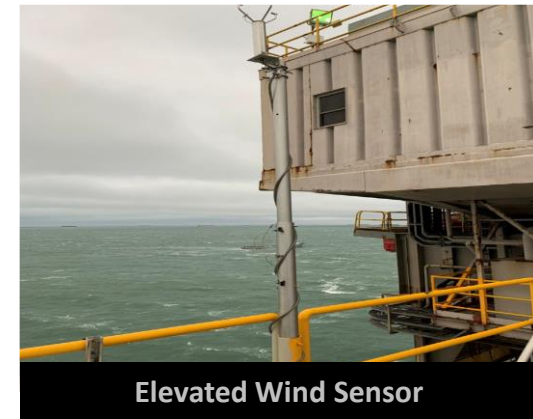
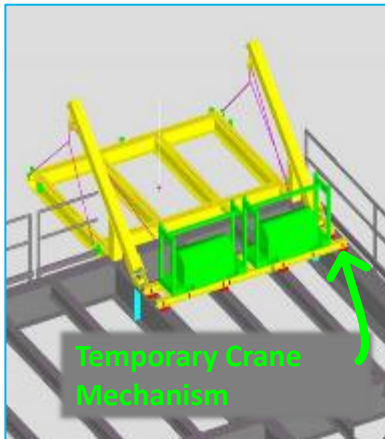


Relocate AWOS Garden Banks 172 (Jul)
Restore AWOS West Delta 27 (Jun)
Restore AWOS Vermillion 331 (Jul)

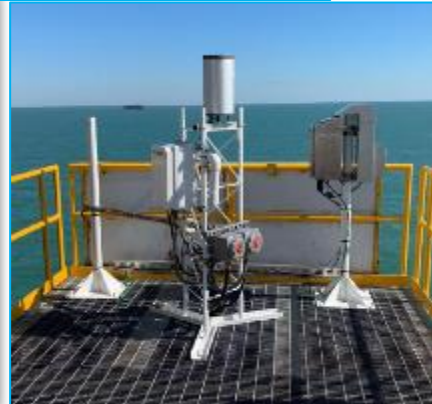
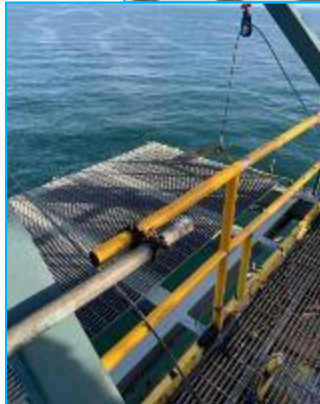
Remove AWOS East Breaks 165 (Dec)
ADS-B/RCAG SLEP Green Canyon 787 (TBD)

Completed Installation #1 of 2

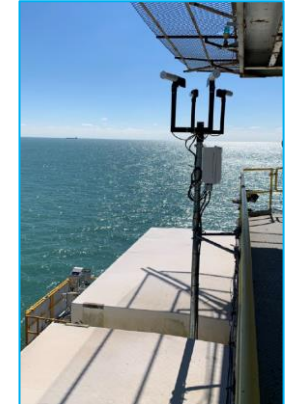
AWOS at GA209



Elevated Wind Sensor



Fabricated and installed additional deck space for FAA equipment



Elevated Visibility Sensor

Completed Installation #2 of 2

AWOS at MC724 Gulfstar 1



Fabricated and installed AWOS Sensor Suite Skid



The Mast pivots here
for access to sensor

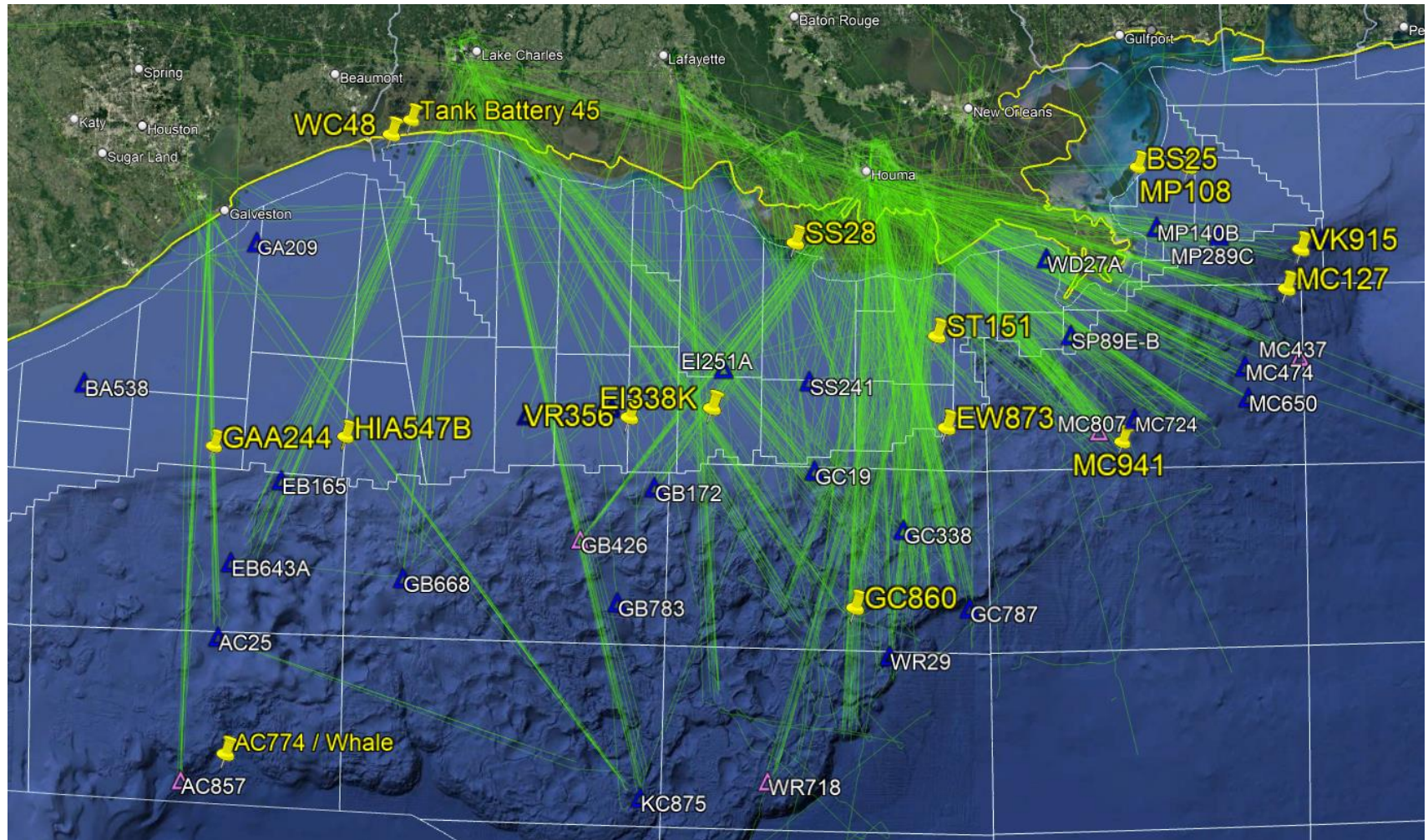
Fabricated and installed a rotating
AWOS Wind Sensor Mast

Projected AWOS Losses within 5 Years

1. Alaminos Canyon 25
2. **East Breaks 165**
3. East Breaks 643A
4. **East Cameron 321A**
5. **Garden Banks 668**
6. **Main Pass 140**
7. **Main Pass 289C**
8. **Mississippi Canyon 311A**
9. **Mustang Island 85A**
10. **South Marsh 268A**
11. **Vermilion 331A**

- = No replacement identified, seeking replacement suggestions
- = Replacement not planned
- = Replacement identified

Candidate Sites Identified for Possible AWOS Installation Within Next 2-3 Years

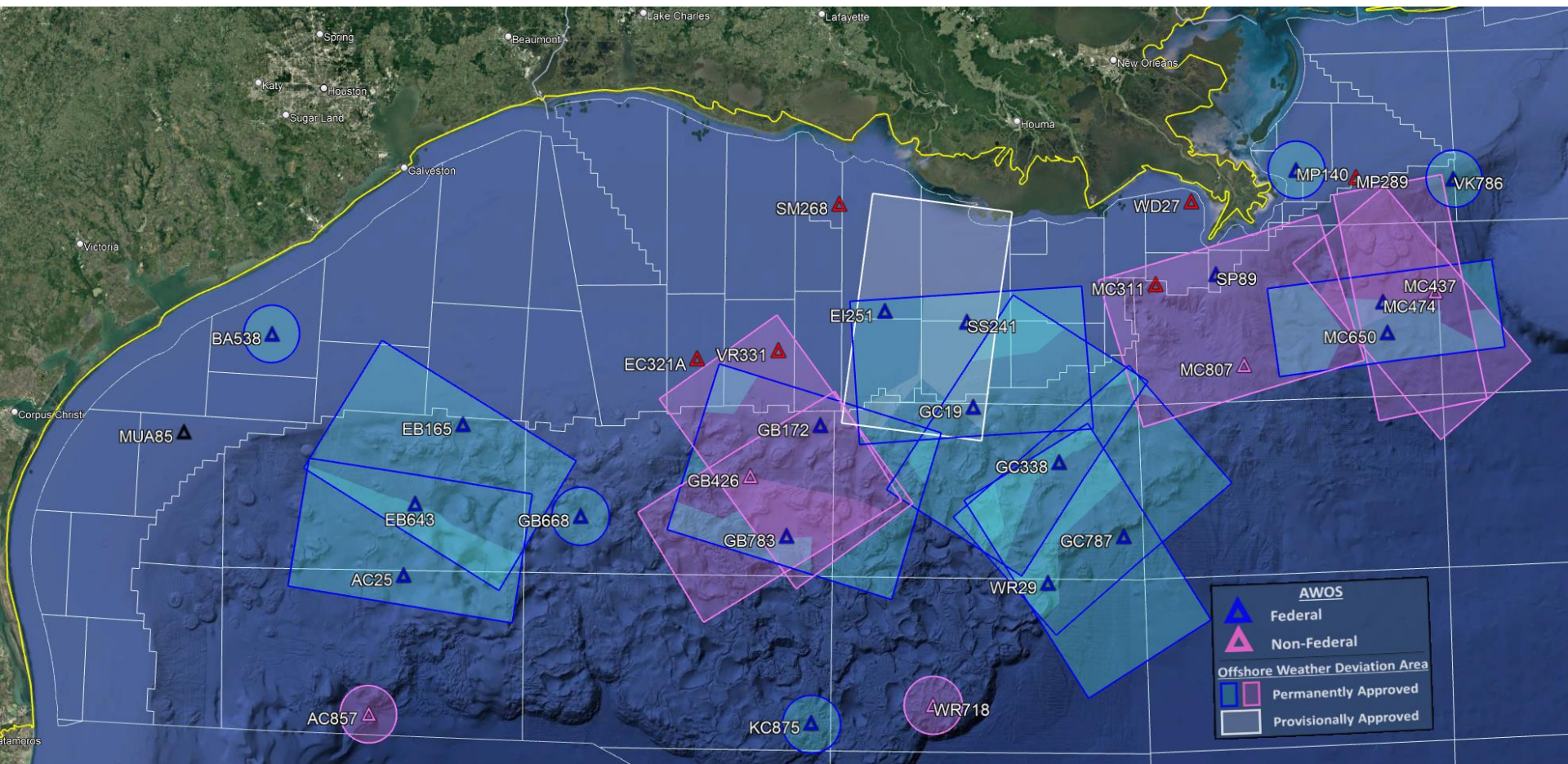


AWOS, ADS-B, & VHF Comm Coverage

Billy Majeau, Project Manager



AWOS Coverage – Jan 5, 2022



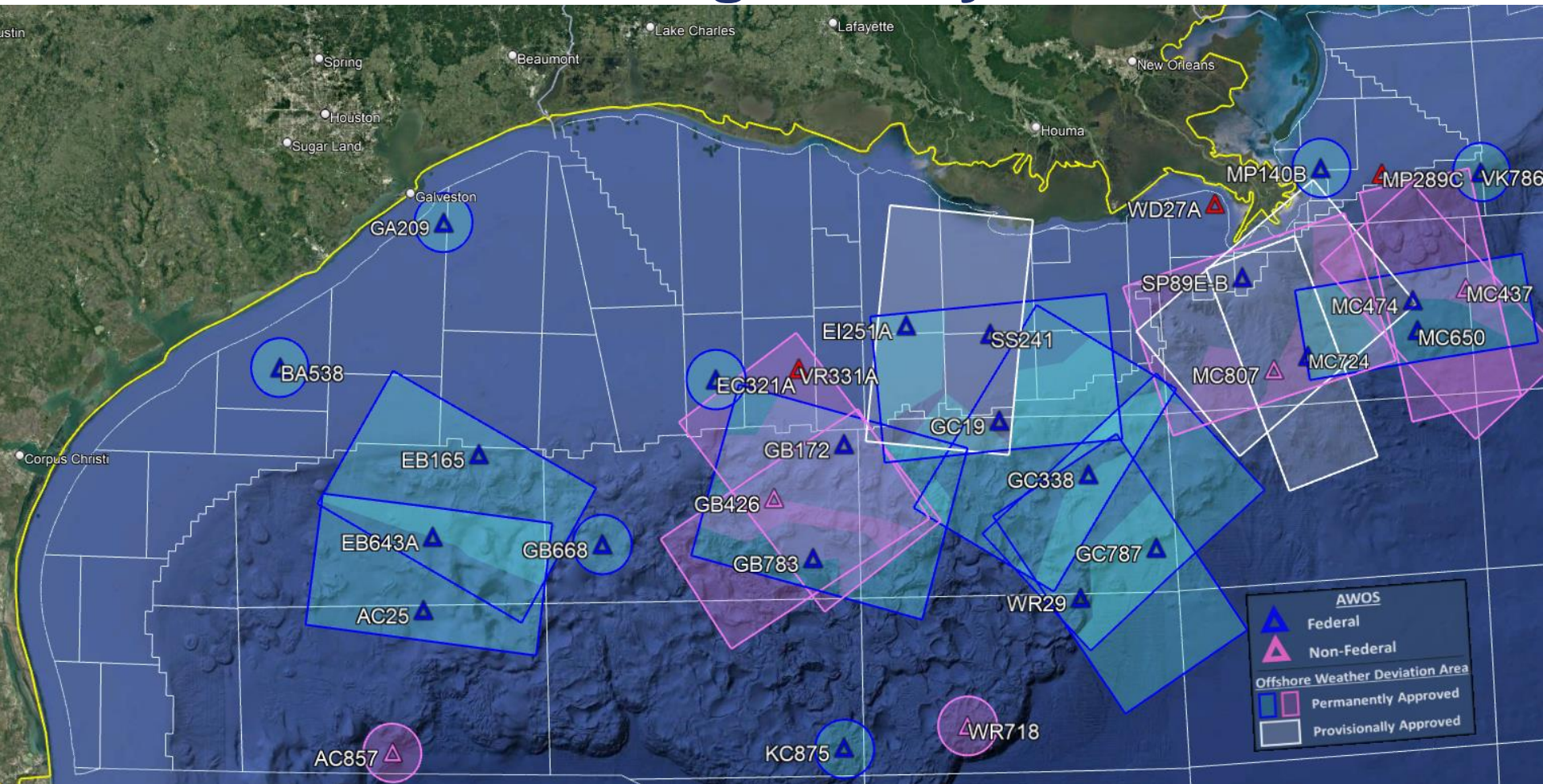
▲ Out of service due to shut-in/decommissioning (MUA85)

▲ Out of service due to hurricane damage (EC321A, MC311, MP289, SM268, VR331, WD27)

Federal AWOS in Operation*: 19/26

*Additional AWOS may be temporarily out of service due to required maintenance

AWOS Coverage – May 5, 2022



▲ Out of service due to hurricane damage
(MP289, VR331, WD27)

Federal AWOS in Operation*: 22/25

*Additional AWOS may be temporarily out of service due to required maintenance

FAA Infrastructure Out of Service in 2022

- **The following AWOS platforms are currently shut-in and will be decommissioned:**
 - none
- **The Following AWOS's are out of service due to storm damage:**
 - Main Pass 289 (VKY)
 - Vermillion 331 (VQT)
 - West Delta 27 (DLP)

(ADS-B Range 61 NM)

LOUISIANA

Houston

Galveston

New Orleans

Corpus Christi

18E

T90

4LBX

18F

4EC321A

4EI251A

4SS241

4MC809

4MC650

4GB668

4GB783

4AC25

4KC875

4GC787

4VK956

4JKA

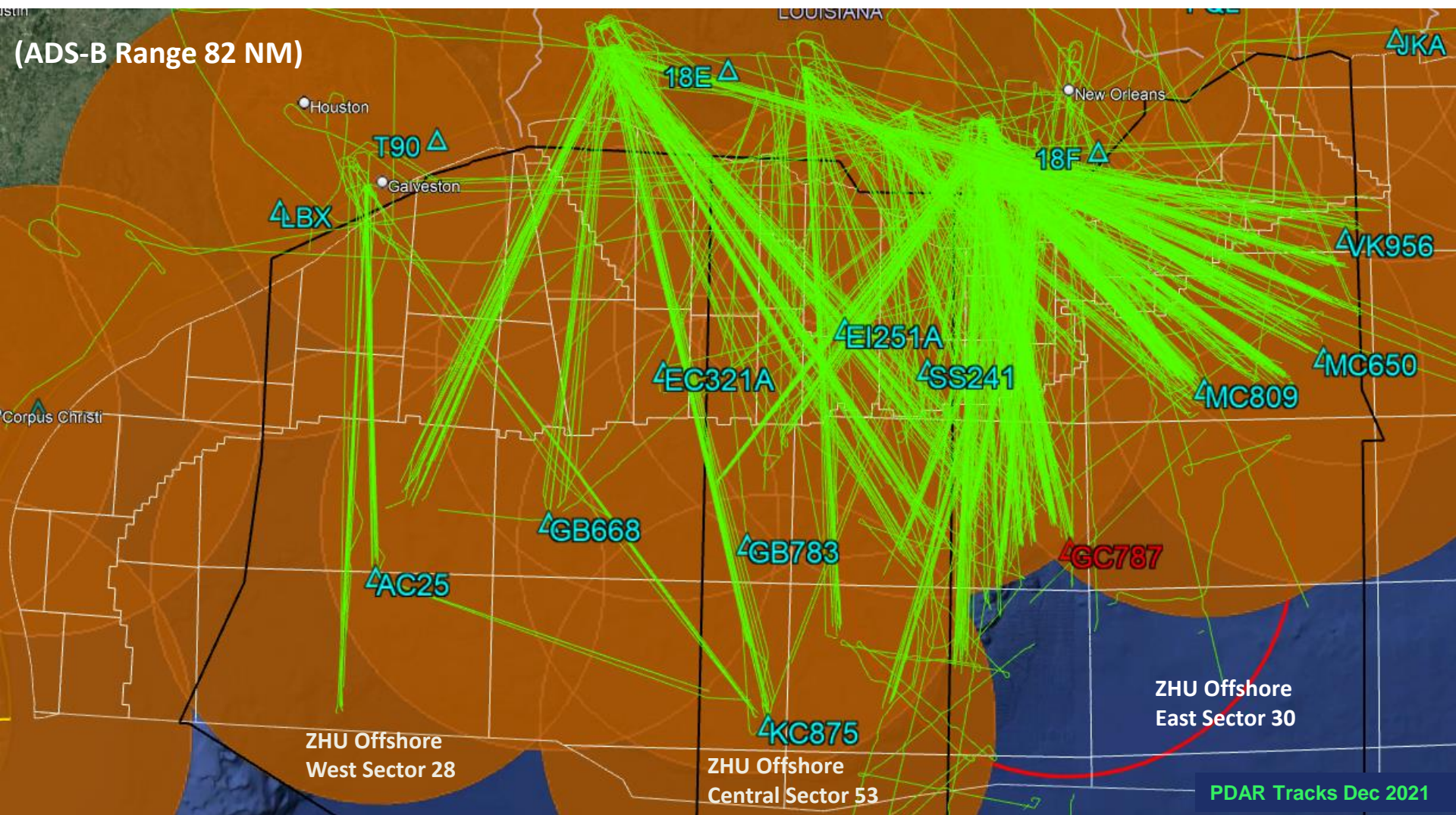
ZHU Offshore West Sector 28

ZHU Offshore Central Sector 53

ZHU Offshore East Sector 30

PDAR Tracks Dec 2021

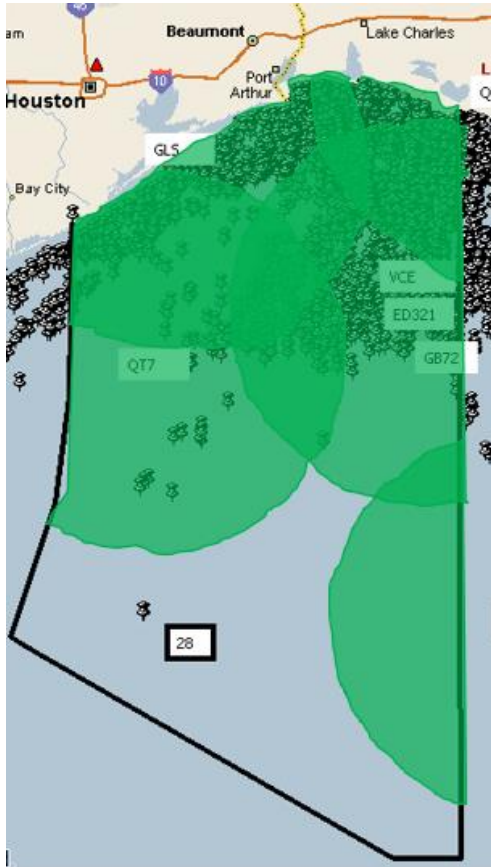
Current ADS-B Coverage 3000' MSL



VHF Comm Coverage 3,000' MSL

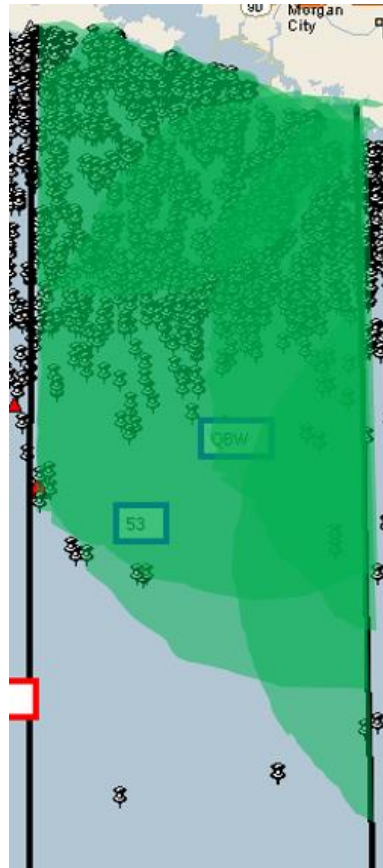
Offshore West / S28

GLS, QIC, QT7, EZP, 18H



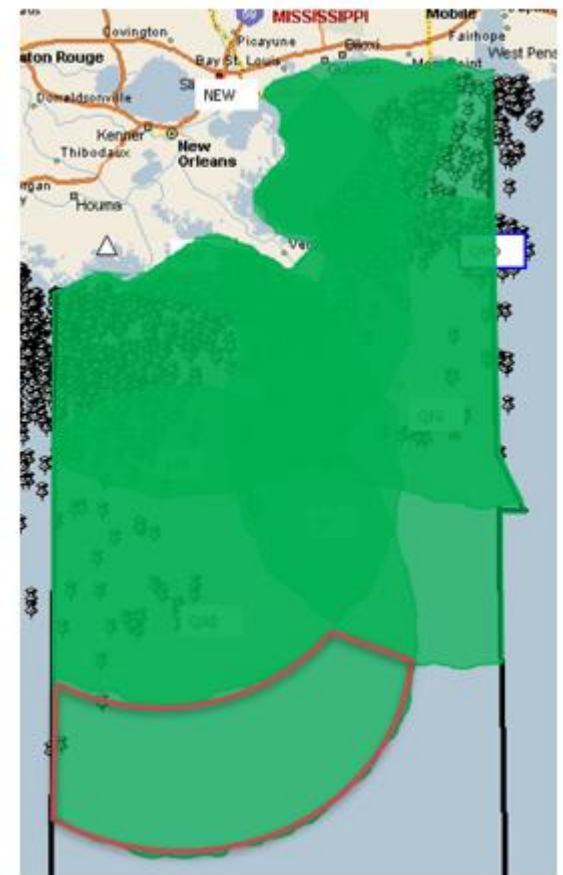
Offshore Central / S53

QIC, EKE, QA8, QBW, 18J



Offshore East / S30

GAO/GNI*, QA8, QVO, QIG, 18J



Green Canyon 787 FAA AC Outage

Outage Update

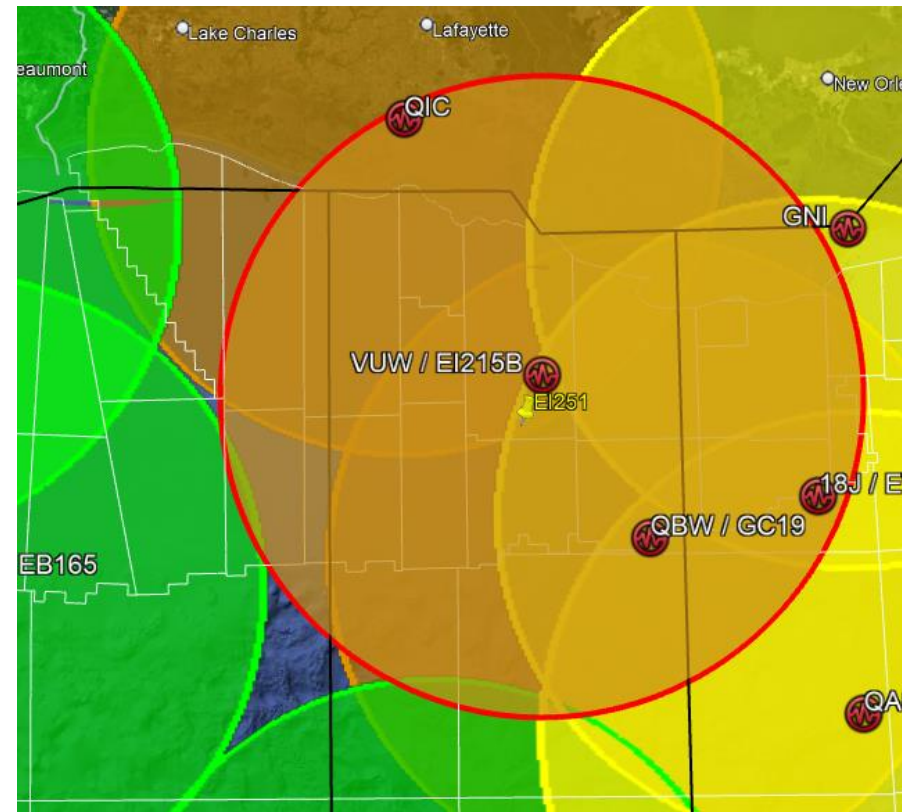
- The air conditioning units installed in the FAA building at GC-787 (Atlantis) have been out of service since last fall. Efforts to repair them have been hampered by the pandemic and other project-specific constraints.
- On September 28, 2021, the FAA executed a contract to allow the platform owner to complete a cost estimate and perform a site survey to establish repair plans. [The site survey was conducted the week of April 25, 2022. The Site Survey Report is pending.](#)

Impact to Operators

- Surveillance (ADS-B) radios were turned off during the summer of 2021 when the maximum safe operating temperature for that equipment was exceeded.
- VHF Comm radios have a higher temp threshold and can remain operational. [An unrelated telecommunication issue has rendered VHF Comm radios out of service temporarily \(expect return to service at the end of 2022\).](#)

EI251 VHF Comms to Replace EI215

VHF Comms have been **commissioned** at Eugene Island 251 (EKE), replacing Eugene Island 215 VHF Comms.



Non-Operational Spaced Based ADS-B Data

Colleen Ahlers, Project Manager

Non-Op Space Based ADS-B (SBA)



New Data Capture

See VFR traffic for the first time in recent history



ADS-B, Weather, and VHF Comm **Coverage Analysis**

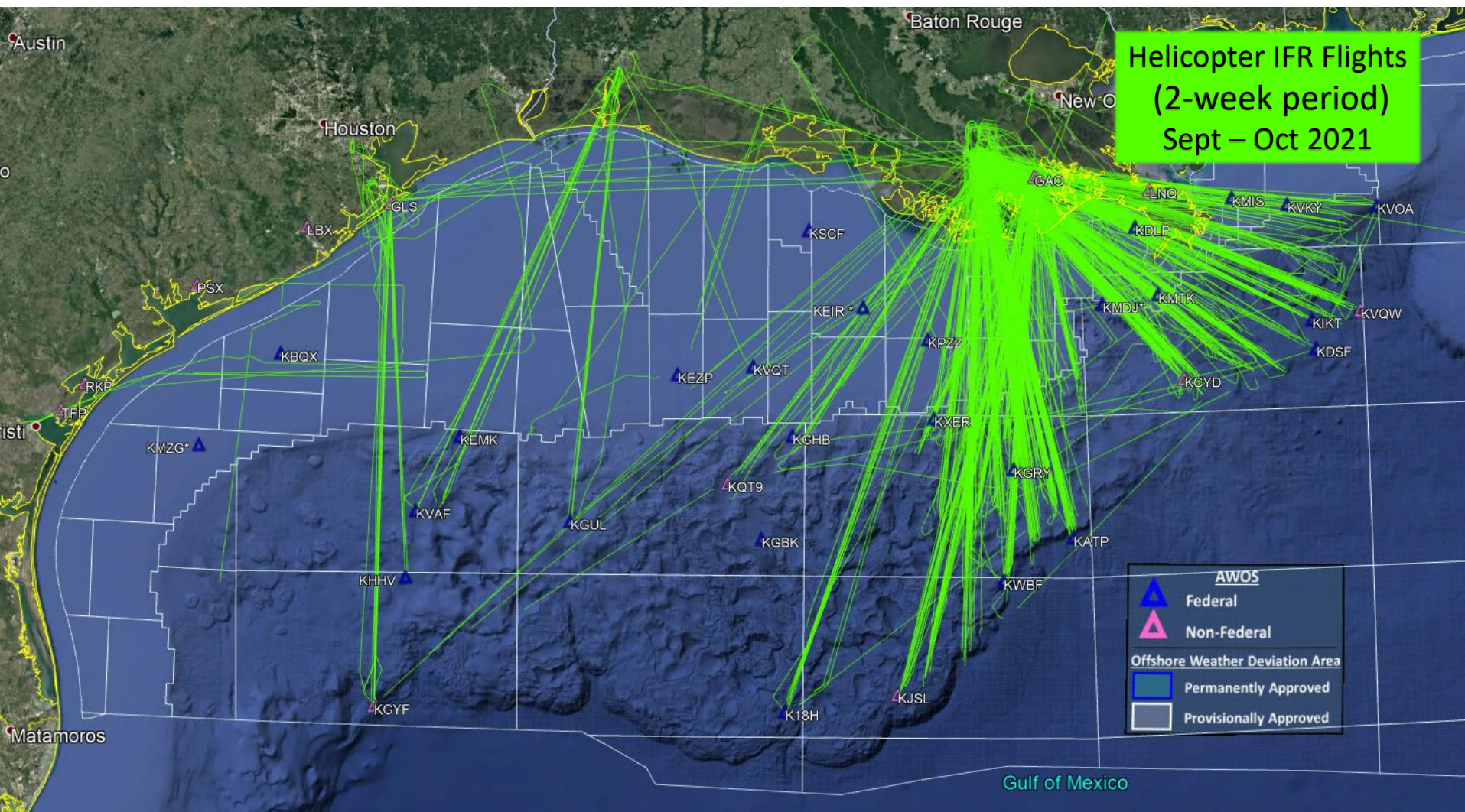
Outage reports
Risk assessments
Industry updates



Strategic Analysis

Installation planning, short and long term
Prioritization of Resources
Trend Assessment

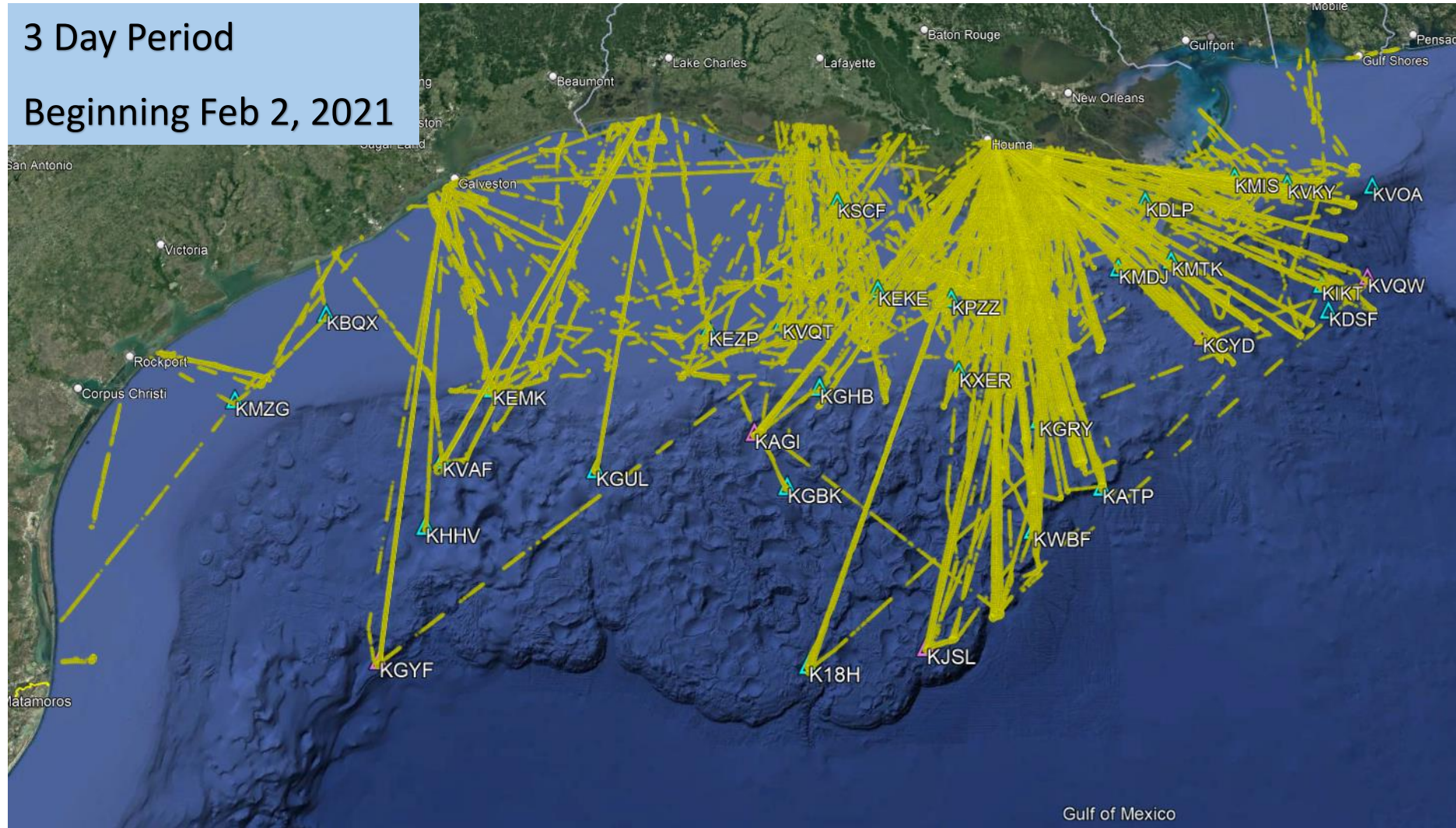
PDARS Data Example



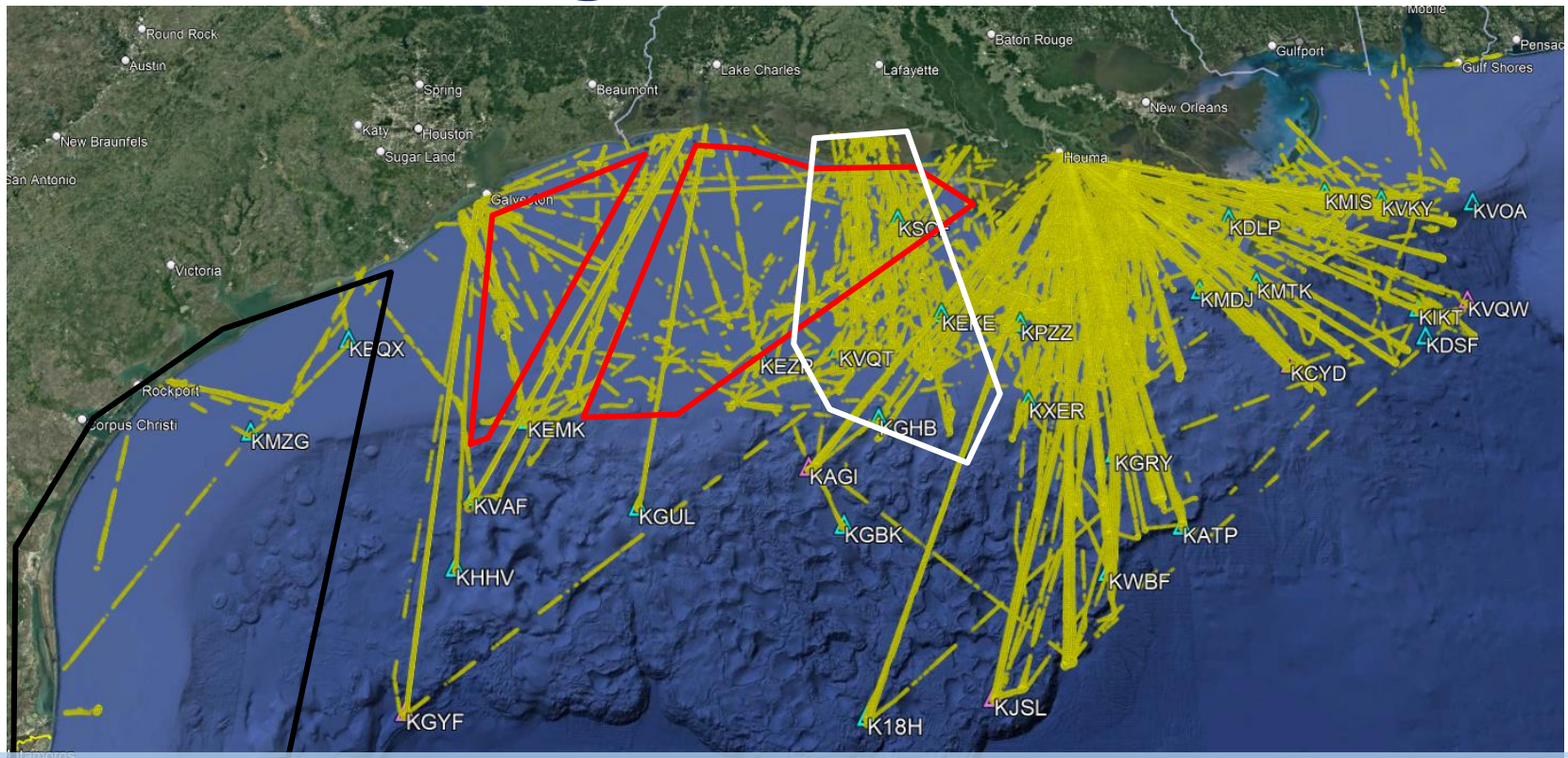
Non-Op SBA Data Example

3 Day Period

Beginning Feb 2, 2021



Initial Findings



- 1) The area outlined in black has minimal VFR & IFR traffic.
- 2) The areas outlined in red are light in IFR traffic and heavy with VFR traffic.
- 3) The southbound and southeast bound traffic in the area outlined in white nearly completely VFR traffic.

ADS-B Equipage Survey Results

A March 2022 ADS-B Equipage survey of 7 Gulf of Mexico helicopter Operators found:

- **94%** of helicopters in the Gulf of Mexico are equipped with SBA-compatible ADS-B systems.

Compare to the 8% of helicopter flight track data obtained from PDARS in 2020

- **90%** of IFR helicopter are equipped with SBA-compatible ADS-B systems.

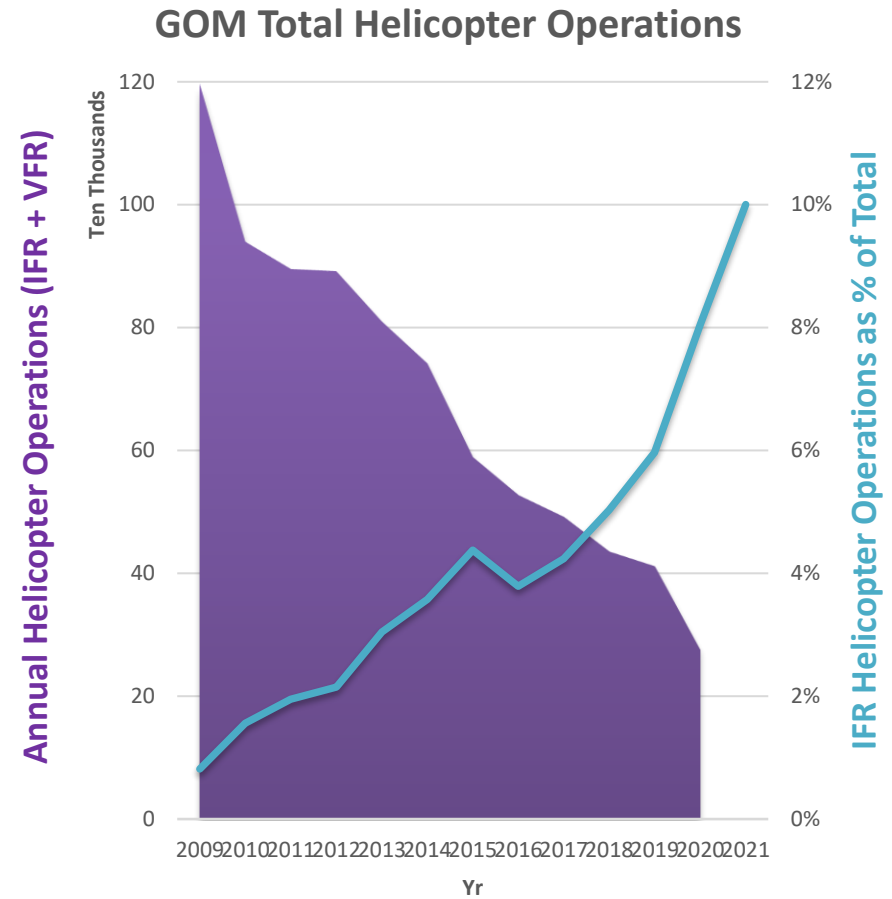
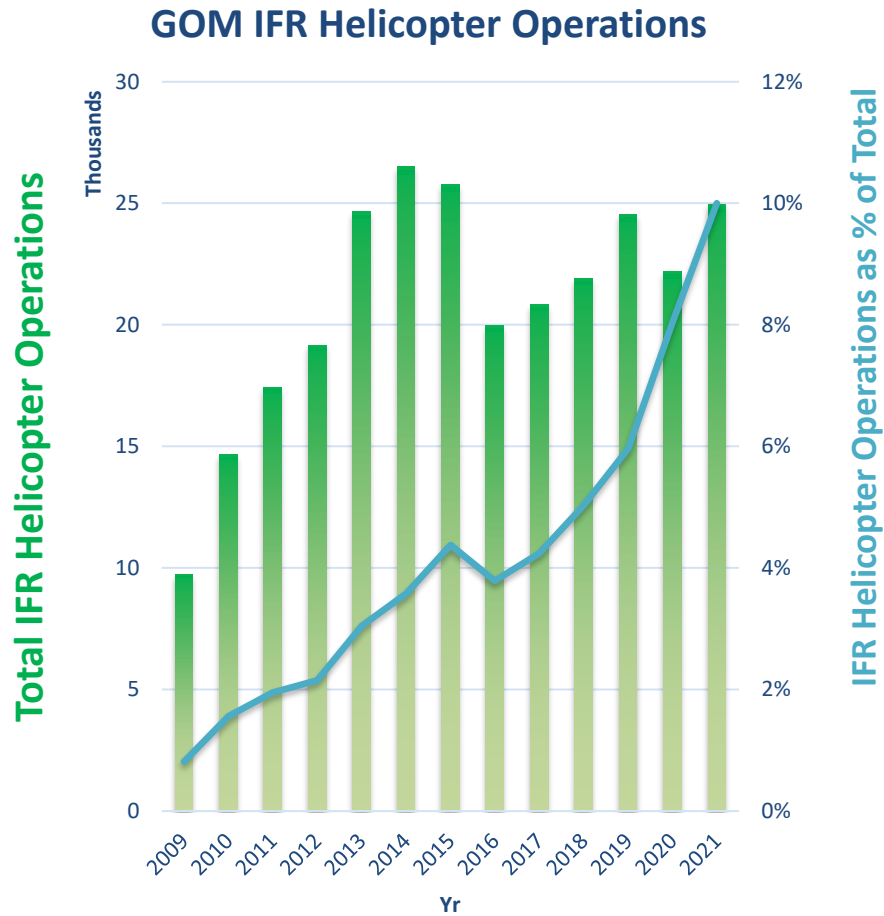
Flight track history for the remaining 10% would be available via PDARS, if the aircraft is on an IFR Flight Plan

- **93%** of VFR helicopters are equipped with SBA-compatible ADS-B systems.

Flight track history for the remaining 7% is not obtainable.

Thank you for participating!

IFR Offshore Helicopter Traffic Trends



AIC Decisions

Colleen Ahlers, Project Manager

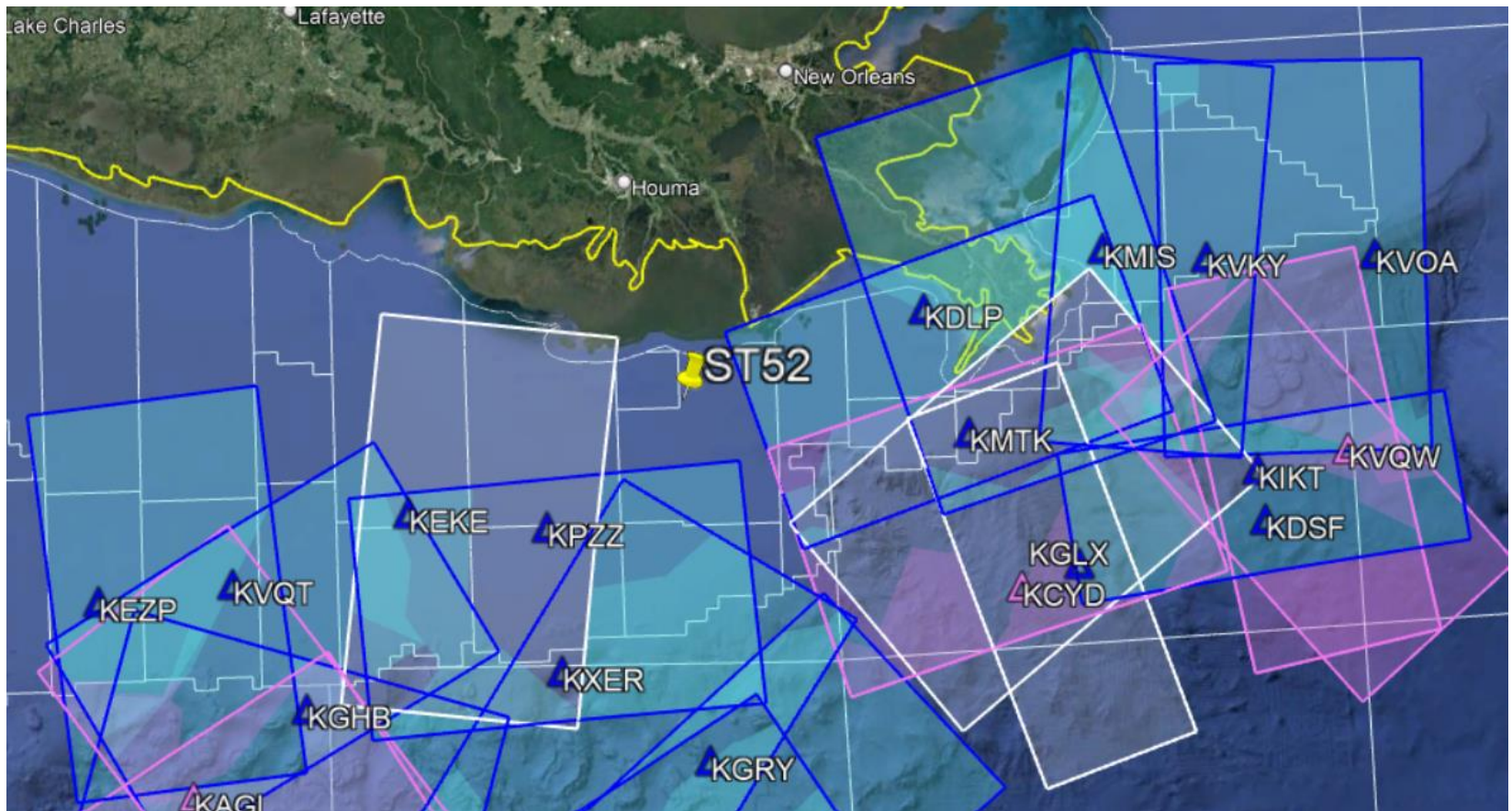


AIC Decision Status Updates

- **At recent AIC meetings, FAA and industry Stakeholders made the following decisions about AWOS coverage:**
 1. South Marsh 107 to replace South Marsh 268 – *investigating feasibility*
 2. Hess proposed Garden Banks 260 platform as a candidate site for possible AWOS installation – *designated replacement for GB172 Salsa*
 3. Include Site Elevation and Wind sensor location in AWOS Status Update – *fully implemented in January 2022: Decision Closed*
 4. Decision to install an AWOS at Tank Battery 45 pending owner's approval and site survey – *Site Survey conducted on May 17, 2022*

AIC Decision 1 of 1:

AWOS Installation at South Timbalier 52 AWOS



Community Awareness

Rana Obeid, Federal Lead



Top 5 Operational Challenges



Procurement and Supply Chain Delays



Severe and Widespread Hurricane Damage



Resource Availability



Platform Longevity



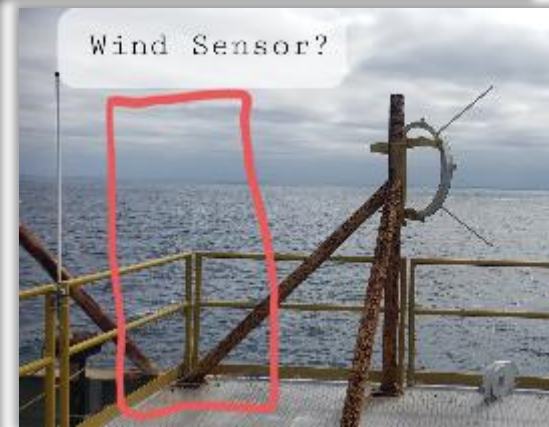
Offshore Travel & Boarding Restrictions

Hurricane Damage

Vermillion 331A AWOS BEFORE



AFTER



The Impact of Hurricanes:

In Jan 2020, 30 AWOS were operational

In Oct 2020, 14 AWOS were operational

Galliano AWOS

The Galliano AWOS was restored to service in early March 2022!



Strategic Analysis Recommendations

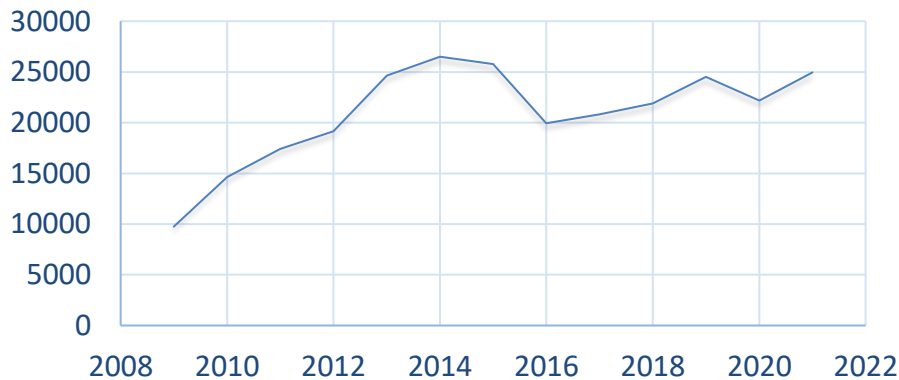
	ADS-B			VHF			AWOS		
FY	Install	Remove	FY Total	Install	Remove	FY Total	Install	Remove	FY Total
2022	2	0	12	3	2	10	8	6	30
2023	1	1	12	1	0	11	4	0	34
2024	1	1	12	1	0	12	3	4	33
2025	1	1	12	1	0	13	4	3	34
2026	1	1	12	1	1	13	2	3	33

FY = FAA Fiscal Year (FY begins October 1)

Traffic Count

INSTRUMENT FLIGHT RULE (IFR) OFFSHORE HELICOPTER OPERATIONS													Yr Total Helo	% IFR
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	HSAC
2022	2130	2180	2338	2228										
2021	1931	1997	2298	2120	2140	2166	2040	2023	1720	1828	1881	2826	24,970	~10%
2020	2438	2376	2654	1169	1172	1492	1693	1452	1700	2382	1810	1842	22,180	275,579
2019	1942	2045	2063	1719	1960	1855	1968	2166	1787	2457	2040	2524	24,526	411,308
2018	1469	2292	1658	1450	1695	1742	1879	1857	1876	2111	2032	1838	21,899	435,528
2017	1860	1857	1953	1440	1523	1766	1334	1680	1513	2040	1637	2235	20,838	491,688
2016	1929	1335	1833	2025	1869	1556	1345	1625	1438	1351	1500	2149	19,955	526,981
2015	2831	2000	2447	2358	2072	1820	1664	1651	1853	2016	2362	2703	25,777	589,078
2014	1894	2436	2017	2908	1862	2307	2018	1880	2369	1879	1888	3064	26,508	741,201

Total IFR Offshore Helicopter Operations



Final Word

Roseanne Albrecht, Agreement Lead



Closing Comments

- **FAA Infrastructure Status**

- As previously shown in our slide presentation, 2022 will be a very productive installation year! We will sustain / install:
 - 28 AWOS sites
 - 12 ADS-B sites
 - 11 VHF Comm sites

- **Industry Feedback and Support**

- Explore all possibilities as an opportunity to increase safety in the Gulf of Mexico

FAA Gulf of Mexico Sustainment Team

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