

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: January 19, 2022



Federal Aviation
Administration



Harold Lee "Hal" Summers

1938 - 2021



**AIC Salutes
Mr. Hal!
Share as you
wish...**

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 whether additional areas should be addressed

Safety / Service

FAA Infrastructure Status

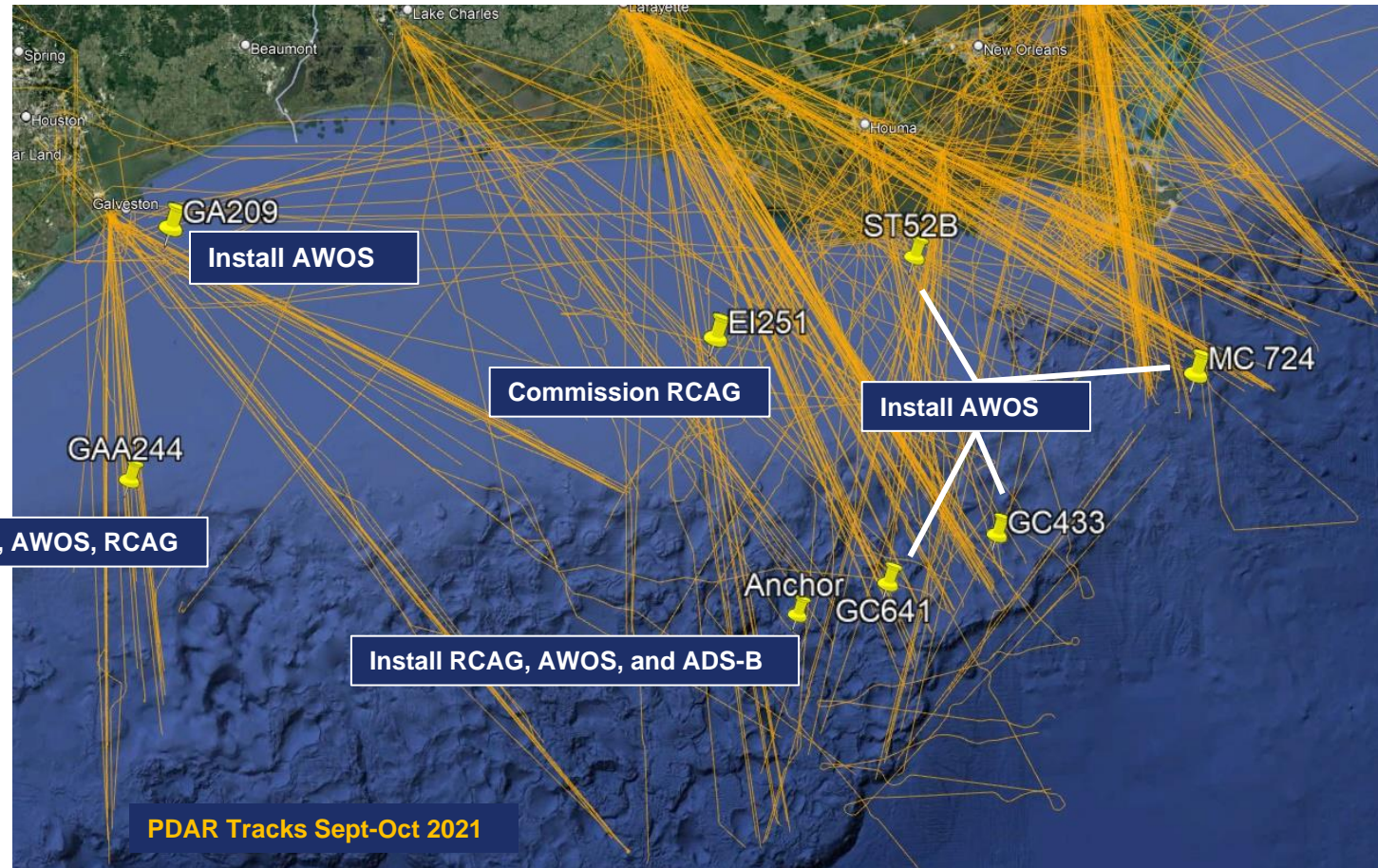
Rana Obeid, Federal Lead



Agenda

- Regular Business
 - FAA Infrastructure Status
 - ADS-B/VHF Comm Coverage
 - Installation Updates
- New Business

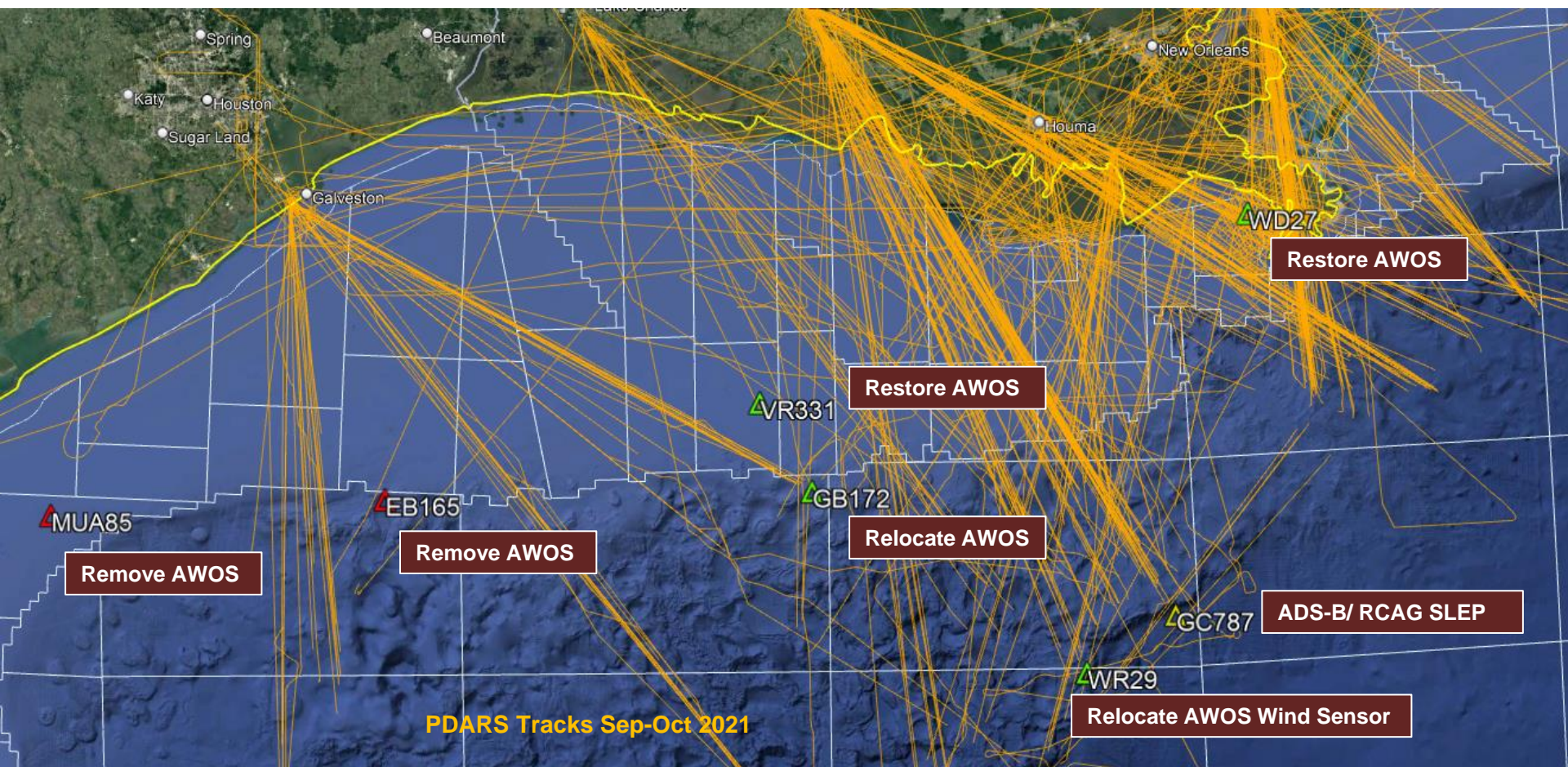
2022 Offshore Installation Projects



Commission AWOS Mississippi Canyon 724 (Jan)
Install AWOS Galveston 209B (Jan)
Commission RCAG Eugene Island 251A (May)
Install AWOS South Timbalier 52B (Jun)

Install AWOS Green Canyon 433 (Jul)
Install AWOS Green Canyon 641 (Aug)
Install ADS-B, AWOS, RCAG Galveston A244A (Sep)
Install ADS-B, AWOS, RCAG Green Canyon 763 (2023)

2022 Offshore Sustainment Projects



Remove AWOS Mustang Island A85A (Feb)
Relocate AWOS Garden Banks 172 (Sep)
Relocate AWOS wind sensor Walker Ridge 29 (Nov)
Remove AWOS East Breaks 165 (Dec)

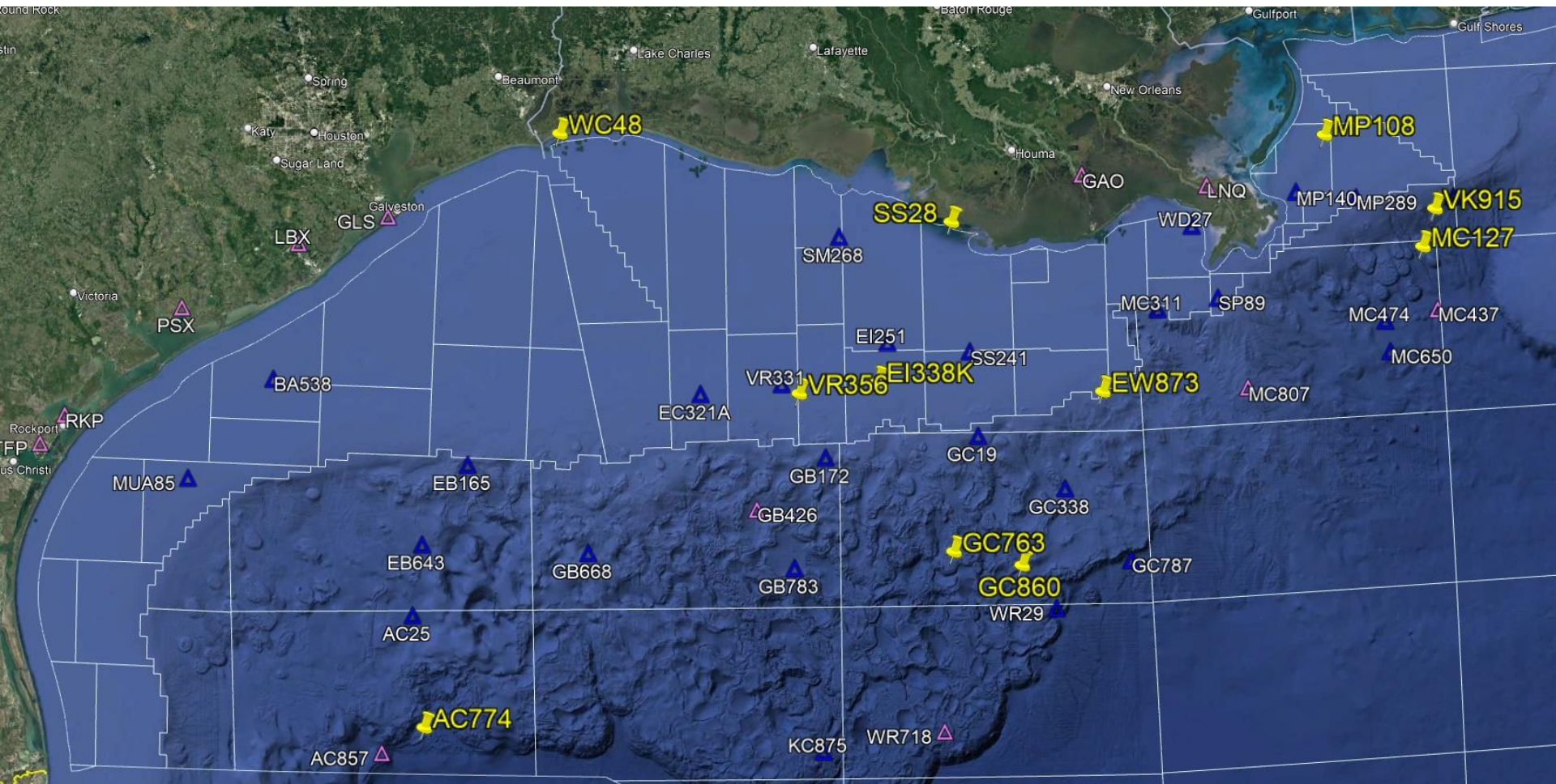
Restore AWOS Vermillion 331 (Jul)
Restore AWOS West Delta 27 (Jun)
ADS-B/RCAG SLEP Green Canyon 787 (unknown)

Projected AWOS Losses within Next Five (5) Years

1. Alaminos Canyon 25
2. East Breaks 165
3. East Breaks 643A
4. East Cameron 321A
5. Eugene Island 215B
6. **Garden Banks 668**
7. **Mississippi Canyon 311A**
8. **Mustang Island A85A**
9. South Marsh 268A
10. 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 Coverage

Colleen Ahlers, Program Management



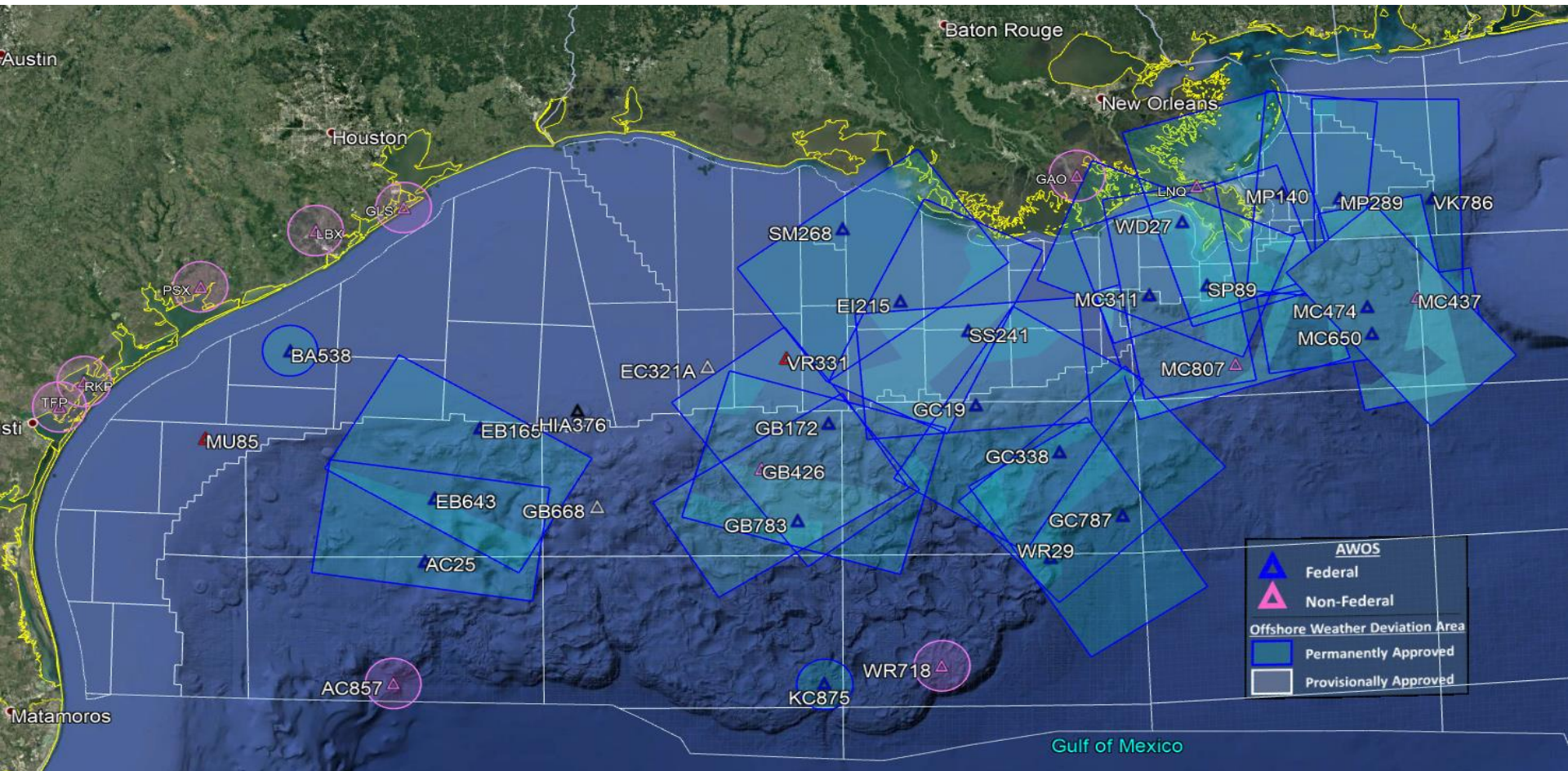
AWOS Coverage – Oct 7, 2020



▲ Out of service

Federal AWOS in Operation: 14

AWOS Coverage – May 4, 2021

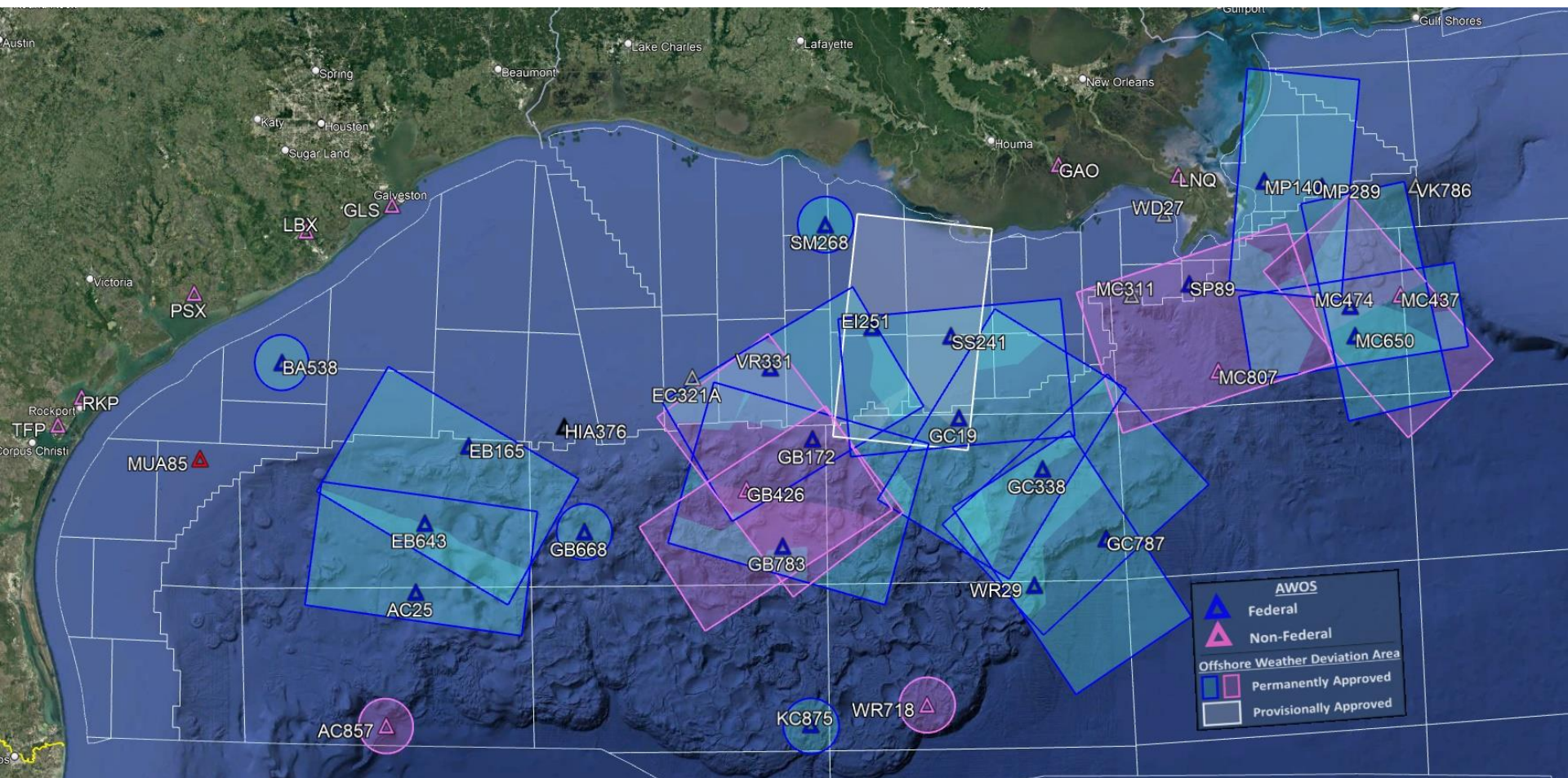


- ▲ Out of service due to decommissioning (HIA376)
- ▲ Out of service due to platform shut-in (MUA85 & VR331)
- ▲ Out of service due to hurricane damage (GB668 & EC321A)

Federal AWOS in Operation*: 22

Additional Stations may be out of service due to regular maintenance

AWOS Coverage – Sept 29, 2021

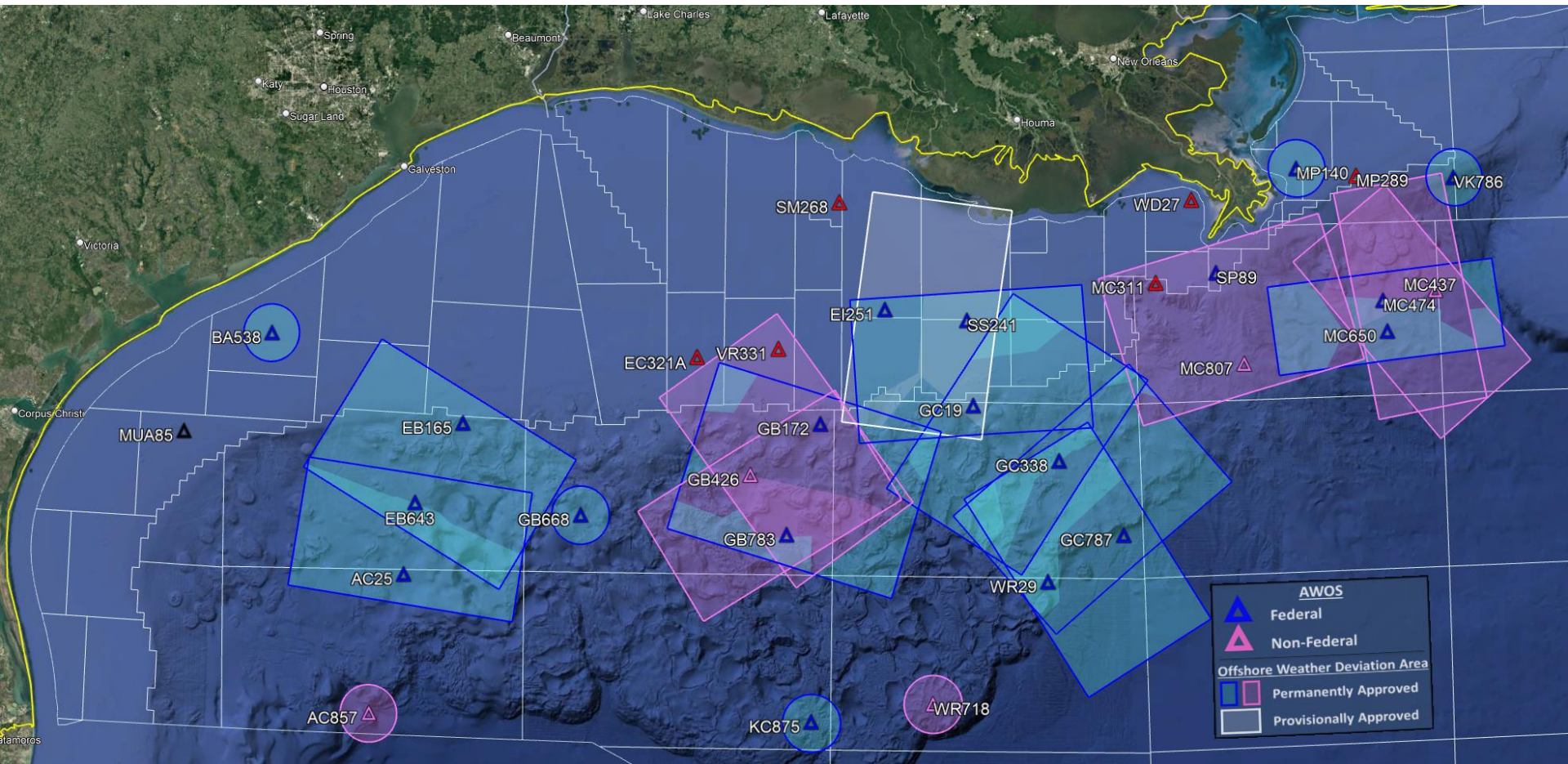


- ▲ Out of service due to decommissioning (HIA376)
- ▲ Out of service due to platform shut-in (MUA85)
- ▲ Out of service due to hurricane damage (EC321A, MC311, VK786, WD27)

Federal AWOS in Operation*: 20/26

*may be temporarily out of service due to maintenance

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

FAA Infrastructure Out of Service in 2021

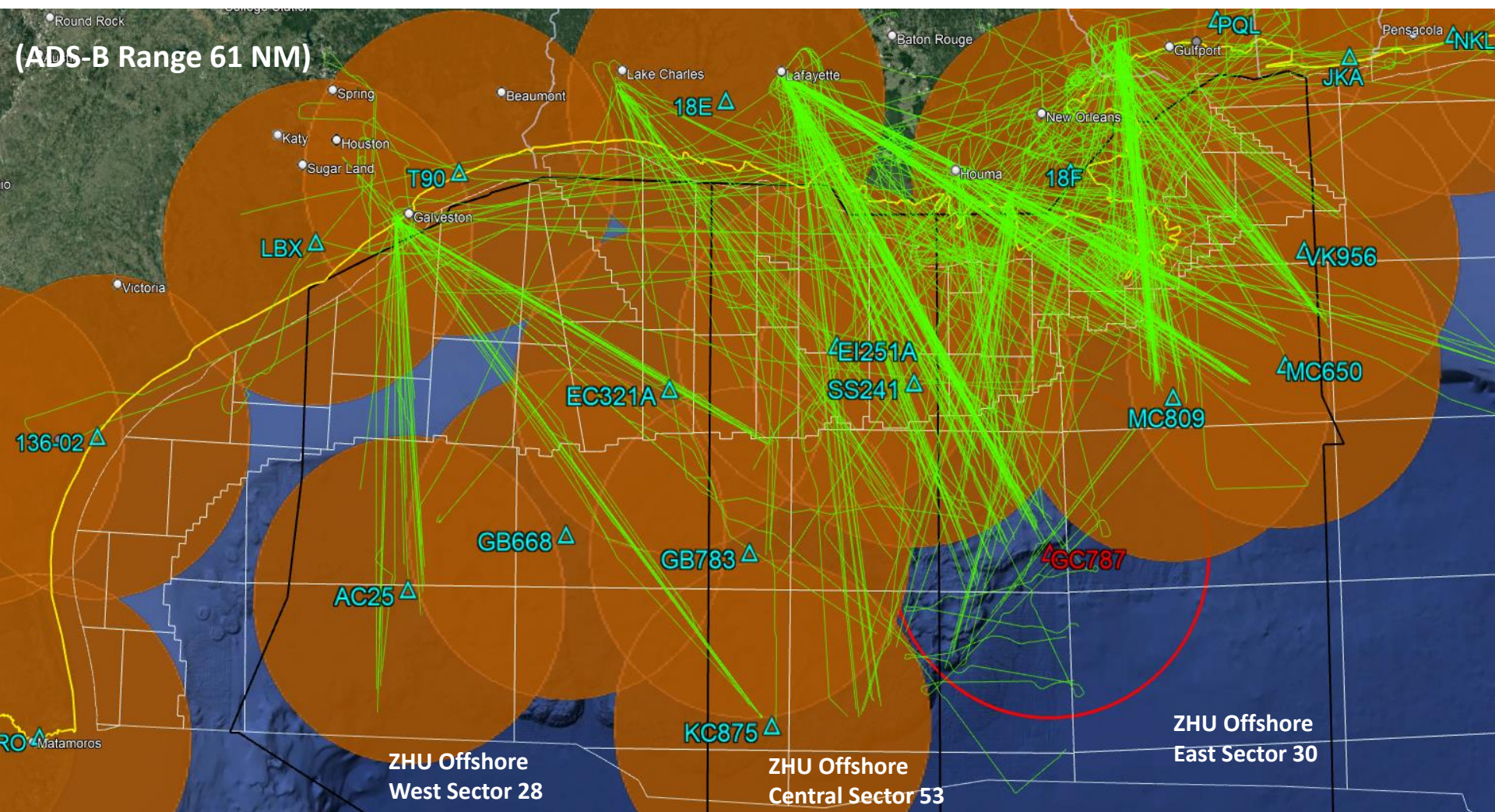
- **The following AWOS platforms are currently shut-in and will be decommissioned:**
 - Mustang Island A85A (MZG)
- **The Following AWOS's are out of service due to storm damage:**
 - East Cameron 321A (EZP)
 - Green Canyon 19 (XER)
 - Mississippi Canyon 311 (MDJ)
 - Main Pass 289 (VKY)
 - South Marsh 268 (SCF)
 - Vermillion 331 (VQT)
 - Viosca Knoll 786 (VOA)
 - West Delta 27 (DLP)

ADS-B/VHF Comm Coverage

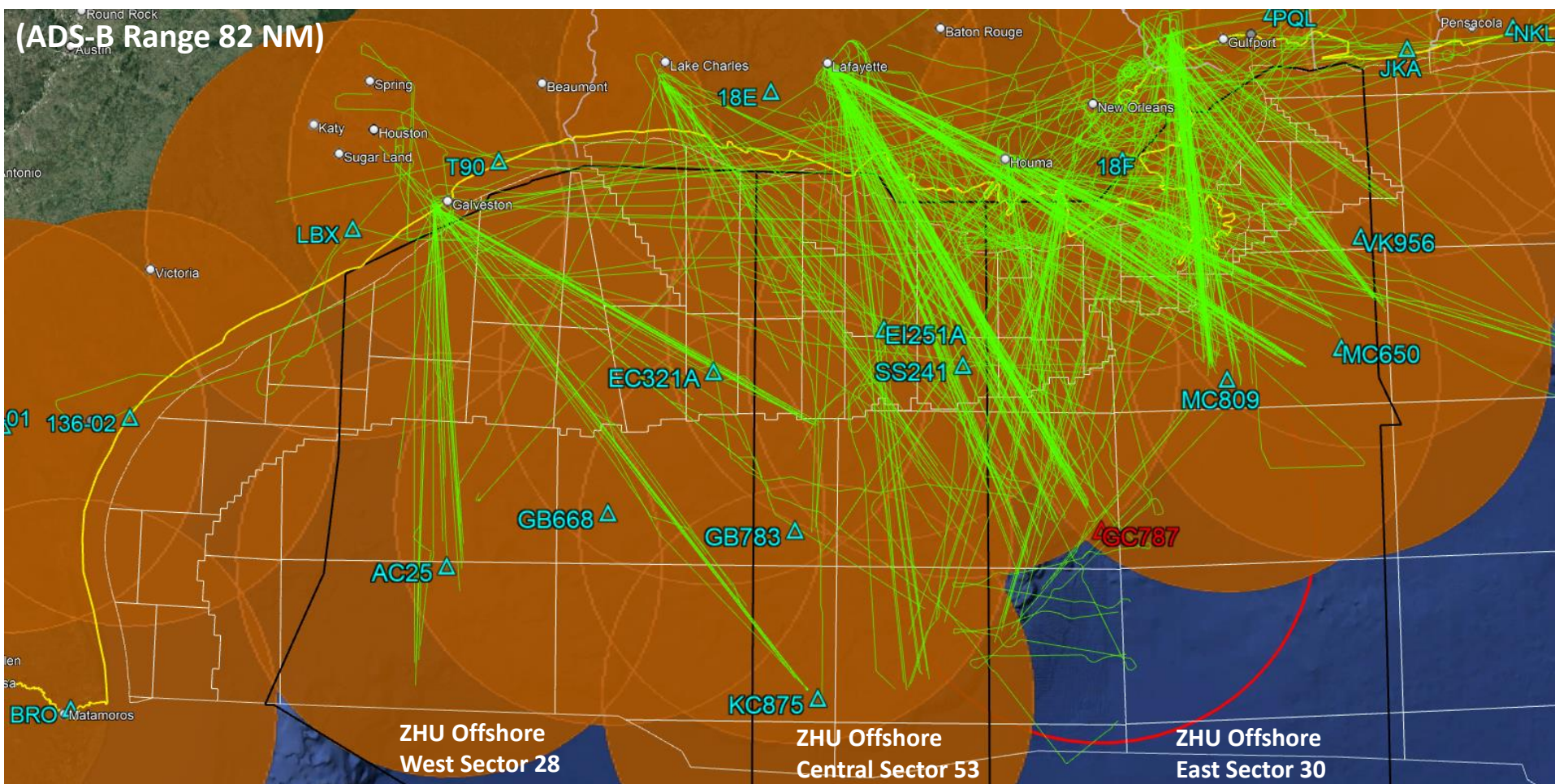
Billy Majeau, Program Management



Current ADS-B Coverage 1500' MSL



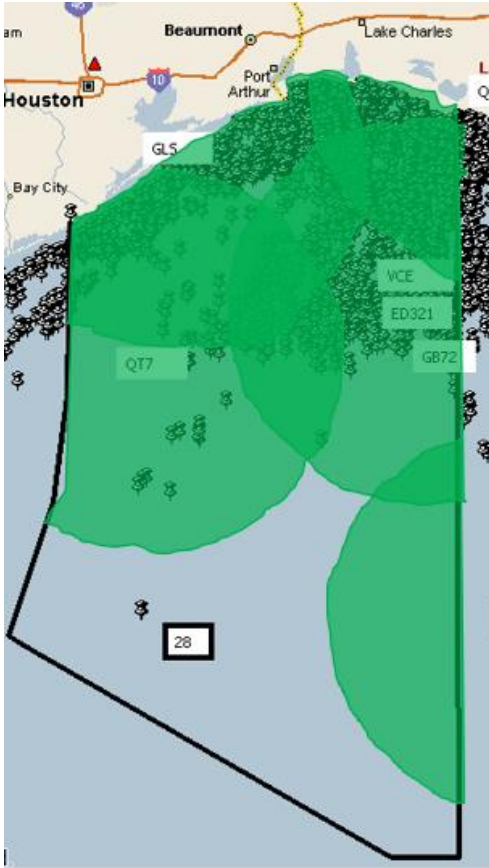
Current ADS-B Coverage 3000' MSL



VHF Comm Coverage 3,000' MSL

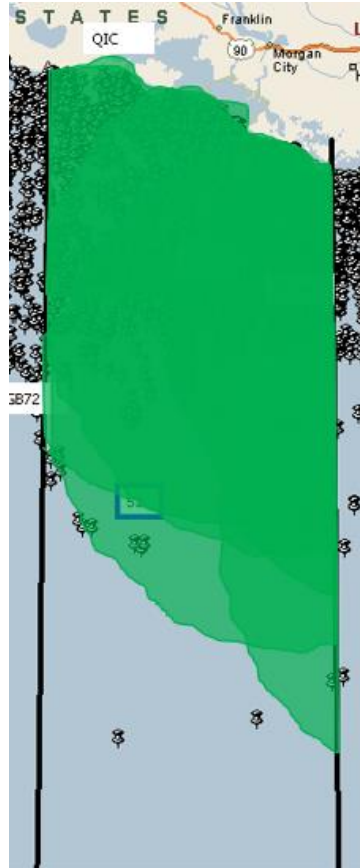
Offshore West / S28

GLS, QIC, QT7, EZP, 18H



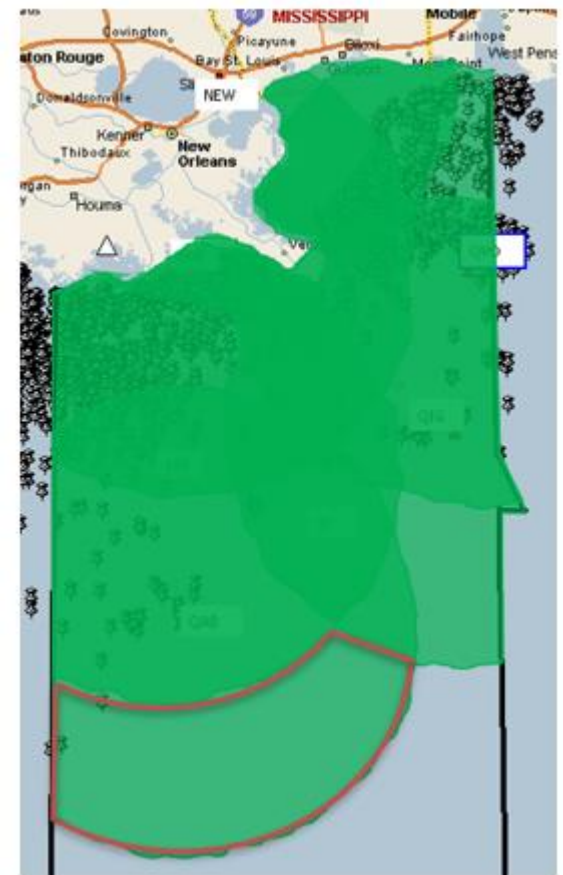
Offshore Central / S53

QIC, VUW, 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.

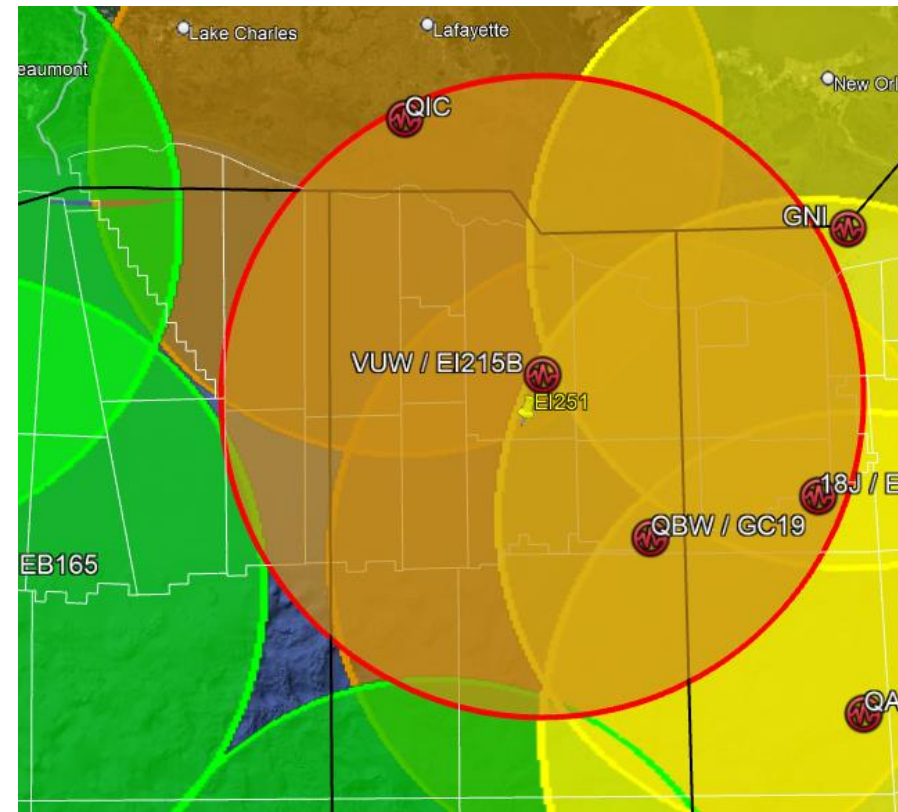
Impact to Operators

- Surveillance (ADS-B) radios were turned off during the summer 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.

EI251 VHF Comms to Replace EI215

VHF Comms have been installed at Eugene Island 251 (EKE) to replace Eugene Island 215 VHF Comms.

The VHF Comms at Eugene Island 215 were shut down and decommissioned before the VHF Comms at Eugene Island could become operational due to unexpected procurement delays of FAA telecommunication equipment.



Non-Operational Spaced Based ADS-B Data

Colleen Ahlers, Program Management

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**

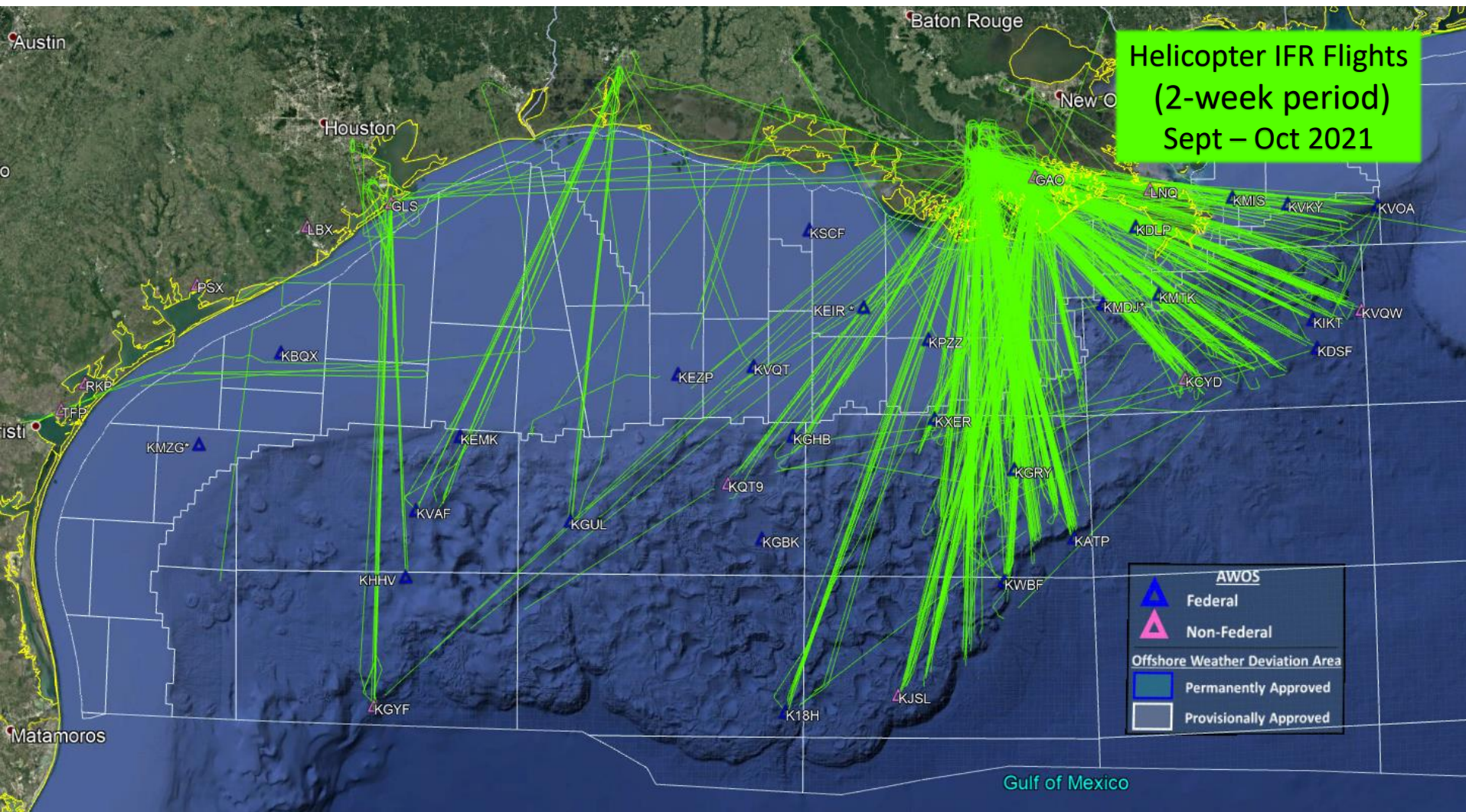
Outage reports
Risk assessments
Industry updates



Strategic Analysis

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

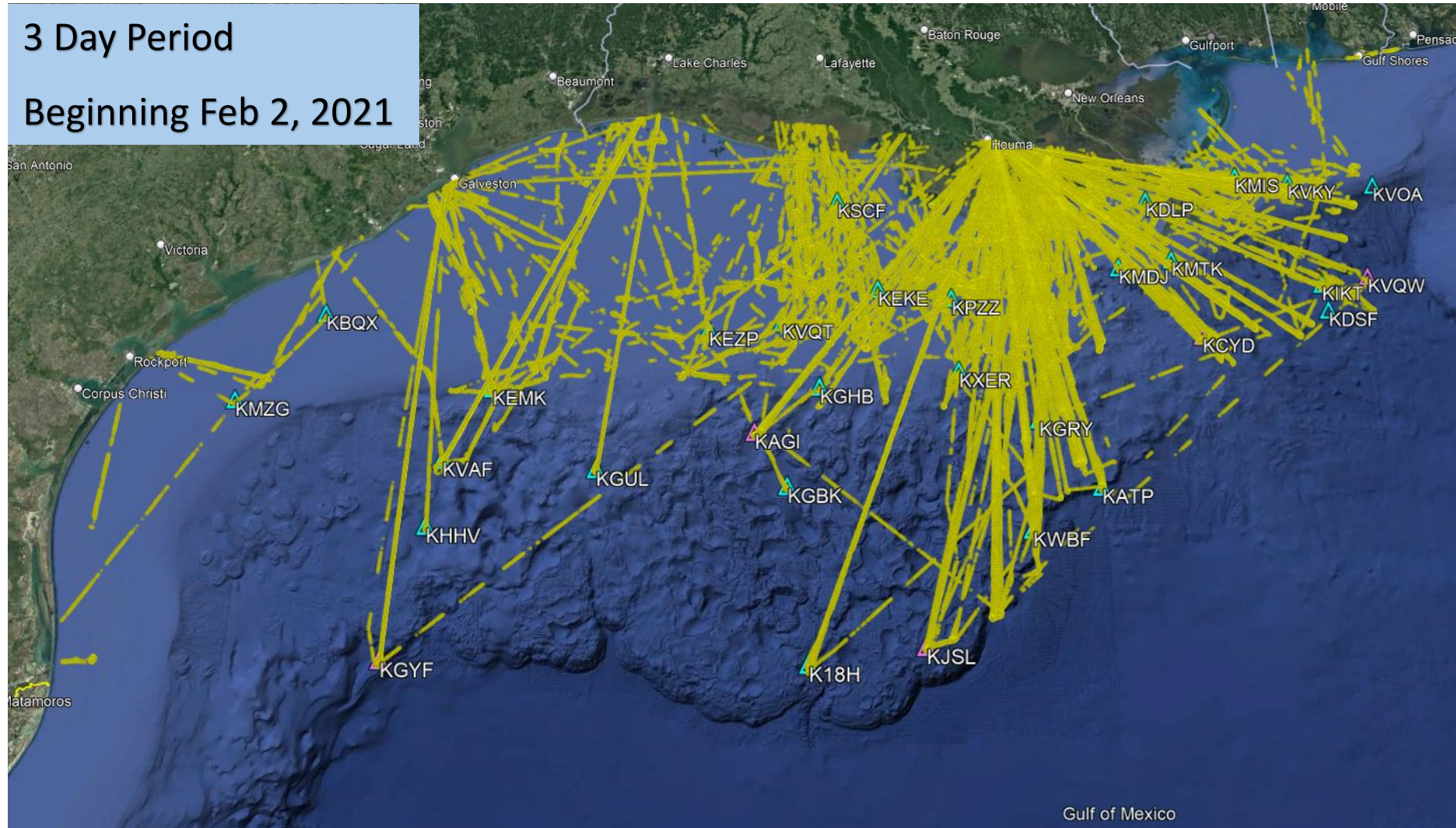
PDARS Data



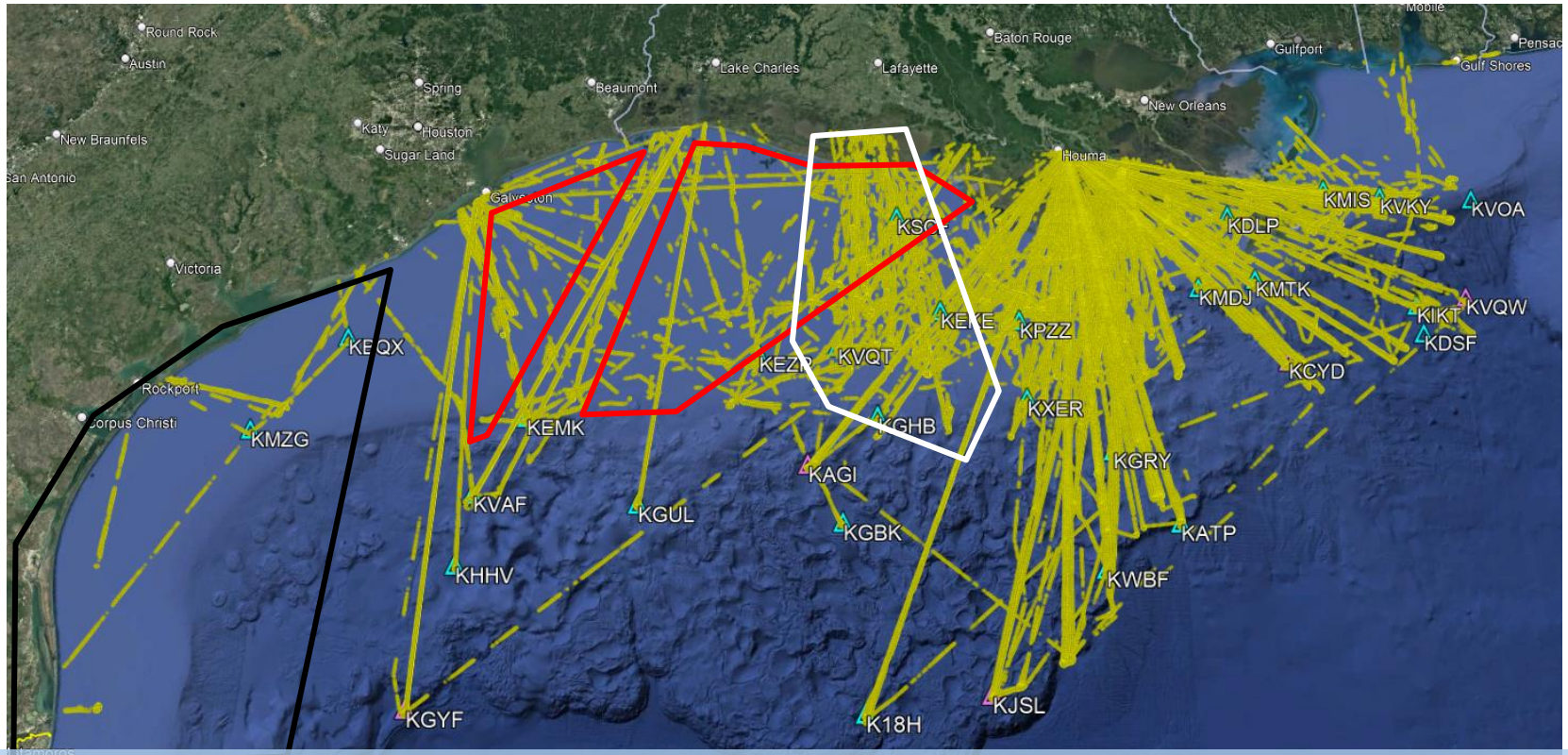
Non-Op SBA Data

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.

AIC Decisions

Colleen & Billy



AIC Decision Status

- **At recent AIC meetings, FAA and industry Stakeholders made the following decisions about AWOS coverage:**
 - South Marsh 107 to replace South Marsh 268 – **investigating feasibility**
 - Hess proposed Garden Banks 260 platform as a candidate site for possible AWOS installation – **investigating feasibility**
 - Include Site Elevation and Wind sensor location in AWOS Status Update – **planning implementation**
 - **Decision to install an AWOS at Tank Battery 45 pending owner's approval and site survey**

Gulf AWOS Status Update Enhancement

At the May 2021 AIC, a recommendation from industry and subsequent decision was made to incorporate elevation information into the AWOS Status Update to assist pilots in evaluating METAR Wind and Altimeter data.

While enhancing the document, the column concerning Wind Reliability was also reformatted.

New Columns

Commissioned Facilities	Block ID	ICAO LID	Phone #	Frequency	Lat/Long	NOTAM	Wind Sensor Elevation ¹	Site Elevation ^{1*}	Helideck Elevation ¹
Alaminos Canyon 25/Hoover-Diana (ExxonMobil)	AC25	KHHV	713-431-9699	119.075	26.94/-94.69		216	128	199
Alaminos Canyon 857/Perdido (Shell E&P)	AC857	KGYF	504-425-4008	120.275	26.13/-94.90				250
Brazos 538 (Williams Atlantic-Gulf)	BA538	KBQX	979-843-7255	118.375	28.31/-95.62		80	78	86
East Breaks 165 (Fieldwood Energy)	EB165	KEMK	337-210-8993	119.475	27.82/-94.32		120	65	86
East Breaks 643A/Boomvang Spar (Occidental)	EB643	KVAE	832-636-9297	119.525	27.35/-94.62	WIND UNREL 225-360	129	125	150

Column Reformatted

Gulf AWOS Status Update Enhancement

Previous Design

Winds Unreliable
No
No
No
No
Yes, 225-360°
No
No
No
Yes, 345-022°
Yes, all directions
Yes, from the East
Yes, all directions
Yes
No
Yes 110-160°
Yes, from the South
Yes 140-180°

Proposed Design

NOTAM
WIND UNREL 225-360
WIND UNREL 345-022
WIND UNREL ALL DIR
WIND UNREL East
WIND UNREL ALL DIR
WIND UNREL
WIND UNREL 110-160
WIND UNREL South
WIND UNREL 140-180

Reasons for Change:

1. Follows aviation standards
2. Increased reading efficiency

Gulf AWOS Status Update Enhancement

New Columns with Elevation Information

New Columns and explanations, per May 2021 AIC decision

Commissioned Facilities	Block ID	ICAO LID	Phone #	Frequency	Lat/Long	NOTAM	Wind Sensor Elevation ¹	Site Elevation ^{1*}	Helideck Elevation ¹
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Alaminos Canyon 857/Perdido (Shell E&P)	AC857	KGYF	504-425-4008	120.275	26.13/-94.90				250
Brazos 538 (Williams Atlantic-Gulf)	BA538	KBQX	979-843-7255	118.375	28.31/-95.62		80	78	86
East Breaks 165 (Fieldwood Energy)	EB165	KEMK	337-210-8993	119.475	27.82/-94.32		120	65	86
East Breaks 643A/Boomvang Spar (Occidental)	EB643	KVAF	832-636-9297	119.525	27.35/-94.62	WIND UNREL 225-360	129	125	150
West Delta 27A (Cox Operating)	WD27	KDLP	504-297-7028	120.425	29.12/-89.55		114	103	115

Federal (FAA-leased) AWOS sites indicated with alternating white and **teal fill**. **Non-Federal** (privately owned) AWOS sites indicated with **pink fill**.

¹ elevation is shown in feet above MSL (Mean Sea Level)

***site elevation** refers to the elevation of the barometric pressure sensor at the main sensor suite

To access METAR Reports:

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Gulf AWOS Status Update Enhancement

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Page 1

1. Commissioned AWOS information

GULF OF MEXICO AWOS STATUS 1/XX/2022									
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East Breaks 165 (Fieldwood Energy)	EB165	KEMK	337-210-8993	119.475	27.82/-94.32		120	65	86
East Breaks 643A/Boomvang Spar (Occidental)	EB643	KVAF	832-636-9297	119.525	27.35/-94.62	WIND UNREL 225-360	129	125	150
East Cameron 321A (W&T Offshore)	EC321	KEZP	504-323-0220	119.050	28.22/-92.79		135	75	100
Eugene Island 251A (Arena Offshore)	EI251A	KEKE	985-510-2076	119.925	28.50/-91.57		123	87	104
Garden Banks 172/Salsa (Shell E&P)	GB172	KGHB	504-321-2911	118.025	27.84/-91.99		110	68	97
Garden Banks 426/Auger (Shell E&P)	GB426	KAGI	504-728-5011	118.375	27.55/-92.44	WIND UNREL 345-022			130
Garden Banks 668/Gunnison Spar (Occidental)	GB668	KGUL	832-636-9298	119.025	27.30/-93.54	WIND UNREL ALL DIR	166	160	175
Garden Banks 783/Magnolia TLP (W&T)	GB783	KGBK	713-513-8692	118.825	27.20/-92.20	WIND UNREL East	191	178	191
Green Canyon 19 (Shell Pipeline)	GC19	KXER	504-728-8250	118.55	27.94/-91.00	WIND UNREL ALL DIR	95	90	119
Green Canyon 338/Front Runner (Murphy E&P)	GC338	KGRY	281-846-7109	118.875	27.62/-90.44	WIND UNREL	192	183	190
Green Canyon 787/Atlantis (BP)	GC787A	KATP	979-235-2225	119.525	27.19/-90.03		210	209	201
Keathley Canyon 875/Lucius Spar (Occidental)	KC875	K18H	832-636-9295	118.075	26.12/-92.04	WIND UNREL 110-160	212	200	207
Main Pass 140B (Fieldwood Energy)	MP140B	KMIS	337-210-8995	119.825	29.30/-88.84	WIND UNREL South	85	79	78
Main Pass 289C (Fieldwood Energy)	MP289C	KVKY	337-210-8989	118.075	29.25-88.44	WIND UNREL 140-180	115	86	104
Mississippi Canyon 311A (Fieldwood Energy)	MC311A	KMDJ	337-210-8997	119.325	28.64/-89.79		90	65	100
Mississippi Canyon 437/Appomattox (Shell E&P)	MC437	KVQW	504-425-4390	118.325	28.57/-87.93				161
Mississippi Canyon 474/Na Kika (BP)	MC474	KIKT	979-230-4223	118.025	28.52/-88.29		124	118	137
Mississippi Canyon 650/Blind Faith (Chevron)	MC650	KDSF	985-773-7295	119.925	28.34/-88.16	WIND UNREL 290-010	110	105	145
Mississippi Canyon 807/Mars (Shell E&P)	MC807	KCYD	504-425-1521	119.025	28.1/-89.13				
Mustang Island A85A (EnVen Energy Ventures)	MUA85A	KMZG	504-208-2392	119.325	27.73/-96.19	WIND UNREL 010-190	86	80	95
Ship Shoal 241 (Shell Pipeline Company)	SS241	KPZZ	985-288-6250	121.125	28.43/-91.03		107	88	100
South Marsh 268A (Fieldwood Energy)	SM268A	KSCF	337-210-8994	119.575	29.12/-91.87		78	71	100
South Pass 89E-B (Shell Pipeline Company)	SP89E-B	KMTK	337-761-8234	124.175	28.70/-89.39		123	128	148
Vermilion 331A (Talco Energy)	VR331A	KVQT	281-619-7805	118.125	28.27/-92.26		90	78	104
Viosca Knoll 786/Petronius (Chevron)	VK786	KVOA	985-773-7883	118.925	29.23/-87.78	WIND UNREL 355-005	160	131	174
Walker Ridge 29/Big Foot (Chevron)	WR29	KWBF	985-773-5497	118.525	26.93/-90.51	WIND UNREL ALL DIR	221	206	244
Walker Ridge 718/Jack St. Malo (Chevron)	WR718	KJSL	985-773-5178	119.575	26.14/-91.15	WIND UNREL NNE			
West Delta 27A (Cox Operating)	WD27	KDLP	504-297-7028	120.425	29.12/-89.55		114	103	115

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Gulf AWOS Status Update Enhancement

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Gulf AWOS Status Update Enhancement

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1. Advisory Information
2. Planned Removals
3. Planned Commissions
4. Possible Installation Locations

GULF OF MEXICO AWOS STATUS 1/XX/2022							Page 2 of 2
ADVISORY							
<ul style="list-style-type: none"> MUA85A is currently unavailable due to platform shut-in 							
AWOS Removal In-Progress or Completed	Block ID	ICAO LID	Phone #	Frequency	Lat/Long	Status	
High Island A376B (Fieldwood Energy)	HIA376B	KHQL	337-210-8999	118.275	27.934/-93.669	Planned for 2022	
AWOS Awaiting Commission	Block ID	ICAO LID	Phone #	Frequency	Lat/Long	Strategic Impact	
Galveston 209A (Arena Offshore) - Jan 2022	GA209A	KGWV	TBD	118.250	29.060/-88.091	Replaces SA13B	
Mississippi Canyon 724/ Gulstar One (Hess/Williams) - Jan 2022	MC724	KGLX	TBD	TBD	28.234/-88.995	Expands Coverage / Adds Redundancy	
Locations Under Consideration for Possible Federal AWOS Installation	Block ID	Objective					
Galveston A244A (Williams)	GAA244A	New Install / Leapfrog/replace EB-165 (EMK)					
Green Canyon 443/ King's Quay (Murphy)	GC443	New Install / Pairs with GB172, GB668, and GB783					
Green Canyon 641/ Tahiti (Chevron)	GC641	New Install / Pairs with WR29, GC787, and GC338					
High Island A547B (Arena Offshore)	HIA547B	Replace HI-A376B (HQL)					
Mississippi Canyon 941/ Titan (Equinor)	MC941	New Install/ Pairs with MC807 and MC724					
South Timbalier 52B (Arena Offshore)	ST52B	New Install					
Eugene Island 338K (Arena Offshore)	EI338K	Redundancy to EI-251A (EKE)					
<p>PROBLEMS ? (Applicable to ONLY Federal sites): Please report Federal AWOS performance problems to the L3Harris Network Operations Center (NOC), open 24/7, at 888-461-7277 (preferred) or DL-SBSS_NOC@att.com</p> <p>NOTE: The FAA does not have remote maintenance monitoring capability for the telephone dial-up or VHF radio service. Please report outages/problems of Federal AWOS sites to the NOC.</p>							



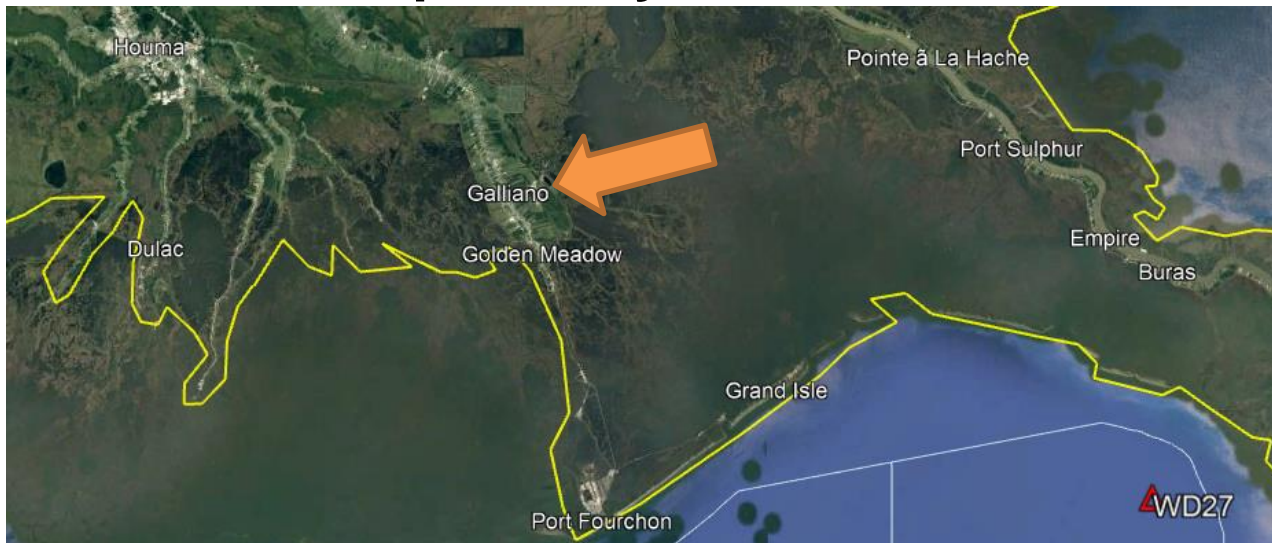
Community Awareness

Rana Obeid, Federal Lead



Galliano Update

- **KGAO AWOS damage in Sept 2020 led to need to obtain an obsolete CPU**
- **Coordination assistance provided to expedite FAA Engineering approval of replacement CPU design**
- **Efforts continue to expedite system return to service**



Summary

Rana Obeid, Federal Lead



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

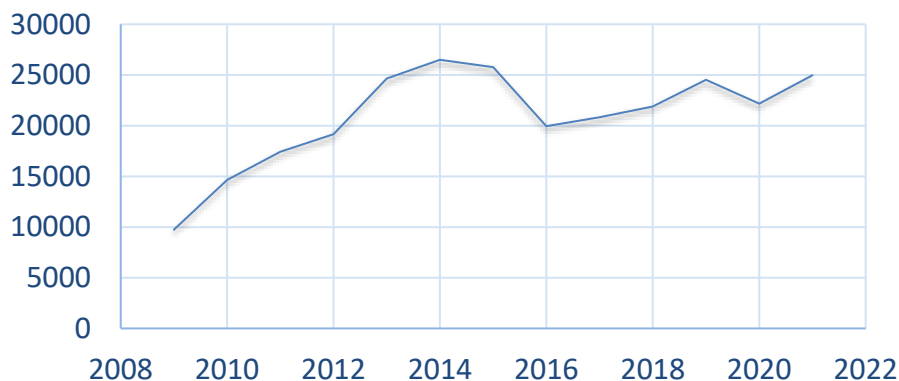
FY = FAA Fiscal Year (FY begins October 1)



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
2021	1931	1997	2298	2120	2140	2166	2040	2023	1720	1828	1881	2826	24,970	
2020	2438	2376	2654	1169	1172	1492	1693	1452	1700	2382	1810	1842	22,180	275,579 8%
2019	1942	2045	2063	1719	1960	1855	1968	2166	1787	2457	2040	2524	24,526	411,308 6%
2018	1469	2292	1658	1450	1695	1742	1879	1857	1876	2111	2032	1838	21,899	435,528 5%
2017	1860	1857	1953	1440	1523	1766	1334	1680	1513	2040	1637	2235	20,838	491,688 4%
2016	1929	1335	1833	2025	1869	1556	1345	1625	1438	1351	1500	2149	19,955	526,981 4%
2015	2831	2000	2447	2358	2072	1820	1664	1651	1853	2016	2362	2703	25,777	589,078 4%
2014	1894	2436	2017	2908	1862	2307	2018	1880	2369	1879	1888	3064	26,508	741,201 4%

Total IFR Offshore Helicopter Operations



Summary Continued

- **FAA Infrastructure Status**

- As previously shown in our slide presentation, 2022 will be a very productive installation year! We will sustain / install:
 - 32 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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