Appendix A
Cooperating Agency Correspondence

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/016
September 14, 2023

Mr. Christopher L. Southerland
Manager, Operations Support Group, ATO Central Service Center, AJV-C2
Department of Transportation, Federal Aviation Administration
10101 Hillwood Parkway
Fort Worth, TX 76177

Dear Mr. Southerland:

SUBJECT: SOUTHEASTERN LOUISIANA SPECIAL USE AIRSPACE ENVIRONMENTAL ASSESSMENT – COOPERATING AGENCY REQUEST

In accordance with the National Environmental Policy Act (NEPA), the Department of the Navy (Navy) is initiating an Environmental Assessment (EA) for the Proposed Establishment of Special Use Airspace (SUA [Military Operations Area {MOA}/ATC Assigned Airspace {ATCAA}]) in Louisiana (FAA Central Service Center). U.S. Fleet Forces Command (USFFC) will serve as the Navy's Lead Agency for the EA. The EA will analyze an airspace requirement articulated by Strike Fighter Squadron TWO ZERO FOUR (VFC-204) located at Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) in connection with the squadron's transition to the F-5N Tiger II aircraft. To meet current and emerging training needs and maximize effective use of the airspace structure, USFFC proposes to establish a new block of SUA (MOA/ATCAA) east of NAS JRB NOLA adjoining the existing Snake MOA.

As prescribed in the President's Council on Environmental Quality NEPA Regulations, 40 C.F.R. § 1501.8, and in accordance with the joint memorandum of understanding between the Federal Aviation Administration (FAA) and the Department of Defense signed on October 17, 2019, the Navy requests the FAA formally participate as a Cooperating Agency in the preparation of the EA.

Consistent with the joint memorandum, USFFC will serve as and complete all the requirements of the Lead Agency on behalf of the Navy, and the FAA will be responsible for all prescribed actions of the Cooperating Agency.

In addition, USFFC will act as the Lead Agency for purposes of compliance with Section 7, Endangered Species Act (16 U.S.C. § 1536); Section 106, National Historic Preservation Act (54 U.S.C. § 306108); and similar regulatory consultation or coordination requirements.

To avoid unnecessary delays in the NEPA process, USFFC will provide appropriate information and related materials in a timely fashion and establish timelines for your agency to complete its review and respond promptly. The goal is for each agency to accommodate the environmental compliance needs and review proposed timelines of the other early enough in the project planning process to provide the necessary data for efficient adoption or preparation of a joint NEPA document. The Lead and Cooperating Agency shall independently evaluate all information or analysis before using it to support a NEPA review. The intent of the Lead and Cooperating Agency relationship is to ensure mutually adequate documentation that complies with both the Lead and Cooperating Agencies' NEPA implementing procedures.

5090
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September 14, 2023

As the Lead Agency, the Navy is responsible for overseeing preparation of the EA that includes, but is not limited to, the following:

a. Gathering all necessary background information and preparing the EA.

b. Determining the scope of the EA including the alternatives evaluated.

c. Working with the FAA to ensure compliance with Order 1050.1F, Environmental Impacts: Policies and Procedures as well as the 1050.1F version 2 Desk Reference.

d. Circulating the appropriate NEPA documentation to the general public and any other interested parties.

e. Scheduling and supervising meetings held in support of the NEPA process, and compiling any comments received.

f. Maintaining an administrative record and responding to Freedom of Information Act requests relating to the EA.

As a Cooperating Agency, USFFC requests the FAA to support the Navy in the following manner:

a. Providing timely comments throughout the EA process, to include working drafts of the EA documents.

b. Participating, as necessary, in meetings hosted by the Navy for discussion of EA related issues.

c. Adhering to the project's overall schedule as set forth by the Navy.

d. Participating in public meetings, if held, during the Draft EA review phase.

Should you or your staff have further questions regarding this matter, our point of contact in the USFFC Environmental Compliance and Planning Branch is Mr. Greg Thompson, 757-836-6938, Gregory.S.Thompson2.civ@us.navy.mil.

Sincerely,

AGUAYO.MARIA.LORETO.1157276731
Digitally signed by AGUAYO.MARIA.LORETO.1157276731
Date: 2023.09.12 07:37:49 -04'00'

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

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Copy to:
CNO WASHINGTON DC (N4I, N98)
COMNAVREG SE JACKSONVILLE FL
NAS JRB NEW ORLEANS LA

2

U.S. Department of Transportation
Federal Aviation Administration

Air Traffic Organization
FAA Headquarters, Washington, DC

800 Independence Avenue, S.W.
Washington, DC 20591

September 15, 2023

Maria L. Aguayo, Director
Fleet Installations and Environment and Deputy Chief of Staff
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, Virginia 23551-2487

Dear Director Aguayo,

Thank you for your letter dated September 14, 2023 requesting that Federal Aviation Administration (FAA) participate as a cooperating agency in the Department of the Navy's U.S. Fleet Forces Command's (USFFC) Environmental Assessment (EA) for its proposed Establishment of Special Use Airspace (SUA) Military Operations Area (MOA) and Air Traffic Control Assigned Airspace (ATCAA) in Louisiana. The USFFC is the Navy's Lead Agency for the EA.

The EA will analyze USFFC's proposed activities within SUA as articulated by Strike Fighter Squadron Two Zero Four (VFC-204) located at Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) in connection with the squadron's transition to the F-5N Tiger II aircraft. To meet current and emerging training needs and maximize effective use of the airspace structure, USFFC proposes that the FAA establish a new MOA/ATCAA east of NAS JRB NOLA adjoining the existing Snake MOA.

The FAA appreciates the Navy's recognition of our role as a cooperating agency in the establishment of SUA and evaluation of the USFFC's proposed use of SUA. FAA's role includes approval of requested SUA and review of the Navy's environmental analyses of potential impacts to airspace associated with this Navy project as required by the National Environmental Policy Act (NEPA) and its implementing regulations at 40 CFR Part 1500. Since this Navy proposal involves the FAA's establishment and Department of Defense's (DoD) use of SUA, FAA accepts the Navy's request to act as a cooperating agency.

Having *jurisdiction by law* over the National Air Space (NAS), the FAA performs its role as a cooperating agency for the establishment and designation of SUA in accordance with the NEPA implementing regulations at 40 CFR Section 1501.8 on cooperating agencies; FAA's NEPA implementing Order 1050.1F, paragraph 8-2 – *Adoption of Other Agencies' NEPA Documents*; and FAA Order 7400.2P, Chapters 21 and 32, Appendix 8 – *FAA Special Use Airspace Environmental Processing Procedures*, which outlines the process by which the FAA works with the DoD on projects involving DoD use of SUA, and the guidelines set forth in the October 2019 Memorandum of Understanding (MOU) between FAA and DoD *Concerning Environmental Review of Special Use Airspace Actions*

(Appendix 7 to FAA Order 7400.2P, Chapter 32), and. See, https://www.faa.gov/documentLibrary/media/Order/7400.2P_Basic_dtd_4-20-23--COPY_FINAL.pdf and https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/documentnumber/1050.1

While Appendix 8 of FAA Order 7400.2 indicates that the airspace review and approval process and environmental impacts review should be conducted concurrently as much as possible, they are still separate processes. FAA's approval of either the DoD's aeronautical (SUA) request or the DoD's NEPA analysis does not automatically confer approval of the entire proposal. See FAA Order 7400.2, Chapter 21 (Sections 3, 4, 5, and 6), and Appendices 7 and 8 for additional details on the SUA request and approval process, and coordination of NEPA documentation for projects involving the use of SUA between FAA and DoD. https://www.faa.gov/documentLibrary/media/Order/7400.2P_Basic_dtd_4-20-23--COPY_FINAL.pdf

The FAA's participation in the development of the Navy's EA and related NEPA documentation for this proposed action resides under the jurisdiction of the FAA's Central Service Center, Operations Support Group (OSG) in Fort Worth, Texas. Karol Archer is the OSG's Environmental Team Manager. Kristi Regotti is the designated Environmental Protection Specialist who will coordinate with the Navy and USFFC on both the USFFC's EA and FAA's Adoption EA as they are being developed. The Central Service Center's environmental specialist will be the primary point of contact for matters related to the development and review of the Navy's NEPA documentation for this project, including related airspace issues that will be tracked and coordinated by FAA Headquarters Airspace Environmental Policy Team (AJV-P23).

A copy of the Navy's request for the FAA's cooperating agency status and this reply are being forwarded to the Environmental Team Manager, Karol Archer of the Central Service Center's Operations Support Group. Ms. Archer can be contacted at karol.archer@faa.gov for further review of the NEPA document(s). Ms. Regotti can be contacted at kristi.regotti@faa.gov. For general questions regarding NEPA document processing and coordination with the DoD, FAA's Service Centers, or FAA headquarters, please contact me, Paula Miller in the ATO/AJV-P23, Airspace Environmental Policy Team at paula.miller@faa.gov.

Sincerely,

9/13/2023

X Paula M. Miller

Paula M. Miller

Signed by: PAULA M. MILLER

Paula M. Miller, JD, EPS
Airspace Environmental Policy Team, AJV P-23
Air Traffic Organization, Mission Support Services

Federal Aviation Administration

cc:
Karol Archer, FAA/Central Service Center
Kristi Regotti, FAA/Central Service Center
Gregory S. Thompson, USFFC Environmental Compliance and Planning Branch, 757-836-6938, Gregory.S.Thompson2.civ@us.navy.mil

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Appendix B
Public Involvement

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NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT FOR FLIGHT TRAINING ACTIVITIES IN THE PROPOSED BOURBON MILITARY OPERATIONS AREA OFFSHORE FROM NAVAL AIR STATION JOINT RESERVE BASE NEW ORLEANS, LOUISIANA

United States (U.S.) Fleet Forces Command, a Command of the U.S. Navy, has prepared a draft Environmental Assessment (EA) to establish a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA) east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA), Louisiana to accommodate flight training activities for squadrons stationed at the base. The purpose of this notice is to advise you of the release of the draft EA and request comments during the public comment period.

The new MOA/ATCAA, named the Bourbon MOA/ATCAA, would provide closer training airspace to support non-hazardous flight training. The existing training airspace is located a considerable distance from the base in the Gulf of Mexico requiring long travel times which reduces the amount of time squadrons can train. The new MOA/ATCAA would be directly adjacent to the existing training airspace but would have an entry point less than 25 nautical miles from the base, improving training efficiency and providing more effective use of limited fuel resources. The Proposed Action would not change the frequency of training operations or introduce a new type of training or airframe in the region.

Interested parties may view a paper copy of the draft EA at the Belle Chasse Branch Library: 8442 LA-23, Belle Chasse, Louisiana 70037 or the Plaquemines Parish Library: 35572 Highway 11, Buras, Louisiana 70041. A digital copy is available at: https://www.nepa.navy.mil/NOLASUA.

All comments must be postmarked or received online no later than 6 October 2024 to be considered in preparation of the final EA. Written comments may be submitted online via the website or mailed to: NOLA SUA EA Project Manager, Naval Facilities Engineering Systems Command Atlantic, Attn: EV21JB, 6506 Hampton Boulevard, Norfolk, VA 23508.

For additional information regarding the EA and media queries, please contact Mr. Ted Brown, Co-Director, Media Operations/Installations and Environmental Public Affairs Officer, U.S. Fleet Forces Command by phone (757) 836-4427 or by email at theodore.c.brown4.civ@us.navy.mil.

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Appendix C
Aeronautical Analysis

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AIRSPACE IMPACT ANALYSIS TO SUPPORT PROPOSED BOURBON MOA

August 2024

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AIRSPACE IMPACT ANALYSIS TO SUPPORT PROPOSED BOURBON MOA

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ACRONYMS AND ABBREVIATIONS

ARTCC	Air Route Traffic Control Center
ATC	Air Traffic Control
ATCAA	Air Traffic Control Assigned Airspace
ATS	Air Traffic Service
DoD	Department of Defense
EA	Environmental Assessment
FAA	Federal Aviation Administration
FL	Flight Level
GPS	Global Positioning System
IFR	Instrument Flight Rules
JO	Joint Order
MSL	mean sea level
MOA	Military Operations Area
MTR	Military Training Route
NAS JRB NOLA	Naval Air Station Joint Reserve Base New Orleans
NAVAID	navigational aid
NM	nautical mile
PDARS	Performance Data Analysis and Reporting System
RNAV	Area Navigation
ROI	Region of Influence
SUA	Special Use Airspace
U.S.	United States
U.S.C.	United States Code
VFR	Visual Flight Rules
VORTAC	VHF Omni-directional Range/ Tactical Air Navigation

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1.0 INTRODUCTION

This airspace impact analysis is in support of an Environmental Assessment (EA) and a proposal to the Federal Aviation Administration (FAA) to establish new Special Use Airspace (SUA) near Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) to support training requirements of the Navy. The current SUA does not meet the criterion to ensure naval strike warfare readiness training and certification requirements. This analysis provides a detailed assessment of the potential impacts to civil aviation associated with the proposed Bourbon Military Operations Area (MOA) and Air Traffic Control Assigned Airspace (ATCAA).

1.1 NATIONAL AIRSPACE SYSTEM

The National Airspace System is a network of both controlled and uncontrolled airspace, both domestic and oceanic. It includes air navigation facilities, equipment and services, airports and landing areas, aeronautical charts, information and services, rules and regulations, procedures and technical information, and manpower and material (FAA 2023a). Airspace management and use considers how airspace is designated, used, and administered in a manner that best accommodates the individual and common needs of military, commercial, general aviation, and other users of the airspace.

In the United States (U.S.), airspace is managed and controlled by the FAA. The FAA is solely responsible for developing plans and policy for the use of airspace and for managing airspace in such a manner that it ensures the safety of flight and that all users of the National Airspace System can operate in a safe, secure, and efficient manner (49 U.S. Code [U.S.C.] 40103(b)). The FAA considers multiple and sometimes competing demands for airspace in relation to airport operations, Air Traffic Service (ATS) routes, military training airspace, and other special needs to determine how the National Airspace System can best be structured to address all user requirements.

The Department of Defense (DoD) requests airspace from the FAA and schedules and uses airspace in accordance with the processes and procedures detailed in DoD Directive 5030.19, *DoD Responsibilities on Federal Aviation*, and FAA regulations. SUA identified for military and other governmental activities is charted and published by the National Aeronautical Charting Office in accordance with FAA Order Joint Order (JO) 7400.2P, *Procedures for Handling Airspace Matters* (FAA 2023b). Descriptions of approved SUA, except temporary areas and controlled firing areas, are compiled and published once a year in FAA JO 7400.10E, *Special Use Airspace* (FAA 2023c). Airspace designated for military use is released to the FAA when the airspace is not needed for military requirements (DoD 2023).

1.2 AIRSPACE CLASSIFICATION

Airspace is a three-dimensional resource defined by latitude, longitude, and altitude. There are six classes of airspace-A, B, C, D, E (controlled), and G (uncontrolled)-that are available to all users (civilian and military) (**Figure 1.2-1**). The airspace classes dictate pilot qualification requirements, rules of flight that must be followed, and the type of equipment necessary to operate within that airspace (**Table 1.2-1**).

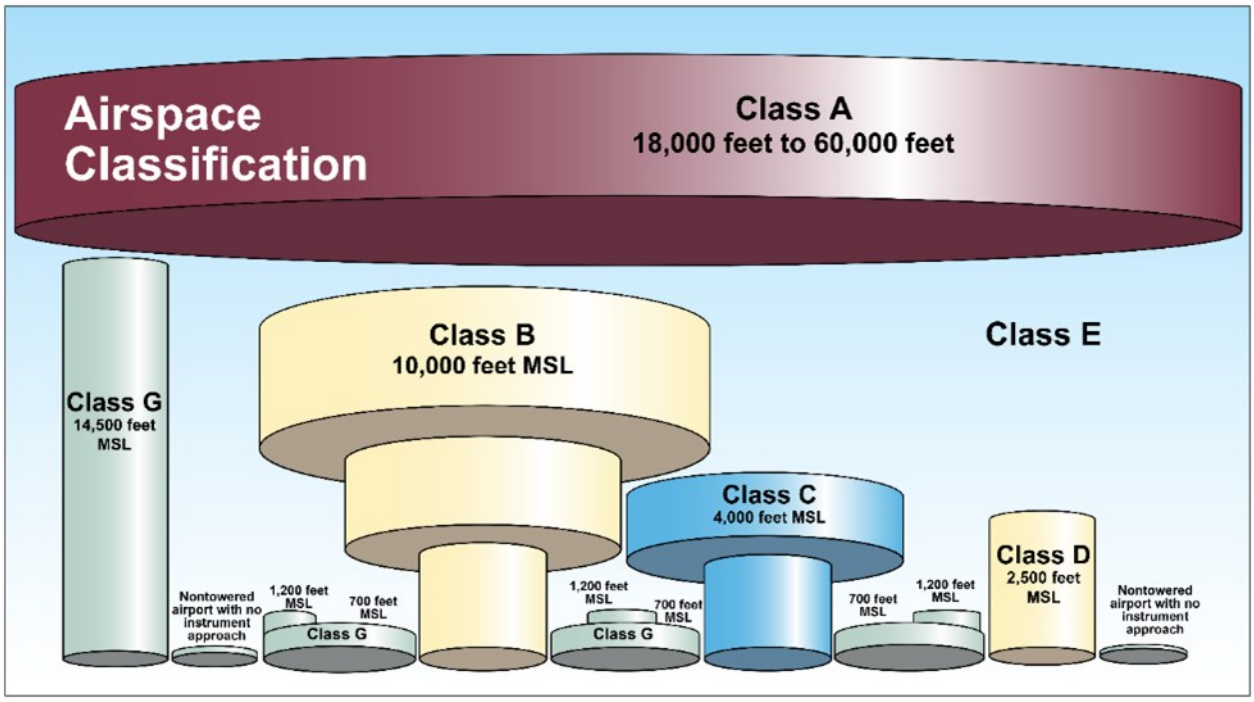

Figure 1.2-1 Airspace Classification

Controlled airspace is airspace of defined dimensions within which Air Traffic Control (ATC) service is provided (FAA 2023d). Controlled airspace is categorized into five separate classes, A through E. Controlled airspace is airspace that supports airport operations and includes airways supporting en-route transit from place-to-place.

Uncontrolled airspace is designated as Class G airspace. Within the continental U.S. and out to 12 nautical miles (NM) offshore, Class G airspace includes all airspace up to 14,500 feet mean sea level (MSL) that has not been designated as Class A, B, C, D, or E. Class G airspace has no specific prohibitions associated with its use. Class G airspace is described as uncontrolled because there are no entry requirements and ATC service is not guaranteed.

Table 1.2-1 Airspace Classification Requirements

Airspace	Class A	Class B	Class C	Class D	Class E	Class G
General Definition	Controlled airspace from 18,000 feet MSL up to and including FL600	Controlled airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports	Controlled airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower and are serviced by radar approach control	Controlled airspace that extends upward from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower	Controlled airspace designated to serve a variety of terminal or en-route purposes. Class E airspace is often designated for an airport where instrument procedures exist without the presence of a control tower and as extensions to Class B, C, D, and E surface areas.	Uncontrolled airspace that has not been designated as Class A, B, C, D, or E.
Entry Requirements	Air Traffic Control Clearance	Air Traffic Control Clearance	Air Traffic Control Clearance for IFR. Two-way radio communication with Air Traffic Control required	Air Traffic Control Clearance for IFR. All require radio contact	None for VFR. Air Traffic Control Clearance and two-way radio for IFR.	None
Two-Way Radio Communication	Required	Required	Required	Required	Required only under IFR flight plan[1]	Not required[1]

Table 1.2-1 Airspace Classification Requirements

Airspace	Class A	Class B	Class C	Class D	Class E	Class G
VFR Visibility Minimum[2]	NA	3 SM	3 SM	3 SM	Below 10,000 feet MSL: 3 SM At or above 10,000 feet MSL: 5 SM	Below 1,200 feet AGL (regardless of MSL): Day: 1 SM; Night: 3 SM; Above 1,200 feet AGL and less than 10,000 feet MSL: Day: 1 SM; Night: 3 SM At or Above 10,000 MSL:5 SM.
Traffic Advisories	Yes	Yes	Yes	Workload Permitting	Workload Permitting	Workload Permitting

Notes: [1]Unless a temporary tower is present.
[2]Minimum distance from clouds vary by airspace class and altitude.
Legend: AGL = above ground level, FL = Flight Level, IFR = Instrument Flight Rules; MSL = mean sea level; NA = Not Applicable; SM = Statute Mile; VFR = Visual Flight Rules; .
Source: FAA 2023d.

Airspace in the National Airspace System is divided into two categories, regulatory and non-regulatory. The airspace described above and in **Figure 1.2-1** (except Class G airspace) is regulatory. Non-regulatory airspace includes MOAs, Warning Areas, alert areas, controlled firing areas, and national security areas. Within these two categories of airspace, there are four subcategories: controlled, uncontrolled, SUA, and other airspace (FAA 2023d).

1.3 General Flight Rules and Resources

There are specific operational requirements for each class of airspace. Some airspace, such as Class A, requires users to operate under instrument flight rules (IFR), while other airspace allows for visual flight rules (VFR), and in many cases IFR/VFR operate within the same space. The FAA produces charts and publications to guide civil and military flights within the National Airspace System. Aviators can find specific information on airspace and regulatory requirements in VFR/IFR Navigation Charts, Planning Charts, and a variety of supplementary charts and publications (FAA 2023d). These aeronautical charts depict information necessary for flight operations such as ATS routes (victor airways and jet routes), military training routes (MTRs), aerial refueling tracks, public and private airports, and available aids to navigation.

FAA JO 7110.65A, *Air Traffic Control*, establishes procedures for personnel who provide ATC services within the National Airspace System (FAA 2023e). The primary purpose of the ATC system is to prevent a collision involving aircraft operating in the system. The ATC system is designed to give first priority (duty priority) to separating aircraft and issuing safety alerts, and provide support to national security and homeland defense activities. Behind duty priority is the ATC system's operational priority, which provides service to aircraft on a "first come, first served" basis with the following exceptions (list is not

all inclusive): air ambulance flights, presidential aircraft and support elements, active air defense scrambles, and aircraft engaged in navigation aid checks (FAA 2023e).

1.4 SPECIAL USE AIRSPACE

SUA is airspace of defined dimensions identified by an area where activities must be confined due to their nature, and/or where limitations are imposed on aircraft operations that are not a part of those activities (non-participating aircraft). This airspace is defined by designated altitude ceilings and floors and horizontal boundaries described in geographic coordinates. Information on SUA is contained in aeronautical charts and in FAA JO 7400.10E (FAA 2023c).

1.5 SUA SCHEDULING AND ACTIVATION

Several different terms are used to describe the use of the SUA at various times during the day. The definitions are below and reference **Figure 1.5-1**, which shows a notional depiction for part of a fictional day regarding use of a particular SUA. The FAA annually publishes a listing of regulatory and non-regulatory airspace, to include the times of use and the using and scheduling agency, in this case the Navy.

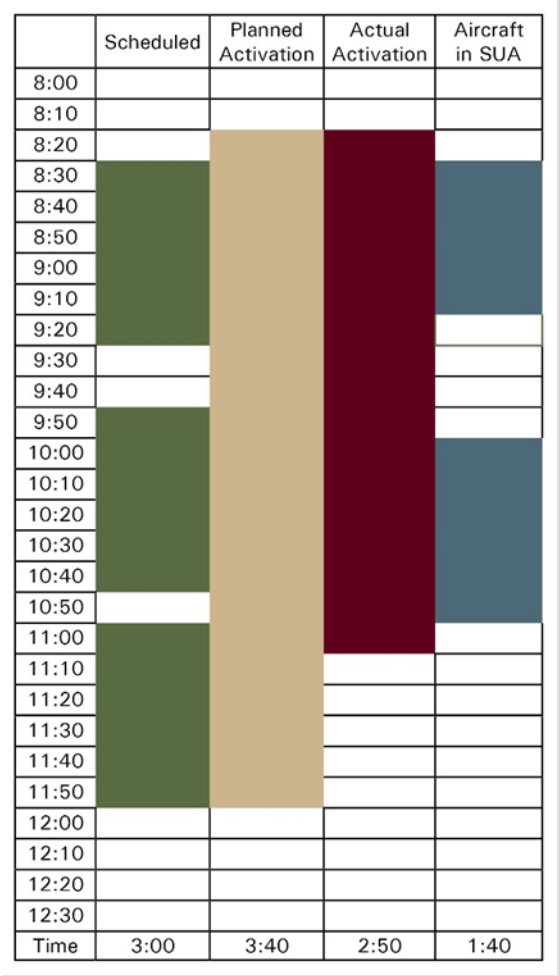

Figure 1.5-1 Notional Partial-Day Schedule for SUA

Scheduled. When a military flying unit wants to use a particular SUA, it will be scheduled ahead of time with central scheduling for discreet time blocks. For instance, in order to accomplish a particular training event, a squadron may schedule SUA for 1 hour, with the intent to have multiple aircraft use it for that hour. In **Figure 1.5-1**, the green bars show three separate 1-hour periods.

Planned Activation. When military users schedule a particular SUA for discreet blocks of time, with only short times in between, the airspace will generally be considered "active" during this down period. The process of returning airspace for a short period of time would generate more work for controllers while not providing appreciable benefit to potential airspace users. In the example shown in **Figure 1.5-1**, there are two short "gap" times between military scheduled use, one of 20 minutes, and one of 30 minutes. In cases like these, the planned activation time (shown as tan in color) will include those small gaps. It is generally more efficient for all users of the airspace to plan for airspace activation times that cover these small discreet gaps. The activation typically begins slightly before the arrival of the first military user so as to avoid delay when entering into the SUA. In the example shown in **Figure 1.5-1**, the planned activation would begin 10 minutes prior to the first user, and last until the last user leaves the airspace, per the schedule. SUA activation times can be retrieved from the FAA's SUA website, https:/sua.faa.gov.

Actual Activation. This is the amount of time that the SUA is activated in real-time, and accounts for any changes from the plan. In the example shown in **Figure 1.5-1**, the actual activation time is shown in maroon. The airspace is activated as planned at 8:20, 10 minutes prior to the first scheduled user's arrival in the airspace. It is kept activated (per the plan) until it is apparent that the third user, scheduled to begin at 11:00, will not be using the airspace, at which time the SUA is deactivated, and is therefore available for other uses. A cancellation of scheduled SUA time can happen for a multitude of reasons, including maintenance problems with the aircraft or weather conditions that preclude the aircraft from either flying or completing the training as planned. Actual activation of a SUA is what would restrict VFR/IFR aircraft from flying through that section of airspace.

Aircraft in SUA. This is simply the time that military aircraft are present in the activated SUA. In the example shown in **Figure 1.5-1**, aircraft presence in the SUA is shown with the blue bars. The first scheduled user arrives on time at 8:30 and departs about 10 minutes early at 9:20 (perhaps from training being complete, being low on fuel, or some other reason). The second event shown is scheduled from 9:50 until 10:50, but the aircraft arrives to the airspace late (at 10:00) and leaves per their schedule. The third event is cancelled and will not use the airspace as scheduled. When the Using Agency learns that the SUA will not be used as scheduled, the FAA is informed through internal coordination procedures, and the SUA deactivated. Once deactivated, ATC will allow aircraft to travel through the confines of the SUA. Non-participating aircraft will be rerouted or vectored by ATC to ensure approved separation exits. Aircraft using a MEDEVAC call sign are afforded priority handling where the SUA would be required to go "cold" to allow a transition through. Emergency aircraft have the right-of-way over all other air traffic and would also have the SUA go "cold" to allow a transition. The pilots of civil aircraft should always plan for deviations around active SUA.

In summary, **Figure 1.5-1** shows four different schedule terms commonly used when discussing the use of SUA. In this example, the hypothetical SUA was scheduled for 3 hours. It was planned to be activated for a single long block of 3 hours, 40 minutes. Its actual activation time (in real-time) was just 2 hours and 50 minutes. During actual activation, there were military aircraft actively present in the SUA for an hour and 40 minutes. Aircraft are not present for the full published times of use. Aircraft presence will vary on any given day depending on the training event.

1.6 GENERAL OPERATING PROCEDURES

Operations within SUA are generally conducted under VFR and with some exceptions IFR. MOAs are established to separate certain military activities from IFR traffic; non-participating IFR traffic may be cleared through the airspace if ATC can provide IFR separation. Pilots operating under VFR are not prohibited from transiting an active MOA but should exercise extreme caution when military activity is being conducted. Pilots can request the status of a MOA by contacting the flight service stations within 100 miles of the area or by contacting the using or controlling agency (FAA 2023d). Additionally, the FAA maintains an informational SUA website to assist pilots and aircrews with flight planning and familiarization (FAA 2023f).

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2.0 METHODOLOGY

2.1 DATA SOURCE

FAA's Performance Data Analysis and Reporting System (PDARS) data was used to analyze the existing civil traffic in the project's area of influence. The PDARS continuously collects flight plan and radar track data from systems located at Air Route Traffic Control Centers (ARTCCs), Terminal Radar Approach Control Facilities, and ATC towers. The dataset in this study is based on recorded flight data in the area proposed for the Bourbon MOA/ATCAA from February 20 through March 22, 2023 (PDARS 2023). Houston ARTCC confirmed this dataset was representative of average operations in this area and was sufficient for this analysis (Personal communication, October 3, 2023).

2.2 FILTERING OF FLIGHT TRACKS

All historical flight tracks from the 30-day radar data that passed through the proposed lateral boundaries and within the proposed altitudes and proposed times of operation were identified. The intent of this was to determine the number of civil aircraft that would potentially be impacted by activation of the proposed airspace. The magnitude of the impact will be determined based on the changes required to avoid the proposed airspace during times of activation.

One characteristic of the PDARS dataset is that there are many aircraft for which the category is listed as "Unknown," indicating there are one or more data fields missing to properly identify them. In this analysis, the unknowns were further filtered to determine if some were identifiable based on other data fields. The following filters were used to categorize as many unknown flight tracks as possible:

1. All aircraft with an "unknown" aircraft type were compared to known military aircraft with the same call sign and classified as such.
2. Aircraft that both originated and terminated at a military airfield were considered military and removed from the dataset.

2.3 IMPACTS TO FLIGHTS AND REROUTING METHODOLOGY

For each of the civil flight tracks that crossed the proposed SUA, the origin and destination airport were identified and counted – providing a list of the number of flights in the dataset traveling to and from each airport. There are more than 240 unique combinations of origin and destination airports with many combinations occurring only once or very infrequently. The list was reduced to focus on the most frequently occurring airport origin-destination pairings (once per week or more), to represent the majority of traffic potentially affected by the proposed airspace and produce a manageable and meaningful analysis. Impacts to military aircraft are not considered – the assumption is that DoD activation of the proposed SUA indicates acceptance of the impacts to other DoD aircraft for the duration of the airspace activation. Impacts are counted for non-military aircraft only.

The distance between each of the most common origin-destination pairings was calculated point-to-point in a straight line. Though this is not likely the actual routing used, it represents a best-case, straight-line distance directly from the origin airport to the destination airport. In certain cases, when straight-line routing would result in a flight going through areas with other active SUA, the baseline distance was calculated using a common routing typically used to avoid that SUA. These cases are discussed in the individual sections.

To determine the potential impact to these common flights which cross the proposed MOA, an alternative routing was calculated using a navigational aid (NAVAID) or intermediate "fix" which would route these flights outside the proposed SUA. Routes were identified from origin to the intermediate fix, and from the intermediate fix to the destination, and added together to produce the total distance that would result from rerouting flights around the proposed SUA. The change in distance was calculated by comparing the baseline straight-line routing to the alternative routing using NAVAIDs. The change in flight time (i.e., "extra minutes" needed to navigate around proposed SUA) was determined using a speed estimate. For aircraft crossing the MOA, the assumed true airspeed was 330 knots. This airspeed number is based on the average types of aircraft in the dataset for the particular altitude bands. All calculations assume no wind. While pilots operating under VFR are permitted to transit through a MOA, this analysis assumes VFR aircraft will not enter the MOA when it is active and would require alternative routings to avoid the MOA.

An example comparing a direct flight path and the route deviation methodology is depicted in **Figure 2.3-1**. The green line shows the direct routing between Orlando (KMCO) and Louis Armstrong New Orleans International Airport (KMSY). This line intersects the proposed Bourbon MOA, depicted with blue shaded edges. The intermediate navigation fixes required to ensure an aircraft remains clear of the Bourbon MOA would be CHRGE and REDFN. These two fixes would also provide the required lateral separation from the wide complex of Warning Areas and the MOA along that route. The course shown in yellow is the flight track that goes from KMCO – CHRGE – REDFN – KMSY as an alternative to flying through the proposed Bourbon MOA and adjacent Warning Areas. This alternative routing is conservative given that it also avoids the Warning Areas (which pilots operating VFR may already choose to avoid) but is assumed for the sake of analysis. If that was not a factor, avoidance of just the proposed Bourbon MOA/ATCAA would require an even smaller deviation. This route change adheres to existing separation requirements for SUA. Internal ATC coordination procedures would allow for various deconfliction measures to ensure non-participating aircraft and restricted airspace separation. This methodology is representative of the approach taken for all sections of the MOA in this study. In this way, a flight plan that allows for avoidance of the proposed airspace can be compared in distance and time to the best/shortest possible routing available in the absence of the proposed airspace.

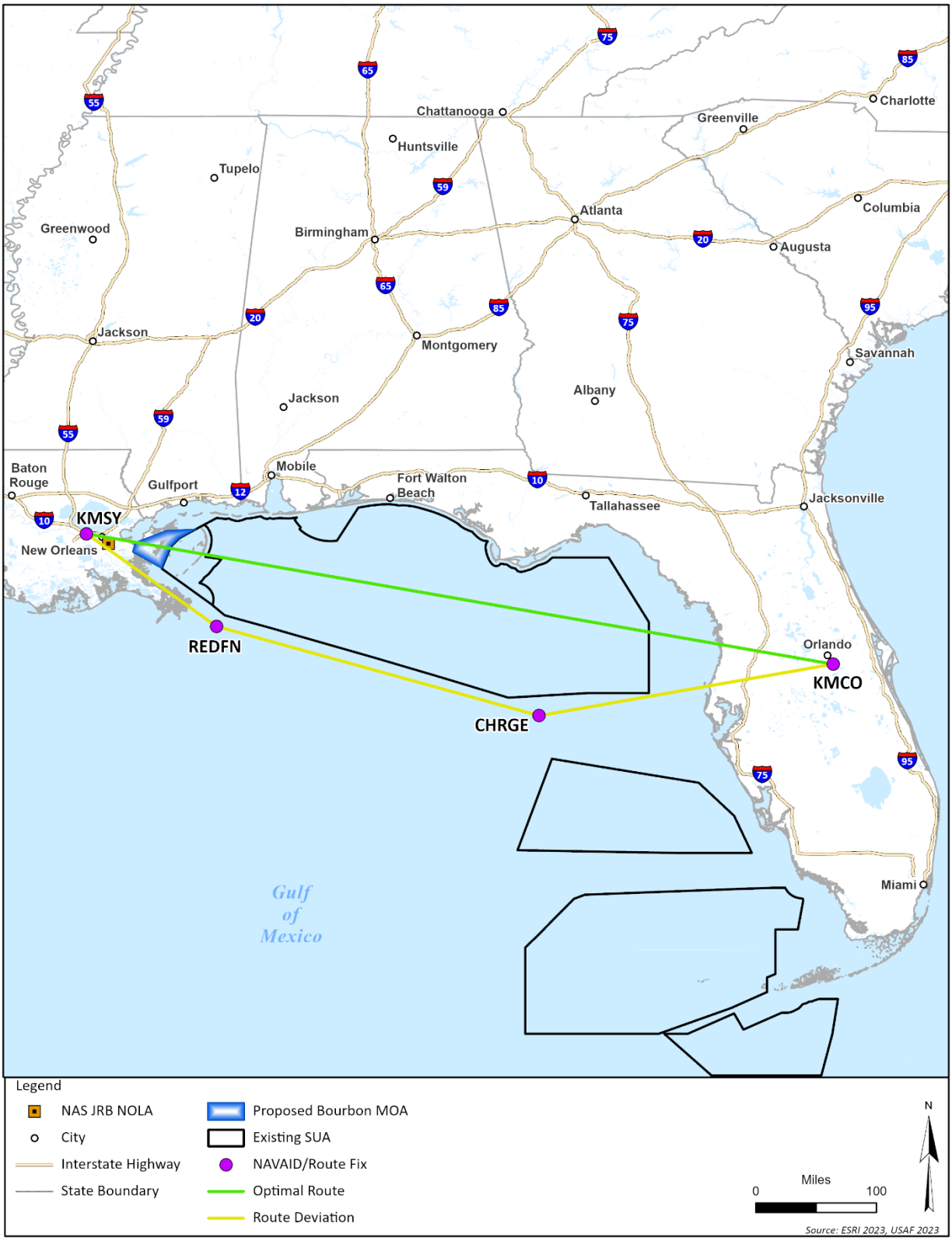

Figure 2.3-1 Example of Direct Flight Plan Compared to Route Deviation to Avoid SUA

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3.0 ANALYSIS

3.1 REGION OF INFLUENCE

As shown in **Figure 3.1-1**, the proposed Bourbon MOA/ATCAA analyzed in this assessment is contiguous to existing SUA (Snake MOA, Snake Low MOA, Snake ATCAA, Warning Area 148 [A & B], and Warning Area 453 [A & B], collectively known as the WHODAT Airspace).

3.1.1 Description of Proposed Bourbon MOA/ATCAA

The proposed Bourbon MOA/ATCAA would be located approximately 19 miles east of NAS JRB NOLA Alvin Callender Field (Airport ID: KNBG). The altitudes of the Bourbon MOA would be 4,000 feet MSL up to but not including Flight Level (FL) 180 or 18,000 MSL. A proposed ATCAA would overlay the MOA with the same horizontal boundary. The altitudes for the ATCAA would be FL180–FL320. On a limited basis, there may be a need for ATCAA altitudes up to FL500 to conduct aircraft post maintenance check flights. During these post maintenance check flights, the time above FL320 would be limited to approximately 15 minutes after coordination with the controlling agency. The expanded ATCAA altitudes (FL320–FL500) would be requested by exception and are excluded from further analysis. For reference, the proposed Bourbon MOA has been overlaid on the VFR Sectional chart and IFR Low chart (**Figures 3.1-2 and 3.1-3**).

The Bourbon MOA would be west and immediately adjacent to the existing Snake and Snake Low MOAs that exist from 3,000 feet MSL–FL180, collectively referred to as the Snake MOA in this report. The western boundary of the proposed MOA would be approximately 14 miles outside of the New Orleans Class B Airspace. The MOA/ATCAA would support operations from various military aircraft to include FA-18s, F-5s, F-15s, and F-35s. The MOA would be open to use by all aircraft in the DoD inventory.

The published times of use would be Monday–Friday, 0800–1700 local and other times by Notice to Air Missions. The Controlling Agency would be Houston ARTCC and the Using Agency would be U.S. Navy, Fighter Squadron Composite 204 (VFC-204), NAS JRB NOLA.

3.1.2 Proposed Usage of Bourbon MOA

Table 3.1-1 shows that the proposed Bourbon MOA would be used for up to 4,169 sorties per year. This results in a requirement for airspace activation of the Bourbon MOA for 5 hours per day for up to 240 days annually. The 1,200 hours of total annual activation (which includes gaps anticipated between flights) represent about 55 percent of the total time available between Monday and Friday, 0800–1700 Local (proposed times of use for the Bourbon MOA).

Table 3.1-1 Military Usage of Proposed Bourbon MOA

Metric	Bourbon MOA	Assumptions
Number of Proposed Sorties[1]	4,169	Average sorties in adjacent Snake MOA
Hours per Year – Activation	1,200	Total activation time
Hours per Day - Activation	5	240 days per year
% Time Military Aircraft Present	~ 55%	Monday to Friday, 0800–1700 Local

Note: [1] One sortie includes the takeoff, mission, and landing of one aircraft averaging 1.3 hours each.
Legend: % = percent; ~ = approximately; MOA = Military Operations Area

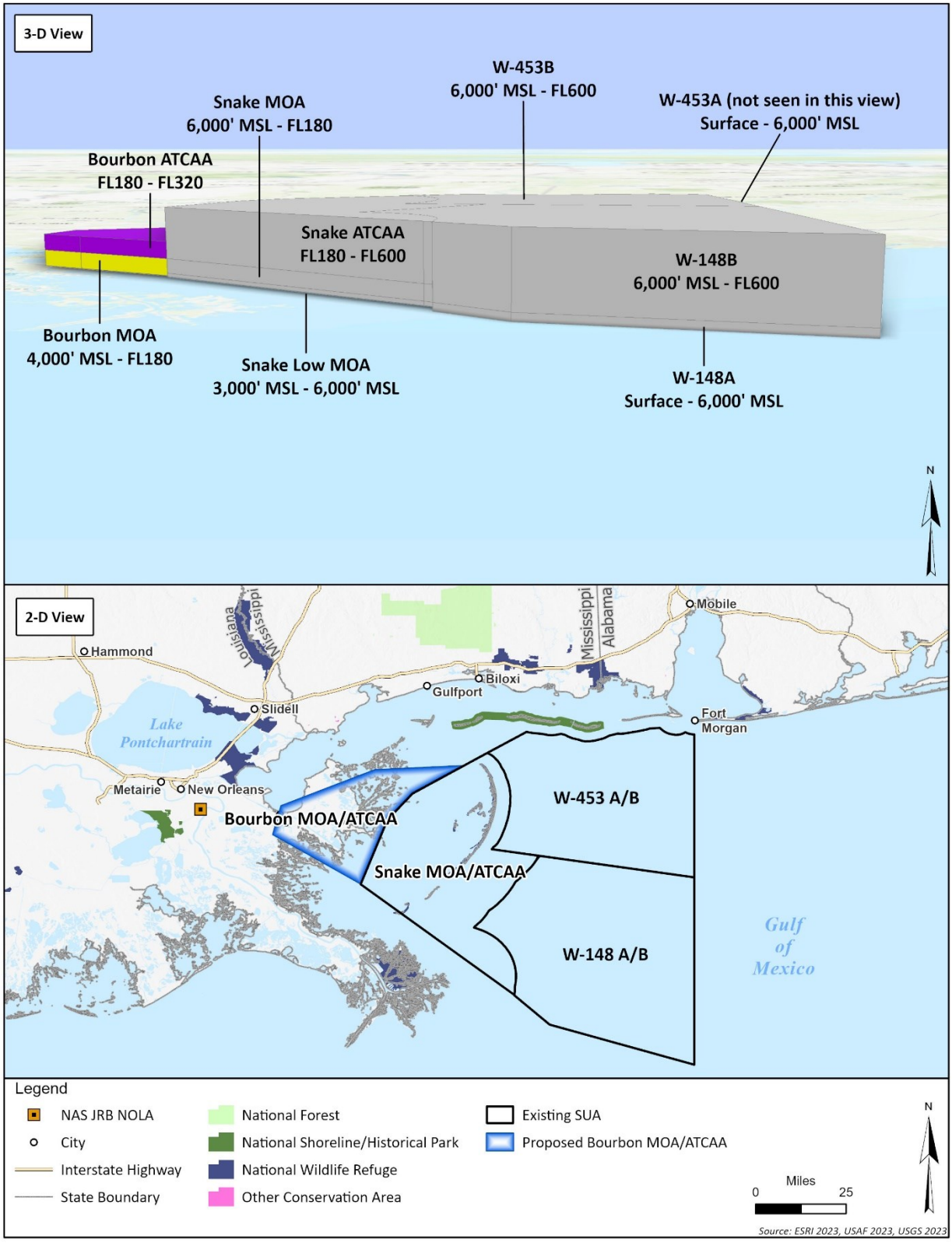

Figure 3.1-1 Overview of Proposed Bourbon MOA/ATCAA

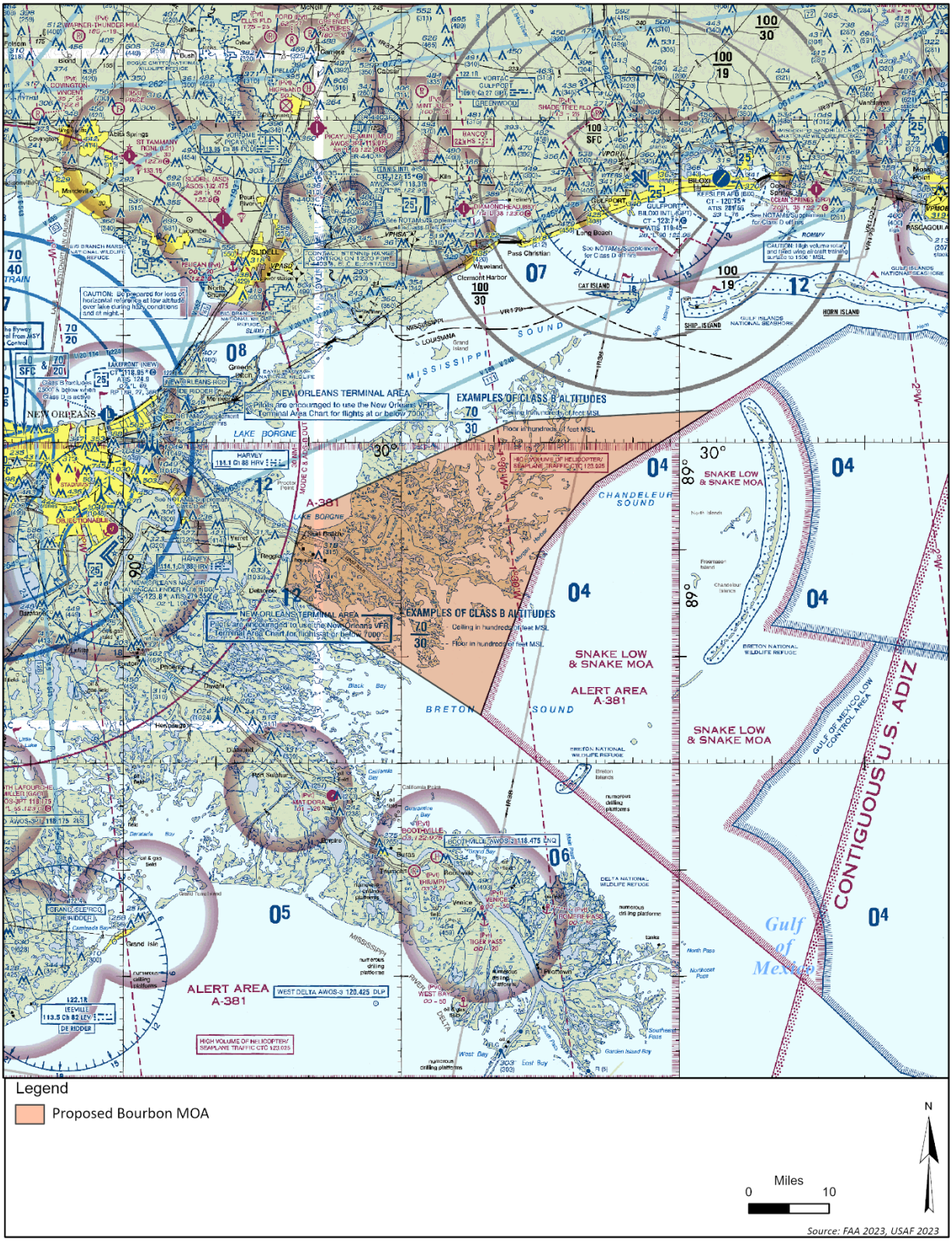

Figure 3.1-2 Proposed Bourbon MOA (VFR Sectional Chart View)

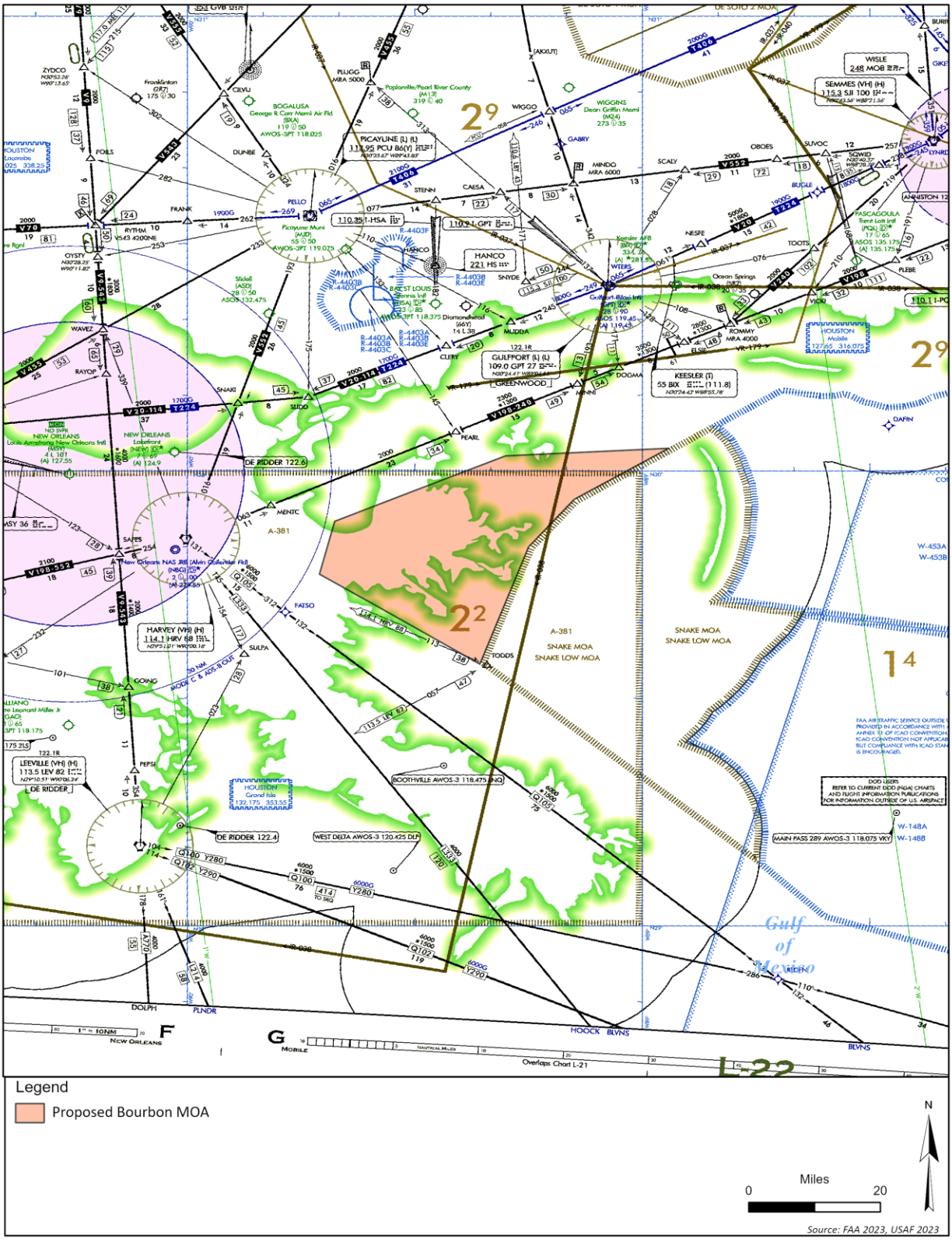

Figure 3.1-3 Proposed Bourbon MOA (IFR Low Chart View)

3.2 POTENTIAL IMPACTS

3.2.1 Obstructions and Airports

An obstruction analysis of the proposed airspace configuration revealed there are no obstructions which would impact the proposed MOA. There is one tower 315 feet above ground level on the west side of the MOA, well beneath the proposed floor of 4,000 feet MSL. This obstruction does not require further analysis.

Table 3.2-1 provides information for each of the public airports in the Region of Influence (ROI) of the proposed Bourbon MOA. The airport operations data provided in **Table 3.2-1** was obtained from data reported to the FAA. **Figure 3.2-1** provides the location of these airports. In addition, there are two military airports in the ROI (NAS JRB NOLA Alvin Callender Field and Biloxi Air Force Base), five private airports, and four seaplane bases. Operations data is not available for the private airports and seaplane bases and these are excluded from further analysis.

Table 3.2-1 Public Airports in the Bourbon MOA ROI

Airport Name (Airport Code)	Airport Ownership	Based Aircraft	Annual Operations
Diamondhead Airport (K66Y), Diamondhead, Mississippi	Public	Single Engine = 3	Air Taxi = 0 GA Local = 4,630 GA Itinerant = 1,158 Military = 0
Ocean Springs Airport (K5R2), Ocean Springs, Mississippi	Public	Single Engine = 2 Ultralight = 3	GA Local = 880 GA Itinerant = 120
Slidell Airport (KASD), Slidell, Louisiana	Public	Single Engine = 46 Multi-engine = 10 Jet = 1 Helicopter = 2	GA Local = 78,000 GA Itinerant = 30,000 Military = 4,000
South Lafourche Leonard Miller Jr. Airport (KGAO), Galliano, Louisiana	Public	Single Engine = 3 Jet = 3 Helicopter = 38	GA Local = 18,956 GA Itinerant = 5,083 Military = 50
Gulfport-Biloxi Airport (KGPT), Gulfport, Mississippi	Public	Single Engine = 31 Multi-Engine = 2 Jet = 5 Helicopter = 3	Commercial = 6,966 Air Taxi = 3,548 GA Local = 9,396 GA Itinerant = 12,125 Military = 24,952
Stennis International Airport (KHSA), Bay St Louis, Mississippi	Public	Single Engine = 27 Multi-Engine = 7 Jet = 2 Helicopter = 1	Commercial = 10 Air Taxi = 769 GA Local = 6,354 GA Itinerant = 7,886 Military = 24,515
Lakefront Airport (KNEW), New Orleans, Louisiana	Public	Single Engine = 88 Multi-Engine = 20 Jet = 21 Helicopter = 9	Commercial = 2 Air Taxi = 6,305 GA Local = 28,181 GA Itinerant = 40,522 Military = 3,160
Louis Armstrong New Orleans International Airport (KMSY), New Orleans, Louisiana	Public	Single Engine = 2 Multi-Engine = 2 Jet = 13 Helicopter = 7	Commercial = 85,205 Air Taxi = 7,375 GA Itinerant = 9,322 Military = 514

Legend: GA = General Aviation; MOA = Military Operations Area; ROI = Region of Influence.
Source: SkyVector 2023.

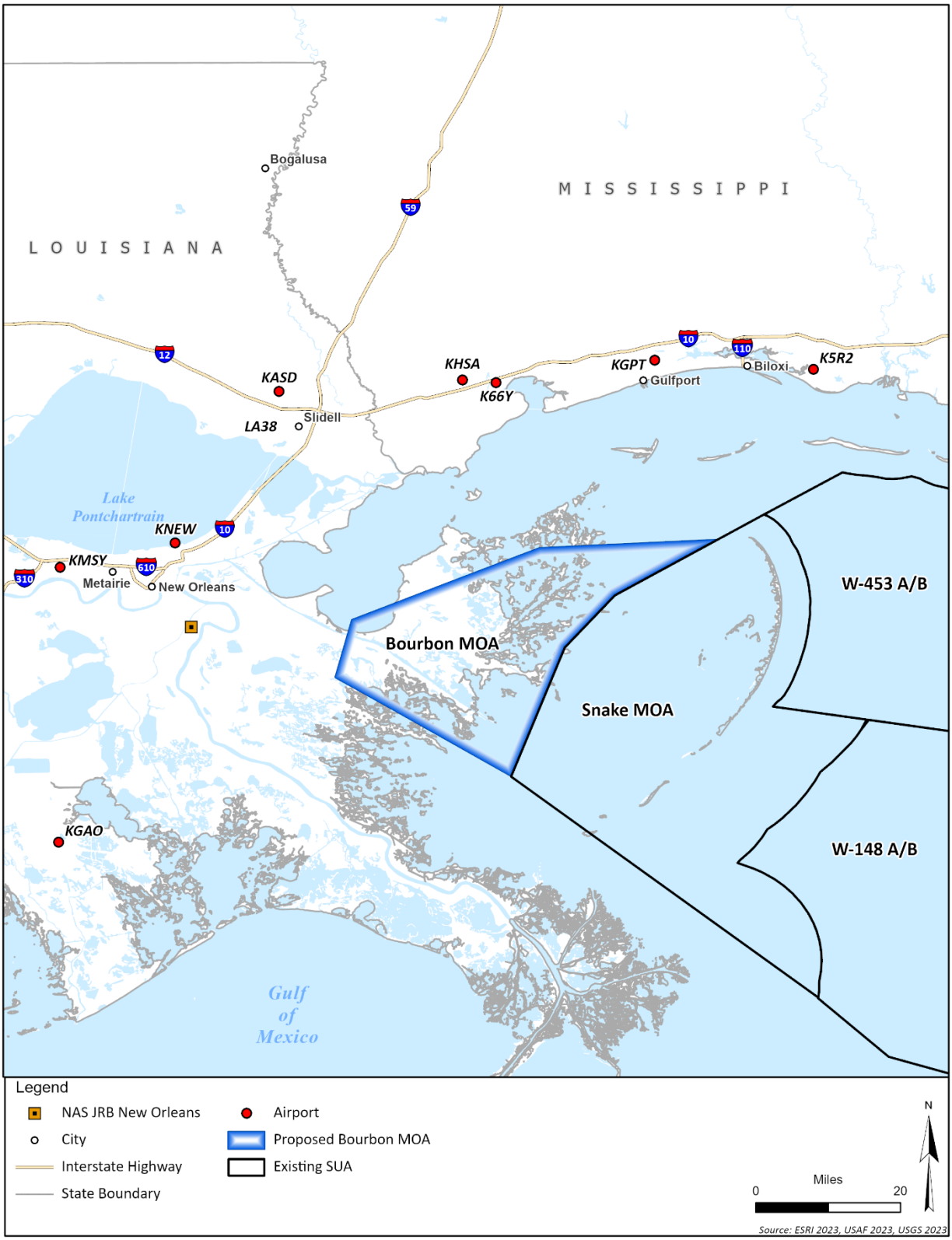

Figure 3.2-1 Public Airports in ROI for Proposed Bourbon MOA

Instrument approach procedures to NAS JRB NOLA may be impacted when the Bourbon MOA is active. The HI-TACAN Y Runway 22 full procedure approach has two fixes on the arc (ZABIR and OLEZO) which come within 3 miles from the MOA boundary (**Figure 3.2-2**). The crossing altitude for ZABIR is *at or above* 2,000 feet MSL, and the crossing altitude at OLEZO is *at* 2,000 feet MSL. The Area Navigation (RNAV) (Global Positioning System [GPS]) Runway 22 has an initial approach fix (KOCEL) which is within 3 miles from the MOA boundary (**Figure 3.2-3**). Though the crossing altitude for KOCEL is 2,000 feet MSL, aircraft in a descent to the fix would need to be monitored for separation from the boundary. If these procedures are required during times when the MOA is active, ATC would need to issue alternate instructions to ensure separation from the MOA. The impact to these approaches is expected to be minimal.

There are two instrument approaches to Gulfport-Biloxi International Airport which could interact with the Bourbon MOA when it is active, the HI ILS Y or LOC Runway 32 and the RNAV (GPS) Runway 36. These approaches have fixes sufficiently separated from the proposed MOA boundary, but close enough that deviations from the approach procedure could bring aircraft in close proximity to the MOA. The impact to these approaches is unlikely and included only for awareness.

3.2.2 ATS Routes / MTRs / Aerial Refueling Tracks / Existing SUA

There are four ATS routes near the proposed Bourbon MOA: V-198, V-240, Q-105, and Q-56 (**Figure 3.2-4**). None of the ATS or high-altitude ("J" or "Q") routes transition through the proposed MOA or ATCAA. The distance between the routes and the boundary of the proposed MOA is sufficient and navigation via these ATS routes would not be impacted by the proposed MOA. There is one MTR which traverses the proposed MOA, IR-038 (see **Figure 3.2-4**). IR-038 is managed and scheduled by Training Air Wing Six at Naval Air Station Pensacola, Florida and schedule deconfliction would occur between the two installations; no impact is expected. There are no aerial refueling tracks beneath or near the proposed MOA.

The east boundary of the Bourbon MOA would be located immediately west, adjacent to the existing Snake MOA. The proposed MOA would impede access to the waypoints from the Harvey (HRV) and Gulfport (GPT) VHF Omni-directional Range/Tactical Air Navigation (VORTACs) currently used to enter and exit the Snake MOA. Existing letters of agreement would need to be modified to change entry/exit procedures into the Snake MOA and WHODAT Airspace. This would not be considered an impact.

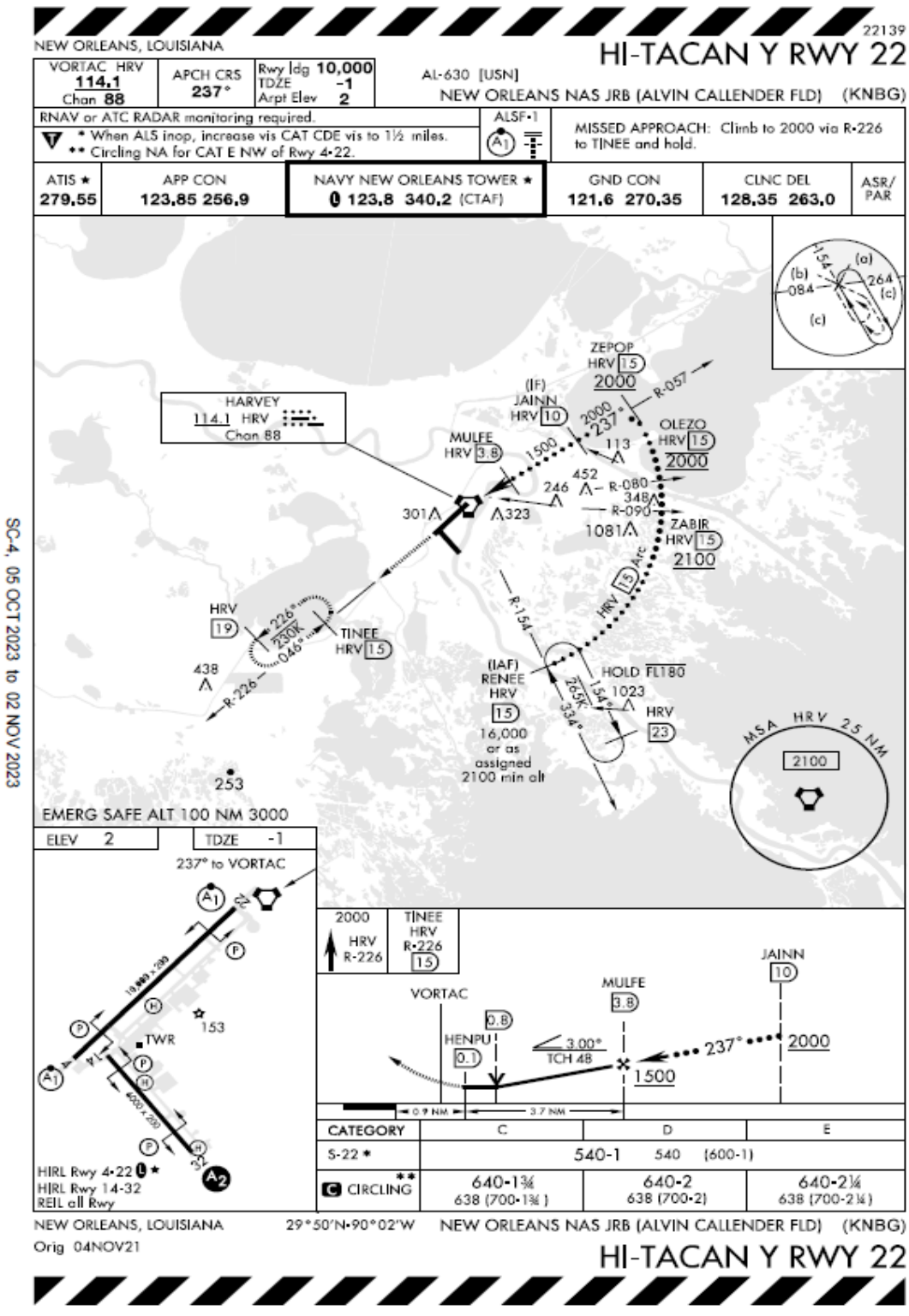

Figure 3.2-2 NAS JRB NOLA: HI-TACAN Y Runway 22

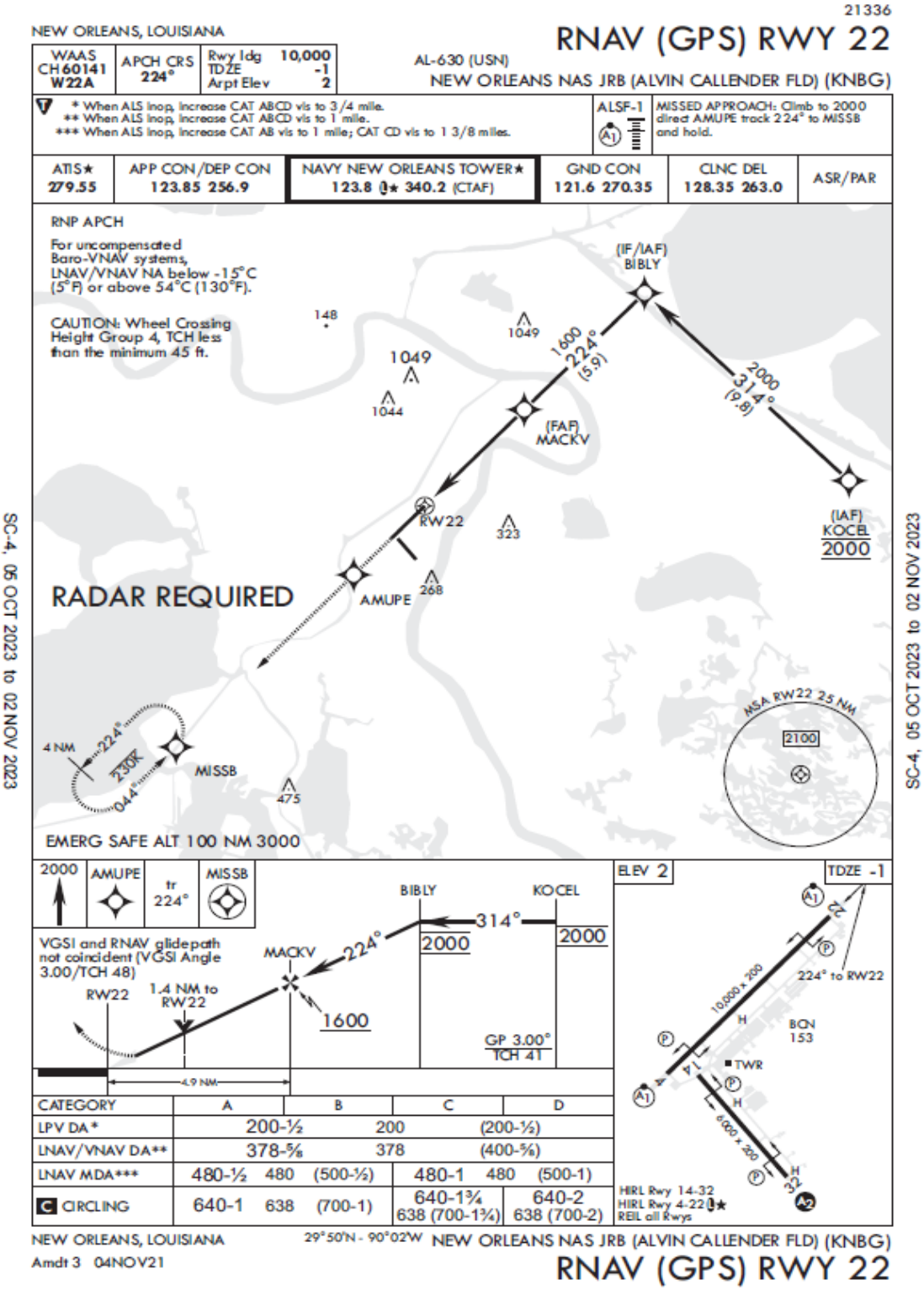

Figure 3.2-3 NAS JRB NOLA: RNAV (GPS) Runway 22

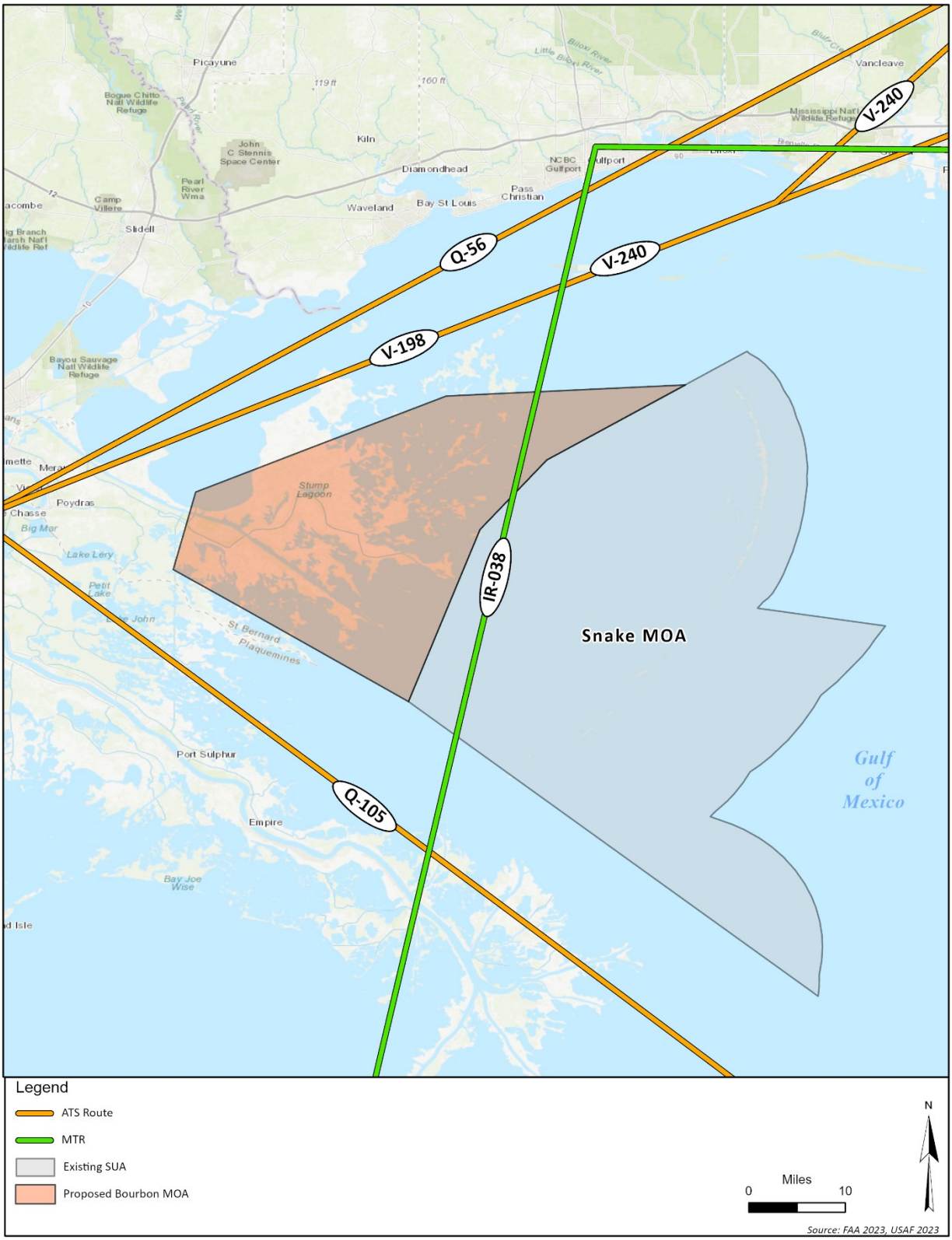

Figure 3.2-4 MTR and ATS Routes

3.2.3 Civil Traffic

During the 30 days of PDARS data analyzed, approximately 251 civil aircraft flights traversed the area encompassing the proposed Bourbon MOA/ATCAA during the proposed times of use (0800–1700, Monday–Friday) (105 flights in the MOA space and 146 flights in the ATCAA space). **Table 3.2-2** lists the most common types of civil aircraft included in the PDARS dataset for this area. The most common in this list are Airbus and Boeing variants. All of these aircraft are commercial or air carrier types. The assumption for converting distance to time was these aircraft at higher altitudes travel at approximately 330 knots.

Table 3.2-2 Aircraft Types Intersecting Proposed Bourbon MOA/ATCAA

Aircraft Type	% Transited
Airbus	23%
Boeing	20%
CN35	2%
C525	2%
Beechcraft	2%
Embraer	2%
Honda Jet	2%

Legend: ATCAA = Air Traffic Control Assigned Airspace; MOA = Military Operations Area; % = percent

3.2.3.1 Bourbon MOA (4,000 feet MSL – FL180)

Over the course of a month, approximately 105 civil flights traversed the proposed Bourbon MOA (4,000 feet MSL – FL180) during the proposed hours of use. The most frequent pairings (occurring once per week or more) were used to represent the impacts to the largest number of flights and account for approximately 27 percent of the total flights (**Table 3.2-3**). One of these pairings was a "Round-Robin" flight, with the aircraft taking off and landing at the same location (KBFM, Mobile International). It is assumed that this "Round-Robin" flight would not be burdened (by additional flight time or fuel cost) by activation of a new MOA. The existence of a new MOA does not impede "Round Robin" flights from arriving to their destination since the MOA does not lie between the origin and destination airport. Note that the Bourbon MOA is in a location adjacent to the Snake MOA and a large complex of Warning Areas, and the low numbers of flights in this area in the PDARS dataset during the proposed times of use are likely due to civil aircraft routinely avoiding the surrounding SUA.

Table 3.2-3 Most Frequent Airport Pairings for Civil Flights Through Proposed Bourbon MOA

Origin	Destination
KMCO	KMSY
KFLL	KMSY
KPBI	KNEW
KBFM	KBFM
KMIA	KMSY

Legend: KBFM = Mobile International, AL; KFLL = Fort Lauderdale, FL; KMIA = Miami International, FL; KMCO = Orlando International, FL; KMSY = Louis Armstrong New Orleans International, LA; KNEW = Lakefront Airport, LA; KPBI = Palm Beach International, FL; MOA = Military Operations Area

Table 3.2-4 shows the potential impact (in terms of distance and time) to each of these airport pairings (or flight tracks) when the MOA is activated. Each row in Table 3.2-4 shows an origin airport and destination airport (the return routes would be the opposite). In each row, there is the straight-line optimum route length (rounded to nearest NM). Then listed are one or two intermediate fixes or NAVAIDs that would be required to avoid the proposed MOA, and the distance for the route through those fixes (**Figures 3.2-5 through 3.2-8**). The difference in distance and time are in the final two columns. These most common routes vary in length from approximately 480 NM to over 580 NM. The average required change in distance would be 22 NM, and the average additional required time of travel is 4 minutes. This additional travel time is expected to have a minimal impact. As shown on the figures, the straight-line flight for most of these flights goes through existing Warning Areas and they are likely already rerouted to avoid this large complex. The numerous existing MOAs along the Gulf Coast make routing to the north impractical without incurring excessive route deviations.

Table 3.2-4 Potential Impacts to Civil Operations Due to Proposed Bourbon MOA

Airport Pair	Straight Line Distance (NM)	Intermediate Fix	Distance via Intermediate Fix (NM)	%Change in Distance	Extra Minutes
KMCO-KMSY	478	CHRGE-REDFN	510	7%	6
KFLL-KMSY	585	CHRGE-REDFN	591	1%	1
KPBI-KNEW	562	CHRGE-LEV	604	7%	8
KMIA-KMSY	586	BAGGS-REDFN	592	1%	1

Legend: BAGGS = fix; CHRGE = fix; KFLL = Fort Lauderdale, FL; KMIA = Miami International, FL; KMCO = Orlando International, FL; KMSY = Louis Armstrong New Orleans International, LA; KNEW =Lakefront Airport, LA; KPBI = Palm Beach International; LEV = Leeville VORTAC; MOA = Military Operations Area; NM = nautical miles; REDFN = fix; VORTAC = Very High Frequency Omni-Directional Range/Tactical Air Navigation; % = percent

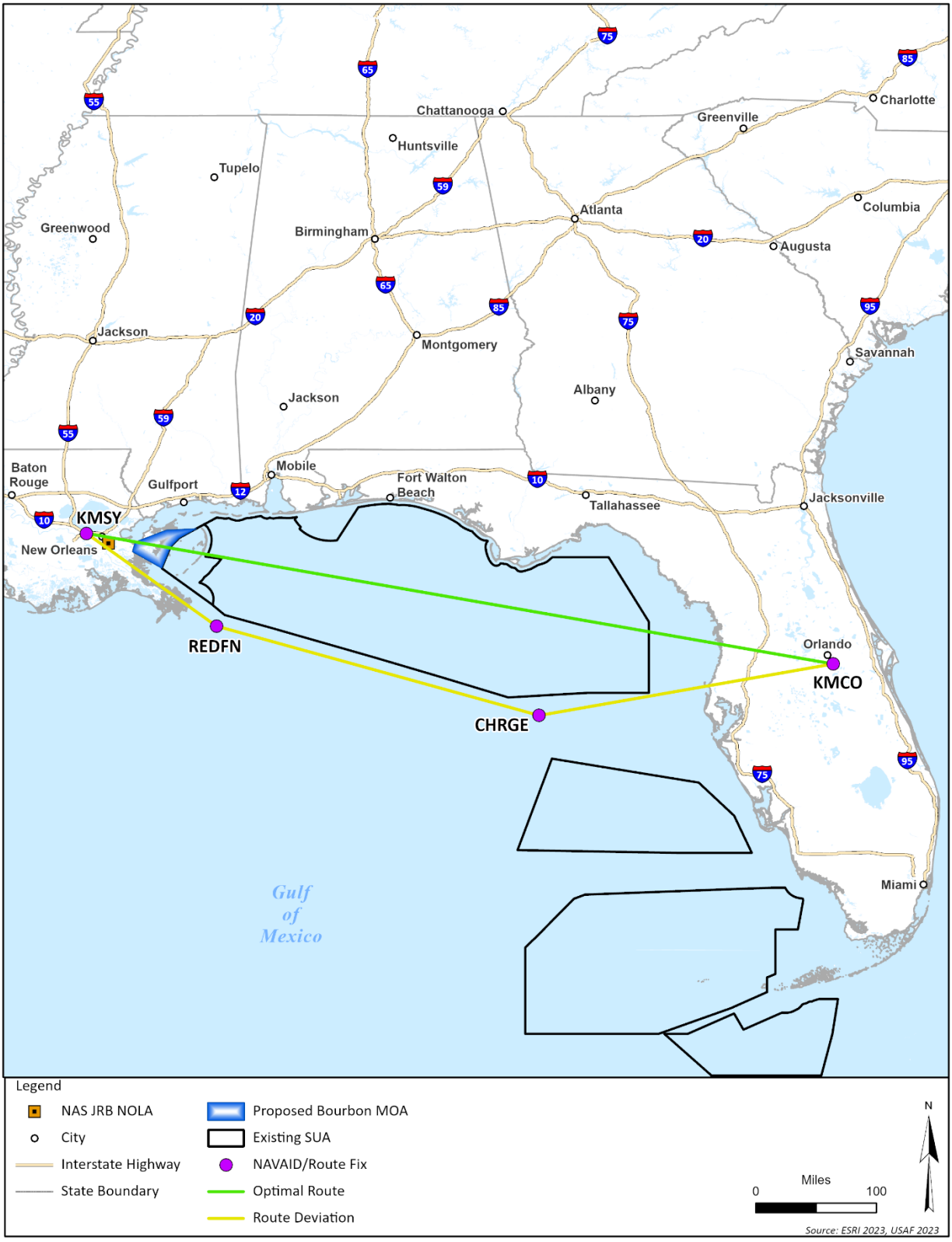

Figure 3.2-5 Potential Reroute for Orlando International, Florida to/from Louis Armstrong New Orleans International, Louisiana (KMCO – KMSY)

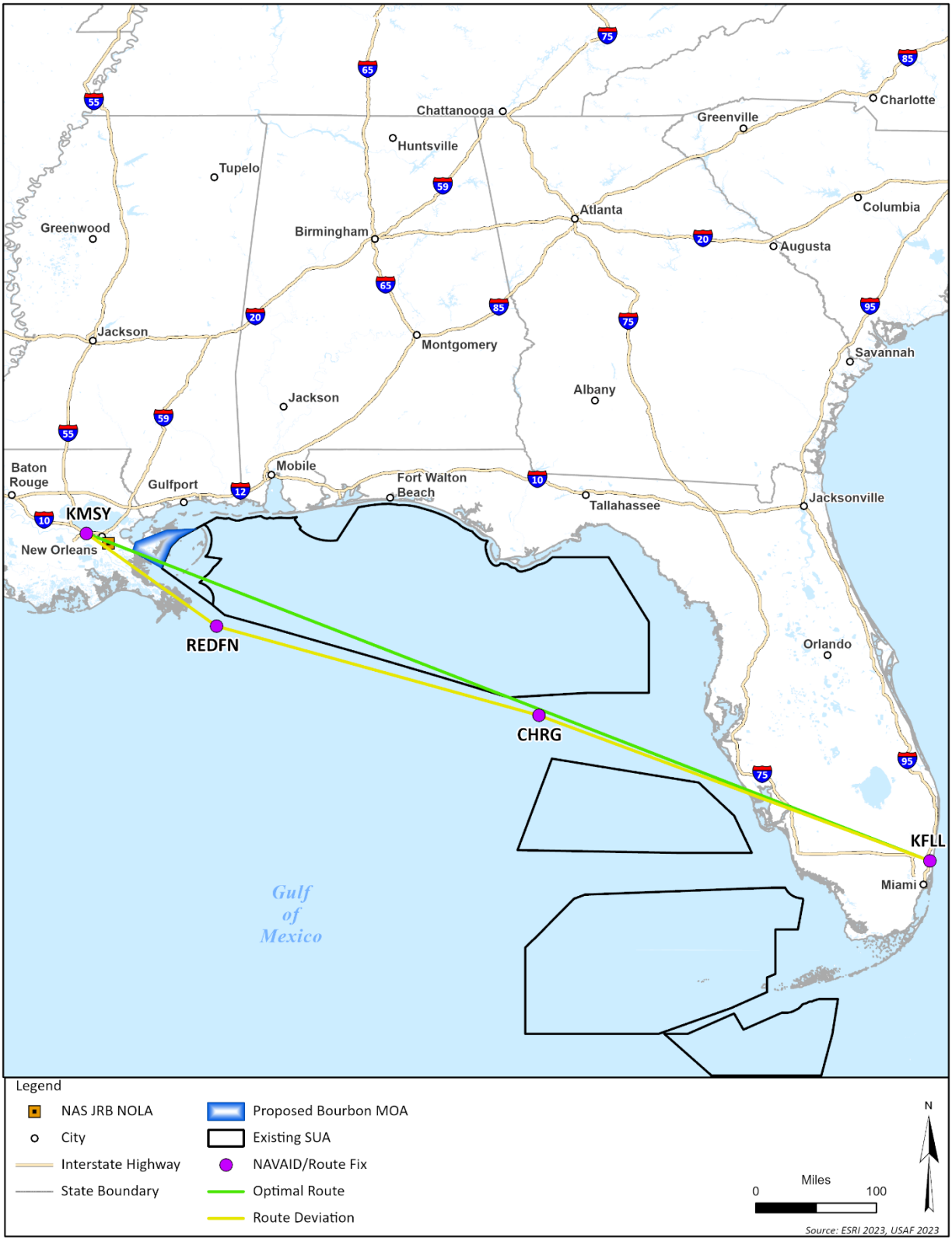

Figure 3.2-6 Potential Reroute for Fort Lauderdale, Florida to/from Louis Armstrong New Orleans International, Louisiana (KFLL – KMSY)

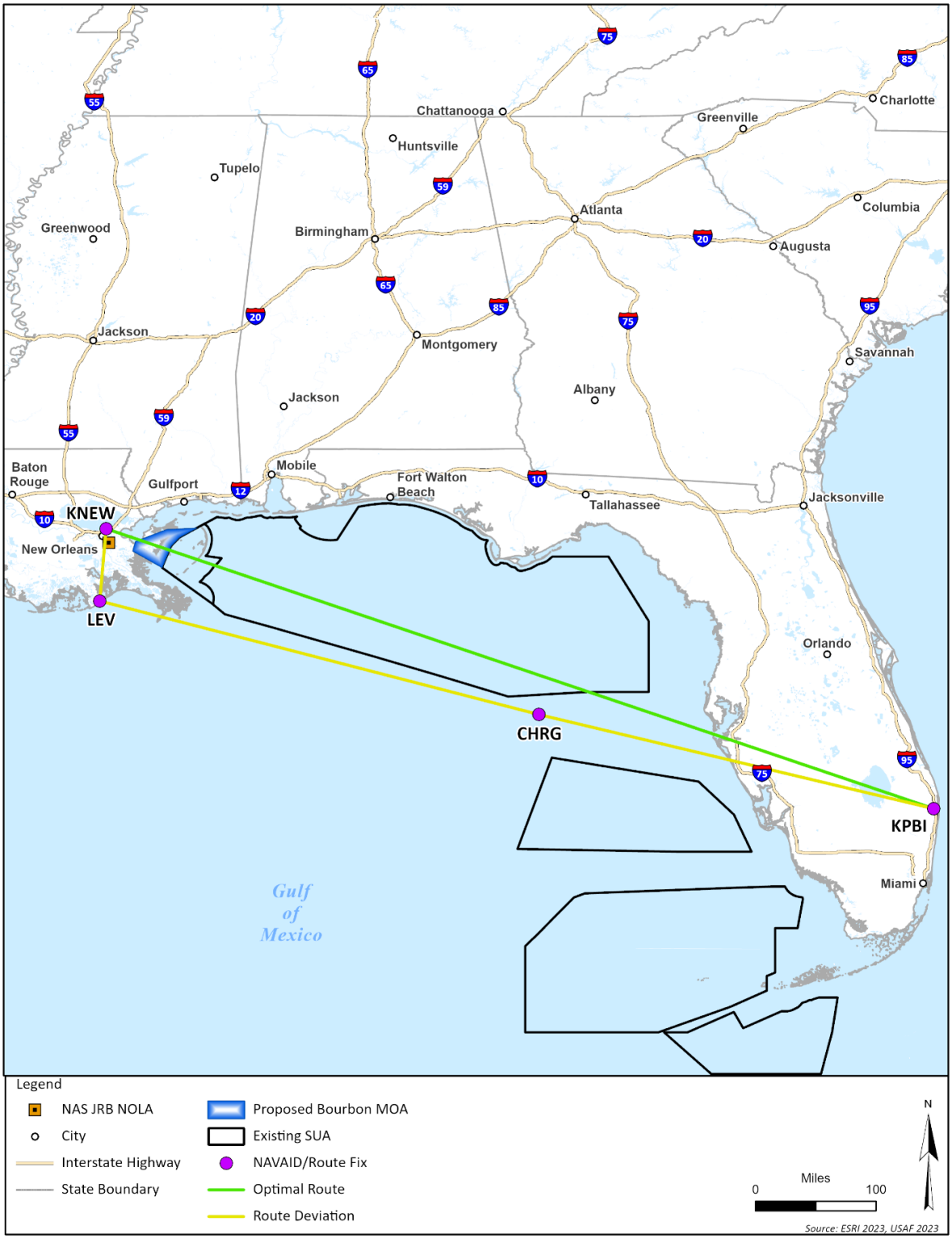

Figure 3.2-7 Potential Reroute for Palm Beach International, Florida to/from Lakefront Airport, Louisiana (KPBI – KNEW)

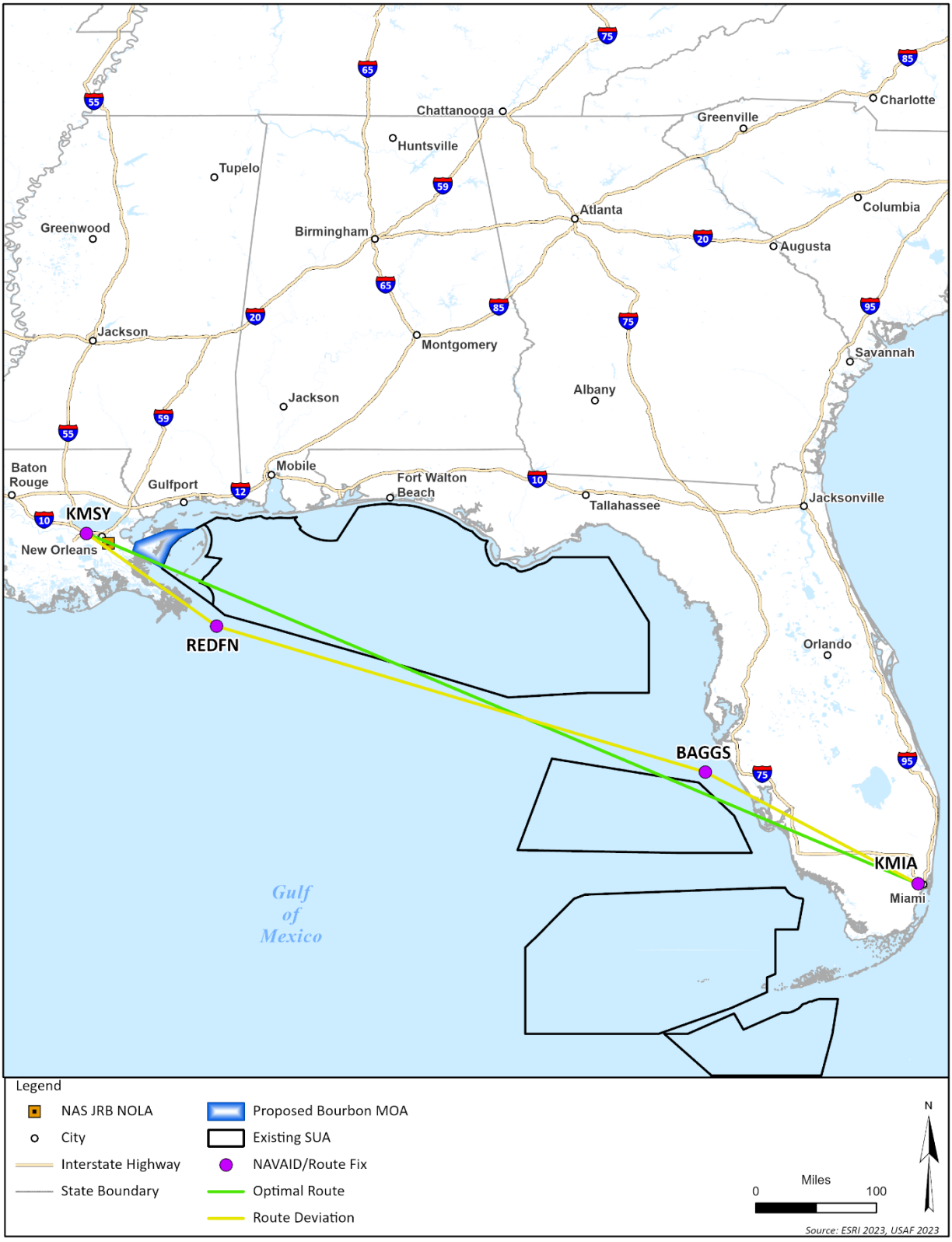

Figure 3.2-8 Potential Reroute for Miami International, Florida to/from Louis Armstrong New Orleans International, Louisiana (KMIA – KMSY)

3.2.3.2 Bourbon ATCAA (FL180 – FL320)

Over the course of a month, approximately 146 civil flights traversed the proposed Bourbon ATCAA during the proposed hours of use. **Table 3.2-5** shows the origin-destination airport pairings accounting for the most frequent flights in the proposed ATCAA area. Note that the proposed Bourbon MOA/ATCAA are in a location adjacent to the Snake MOA and a large complex of Warning Areas to the east, and the low numbers of flights in this area during this 30-day time period may be due to aircraft avoiding the surrounding SUA.

Table 3.2-5 Airport Pairings for Civil Flights Through Proposed Bourbon ATCAA

Origin	Destination
MMUN[1]	KORD
KTPA[1]	KDEN
MMUN	KMSP
KMCO[1]	KDEN
KMIA[1]	KDEN
KTPA[1]	KDFW
KFLL	KDFW
KMSY[2]	KMCO

Note: [1]Pairings do not have direct routing through the proposed SUA.
[2]The impact of this pairing is captured in Table 3.2-4 under the Bourbon MOA.

Legend: ATCAA = Air Traffic Control Assigned Airspace; KDEN = Denver International, CO; KDFW = Dallas Fort Worth International, TX; KFLL = Fort Lauderdale International, FL; KMCO = Orlando International, FL; KMIA = Miami International, FL; KMSP = Minneapolis-Saint Paul International, MN; KMSY = Louis Armstrong New Orleans International, LA; KORD = Chicago O'Hare International, IL; KTPA = Tampa International, FL; MMUN = Cancun International, Mexico; MOA = Military Operations Area; SUA = Special Use Airspace

Table 3.2-6 shows the potential impact (in terms of distance and time) to each of these airport pairings (or flight tracks) when the ATCAA is activated. Note that five of these pairings do not have direct routes that go through this airspace and would not require a longer route if the proposed ATCAA was activated. The fact that they flew through this area in the past may be due to a combination of factors, ranging from VFR operations (or cancellation of IFR), non-optimal routing due to weather or traffic, or other reasons.

For the two flight tracks that do have direct routes through the ATCAA, the intermediate fix used in the analysis is over the Gulf of Mexico to the south to conservatively avoid the large complex of existing Warning Areas and the Bourbon ATCAA. The numerous MOAs along the Gulf Coast made routing to the north impractical without incurring excessive route deviations. As shown, the additional rerouting for these two tracks adds no more than 6 NM and results in 1 minute or less of additional travel time. This additional travel time is expected to have a minimal impact.

Table 3.2-6 Potential Impacts to Civil Operations Due to Proposed Bourbon ATCAA

Airport Pair	Straight Line Distance (NM)	Intermediate Fix	Distance via Intermediate Fix (NM)	%Change in Distance	Extra Minutes
MMUN-KORD	1,258	N/A	-	0	0
KTPA-KDEN	1,308	N/A	-	0	0
MMUN-KMSP	1,465	FATSO	1,469	0	<1
KMCO-KDEN	1,343	N/A	-	0	0
KMIA-KDEN	1,484	N/A	-	0	0
KTPA-KDFW	806	N/A	-	0	0
KFLL-KDFW	972	REDFN	978	1%	1

Legend: % = percent; ATCAA = Air Traffic Control Assigned Airspace; KDEN = Denver International ; KDFW = Dallas Fort Worth International, TX; KFLL = Fort Lauderdale International, FL; KMCO = Orlando International, FL; KMIA = Miami International, FL; KMSP = Minneapolis-Saint Paul International, MN; KORD = Chicago O'Hare International, IL; KTPA = Tampa International, FL; N/A = Not Applicable; MMUN = Cancun International, Mexico; NM = nautical miles

3.3 BOURBON MOA/ATCAA SUMMARY

If established prior to 2023, the Bourbon MOA/ATCAA would have resulted in up to 251 civil flights potentially being affected over the course of a 30-day period. That is **eight affected flights per day** during all the hours from Monday–Friday, between 0800–1700 Local. The affected flights could have impacts of up to 8 minutes, but often the impact would be 1 minute or less to avoid the active MOA/ATCAA. Because the airspace is not proposed to be active for the entire time, the actual number of affected flights would be much lower. The Bourbon MOA/ATCAA are expected to be used for only up to 5 hours per day and up to 240 days per year (not the full 9 hours per day [0800–1700] for 260 days per year [all Monday–Friday days]) that are included in the proposed window for use. The proposed total hours of activation are only 51 percent of the full window analyzed, meaning that on average, **four to five flights per day** would be affected from activation of the Bourbon MOA/ATCAA.

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Appendix D
Noise Methodology and Calculations

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Noise Analysis

Environmental Assessment for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana

August 2024

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Noise Analysis
Environmental Assessment
Flight Training Activities in the Bourbon Military Operations Area
Offshore from
Naval Air Station Joint Reserve Base New Orleans

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Abbreviations and Acronyms

Acronym	Definition
<	less than
>	greater than
%	percent
AGL	above ground level
ATCAA	Air Traffic Control Assigned Airspace
ARTCC	Air Route Traffic Control Center
BASEOPS	Base Operations
CDNL	C-weighted Day-Night Average Sound Level
dB	decibel
dBA	A-weighted decibel
dBC	C-weighted decibel
DNL	A-weighted Day-Night Average Sound Level
DoD	Department of Defense
EA	Environmental Assessment
FAA	Federal Aviation Administration
FL	Flight Level
FRS	Fleet Replacement Squadron
Hz	Hertz
LAANG	Louisiana Air National Guard

Acronym	Definition
L_{max}	maximum sound level
MOA	Military Operations Area
MSL	mean sea level
NAS JRB NOLA	Naval Air Station Joint Reserve Base New Orleans
NEPA	National Environmental Policy Act
NM	nautical miles
SEL	Sound Exposure Level
SUA	Special Use Airspace
U.S.	United States
USEPA	U.S. Environmental Protection Agency
VHF	Very High Frequency
VFC-204	Fighter Squadron Composite Two Zero Four
VORTAC	VHF Omni-directional Radio Range Tactical Air Navigation
W-	Warning area

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1 Introduction

1.1 Background

United States (U.S.) Fleet Forces Command, a Command of the U.S. Navy (hereinafter referred to as the Navy) proposes to request that the Federal Aviation Administration (FAA) establish a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA, east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) adjacent to the existing Snake MOA/ATCAA to accommodate required flight training activities for squadrons stationed at the base. The FAA has jurisdictional authority of the National Airspace System and is a Cooperating Agency for this action. The proposed Special Use Airspace (SUA) would address several training deficiencies by providing a closer contiguous, over-land and over-water airspace with appropriate altitudes to allow a more efficient and realistic training environment.

The existing area is non-scheduled airspace and is used by military aircraft to transit to Snake MOA and ATCAA, and Warning Areas (W-) 148 and 453, all of which are collectively referred to as the WHODAT airspace complex (**Figure 1-1**). Proposed Bourbon MOA and ATCAA would provide training airspace that is closer to NAS JRB NOLA resulting in more efficient training (**Figure 1-2**).

1.2 Proposed Special Use Airspace

The Proposed Action is to accommodate required flight training activities for squadrons stationed at NAS JRB NOLA. Efficiencies are achieved when pilots can train in SUA of sufficient size and proximity to the base. Existing SUA is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

The FAA, as a cooperating agency, is responsible for making a determination on whether to establish the SUA as requested by the Navy.

The altitude floor and ceiling[1] and the published times of use for the proposed Bourbon MOA/ATCAA are detailed in **Table 1-1**.

Table 1-1 Proposed Bourbon MOA/ATCAA

Name	*Floor*	*Ceiling*	*Proposed Published Times of Use*
Bourbon MOA	4,000 feet MSL	Up to but not including FL180	Monday through Friday 0800–1700, other times by NOTAM
Bourbon ATCAA	18,000 feet MSL	Up to but not including FL320	Simultaneously with Bourbon MOA Monday through Friday 0800–1700, other times by NOTAM

Legend: ATCAA = Air Traffic Control Assigned Airspace; FL = Flight Level; MOA = Military Operations Area; MSL = Mean Sea Level; NOTAM = Notice to Air Missions

[1] Altitude references for aircraft operations are presented in several units of measure: above ground level (AGL), above mean sea level (MSL), and Flight Level (FL):

- AGL references are usually used at lower altitudes (almost always below 10,000 feet), when clearance from terrain is more of a concern for aircraft operation.
- MSL altitudes are used most across aviation when operating at or below 18,000 feet when clearance from terrain is less of a concern for aircraft operation.
- FL is used to describe the cruising altitudes for aircraft traveling long distances above 18,000 feet. Flight Levels are given in hundreds of feet, e.g., FL300 is 30,000 feet.

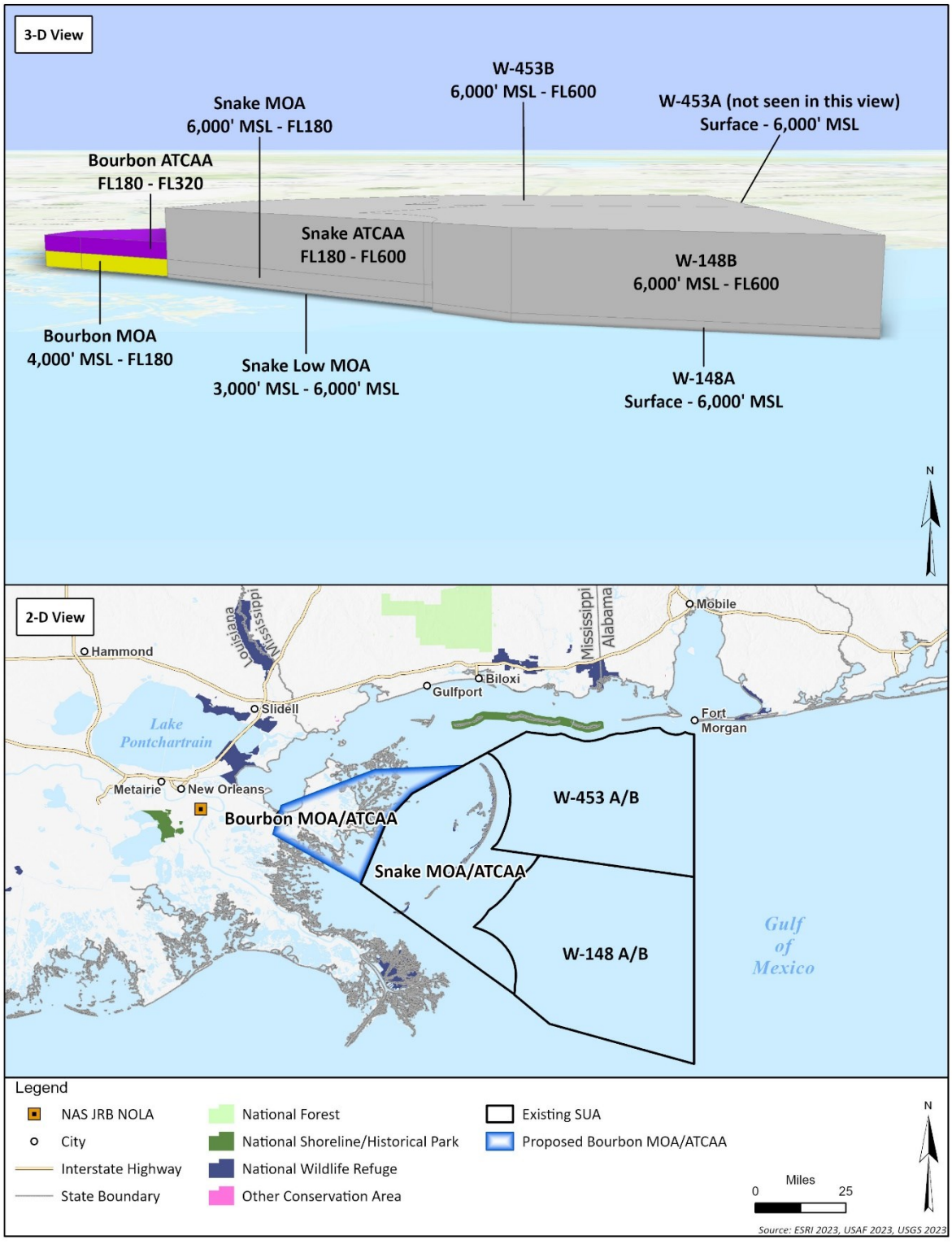

Figure 1-1 Proposed Bourbon MOA/ATCAA and Adjacent SUA

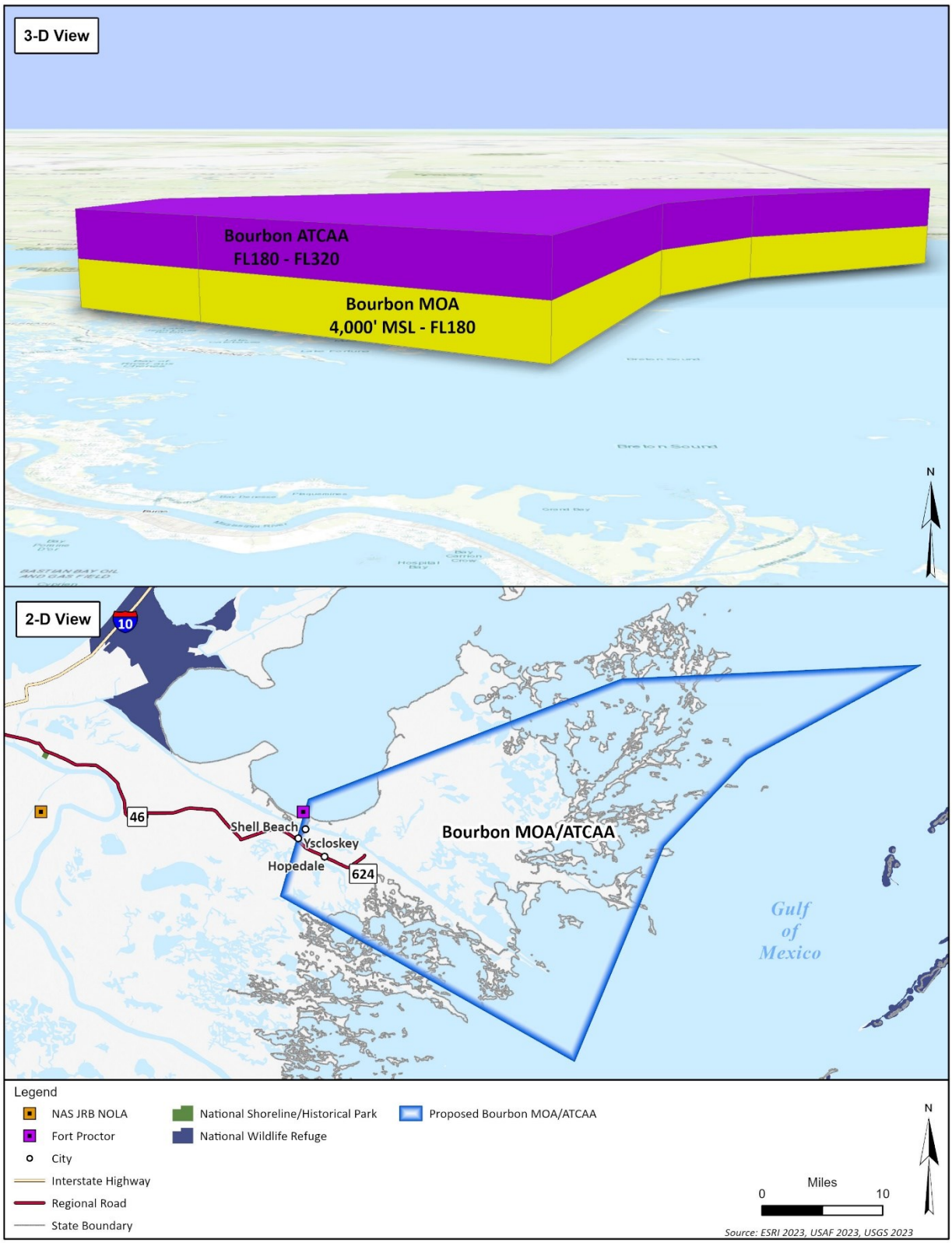

Figure 1-2 Proposed Bourbon MOA/ATCAA

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2 Methodology

2.1 Noise Analysis

For the purposes of this analysis, three noise metrics are used to describe the noise exposure from the Proposed Action:

- A measure of the greatest sound level generated by single aircraft events: Maximum Sound Level (L_{max}),
- A combination of the sound level and duration: Sound Exposure Level (SEL), and
- A cumulative measure of multiple flight and engine maintenance activity: Day-Night Average Sound Level (Ldn, also written as DNL) (Federal Interagency Committee on Noise 1978).

Human hearing sensitivity to differing sound pitch, measured in cycles per second or hertz (Hz), is not constant. To account for this effect, environmental noise measurements usually employ an "A-weighted" decibel (dB) scale, denoted as dBA, which de-emphasizes very low and very high frequencies to better replicate human sensitivity. "C-weighting" is typically applied to impulsive sounds such as a sonic boom or ordnance detonation. As is done in many environmental documents, the "A" in dBA is dropped for brevity to refer to A-weighted sound levels. All sound levels presented in this document are A-weighted unless otherwise denoted as C-weighted or dBC.

The noise associated with aircraft operations can be subsonic or supersonic. Subsonic noise is generated by an aircraft's engines and airframe. This is the most familiar form of noise. Supersonic noise is the noise generated when an aircraft flies faster than the speed of sound and has the potential to create sonic booms. A sonic boom is the sound associated with shock waves generated when the aircraft travels at supersonic speeds. This Proposed Action includes both subsonic and supersonic activity within the proposed MOA/ATCAA.

Environmental analysis of noise impacts from the Proposed Action often requires prediction of future conditions that cannot be easily measured until after implementation. Accordingly, computer software is used to simulate future conditions, as detailed in the following sections.

2.2 Operational Assumptions

Annual operations would be conducted within the Bourbon MOA/ATCAA up to 240 days per year, which is the current operations tempo for the existing SUA. The current airspace proposed for the Bourbon MOA/ATCAA is used to transition from NAS JRB NOLA to the current SUA (Snake MOA/ATCAA and Warning Areas). The number of aircraft using the space would be relatively the same, but instead of straight transition flights, the space would be used for training flights. The 240 days are estimated based on typical use (5 days/week over 48 weeks/year). Primary users of the Bourbon MOA/ATCAA would be Fighter Squadron Composite Two Zero Four (VFC-204) and the Louisiana Air National Guard (LAANG), but other military users may include Navy, Air Force, and other Service aircraft.

Mission scenarios for aircraft utilizing the Bourbon MOA/ATCAA would be similar to those occurring in the existing SUA and include functional check flights, currency, basic fighter maneuvers, Fleet Replacement Squadron (FRS) training/tactical intercepts, familiarization training, and participation in large scale exercises that would include multiple aircraft and use the connected SUA. Flight activities may occur as either subsonic or supersonic. Within certain zones of the Bourbon MOA/ATCAA, supersonic flight would be restricted to certain altitudes. Operations in the Bourbon MOA/ATCAA would

typically be scheduled for 1- to 1.5-hour blocks. The airspace would be activated 15 minutes prior (coordinated with FAA Houston Air Route Traffic Control Center [ARTCC]).

While the airspace would typically be scheduled for 1- to 1.5-hour blocks, operations generally last less than (<) 1 hour. The daily total of scheduled blocks is estimated to be up to 5 hours per day. Over a given year, assuming 240 days of use, the total hours of use are estimated to be 1,200 hours. Once training is complete, the airspace would be returned to the controlling agency (FAA Houston ARTCC).

MOAs, unlike Military Training Routes, allow for these types of training scenarios and aircraft activity at varying altitudes and trajectories within the designated boundaries of the MOA. For these reasons, there are no "normal" or "common" routes or headings aircraft would follow, aircraft activity could occur anywhere within the MOA. This allows maximum flexibility in the training scenarios which significantly improves the effectiveness of the training. **Appendix A** provides the specific altitude bands, power settings, and type of aircraft used in the modeling assumptions for the proposed MOA/ATCAA based on the operations described in the paragraphs above.

2.3 Noise Modeling and Primary Noise Metrics

The Department of Defense (DoD) prescribes use of the NOISEMAP suite of computer programs (Wyle 1998; Wasmer Consulting 2006) containing the core computational programs called "NMAP," version 7.3, and "MRNMap," version 3.0 for environmental analysis of aircraft noise. For this noise study, the NOISEMAP suite of programs refers to Base Operations (BASEOPS) as the input module and MRNMap as the noise model used to predict noise exposure in the SUA from subsonic aircraft operations (DoD 2020). Additionally, BooMap version 1.0.0 (Blue Ridge Research Corporation, LLC 2021) is used to predict noise levels associated with supersonic aircraft operations (DoD 2020). As indicated in **Table 2-1**, the grid spacing used for calculating noise exposure for each model was 500 feet.

Table 2-1 Noise Modeling Parameters

Software	***Analysis***	***Version***
MR_NMAP	Airspace Noise – subsonic	3.0
BooMap	Airspace Noise – supersonic	1.0.0.0
Parameter	***Description***	
Receiver Grid Spacing	500 ft in x and y	
Metrics	DNL and CDNL (primary) SEL, L_{max} (secondary)	
Basis	AAD Operations (NMAP)	
Modeled Weather (Standard Conditions)		
Temperature	59°F	
Relative Humidity	70%	
Barometric Pressure	29.92 in Hg	

Legend: % = percent; °F = degrees Fahrenheit; AAD = Average Annual Day; CDNL = C-weighted Day-Night Average Sound Level; DNL = A-weighted Day-Night Average Sound Level; ft = feet; in Hg = inches Mercury; L_{eq} = Equivalent Sound Level; L_{max} = maximum sound level; SEL = Sound Exposure Level

Source: Cardno 2021a.

The word "metric" describes a standard of measurement. Researchers developed many different types of noise metrics in the attempt to represent the effects of environmental noise. Each metric used in environmental noise analysis has a different physical meaning or interpretation.

The metrics supporting the assessment of noise from aircraft operations for this Environmental Assessment (EA) are the DNL, C-weighted Day-Night Average Sound Level (CDNL), L_{max}, and SEL. Each metric is briefly discussed below.

2.3.1 DNL

The DNL is an A-weighted cumulative noise metric that measures noise based on annual average daily aircraft operations. DNL is the DoD standard metric for modeling cumulative noise exposure and assessing community noise impacts from subsonic aircraft operations (DoD Instruction 4715.13*, Operational Noise Program*). DNL uses two time periods: daytime (acoustic day) and nighttime (acoustic night). Daytime hours are from 7:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 7:00 a.m. local time. Based on the higher sensitivity to noise and associated annoyance during nighttime hours, a 10 dB penalty is assigned to single event sound levels that occur during acoustical nighttime. This study analyzes DNL on an annual average daily basis which means the airspace operations have been divided by 365 days per year to reflect an average day.

2.3.2 CDNL

CDNL is a C-weighted cumulative noise metric that measures noise based on annual average daily aircraft operations. CDNL is used for modeling low frequency cumulative noise exposure, like supersonic aircraft operations, using two time periods: daytime (acoustic day) and nighttime (acoustic night). Daytime hours are from 7:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 7:00 a.m. local time. CDNL weights operations occurring during its nighttime period by adding 10 dB to their single event sound level.

2.3.3 L_{max} and SEL

Individual time-varying noise events have two main characteristics—a sound level, which changes throughout the event and a period of time during which the event is heard. L_{max} is the maximum sound level experienced by a receptor during a noise event. The SEL combines L_{max} with the total duration in which the sound is heard. The SEL takes this sound energy from a single event and compresses it into 1 second. SEL is always greater in value than L_{max} because it compresses all sound energy into a 1-second timeframe.

2.3.4 Noise-Induced Hearing Loss

Noise-induced hearing loss risk has been extensively studied, with the consensus that populations exposed to noise greater than (>) 80 dB DNL are at the greatest risk of potential hearing loss (DoD 2009). Because no person or place would be exposed to noise levels >80 dB DNL, noise induced hearing loss is not discussed further in this analysis.

2.4 Noise Impact thresholds

2.4.1 Primary Regulatory Criteria

The U.S. Environmental Protection Agency (USEPA) has identified 55 dB DNL as a level that protects public health and welfare with an adequate margin of safety (USEPA 1982). This means that 55 dB DNL is a threshold below which adverse noise effects are not expected to occur.

According to the Federal Interagency Committee on Urban Noise, noise exposure greater than 65 dB DNL is considered generally incompatible with residential, public use (i.e., schools), or recreational and entertainment areas (Federal Interagency Committee on Urban Noise 1980).

The U.S. Army Public Health Command defines impulsive noise <62 dB CDNL as Noise Zone 1. Noise Zone 1 is generally compatible with any residential or noise sensitive uses. Zone 1 (<62 dB CDNL) is the level at which one could expect a rise in annoyance similar to that of a DNL level of 65 dB for subsonic noise (U.S. Army Center for Health Promotion and Preventive Medicine 2005).

FAA Order 1050.1F (issued July 16, 2015), *Environmental Impacts: Policies and Procedures*, provides FAA policy and procedures to ensure agency compliance with the requirements set forth in the Council on Environmental Quality regulations for implementing the provisions of the National Environmental Policy Act (NEPA); Department of Transportation Order 5610.1C, *Procedures for Considering Environmental Impacts*; and other related statutes and directives.

Per FAA Order 1050.1F, a noise sensitive area is defined as an area where noise interferes with normal activities associated with its use. Normally, noise sensitive areas include residential, educational, health, and religious structures and sites, and parks, recreational areas, areas with wilderness characteristics, wildlife and waterfowl refuges, and cultural and historical sites.

For airspace actions, FAA requires that an action proponent prepare noise exposure tables to identify where noise will change by the following specified amounts in noise sensitive areas (FAA Order 1050.1F):

- For DNL 65 dB and higher: +/- DNL 1.5 dB (significant)
- For DNL 60 dB to <65 dB: +/- DNL 3 dB (reportable)
- For DNL 45 dB to <60 dB: +/- DNL 5 dB (reportable)

The FAA defines a threshold for significant noise impacts as "[t]he action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a 1.5 dB or greater increase, when compared to the No Action Alternative for the same timeframe." (FAA Order 1050.1F).

2.4.2 Secondary Criteria

Annoyance, which is based on perception, represents the primary effect associated with aircraft noise. Generally, the louder the noise, the more annoyance it causes. Attitudinal surveys conducted over several decades show a consistent relationship between DNL and the percentages of groups of people who express various degrees of annoyance. This relationship was originally suggested by Schultz (1978). The updated relationship by Finegold et al. (1994) which does not differ substantially from the original, is the current federally-accepted and is shown in **Table 2-2**. The Committee on Hearing, Bioacoustics, and Biomechanics (1981) developed the equivalent relationship between annoyance and CDNL from sonic booms. The relationship of annoyance to DNL and CDNL is presented in **Table 2-2**. While not a determination of significance, the calculated DNL and CDNL for the Bourbon MOA/ATCAA can be compared against **Table 2-2** to provide an estimate of the percentage of the population that would be "highly annoyed" by the noise. These data provide a perspective on the level of annoyance that might occur. The study results summarized in **Table 2-2** are based on outdoor noise levels.

Table 2-2 Relationship of Annoyance to DNL and CDNL

DNL (dB)	*Percent of Population Highly Annoyed*	*CDNL (dB)*
45	0.83	42
50	1.66	46
55	3.31	51
60	6.48	56
65	12.29	60
70	22.10	65

Note: Noise impacts on individuals vary as do individual reactions to noise. This is a general prediction of the percentage of the population potentially highly annoyed based on environmental noise surveys conducted around the world.

Legend: CDNL = C-weighted Day-Night Average Sound Level; dB = decibel; DNL = A-weighted Day-Night Average Sound Level.

Sources: Department of Defense Noise Working Group 2009; Committee on Hearing, Bioacoustics, and Biomechanics 1981; Finegold et al. 1994.

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3 Existing Conditions

3.1 Modeling Data

VFC-204 and other DoD aircraft routinely use the existing non-scheduled airspace to access Snake MOA/ATCAA and WHODAT Complex for training operations. For LAANG F-15C aircraft, 98 percent (%) of operations occur between the hours of 7:00 a.m. to 10:00 p.m. and 2% between the hours of 10:00 p.m. to 7:00 a.m. All other aircraft operations are assumed to be daytime operations (7:00 a.m. to 10:00 p.m.), or prior to 10:00 p.m. local time. No supersonic aircraft operations currently occur within the non-scheduled airspace. A summary of annual airspace sorties is presented in **Table 3-1**. A sortie is the takeoff, training operation, and arrival of one aircraft.

Table 3-1 Annual Sorties in Existing Non-Scheduled Airspace

Aircraft	*Existing Sorties*	*Time (minutes)*
F-15C	1,553	10
F-5	1,195	10
Alpha Jet	396	10
F-35B/C	360	10
FA-18	353	10
C-130J	252	12
T-38	36	10
C-17	12	12
E-2	12	12
Total	***4,169***	

3.2 Subsonic Noise Exposure

MRNMap takes into account aircraft power settings, aircraft speed, and altitude when calculating average annual noise for the airspace. The software also spreads the noise out throughout the entire airspace evenly. The existing non-scheduled airspace currently experiences 35 dB DNL from annual DoD subsonic aircraft operations. Additionally, less than one daily event would exceed 65 SEL and <0.83% would be highly annoyed with the existing aircraft activity. A summary of noise exposure under existing conditions is presented in **Table 3-2**.

Table 3-2 Existing Aircraft Noise Levels within Non-Scheduled Airspace

Operations	*Airspace*	*DNL (dB)*	*Estimated Percentage of Population "Highly Annoyed"*	*Number of Daily Events >65 SEL*
Subsonic	Existing	35	< 0.83	< 1

Legend: > = greater than; < = less than; dB = decibel; DNL = A-weighted day-night average sound level; SEL = Sound Exposure Level

Source: Stantec 2024a,b.

Land use under the airspace proposed as the Bourbon MOA/ATCAA consists primarily of uninhabitable swamp and marsh lands and intertidal waters. Single- and multi-family residences are present along rural areas of State Routes 46 and 624. Additionally, various recreational vehicle parks, marinas, lodging, and charter services are located along these highways. Both roadway and waterway vehicle operations would be the dominant noise source of the area, with the occasional military and civilian aircraft overflight.

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4 Proposed Action Scenario

The following section details the modeling data and the resultant noise exposure for the Proposed Action. The EA analyzes only the Preferred Alternative.

4.1 Modeling Data

Annual aircraft sorties for the various aircraft are summarized in **Table 4-1.** A sortie is the takeoff, training operation, and arrival of one aircraft. As shown, there would be no increase in the number of sorties in the airspace under the Proposed Action; however, training time would increase in most cases when compared to existing transit time (refer to **Table 3-1** for existing sorties and time). While no permanent SUA exists in the area of the proposed Bourbon MOA/ATCAA, this area is adjacent to other airspace and aircraft may use these areas transiting from NAS JRB NOLA to existing SUA. Similar to current conditions, F-15C aircraft would complete 98% of their training operations between the hours of 7:00 a.m. to 10:00 p.m. and 2% between the hours of 10:00 p.m. to 7:00 a.m. All other aircraft operations are assumed to be daytime operations (7:00 a.m. to 10:00 p.m.), or prior to 10:00 p.m. local time. Detailed tables of specific altitudes and power configurations can be found in **Appendix A**.

Approximately 13% of sorties for both VFC-204 F-5 aircraft and LAANG F-15C aircraft would include supersonic operations; 3% of the F-5 sorties (approximately 36 sorties) and 10% of the F-15 sorties (approximately 155 sorties) would include supersonic speed. Supersonic operations would occur above Flight Level (FL) 300 throughout the proposed airspace; additionally, supersonic operations would be authorized down to the proposed airspace floor of 4,000 feet mean sea level (MSL) starting at 12 nautical miles (NM) from the eastern edge of the Harvey Very High Frequency (VHF) Omni-directional Radio Range Tactical Air Navigation (VORTAC) 10 NM arc.

Table 4-1 Annual Sorties in Proposed Bourbon MOA/ATCAA

Aircraft	*Proposed Sorties*	*Time (minutes)*
F-15C	1,553	30
F-5	1,195	60
Alpha Jet	396	30
F-35B/C	180	30
F-35B/C	180[1]	10
FA-18	180	30
FA-18	173[1]	10
C-130J	252	30
T-38	36	30
C-17	12	30
E-2	12	30
Total	***4,169***	

Note: [1]Operations are transit to Snake MOA/WHODAT Complex.
Legend: ATCAA = Air Traffic Control Assigned Airspace; MOA = Military Operations Area

4.2 Subsonic Noise Exposure

The subsonic noise level from aircraft operations within the proposed MOA/ATCAA would be 52 dB DNL. This level would not exceed 65 dB DNL, the significant threshold defined by FAA. From a land use perspective and according to the Federal Interagency Committee on Urban Noise, the FAA, the USEPA, and the Defense Centers for Public Health (formerly the U.S. Army Public Health Command), this level

would be compatible with all land use types to include residential, public use (i.e., schools), recreational, and entertainment areas. Less than 3.31% of the population would be highly annoyed by the noise within the proposed Bourbon MOA/ATCAA (**Table 4-2**), and less than one daily event would exceed 65 SEL.

Table 4-2 Subsonic Noise Levels within Proposed Bourbon MOA/ATCAA

Operations	*Airspace*	*Noise Level (dB)*	*Estimated Percentage of Population "Highly Annoyed"*	*Number of Daily Events >65 SEL*
Subsonic	Bourbon MOA/ATCAA	52 DNL	< 3.31	< 1

Legend: < = less than; ATCAA = Air Traffic Control Assigned Airspace; dB = decibel; DNL = A-weighted Day-Night Average Noise Level; MOA = Military Operations Areas; SEL = Sound Exposure Level
Source: Stantec 2024a,b.

Proposed subsonic aircraft activity, including military training and transit within the MOA/ATCAA, would result in an increase of 17 dB over the No Action Alternative, which would be a reportable increase in some noise sensitive areas in accordance with FAA Order 1050.1F. As noted previously, the majority of the MOA exists over water, swamps, and marshes; however, there are single- and multi-family residences, in addition to businesses beneath the proposed MOA/ATCAA and these land uses would experience an increase in noise level when compared to existing conditions.

4.3 Supersonic Noise Exposure

Estimated supersonic noise generated from aircraft utilizing the proposed MOA/ATCAA would be 34 dB CDNL west of the 12 NM arc from NAS JRB NOLA and at a minimum altitude of FL300 and 42 dB CDNL to the east of the 12 NM arc and at a minimum altitude of 4,000 feet MSL. **Table 4-3** summarizes supersonic noise exposure. Supersonic aircraft operations within the proposed MOA/ATCAA would operate well below 62 dB CDNL and be compatible with all land use types according to the standards published by the U.S. Army Public Health Command. Further, supersonic aircraft operations would not directly occur over residences or businesses along State Route 46 or 624 at an altitude below 30,000 feet MSL and approximately 0.83 percent of the population would be highly annoyed by the noise from supersonic operations within the proposed Bourbon MOA/ATCAA.

Table 4-3 Supersonic Noise Levels within Proposed Bourbon MOA/ATCAA

Operations	*Airspace*	*Noise Level (dB)*	*Estimated Percentage of Population "Highly Annoyed"*
Supersonic	Bourbon MOA/ATCAA[1]	34 CDNL	< 0.83
Supersonic	Bourbon MOA/ATCAA[2]	42 CDNL	0.83

Notes: [1]Operations within Bourbon MOA/ATCAA West (inside) of the 12 NM arc above 30,000 feet MSL
[2]Operations within Bourbon MOA/ATCAA East (outside) of the 12 NM arc above 4,000 feet MSL.
Legend: < = less than; ATCAA = Air Traffic Control Assigned Airspace; dB = decibel; CDNL = C-weighted Day-Night Average Noise Level; MOA = Military Operations Areas
Source: Stantec 2024a,c.

5 Supplemental Metrics

While DNL is the U.S. Government standard metric for assessing noise impacts, supplemental metrics are used to produce more detailed noise exposure information for the decision process and to improve communication with the public and stakeholders. Supplemental metrics are not intended to replace the DNL metric as the primary descriptor of cumulative noise exposure and anticipated significance of impacts, but rather are useful tools to supplement the impact information disclosed by the DNL metric. For this Proposed Action, the noise analysis included peak sound exposure as a supplemental metric to better describe the loudness of a single overflight event.

5.1 Single Event Metrics

Table 5-1 shows the results for single event metrics for the fighter aircraft that would use the proposed MOA/ATCAA. For these calculations, each aircraft was modeled for L_{max} at the loudest power setting (afterburner) and at lowest altitude floor of the proposed MOA/ATCAA (4,000 feet MSL). For this analysis, the floor of the proposed MOA was used for the single event noise estimations since this would generate the loudest possible scenario. The DNL reported above gives the average noise levels throughout the year but does not account for the "loudness" of an individual overflight event. **Table 5-1** shows an estimation of what an observer on the ground would experience if an aircraft flew directly overhead at the power configuration and altitude shown below.

Table 5-1 L_{max} Values for Aircraft Overflights at Lowest Bourbon MOA/ATCAA Altitude

Aircraft	*Power Configuration*	*L_{max} (dBA) at 4,000 feet (MSL)*
F-5E	Afterburner	98
F-15C	Afterburner	105
F-18E/EA-18	Afterburner	105
F35A	Afterburner	105

Notes: Speed for all aircraft for all scenarios was 500 knots.
Legend: ATCAA = Air Traffic Control Assigned Airspace; dBA = A-weighted decibel; L_{max} = maximum sound level; MOA = Military Operations Area; MSL = above mean sea level
Source: Stantec 2024a,b.

Higher power configurations that are lower in altitude produce greater noise levels. As shown, the highest sound exposure (L_{max}) within proposed Bourbon MOA/ATCAA would be 105 dBA. As the altitudes increase and power settings decrease, noise levels decrease, as would be expected. At 4,000 feet MSL, a direct overflight by any of the fighter aircraft that would be using the airspace would likely be noticeable.

Experiencing such an overflight would be rare given the number of proposed sorties and the fact that aircraft would spend very little time at these low altitudes during the training scenarios. For example, in the proposed Bourbon MOA/ATCAA, it is estimated that the proposed fighter aircraft would spend approximately 5 percent of flying time in the 4,000 to 5,000-foot altitude band and of that time, 1 percent would be at afterburner power. Additionally, military aircraft observe a 5 NM standoff distance from the internal edge of the MOA/ATCAA boundary to ensure they remain within the MOA/ATCAA during training. All single- and multi-family residences and businesses are within the 5 NM standoff distance which further reduces the possibility of direct military aircraft overflight.

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6 Cumulative

Concurrently with this Proposed Action, the *Air National Guard F-15EX Eagle II & F-35A Lightning II Operational Beddowns Environmental Impact Statement* is in the *Draft* stage of NEPA process and assesses the LAANG replacement of the existing F-15C aircraft with either the F-15EX or F-35A aircraft at NAS JRB NOLA. In addition to replacement of the existing F-15C aircraft, additional sorties are also included for F-15EX and F-35A aircraft beddown. Proposed cumulative operations are summarized in **Table 6-1**, where all sorties remain as described for the Proposed Action except for F-15EX/F-35A sorties which would replace F-15C and are projected to increase to 3,000.

Table 6-1 Cumulative Sorties in Proposed Bourbon MOA/ATCAA

Aircraft	*Sorties*	*Time (minutes)*
F-15EX/F-35A	3,000	30
F-5	1,195	60
Alpha Jet	396	30
F-35B/C	180	30
F-35B/C	180	10
FA-18/EA-18	180	30
FA-18/EA-18	173	10
C-130J	252	30
T-38	36	30
C-17	12	30
E-2	12	30
Total	***5,616***	

Note: A sortie is the takeoff, operation, and landing of one aircraft.
Legend: ATCAA = Air Traffic Control Assigned Airspace; MOA = Military Operations Area

6.1 Subsonic Noise Exposure

Subsonic aircraft operations under both cumulative scenarios, either implementation of the F-15EX or F-35A, and when combined with the Proposed Action but without the F-15C operations, the resulting cumulative noise within the proposed Bourbon MOA/ATCAA would be below the significance level of 65 dB DNL established by the USEPA, Federal Interagency Committee on Urban Noise, and FAA (**see Section 2.4.1**). **Table 6-2** summarizes subsonic noise exposure associated with cumulative actions. The addition of F-15EX or F-35A aircraft to the Proposed Action without F-15C aircraft operations would result in 54 dB DNL and 55 dB DNL, respectively. The DNL increase of 19 dB and 20 dB would fall under the "reportable" level according to the FAA as there is a 5 dB increase between 45 dB DNL and 60 dB DNL, when compared to the No Action Alternative. The percentage of the population expected to be highly annoyed by the cumulative noise from subsonic aircraft operations would be low (3.31 percent) and less than one daily event would exceed 65 SEL. Structural damage or secondary vibration impacts are not expected to occur based on the maximum sound exposure. An individual location is not expected to experience this scenario on a recurring or routine basis since aircraft operations would be distributed over a wide area. (see **Section 2.4.1**).

Table 6-2 Cumulative Subsonic Noise Levels for Annual Aircraft Operations in Proposed Bourbon MOA/ATCAA

Cumulative Scenario	*Operations*	*Airspace*	*Noise Level (dB)*	*Estimated Percentage of Population "Highly Annoyed"*	*Number of Daily Events >65 SEL*
F-15EX Beddown	Subsonic	Bourbon MOA/ATCAA	54 DNL	<3.31	< 1
F-35A Beddown	Subsonic	Bourbon MOA/ATCAA	55 DNL	3.31	< 1

Legend: < = less than; ATCAA = Air Traffic Control Assigned Airspace; dB = decibel; DNL = A-weighted Day-Night Average Noise Level; MOA = Military Operations Areas; SEL = Sound Exposure Level
Source: Stantec 2024a,b.

6.2 Supersonic Noise Exposure

Estimated noise generated from supersonic LAANG F-15EX aircraft replacing F-15C aircraft utilizing the proposed MOA/ATCAA would be 34 dB CDNL west of the 12 NM arc from NAS JRB NOLA and at a minimum altitude of FL300 and 45 dB CDNL to the east of the 12 NM arc and at a minimum altitude of 4,000 feet MSL. Should LAANG select the F-35A aircraft to replace the F-15C aircraft, supersonic noise levels of 34 dB CDNL and 44 dB CDNL would be expected west of the 12 NM arc at FL300 and east of the 12 NM at 4,000 feet MSL, respectively. Supersonic aircraft operations and resulting cumulative noise within Proposed Bourbon MOA/ATCAA would be below 62 dB CDNL, compatible with all sensitive resources when applying U.S. Army Public Health Command criteria, and a low percentage of the population (<1.66 percent) would be expected to be highly annoyed. **Table 6-3** summarizes supersonic noise exposure associated with cumulative actions. The estimated percentage of the population to be "highly annoyed" would be the same or slightly higher than the Proposed Action.

Table 6-3 Cumulative Supersonic Noise Levels for Annual Aircraft Operations in Proposed Bourbon MOA/ATCAA

Cumulative Scenario (Sorties)	*Operations*	*Airspace*	*Noise Level (dB)*	*Estimated Percentage of Population "Highly Annoyed"*
F-15EX (3,000)	Supersonic	Bourbon MOA/ATCAA[1]	34 CDNL	< 0.83
	Supersonic	Bourbon MOA/ATCAA[2]	45 CDNL	< 1.66
F-35A (3,000)	Supersonic	Bourbon MOA/ATCAA[1]	34 CDNL	< 0.83
	Supersonic	Bourbon MOA/ATCAA[2]	44 CDNL	< 1.66

Notes: [1]Operations within Bourbon MOA/ATCAA West of the 12 NM arc above 30,000 feet MSL.
[2]Operations within Bourbon MOA/ATCAA East of the 12 NM arc above 4,000 feet MSL.
Legend: < = less than; ATCAA = Air Traffic Control Assigned Airspace; dB = decibel; CDNL = C-weighted Day-Night Average Noise Level; MOA = Military Operations Areas
Source: Stantec 2024a,c.

7 Conclusion

The establishment of a new MOA/ATCAA in eastern Louisiana would present little change in the noise environment. The number of aircraft operations and the altitudes that they would utilize would not produce significant noise impacts for observers under the proposed airspace. The highest annual average noise exposure in the proposed Bourbon MOA/ATCAA would be 52 dB DNL which does not exceed thresholds for determining significant noise impacts. In fact, even if the proposed operations in this MOA/ATCAA were quadrupled, the DNL would only be 55 dB DNL which is still below the FAA threshold for significance. The cumulative noise exposure under either of the LAANG Beddown scenarios would not result in a significant cumulative impact in the proposed Bourbon MOA/ATCAA, as noise exposure would be a maximum of 55 dB DNL.

Noise exposure associated with supersonic aircraft activity would remain low at 42 dB CDNL in the eastern portion of the MOA/ATCAA where supersonic operations would be authorized at all altitudes (4,000 feet MSL and above). Implementation of either aircraft scenario associated with the LAANG Beddown would result in a cumulative level of no more than 45 dB CDNL in the eastern portion of the MOA/ATCAA.

Individual overflights at lower altitudes would likely be noticeable but would be infrequent, end quickly, and would be unlikely to disrupt daily activities. The inhabited or developed land beneath the MOA/ATCAA is limited, which further reduces the likelihood of experiencing a low-altitude overflight. The maximum noise level anyone would experience at the ground level would be 105 dB; however, this would be rare (a few times annually) as this noise level is based on aircraft operating at the lowest floor of the proposed Bourbon MOA/ATCAA. Therefore, individual overflights would have a negligible noise impact.

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Appendix A
Detailed Flight Operations proposed Bourbon MOA/ATCAA

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Table A-1 Existing Aircraft Flight Profiles within Non-Scheduled Airspace

Sorties	Aircraft		*Percentage of Relative Time in Altitude Bands*			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
1,553	F-15C	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		85% RPM	0%	0%	100%	0%
Sorties	**Aircraft**		***Percentage of Relative Time in Altitude Bands***			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
1,195	F-5	*Time in Altitude Band (%)*	0%	0%	50%	50%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		85% RPM	0%	0%	100%	100%
Sorties	**Aircraft**		***Percentage of Relative Time in Altitude Bands***			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
396	Alpha Jet	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		88% RPM	0%	0%	100%	0%
Sorties	**Aircraft**		***Percentage of Relative Time in Altitude Bands***			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
360	F-35B/C	*Time in Altitude Band (%)*	0%	0%	50%	50%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		85% ETR	0%	0%	100%	100%
Sorties	**Aircraft**		***Percentage of Relative Time in Altitude Bands***			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
353	FA-18	*Time in Altitude Band (%)*	0%	0%	50%	50%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		90% NC	0%	0%	100%	100%

			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
252	C-130J	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		2200 HP	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
36	T-38	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		88% RPM	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
12	C-17	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		80% NC	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
12	E-2	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		3000 ISHP	0%	0%	100%	0%

Legend: % = percent; %ETR=% Engine Thrust Request; %NC=percent speed of compressor stage; HP=Horsepower; ISHP=Indicated Shaft Horsepower; MSL=mean sea level; RPM=Revolutions per Minute.

Table A-2 Proposed Aircraft Flight Profiles within Proposed Bourbon MOA/ATCAA

			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
1,553	F-15C*	*Time in Altitude Band (%)*	2%	5%	36%	57%
		Power Configuration				
		Afterburner	50%	50%	50%	50%
		85% RPM	50%	50%	50%	50%

Sorties	Aircraft		***Percentage of Relative Time in Altitude Bands***			
			Altitude Band (MSL)			
			4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
400	F-5 (BFM)	*Time in Altitude Band (%)*	5%	40%	50%	5%
		Power Configuration				
		Afterburner	10%	90%	75%	20%
		85% RPM	90%	10%	25%	80%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
400	F-5 (CNY)	*Time in Altitude Band (%)*	5%	10%	40%	45%
		Power Configuration				
		Afterburner	5%	5%	5%	5%
		85% RPM	95%	95%	95%	95%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
360	F-5 (FRS)	*Time in Altitude Band (%)*	2.5%	2.5%	15%	80%
		Power Configuration				
		Afterburner	5%	10%	10%	10%
		85% RPM	95%	90%	90%	90%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
25	F-5 (FCF)	*Time in Altitude Band (%)*	0%	5%	20%	75%
		Power Configuration				
		Afterburner	0%	5%	5%	5%
		85% RPM	0%	95%	95%	95%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000[#]
10	F-5 (FT)	*Time in Altitude Band (%)*	0%	5%	90%	5%
		Power Configuration				
		Afterburner	0%	5%	5%	5%
		85% RPM	0%	95%	95%	95%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
396	Alpha Jet	*Time in Altitude Band (%)*	0%	0%	100%	0%

		Power Configuration				
		88% RPM	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
180	F-35B/C	*Time in Altitude Band (%)*	2.5%	2.5%	15%	80%
		Power Configuration				
		Afterburner	10%	10%	10%	10%
		85% ETR	90%	90%	90%	90%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
180	F-35B/C	*Time in Altitude Band (%)*	0%	0%	50%	50%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		85% ETR	0%	0%	100%	100%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
180	FA-18/EA-18	*Time in Altitude Band (%)*	2.5%	2.5%	15%	80%
		Power Configuration				
		Afterburner	10%	10%	10%	10%
		85% ETR	90%	90%	90%	90%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
173	FA-18/EA-18	*Time in Altitude Band (%)*	0%	0%	50%	50%
		Power Configuration				
		Afterburner	0%	0%	0%	0%
		90% NC	0%	0%	100%	100%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
252	C-130J	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		2200 HP	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000

36	T-38	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		88% RPM	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
12	C-17	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		80% NC	0%	0%	100%	0%
			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
12	E-2	*Time in Altitude Band (%)*	0%	0%	100%	0%
		Power Configuration				
		3000 ISHP	0%	0%	100%	0%

Notes: *=F-15C data taken from Final Noise Study 159th Fighter Wing at NAS JRB New Orleans, Louisiana For the Air National Guard F-15EX Eagle II & F-35A Operational Beddowns Environmental Impact Statement; #=includes operations within altitude block FL320 to FL500 for no more than 15-minutes

Legend: % = percent; %ETR= % Engine Thrust Request; %NC=percent speed of compressor stage; ATCAA = Air Traffic Control Assigned Airspace; BFM=Basic Flight Maneuvers; CNY=Currency; FCF=Functional Check; FRS/TI=Fleet Replacement Training/Tactical Intercepts Flight; FT=Familiarization Training; HP=Horsepower; ISHP=Indicated Shaft Horsepower; MOA = Military Operations Area; MSL=mean sea level; RPM=Revolutions per Minute

Table A-3 Proposed F-15EX Flight Profiles within Proposed Bourbon MOA/ATCAA under Cumulative Action 1

			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
3,000	F-15EX	*Time in Altitude Band (%)*	2%	5%	36%	57%
		Power Configuration				
		Afterburner	50%	50%	50%	50%
		85% RPM	50%	50%	50%	50%

Notes: F-15EX data taken from Final Noise Study 159th Fighter Wing at NAS JRB New Orleans, Louisiana for the Air National Guard F-15EX Eagle II & F-35A Operational Beddowns Environmental Impact Statement

Legend: % = percent; ATCAA=Air Traffic Control Assigned Airspace; MOA=Military Operations Area; MSL=mean sea level; RPM=Revolutions per Minute

Table A-4 Proposed F-35A Flight Profiles within Proposed Bourbon MOA/ATCAA under Cumulative Action 2

			Percentage of Relative Time in Altitude Bands			
			Altitude Band (MSL)			
Sorties	**Aircraft**		4,000 MSL to 5,000	5,000 to 10,000	10,000 to 18,000	18,000 to 32,000
3,000	F-35A	*Time in Altitude Band (%)*	2%	5%	24%	69%
		Power Configuration				
		Afterburner	50%	50%	50%	50%
		85% ETR	50%	50%	50%	50%

Notes: F-35A data taken from Final Noise Study 159th Fighter Wing at NAS JRB New Orleans, Louisiana for the Air National Guard F-15EX Eagle II & F-35A Operational Beddowns Environmental Impact Statement

Legend: % = percent; ATCAA=Air Traffic Control Assigned Airspace; %ETR= % Engine Thrust Request; MOA=Military Operations Area; MSL=mean sea level

Appendix E
Endangered Species Act Documentation

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
N46/025
July 24, 2024

Mr. Seth Bordelon
U.S. Fish and Wildlife Service, Southeast Region
Louisiana Ecological Services Office
200 Dulles Drive
Lafayette, LA 70506

Dear Mr. Bordelon:

The Department of the Navy (Navy) is preparing an Environmental Assessment (EA) to evaluate potential environmental impacts associated with proposed flight training activities within a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA. The proposed MOA/ATCAA is located east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) and adjacent to existing Special Use Airspace (SUA). The Bourbon MOA/ATCAA would be located partially over St. Bernard Parish and partially over the waters of the Gulf of Mexico. The purpose of this letter is to request informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) regarding potential impacts of the Proposed Action on threatened and endangered species.

The proposed MOA/ATCAA would provide training airspace closer to NAS JRB NOLA to improve the quality and efficiency of the training and make more efficient use of fuel resources. The Proposed Action would not change the existing types or quantities of military flight activities originating from NAS JRB NOLA or occurring in the region. The Proposed Action is needed because existing SUA is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

The Navy analyzed potential impacts of the Proposed Action using the best scientific data available, as required under section 7(c) of the ESA. Based on the Navy's analyses, the Navy determined that the Proposed Action *may affect, but is not likely to adversely affect* the following species:

- Rufa red knot (*Calidris canutus rufa*) – Threatened
- Piping plover (*Charadrius melodus*) – Threatened
- Eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*) – Threatened
- Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered
- West Indian manatee *Trichechus manatus*) Threatened

Enclosed is an informal consultation package that provides project details and documents our analyses.

The Navy appreciates consideration by the U.S. Fish and Wildlife Service (USFWS) on the Proposed Action and requests USFWS's concurrence with the Navy's determination. The Project Manager at United States Fleet Forces Command is Mr. Greg Thompson, who may be reached at: (757) 836-6938 or via email: Gregory.S.Thompson2.civ@us.navy.mil. If you have any questions or require additional information, please contact Mr. Matt Martin, NAVFAC Southeast at (305) 928-4027 or by email at: Matthew.S.Martin54.civ@us.navy.mil.

Sincerely,

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Informal Consultation Documentation for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana

Informal Consultation Documentation

Draft Environmental Assessment for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana (Project Code: 2024-0070356)

The Department of the Navy (Navy) is preparing an Environmental Assessment (EA) to evaluate potential environmental impacts associated with proposed flight training activities within a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA. The proposed MOA/ATCAA is located east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) and adjacent to existing Special Use Airspace (SUA) (Attachment 1). The Bourbon MOA/ATCAA would be located partially over St. Bernard Parish and partially over the waters of the Gulf of Mexico. Pursuant to Section 7 of the Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] sections 1531–1544), the Navy has determined that the proposed flight training within the Bourbon MOA/ATCAA *may affect, but is not likely to adversely affect* federally listed species.

A MOA is a type of SUA designated to contain non-hazardous military flight training activities. It has defined vertical and lateral dimensions and designated times of use published on sectional aeronautical charts which identifies to other airspace users where these activities occur. An ATCAA also has specific vertical and lateral limits for the purpose of providing air traffic segregation between military training activities and other airspace users. Most often, as is the case in this project, the ATCAA is located above a MOA and has the same lateral limits as the MOA below. There is no ground training component associated with a MOA, only flight training activities.

The proposed MOA/ATCAA would provide training airspace closer to NAS JRB NOLA to improve the quality and efficiency of the training and make more efficient use of fuel resources. The Proposed Action would not change the existing types or quantities of military flight activities originating from NAS JRB NOLA or occurring in the region. The Proposed Action is needed because existing SUA is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

Flight operations within the Bourbon MOA/ATCAA would be limited to the airspace between 4,000 to 32,000 feet above mean sea level (MSL). Operations would occur approximately 5 hours per day between 8:00 a.m. to 5:00 p.m., Monday through Friday, which is the current operations tempo for the adjacent existing SUA. The airspace proposed for the Bourbon MOA/ATCAA is currently used to transit from NAS JRB NOLA to existing SUA. The number of military aircraft using the airspace would be the same as current conditions (4,169 flights annually), but instead of straight transition flights (lasting approximately 10–12 minutes), the airspace would be used for training flights (lasting approximately 30–60 minutes). Supersonic flight within the MOA/ATCAA would be required for some training events, but would be of very short duration, infrequent, and restricted to above 30,000 feet over land. The maximum sound level of a single overflight at the lowest possible altitude (4,000 feet MSL) within the proposed airspace would be 105 decibels (dB). Aircraft would generally only be at this low altitude for a small percentage of the training time and the maximum sound level would only last for a few seconds. The cumulative subsonic noise from aircraft operations within the proposed MOA/ATCAA would be 52 dB A-weighted Day-Night Average Sound Level (DNL).

The cumulative supersonic noise level would not exceed 42 dB C-weighted Day-Night Average Sound Level (CDNL).

The Proposed Action consists of airspace changes and flight training activities and does not involve any ground- or water-based activities, ground disturbance, or physical interference with water resources. The only potential impacts of this sort would result from airborne noise and the use of chaff and flares during some training activities, which would entail individual chaff fibers and some residual debris reaching the ground or sea floor. Chaff and flares are the principal defensive countermeasures dispensed by military aircraft to avoid detection or attack by enemy air defense systems and keep aircraft from being successfully targeted by weapons. Chaff and flares are used in nearly all military training airspace and ranges.

A chaff cartridge contains millions of chaff fibers that form an electronic "cloud" when dispensed from the aircraft that interferes with a radar signal and temporarily hides the maneuvering aircraft from radar detection. The light fibers drift in the prevailing wind and ultimately settle on the surface where they readily degrade in soil or water. An individual chaff fiber (aluminum-coated silica) is thinner than a fine human hair and ranges in length from 0.3 to 1 inch. To put a chaff fiber in perspective, if a 1-inch-long strand of chaff were laid on this page, most readers would not be able to see it. It is expected that up to 10,000 chaff cartridges would be dispensed in the Bourbon MOA/ATCAA annually.

Flares are made of magnesium that burns at a temperature in excess of 2,000 degrees Fahrenheit to simulate jet exhaust as a decoy for heat seeking missiles. The magnesium is fully consumed in the training airspace within 3 to 5 seconds during which time it would fall no more than 500 feet. The standard minimum release altitude over non-military land for flares is 2,000 feet above ground level; however, the floor of the Bourbon MOA/ATCAA would be 4,000 feet mean sea level (which is approximately 4,000 feet above ground level in this geographic area) and flares would not be released below the floor. The standard minimum release altitude ensures a burning flare does not reach the ground or tree canopy, significantly reducing the possibility of wildfires. It is expected that up to 10,000 flare cartridges would be dispensed in the Bourbon MOA/ATCAA annually.

The individual cartridges that contain chaff or flares remain on the aircraft and only the contents are dispensed into the airspace. Each chaff or flare cartridge is also packed with 2–3 pieces of benign residual materials that fall to the ground as debris. This residual debris includes plastic end caps, felt spacers, and plastic pistons (each of which are no larger than 1-inch by 1-inch). The use of chaff and flares is widely distributed throughout the entire MOA/ATCAA and the chaff fibers and residual debris would not collect in any substantial or noticeable quantity in any location. These materials land on the ground or float on the water surface for a short period before sinking to the bottom where they decompose in sediment.

Federally listed species with the potential to occur below the Bourbon MOA/ATCAA that may be impacted by the Proposed Action are presented in **Table 1**. The table provides the listing status, presence of critical habitat beneath proposed airspace, and description of general habitat for the species. This list was generated with information provided in the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (provided at end of this documentation). Potential impacts on these species are discussed below the table.

Table 1: Federally Listed Species with the Potential to be Impacted by the Proposed Action

Species	*USFWS Status*	*Critical Habitat*	*Habitat*
Birds			
Rufa Red Knot *Calidris cantus rufa*	Threatened	No	The rufa red knot migrates from coastal marine environments to the northern Arctic. During the nonbreeding season, red knots are found in coastal marine environments like coastal Louisiana where they forage along sandy beaches, lagoons, saltmarshes, eelgrass beds, and mangrove swamps (Cornell University, 2024a).
Piping Plover *Charadrius melodus*	Threatened	No	Piping plovers are found on bare shorelines and beaches of rivers, lakes, and coasts with little vegetation or disturbance and spend the nonbreeding season along the Gulf Coast, including Louisiana (Cornell University, 2024b).
Eastern Black Rail *Laterallus jamaicensis* ssp. *jamaicensis*	Threatened	No	The eastern black rail may be found year-round along the Gulf Coast of Louisiana. This species is elusive but may be found in dense marshes (Cornell University, 2024c).
Mammals			
Tricolored Bat *Perimyotis subflavus*	Proposed Endangered	No	The tricolored bat roost in caves, abandoned mines, and culverts and forages for insects during warm nights. In the spring through fall, this species is found in forested habitats, and it hibernates during winter in caves and abandoned mines (USFWS, 2024c).
West Indian Manatee *Trichechus manatus*	Threatened	No	The West Indian manatee is found along the Gulf of Mexico and Atlantic coasts as well as in the Caribbean. This species grazes on sea grasses and other aquatic plants in warm coastal waters. Manatees require access to freshwater habitat to stay hydrated and are therefore found near freshwater outlets (LDWF, 2024a).
Invertebrates[1]			
Monarch Butterfly *Danaus plexippus*	Candidate	No	Monarch butterflies migrate from central Mexico through Louisiana to the northern U.S. annually. Monarchs may pass through the low airspace beneath the MOA during migration.

Note: [1]Due to the nature of the Proposed Action, no effects to invertebrates are anticipated. Therefore, the monarch butterfly is not carried forward for analysis.

Legend: MOA = Military Operations Area; LDWF = Louisiana Department of Wildlife and Fisheries; USFWS = United States Fish and Wildlife Service.

Potential Impacts from Chaff and Flares

Potential impacts from chaff and flares could occur from the introduction of chaff fibers into the environment, distribution of residual materials in the form of debris, and potential for wildfire from flare usage. Chaff is made of aluminum coated silica fibers. The chaff concentrations that animals could be exposed to following the release of multiple cartridges (e.g., following a single day of training) depends on several variable factors. Specific release points are not recorded and tend to be random, and chaff dispersion in air depends on prevailing atmospheric conditions. Chaff fibers would drift in prevailing winds and ultimately land on the ground or water beneath the MOA/ATCAA. Residual materials from chaff and flares include

plastic end caps, felt spacers, and plastic pistons. These materials land on the ground or sink to the bottom of aquatic environments. Under the Proposed Action, up to 10,000 chaff cartridges and 10,000 flare cartridges would be expended annually in the MOA/ATCAA. Based on these annual totals, approximately one piece of residual material would occur per 5 acres of area on average. This is assuming even distribution of residual materials, and likely there would be some grouping of residual material. However, the overall number of chaff and flare residual material reaching the ground and ocean would be small and would be scattered in a large area.

There have been no observed toxicological effects of chaff or residual materials on terrestrial or aquatic organisms, even when subject to higher concentrations than would occur under this Proposed Action (Department of the Air Force, 1997, 2011, 2023). Terrestrial animals have not been observed ingesting chaff or residual materials (Department of Air Force, 1997). Birds have not been documented using chaff filaments or residual materials as nesting material or food. Chaff does not accumulate to any great degree and the fibers, if found, are often mistaken for natural elements such as animal fur or plant material. The fibers generally dissipate within a few days due to mechanical breakdown from wind, sediment erosion, and rain or snow.

The relatively slight force of a small piece of plastic (residual materials) striking any animal would not be expected to have any effect (Department of the Air Force, 2011). The wide distribution of these materials throughout the MOA/ATCAA would further reduce the likelihood that any animal would be struck by residual materials.

The possibility of a wildfire from flare usage would be extremely remote considering the reliability of flares and the amount of surface water beneath the MOA/ATCAA. Flares would not be released below the MOA floor (4,000 feet MSL) which is above the standard minimum release altitude of 2,000 feet above ground level (AGL), ensuring the flare has substantial time to burn out before contacting the ground or treetops. Flares are designed to burn completely.

Potential Impacts from Noise

Research on the impacts of noise on the specific ESA-listed species associated with this Proposed Action are not available. The impact discussion relies on available scientific studies on related bird and bat species. Continuous, intense noise exposure has been shown to cause health effects in laboratory experiments, but some research shows that intermittent noise, such as what would occur with the Proposed Action, may not, because some animals' ears can recover between the intermittent exposures and intermittent exposures result in lower total noise (Bowles, 1995a, b; Pienkowski and Eggermont, 2010). The proposed training is episodic, and would not create a consistent, significant noise source in any one location. In addition, the noise exposure throughout the MOA/ATCAA from the proposed aircraft operations would be low (52 dB DNL). While an infrequent event due to size of the MOA/ATCAA and flight altitude and annual number of flights, there is the possibility that wildlife could be subjected to a very brief direct overflight and experience a peak noise level of up to 105 dB. Exposure to peak noise levels would last only a few seconds and the animal would need to be directly beneath the flight path to experience this level of noise as the noise reduces the further the animal is from the flight path. Even at 105 dB, no harm to hearing capacity is anticipated as damage to hearing only occurs at levels over 140 to 150 dB (Bowles, 1995a).

Bats

Tricolored bats use echolocation to forage for insects at night from the spring through the fall (USFWS, 2021). Although noise would result from the flights of the Proposed Action, these flights are only scheduled to occur from 8:00 a.m. to 5:00 p.m. and would therefore generally not occur during the nocturnal foraging period of the tricolored bat. There may be small instances of overlap in dusk hours during the winter when daylight hours are fewer, but tricolored bats mostly hibernate during the winter (USFWS, 2021) and would therefore not be foraging during this time. Short, intermittent flight noise above foraging or roosting locations would be unlikely to cause significant disturbances to this species. A study in Wisconsin analyzed the effect of underground mine blasting on nearby bat roosts during hibernation, and the results indicated that vibrations from the blasting did not cause significant increases of bat activity (Summers et al., 2023). Although studies have demonstrated that bats are sensitive to disturbance during hibernation (Haarsma and de Hullu, 2012), other studies have demonstrated that bats are not sensitive to non-tactile disruptions, such as noise or light (Speakman et al., 1991), which would indicate that aircraft noise is unlikely to be significantly disruptive to bat hibernation. While the proposed operations within the MOA/ATCAA would create a noise disturbance for bats, this disturbance is expected to be intermittent and minor.

Manatee

The manatee may be affected in portions of the action area due to airborne noise, but these effects would be insignificant. Noise disturbance from the overflights is not expected to harass or agitate manatees. Exposure to noise would be brief (a few seconds), and all of the flights would occur at altitudes greater than 4,000 feet, thus allowing the sound level to attenuate before entering the water. Aircraft overflights are not expected to cause chronic stress as it is extremely unlikely that individual manatees would be repeatedly exposed to low altitude overflight noise. Noise associated with flights would not cause injury or harassment to marine species. Manatees are unlikely to be affected by aircraft noise while at the surface and while submerged, due to infrequent exposure. Exposure would be brief (a matter of seconds as aircraft passed overhead) and infrequent, given the dispersed nature of flights over such a large area.

Birds

Most concerns related to the effects of noise on birds involve the masking of communications among members of the same species, reducing the detectability of biologically relevant signals including the sounds of predators and prey, and temporarily or permanently decreasing hearing sensitivity (Dooling and Popper, 2007; Vincelette et al., 2020). These effects range from temporary pauses or elevated noise from birds after an aircraft disturbance (Vincelette et al., 2020), to disruptions of bird behavior and mating (Habib et al., 2007). In a study of ovenbirds, Habib et al. (2007) found chronic noise exposure near compressor stations affected pairing success, attributable to masking and distorting the song of breeding males on territories. Noise exposure under the Proposed Action would be intermittent and would not represent continuous hours of noise disruptions at a time in one location. Birds could be infrequently exposed to a maximum noise level of 105 dB if they are directly beneath a low-level overflight but this exposure would last a few seconds.

In a literature review including bird responses to military aircraft noise, Manci et al. (1988) found that most raptors did not show a negative response to overflights. When negative responses were observed, they were predominantly associated with rotor-winged aircraft or jet

aircraft that were repeatedly passing within 0.5 mile of a nest. Ellis et al. (1991) analyzed the effects of low-level military jet aircraft and mid- to high-altitude sonic booms (both actual and simulated) on nesting peregrine falcons and seven other raptors (common black hawk, Harris' hawk, zone-tailed hawk, red-tailed hawk, golden eagle, prairie falcon, bald eagle). Re-occupancy and productivity rates were within or above expected values for self-sustaining populations (Ellis et al., 1991). In a 1997 helicopter overflight study, Mexican spotted owls did not flush from a nest or perch unless a helicopter was as close as 330 feet (Delaney et al., 1999). Researchers in Colorado found that Mexican spotted owl responses to F-16 overflights were often less significant than responses to naturally occurring events such as thunderstorms. Similarly, Delaney et al. (1999) found that Mexican spotted owls quickly returned to normal day-roosting behavior after being disturbed by helicopters. A 6-year study in the Gila National Forest found that low-level aircraft overflight had no effect on occupancy of Mexican spotted owl activity centers and found no correlations among measures of aircraft exposure and nesting success (Air Combat Command, 2008).

A study performed on black ducks and wood ducks showed that ducks habituated to both visual and auditory aircraft activity over the course of 17 days (Conomy et al., 1998), suggesting that waterfowl may initially react to aircraft activity, but the disturbances would be unlikely to represent significant harm over time. In a study evaluating the impacts of military and civilian overflights on water birds, including least terns, beneath a MOA in North Carolina, no evidence was found that visual or acoustic stimuli from military aircraft flying between 2,100 feet AGL and 3,500 feet AGL elicited behavioral stress responses that would negatively impact nesting colonial waterbird demographic rates (Hillman, 2012). Flights within the Bourbon MOA/ATCAA would not be below 4,000 feet MSL (which in this area is approximately the same as 4,000 feet AGL).

ESA-listed Species Effects Determinations

The Proposed Action would result in random, intermittent noise across the area, but would not represent long-term continuous high levels of sound in any one area. Minor, temporary effects from aircraft noise are possible, but these effects are unlikely to pose long-term or population-level impacts to any species. Therefore, the aircraft noise and use of chaff and flares associated with the Proposed Action *may affect, but are not likely to adversely affect* rufa red knot, piping plover, eastern black rail, tricolored bat, and West Indian manatee.

Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA)

The 2003 National Defense Authorization Act gave the Secretary of the Interior authority to prescribe regulations to permit the Armed Forces to incidentally take migratory birds during approved military readiness activities without violating the MBTA. The final rule authorizing the Department of Defense to take migratory birds in such cases includes a requirement that the Armed Forces must confer with the USFWS to develop and implement appropriate conservation measures to minimize or mitigate adverse effects of the Proposed Action if the action has a significant negative effect on the sustainability of a population of a migratory bird species.

Bird aircraft strikes associated with migrating birds are a substantial concern due to the risk of damage to aircraft, injury, or loss of life to aircrews or the local population in the event of an aircraft crash, as well as the risk to the bird species in collisions. Over 90 percent of reported

bird strikes occur at or below 3,000 feet AGL. Flights in the proposed Bourbon MOA/ATCAA would occur above 4,000 feet AGL.

The Avian Hazard Advisory Safety System (AHAS) is managed by the Department of the Air Force and available to all services to detect and assess the risk of a bird strike. AHAS is informed by various sources to include data from Next Generation Radar and National Oceanic and Atmospheric Association (Air Force Safety Center, 2015). AHAS uses multiple risk assessment methods to identify the risk for a given flying area that contains biological activity.

Aircrews operating in the Bourbon MOA/ATCAA would be required to follow applicable procedures outlined in the NAS JRB NOLA Bird/Wildlife Aircraft Strike Hazard (BASH) Reduction Plan (Navy, 2017) as they do currently. When safety procedures identify an increased risk, limits are placed on low-altitude flights and some types of training. Special briefings are provided to pilots whenever the potential exists for greater bird-strike risks within airspace. AHAS, together with specific procedures defined the BASH Reduction Plan, can be used to evaluate local and enroute bird strike risks and manage flight operations in training airspace. Thus, the Proposed Action would not have significant impacts to migratory birds.

Based on the discussions described above in "*Potential Impacts from Noise, Birds*", the Proposed Action would not have significant noise related impacts to migratory birds or bald or golden eagles. Migratory birds and eagles may experience brief disruptions from noise when flights pass overhead which may elicit startle responses, briefly mask intraspecific vocalizations, or result in the individual temporarily leaving the area, as discussed above. However, these disturbances would not represent long-term or significant effects on eagles. With the existing BASH protection measures already in place and the less than significant impacts associated with flight training, the Proposed Action would not result in the take of species protected under MBTA or BGEPA.

Summary

In conclusion, the Navy has determined the proposed flight training activities within the proposed Bourbon MOA/ATCAA *may affect, but are not likely to adversely affect* the rufa red knot, piping plover, eastern black rail, tricolored bat, and West Indian manatee. The Navy has determined the proposed activities would have *no effect* to the monarch butterfly.

Attachments:
1. Map of Proposed Action Area
2. USFWS Species List (Project Code: 2024-0070356)

References:

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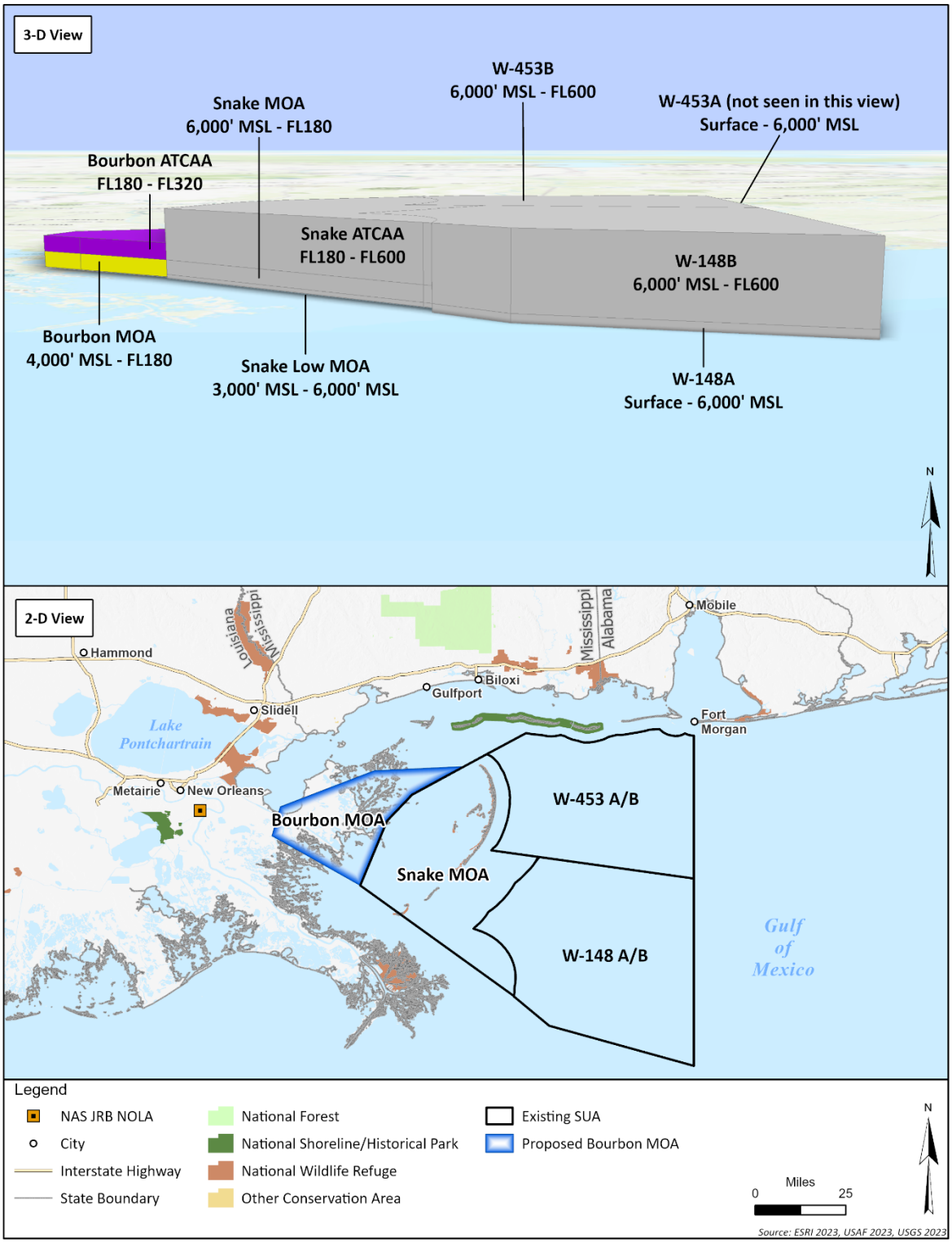
Attachment 1: Map of Proposed Action Area



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Phone: (337) 291-3100 Fax: (337) 291-3139

In Reply Refer To:
Project Code: 2024-0070356
Project Name: New Orleans Airspace EA

03/29/2024 20:28:22 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and may be affected by your proposed project. The Fish and Wildlife Service (Service) is providing this list under section 7 (c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Changes in this species list may occur due to new information from updated surveys, changes in species habitat, new listed species and other factors. Because of these possible changes, feel free to contact our office (337-291-3109) for more information or assistance regarding impacts to federally listed species. The Service recommends visiting the IPaC site or the Louisiana Ecological Services Field Office website (https://www.fws.gov/southeast/lafayette) at regular intervals during project planning and implementation for updated species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect Federally listed species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)).

Bald eagles have recovered and were removed from the List of Endangered and Threatened Species as of August 8, 2007. Although no longer listed, please be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668 et seq.).

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance", which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf

Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: https://www.fws.gov/southeast/our-services/eagle-technical-assistance/. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting any necessary consultation.

Activities that involve State-designated scenic streams and/or wetlands are regulated by the Louisiana Department of Wildlife and Fisheries and the U.S. Army Corps of Engineers, respectively. We, therefore, recommend that you contact those agencies to determine their interest in proposed projects in these areas.

Activities that would be located within a National Wildlife Refuge are regulated by the refuge staff. We, therefore, recommend that you contact them to determine their interest in proposed projects in these areas.

Additional information on Federal trust species in Louisiana can be obtained from the Louisiana Ecological Services website at: https://www.fws.gov/southeast/lafayette

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Marine Mammals

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
(337) 291-3100

PROJECT SUMMARY

Project Code: 2024-0070356
Project Name: New Orleans Airspace EA
Project Type: Military Operations
Project Description: Bourbon MOA
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.8127778,-89.47842704176865,14z

Counties: Plaquemines and St. Bernard counties, Louisiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee *Trichechus manatus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. ***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.*** Species profile: https://ecos.fws.gov/ecp/species/4469	Threatened

BIRDS

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle *Lepidochelys kempii* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle *Dermochelys coriacea* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle *Caretta caretta* Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

FISHES

NAME	STATUS
Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi*	Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/651

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi*	Final

https://ecos.fws.gov/ecp/species/651#crithab

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

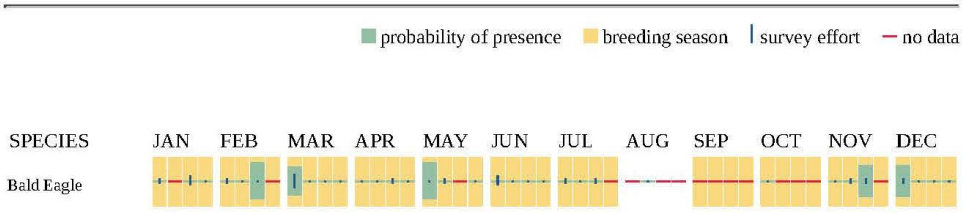
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Oystercatcher *Haematopus palliatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black Skimmer *Rynchops niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Brown Pelican *Pelecanus occidentalis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/6034	Breeds Jan 15 to Sep 30
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Common Loon *gavia immer* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/4464	Breeds Apr 15 to Oct 31
Forster's Tern *Sterna forsteri* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11953	Breeds Mar 1 to Aug 15
Gull-billed Tern *Gelochelidon nilotica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
King Rail *Rallus elegans* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

NAME	BREEDING SEASON
Magnificent Frigatebird *Fregata magnificens* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9588	Breeds elsewhere
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Painted Bunting *Passerina ciris* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-breasted Merganser *Mergus serrator* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10693	Breeds elsewhere
Reddish Egret *Egretta rufescens* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7617	Breeds Mar 1 to Sep 15
Ring-billed Gull *Larus delawarensis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10468	Breeds elsewhere
Royal Tern *Thalasseus maximus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10471	Breeds Apr 15 to Aug 31
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere

NAME	BREEDING SEASON
Sandwich Tern *Thalasseus sandvicensis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9731	Breeds Apr 25 to Aug 31
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds Apr 20 to Aug 5
Wilson's Plover *Charadrius wilsonia* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9722	Breeds Apr 1 to Aug 20

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

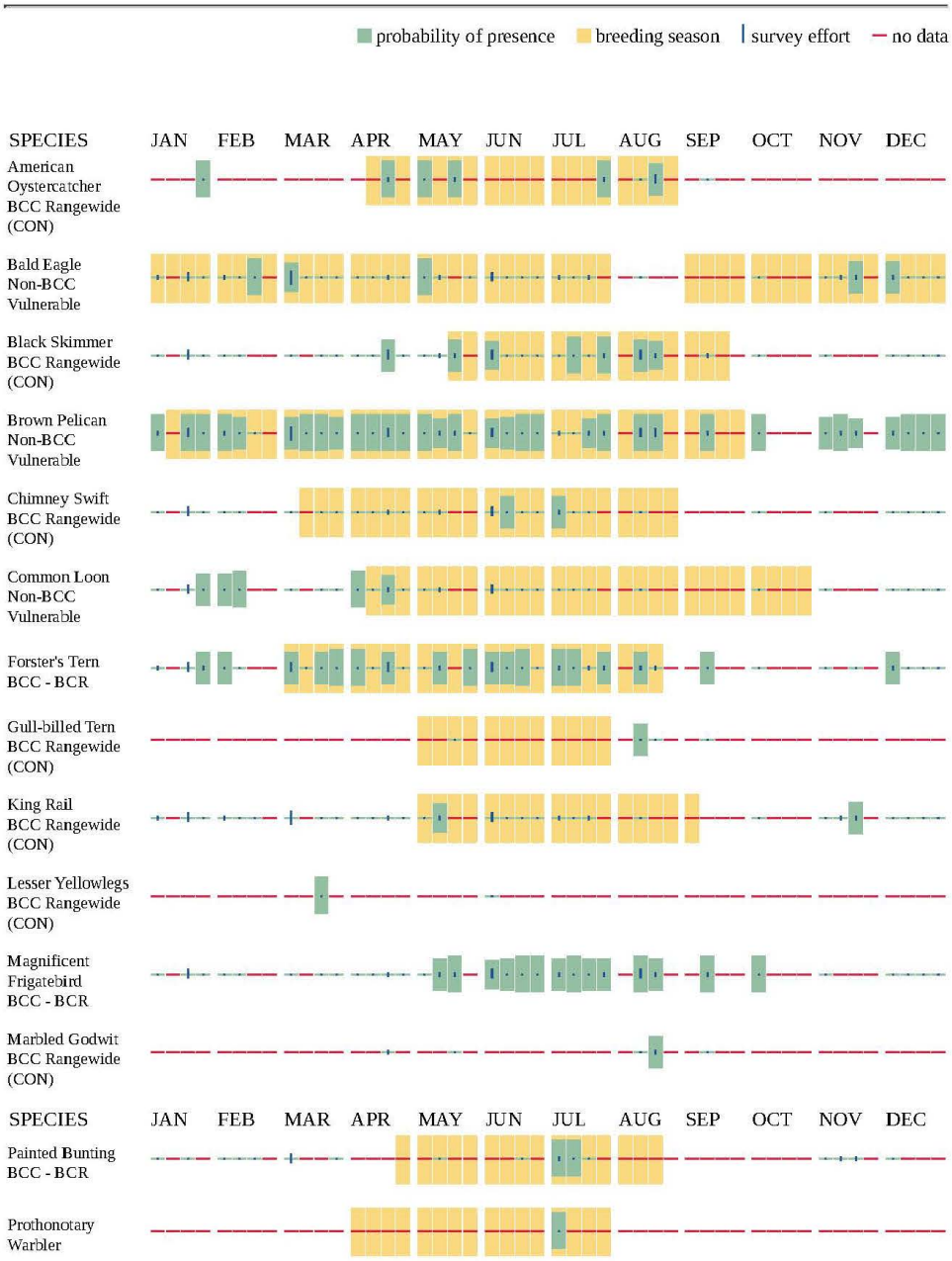
Probability of Presence (▪)

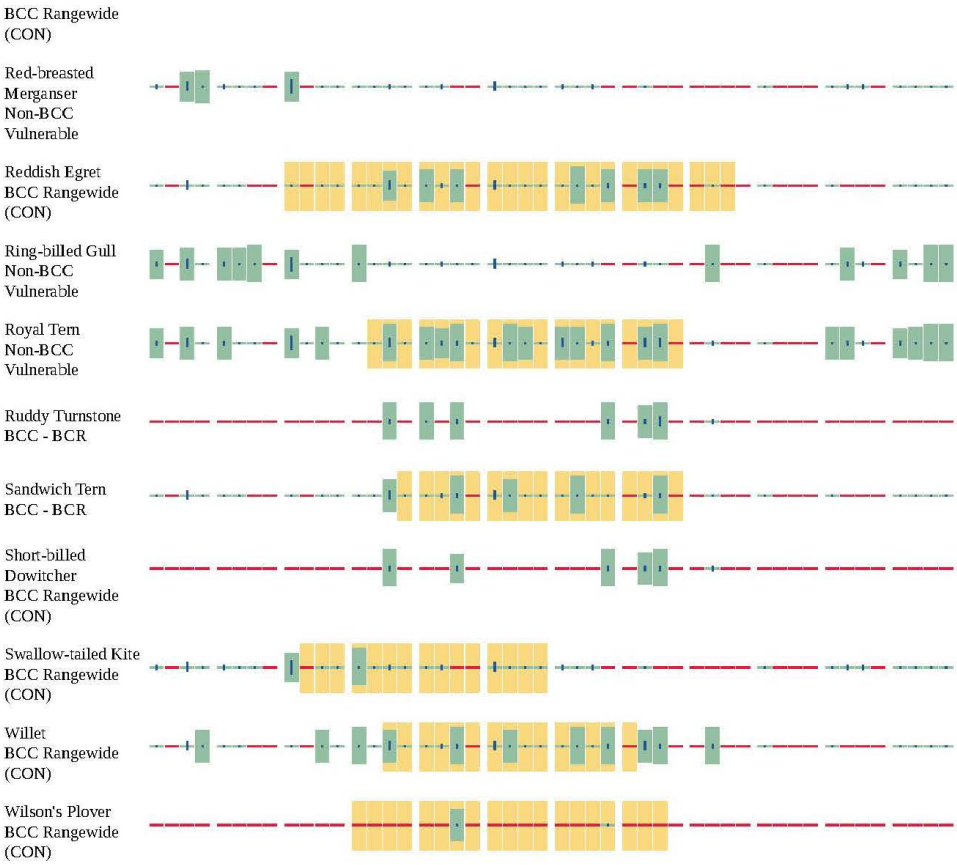
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.


probability of presence
breeding season
survey effort
no data
SPECIES
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
American Oystercatcher BCC Rangewide (CON)
Bald Eagle Non-BCC Vulnerable
Black Skimmer BCC Rangewide (CON)
Brown Pelican Non-BCC Vulnerable
Chimney Swift BCC Rangewide (CON)
Common Loon Non-BCC Vulnerable
Forster's Tern BCC - BCR
Gull-billed Tern BCC Rangewide (CON)
King Rail BCC Rangewide (CON)
Lesser Yellowlegs BCC Rangewide (CON)
Magnificent Frigatebird BCC - BCR
Marbled Godwit BCC Rangewide (CON)
SPECIES
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Painted Bunting BCC - BCR
Prothonotary Warbler



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MARINE MAMMALS

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*
Species profile: https://ecos.fws.gov/ecp/species/4469

IPAC USER CONTACT INFORMATION

Agency: Department of Defense
Name: Ashley Thompson
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City: Hampton
State: VA
Zip: 23666
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Phone: 7576902827

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Navy

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/024
July 24, 2024

Mr. David Bernhart
Assistant Regional Administrator
NMFS SE Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhart:

The Department of the Navy (Navy) is preparing an Environmental Assessment (EA) to evaluate potential environmental impacts associated with proposed flight training activities within a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA. The proposed MOA/ATCAA is located east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) and adjacent to existing Special Use Airspace (SUA). The Bourbon MOA/ATCAA would be located partially over St. Bernard Parish and partially over the waters of the Gulf of Mexico. The purpose of this letter is to request informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) regarding potential impacts of the Proposed Action on threatened and endangered species.

The proposed MOA/ATCAA would provide training airspace closer to NAS JRB NOLA to improve the quality and efficiency of the training and make more efficient use of fuel resources. The Proposed Action would not change the existing types or quantities of military flight activities originating from NAS JRB NOLA or occurring in the region. The Proposed Action is needed because existing SUA is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

The Navy analyzed potential impacts of the Proposed Action using the best scientific data available, as required under section 7(c) of the ESA. Based on the Navy's analyses, the Navy determined that the Proposed Action *may affect, but is not likely to adversely affect* the following species:

- Green turtle (*Chelonia mydas*), North Atlantic DPS – Threatened
- Kemp's ridley turtle (*Lepidochelys kempii*) – Endangered
- Leatherback turtle (*Dermochelys coriacea*) – Endangered
- Loggerhead turtle (*Caretta caretta*), Northwest Atlantic DPS – Threatened
- Hawksbill turtle (*Eretmochelys imbricata*) – Endangered
- Gulf sturgeon (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) - Threatened

Enclosed is an informal consultation package that provides project details and documents our analyses.

The Navy appreciates consideration by the National Marine Fisheries Service (NMFS) on the Proposed Action and requests NMFS's concurrence with the Navy's determination. The Project Manager at United States Fleet Forces Command is Mr. Greg Thompson, who may be reached at: (757) 836-6938 or via email: Gregory.S.Thompson2.civ@us.navy.mil . If you have any questions or require additional information, please contact Mr. Matt Martin, NAVFAC Southeast at (305) 928-4027 or by email at: Matthew.S.Martin54.civ@us.navy.mil .

Sincerely,

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Informal Consultation for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana

Request to NOAA Fisheries Southeast Regional Office
for Initiation of Expedited Informal Consultation

July 2024

Mr. David Bernhart
Assistant Regional Administrator for Protected Resources
National Marine Fisheries Service
Southeast Regional Office
St. Petersburg, Florida

Re: Request for Initiation of Expedited Informal Consultation under section 7(a)(2) of the Endangered Species Act for Draft Environmental Assessment for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana

The Department of the Navy (Navy) proposes to carry out the proposed project as described below. We request initiation of informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) for the Draft Environmental Assessment for Flight Training Activities in the Bourbon Military Operations Area Offshore from Naval Air Station Joint Reserve Base New Orleans, Louisiana. We have determined that the proposed activity may affect, but is not likely to adversely affect, the ESA-listed species and critical habitat included in the table(s) below. Our supporting analysis is provided below. We request your written concurrence with our determinations.

Pursuant to our request for expedited informal consultation, we are providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or critical habitat that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or critical habitat.

Proposed Action

This proposed project is intended to establish a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA. The MOA/ATCAA would be east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) and adjacent to existing Special Use Airspace (SUA) (Attachment 1). The purpose of the project is to provide closer training airspace to improve the quality and efficiency of the training at NAS JRB NOLA and make more efficient use of fuel resources. We expect the flight training activities to commence on approximately January 2025 and extend indefinitely. Publication of the MOA/ATCAA on sectional aeronautical charts is the responsibility of the Federal Aviation Administration, a cooperating agency on this Environmental Assessment.

A MOA is a type of SUA designated to contain non-hazardous military flight training activities. It has defined vertical and lateral dimensions and designated times of use published on sectional aeronautical charts which identifies to other airspace users where these activities occur. An ATCAA also has specific vertical and lateral limits for the purpose of providing air traffic segregation between military training activities and other airspace users. The ATCAA is located above the MOA and has the same lateral limits as the MOA below. There is no ground training component associated with a MOA/ATCAA, only flight training activities.

The proposed MOA/ATCAA would provide military training airspace closer to NAS JRB NOLA. The Proposed Action would not change the number of flights originating from NAS JRB NOLA or occurring in the region. The airspace proposed as the Bourbon MOA/ATCAA is currently used to transit from the base to the existing SUA east of the base (Attachment 1). The Proposed Action is needed because the prolonged transit time to access existing SUA reduces the amount of time the aircrews can train.

Flight training activities within the Bourbon MOA/ATCAA would be confined to the airspace between 4,000 to 32,000 feet above mean sea level. Operations would occur approximately 5 hours per day between 8:00 a.m. to 5:00 p.m., Monday through Friday, which is the current operations tempo for the adjacent existing SUA. The number of aircraft using the airspace would be the same as current conditions, but instead of straight transition flights (lasting approximately 10–12 minutes), the airspace would be used for flight training activities (lasting approximately 30–60 minutes) (Table 1).

Table 1. Existing and Proposed Annual Sorties[1] in Bourbon MOA/ATCAA

Aircraft	*Existing Sorties (Transit)*		*Proposed Sorties (Training)*	
	Sorties (Number)	*Time per Sortie (minutes)*	*Sorties (Number)*	*Time per Sortie (minutes)*
F-5	1,195	10	1,195	60
F-15	1,553	10	1,553	30
F-35	360	10	360	10–30[2]
F-18	353	10	353	10–30[2]
Other[3]	708	10-12	708	30
TOTAL	**4,169**	**718 hours**	**4,169**	**2,565 hours**

Notes: [1] A sortie is the takeoff, operation, and landing of one aircraft.
[2] About half of the F-35 and F-18 sorties are expected to transit through the new Bourbon MOA/ATCAA as they do currently to access the existing SUA (10 minutes); the other half would remain in the new MOA/ATCAA for training (30 minutes).
[3] Other aircraft could include various jets, cargo aircraft, helicopters, and unmanned aircraft.

The Proposed Action consists of airspace changes and flight training activities and does not involve any ground- or water-based activities, ground disturbance, or physical interference with water resources. The only potential impacts of this sort would result from airborne noise and the use of chaff and flares during some training activities, which would entail individual chaff fibers and some residual debris reaching the ground or sea floor. Chaff and flares are the principal defensive countermeasures dispensed by military aircraft to avoid detection or attack by enemy air defense systems and keep aircraft from being successfully targeted by weapons. Chaff and flares are used in nearly all military training airspace and ranges.

A chaff cartridge contains millions of chaff fibers that form an electronic "cloud" when dispensed from the aircraft that interferes with a radar signal and temporarily hides the maneuvering aircraft from radar detection. The light fibers drift in the prevailing wind and

ultimately settle on the surface where they readily degrade in soil or water. An individual chaff fiber (aluminum-coated silica) is thinner than a fine human hair and ranges in length from 0.3 to 1-inch. To put a chaff fiber in perspective, if a 1-inch-long strand of chaff were laid on this page, most readers would not be able to see it. It is expected that up to 10,000 chaff cartridges would be dispensed in the Bourbon MOA/ATCAA annually.

Flares are made of magnesium that burns at a temperature in excess of 2,000 degrees Fahrenheit to simulate jet exhaust as a decoy for heat seeking missiles. The magnesium is fully consumed in the training airspace within 3 to 5 seconds during which time it would fall no more than 500 feet. The standard minimum release altitude over non-military land for flares is 2,000 feet above ground level, however, the floor of the Bourbon MOA/ATCAA would be 4,000 feet mean sea level (which is approximately 4,000 feet above ground level in this geographic area) and flares would not be released below the floor. The standard minimum release altitude ensures a burning flare does not reach the ground or tree canopy, significantly reducing the possibility of wildfires. It is expected that up to 10,000 flare cartridges would be dispensed in the Bourbon MOA/ATCAA annually.

The individual cartridges that contain chaff or flares remain on the aircraft and only the contents are dispensed into the airspace. Each chaff or flare cartridge is also packed with 2-3 pieces of benign residual materials that fall to the ground as debris. This residual debris includes plastic end caps, felt spacers, and plastic pistons (each of which are no larger than 1-inch by 1-inch). The use of chaff and flares is widely distributed throughout the entire MOA/ATCAA and the chaff fibers and residual debris would not collect in any substantial or noticeable quantity in any location. These materials land on the ground or float on the water surface for a short period before sinking to the bottom where they decompose in sediment.

In 2009, a similar action described in the Environmental Assessment/Overseas Environmental Assessment (EA/OEA) for Atlantic Fleet Training in the Key West Range Complex was issued a concurrence from the National Marine Fisheries Service (NMFS) on their conclusions that the training flights may affect, but were not likely to adversely affect loggerhead, green, hawksbill, Kemp's ridley, and leatherback sea turtles and sperm whales. The Key West Range Complex EA/OEA assessed proposed flight training activities for F-18, F-16, F-15, F-5, and E-2 aircraft. Flight training activities in the Key West Range Complex involved use of chaff and flares and at greater quantities than those proposed in this Proposed Action. NMFS concurred that the use of chaff and flares was not likely to adversely affect threatened and endangered species under their jurisdiction.

Conservation Measures and BMPs

The Proposed Action does not consist of ground- or water-based activities. All actions occur in the MOA/ATCAA airspace between 4,000 and 32,000 feet above mean sea level. No conservation measures or Best Management Practices (BMPs) detailed in the *Protected Species Construction Conditions* are applicable to this action.

Description of the Action Area

The *action area* is all areas to be affected by the Federal action and not merely the immediate area involved in the action (50 Code of Federal Regulations [CFR] 402.02). *Effects of the action* are all consequences to listed species or critical habitat that are caused by the Proposed Action, including the consequences of other activities that are caused by the Proposed Action. A

consequence is caused by the Proposed Action if it would not occur but for the Proposed Action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. The action area is distinct from and can be larger than the project footprint because some elements of the project may affect listed species or critical habitat some distance from the project footprint. The action area, therefore, extends out to a point where no effects from the project are expected to occur.

For this project, the action area includes the land and water area beneath the proposed Bourbon MOA/ATCAA that would be impacted by airborne noise and chaff and flare usage (Attachment 1). The airspace is partially above the land of St. Bernard Parish outside of New Orleans, and partially above the ocean off the coast of St. Bernard Parish. Approximate latitude and longitude of the center of the MOA at surface level is 29.876547, -89.302203.

Potentially Affected NMFS ESA-Listed Species and Critical Habitat

We have assessed the listed species that may be present in the action area and our determination of the project's potential effects to them as shown in Table 2 below.

Please note abbreviations used in Table 2: E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect; N/A = not applicable; DPS = Distinct Population Segment; ESA = Endangered Species Act; FR = Federal Register

Table 1. ESA-listed Species in the Action Area and Effect Determination(s)

Species	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan/Outline Date	Effect Determination (Species)
Sea Turtles				
Green (North Atlantic [NA] distinct population segment [DPS]) (*Chelonia mydas*)	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Kemp's ridley (*Lepidochelys kempii*)	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Leatherback (*Dermochelys coriacea*)	E	35 FR 8491/ June 2, 1970	April 1992	NLAA
Loggerhead (Northwest Atlantic [NWA] DPS) (*Caretta caretta*)	T	76 FR 58868/ September 22, 2011	December 2008	NLAA
Hawksbill (*Eretmochelys imbricata*)	E	35 FR 8491/ June 2, 1970	December 1993	NLAA

Species	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan/Outline Date	Effect Determination (Species)
Fish				
Gulf sturgeon (Atlantic sturgeon, Gulf subspecies) (*Acipenser oxyrinchus desotoi*)	T	56 FR 49653/ September 30, 1991	September 1995	NLAA

We have assessed the critical habitats that overlap with the action area and our determination of the project's potential effects to them as shown in Table **3** below.

Please note abbreviations used in Table 3: NLAA = may affect, not likely to adversely affect; NE = no effect; FR = Federal Register

Table 2. Critical Habitat(s) in the Action Area and Effect Determination(s)

Species	Critical Habitat in the Action Area	Critical Habitat Rule/Date	Effect Determination (Critical Habitat)
Gulf sturgeon (*Acipenser oxyrinchus desotoi*)	Unit 8	68 FR 13370/ March 19, 2003	NE

Effects of the Action

ROUTE(S) OF EFFECT TO ESA-LISTED SPECIES:

Potential impacts of the Proposed Action on sea turtles and fish could occur from airborne noise and the potential ingestion of chaff fibers or residual debris from the use of chaff and flares. Selective ingestion of chaff fibers or residual materials is not likely, but inadvertent consumption could occur during normal feeding activities by sea turtles or fish.

Gulf sturgeons are anadromous fish and migrate from saltwater to large coastal rivers to spawn during the warmer months. This species spends most of its life in freshwater rivers (United States Fish and Wildlife Service [USFWS] and Gulf States Marine Fisheries Commission, 1995). Gulf sturgeons and its critical habitat are located along the estuaries and coast of Louisiana under the Bourbon MOA/ATCAA.

The sea turtles that may occur under the action area are migratory and occur along the gulf coast of Louisiana. Sea turtles rise to the ocean surface to breathe and lay their eggs on beaches and coastlines. These species spend various amounts of time in the open ocean during migratory periods. In the U.S., the green turtle is primarily found nesting in the Hawaiian Islands, the U.S. Pacific Island territories, Puerto Rico, the Virgin Islands, and Florida. Small nesting areas also occur in Georgia, South Carolina, North Carolina, and Texas (NOAA Fisheries, 2024). In the U.S., hawksbill sea turtles are found off the coast in the Gulf of Mexico from southern Texas to

southern Florida. This species nests on sandy beaches globally in the subtropics and tropics and migrates among coastal waters (USFWS, 2013). Loggerhead sea turtles occur along the coast of the Gulf of Mexico and the Atlantic coast in the U.S. The population that occurs in Louisiana is the Northwest Atlantic Ocean DPS (USFWS, 2024b). Females lay eggs on sandy beaches. The leatherback sea turtle may be found off the coast of most of the continental U.S., including Louisiana. This species nests on beaches and shorelines with a variety of substrate (USFWS, 2020). Kemp's ridley sea turtles are found along the Gulf coast, including Louisiana, as well as the Atlantic coast from Georgia to Maryland. Major nesting beaches are mainly found in Mexico, Texas, Alabama, and Florida (USFWS, 2011).

Sea turtles and sturgeon may be affected in portions of the action area due to airborne noise, but these effects would be insignificant. Noise disturbance from the sorties is not expected to harass or agitate the animals. Exposure to noise would be brief (a few seconds), and all sorties would occur at altitudes greater than 4,000 ft, thus allowing the sound level to attenuate before entering the water. Aircraft overflights are not expected to cause chronic stress as it is extremely unlikely that individual turtles or sturgeon would be repeatedly exposed to low altitude overflight noise. Noise associated with sorties would not cause injury or harassment to sea turtles or sturgeon. Sea turtles are unlikely to be affected by aircraft noise while at the surface and while submerged, due to infrequent exposure. Exposure would be brief (a matter of seconds as aircraft passed overhead) and infrequent, given the dispersed nature of flights over such a large area. Therefore, airborne noise generated during the Proposed Action may affect, but is not likely to adversely affect the green turtle, Kemp's Ridley turtle, leatherback turtle, loggerhead turtle, hawksbill turtle, and gulf sturgeon.

Sea turtles and sturgeon could be exposed to individual chaff fibers through direct body contact and ingestion. The chaff fiber concentrations that sea turtles and sturgeon could be exposed to following the release of multiple cartridges (e.g., following a single day of training) depends on several variable factors. Specific release points are not recorded and tend to be random, and chaff fiber dispersion in air depends on prevailing atmospheric conditions. Chaff fibers would be dispersed by sea currents as they float and slowly sink toward the bottom. The fibers readily degrade in aquatic and terrestrial environments and there have been no observed toxicological effects of chaff fibers on terrestrial or aquatic organisms, even when subject to higher concentrations than would occur under this Proposed Action (Department of the Air Force, 1997, 2011, 2023). Chaff fibers do not accumulate to any great degree and, if found, could be mistaken for natural elements such as animal fur or plant material. Direct body contact or ingestion of chaff fibers is not expected to significantly impact the health of fish or sea turtles.

As with chaff fibers, the residual debris associated with the use of chaff and flares would be widely dispersed. Based on the proposed annual quantities of chaff (10,000 cartridges) and flares (10,000 cartridges) to be used, approximately 1 piece of residual debris would occur per 5 acres of area. This is assuming even distribution of residual debris across the total area of the MOA/ATCAA, and likely there would be some grouping of residual debris. However, the overall number of pieces of residual debris reaching the ground and ocean would be very small and would be scattered across a large area. This debris would be released into the marine environment where it could be inadvertently ingested by sea turtles and sturgeon during normal

feeding activities. The relatively rare occurrence of these materials combined with natural dispersion would make the interaction of sea turtles or sturgeon and residual debris rare. If an animal ingested a piece of residual debris, it would likely pass through the digestive tract and not cause significant harmful effects.

The occurrence of residual debris from chaff and flares and the distributed chaff fibers result in very small potential negative impacts to sea turtles and sturgeon. Therefore, chaff and flare use in the Proposed Action may affect, but is not likely to adversely affect the green turtle, Kemp's Ridley turtle, leatherback turtle, loggerhead turtle, hawksbill turtle, and gulf sturgeon.

ROUTES OF EFFECT TO CRITICAL HABITAT

The project is located within the boundary of gulf sturgeon critical habitat. The following physical or biological features essential for the conservation of the species ("essential features") are present in Unit 8: juvenile, subadult and adult feeding, resting and passage habitat for gulf sturgeon from the Pascagoula and Pearl Rivers subpopulations, and winter habitat (68 FR 13370 13495). We do not believe any of the essential features may be affected by the Proposed Action, as no ground or surface water quality impacts would occur as part of the Proposed Action.

Conclusion

The Navy has reviewed the proposed project for its effects to ESA-listed species and their critical habitat. Based on the analysis above, we have determined that establishing the Bourbon MOA/ATCAA is not likely to adversely affect any listed species and will not affect critical habitat under NMFS's jurisdiction.

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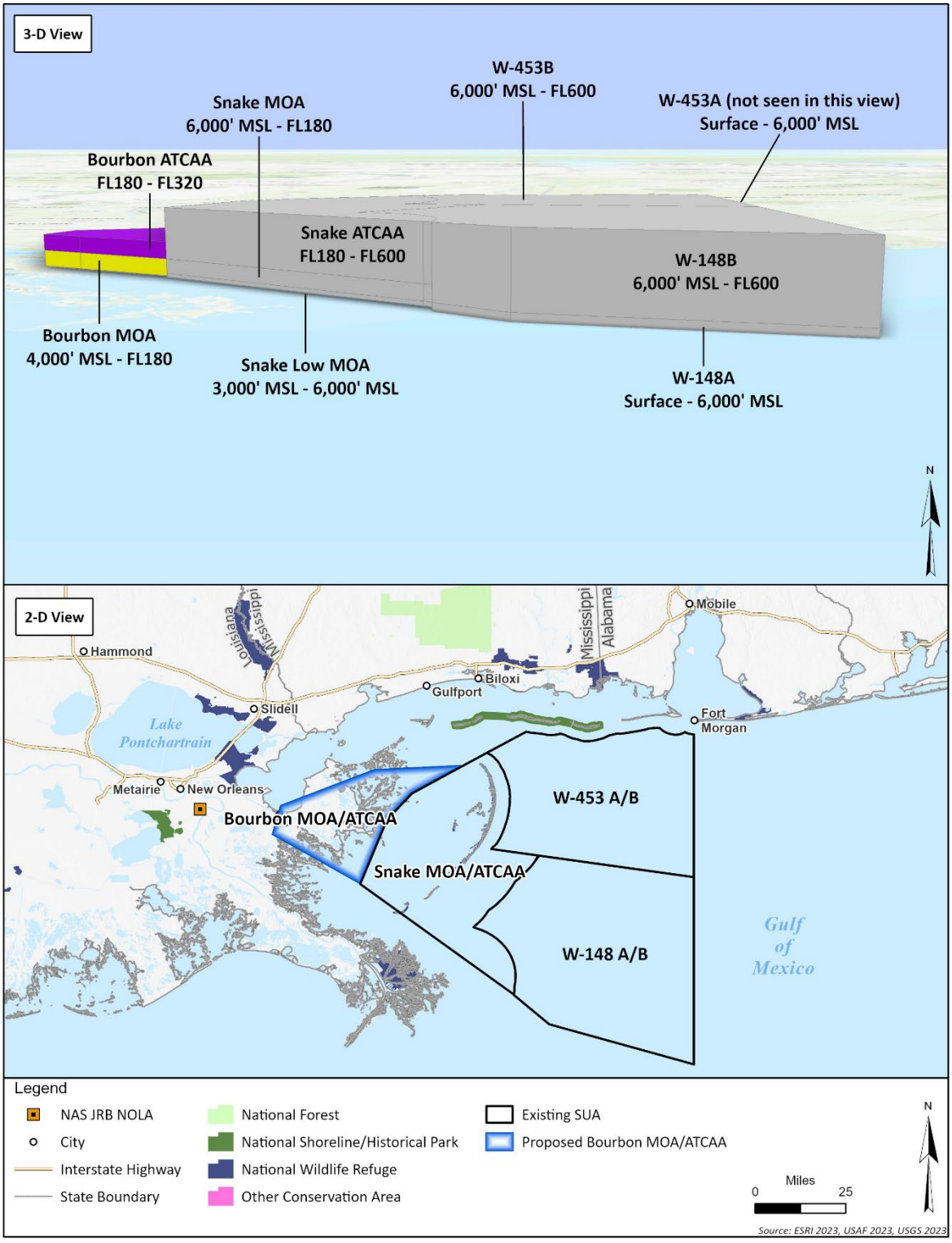
Attachment 1



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Appendix F Coastal Consistency Determination

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
N46/026
July 24, 2024

Mr. James Bondy
Office of Coastal Management – Interagency Affairs & Field Services
Louisiana Department of Natural Resources
P.O. Box 94396
Baton Rouge, LA 70804-9396

Dear Mr. Bondy:

United States (U.S.) Fleet Forces Command, a Command of the U.S. Navy (hereinafter referred to as the Navy) proposes to request that the Federal Aviation Administration (FAA) establish a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA, east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) adjacent to the existing Snake MOA/ATCAA to accommodate required flight training activities for squadrons stationed at the base. In accordance with the Coastal Zone Management Act (16 United States Code [U.S.C.] section 1456(c)) and 15 Code of Federal Regulations (CFR) Part 930 Subpart C, the Navy has prepared a Coastal Consistency Determination and is requesting coordination with the Louisiana Coastal Resources Program (LCRP) concerning the potential effects to coastal resources.

The proposed project would provide training airspace closer to NAS JRB NOLA to improve the quality and efficiency of the training and make more efficient use of fuel resources. Efficiencies are achieved when pilots can train in airspace of sufficient size and proximity to the base. The new MOA/ATCAA would be used alone and in conjunction with existing adjacent airspace. The action would not change the existing types or quantities of military flight activities originating from NAS JRB NOLA or occurring in the region. The Proposed Action is needed because existing airspace is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

Based on a consistency review of the approved LCRP in accordance with section 307(c) of the Federal Coastal Zone Management Act of 1972, the Navy has determined that the project will be consistent to the maximum extent practicable with the federally enforceable policies of the LCRP (Enclosure) and requests concurrence with this determination. Please provide your response within 60 days of receipt of this correspondence. The Project Manager at U.S. Fleet Forces Command is Mr. Greg Thompson, who may be reached at: (757) 836-6938 or via email: Gregory.S.Thompson2.civ@us.navy.mil.

If you have any additional questions or comments, please contact Laila Capers Cobb, who may be reached at: (904) 542-6180 or via email: Laila.T.Capers.civ@us.navy.mil. Thank you for your time and consideration and for supporting the military mission in Louisiana.

Sincerely,

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Project Description and Louisiana Coastal Resources Program Consistency Review

Copy to: Thalas Rattanaxay, NAS JRB New Orleans, Acting Installation Environmental Program Director; Laila Capers Cobb, NAVFAC Southeast

Flight Training Activities in the Bourbon Military Operations Area Offshore From Naval Air Station Joint Reserve Base New Orleans, Louisiana
Project Description and
Louisiana Coastal Resources Program Consistency Review

Introduction

This document provides the State of Louisiana with the Department of the Navy's (Navy) Consistency Determination under section 307(c) of the Coastal Zone Management Act (CZMA) (16 United States Code [U.S.C.] section 1456) and 15 Code of Federal Regulations (CFR) Part 930, for the flight training activities in the Bourbon Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA) offshore from Naval Air Station Joint Reserve Base New Orleans. The information in this Consistency Review is provided pursuant to 15 CFR section 930.39 and the requirements of the Louisiana Coastal Resources Program (LCRP).

A MOA is a type of Special Use Airspace (SUA) designated to contain non-hazardous military flight training activities. It has defined vertical and lateral dimensions and designated times of use published on sectional aeronautical charts which identifies to other airspace users where these activities occur. An ATCAA also has specific vertical and lateral limits for the purpose of providing air traffic segregation between military training activities and other airspace users. Most often, as is the case in this project, an ATCAA is located above a MOA and has the same lateral limits as the MOA below. There is no ground training component associated with a MOA, only flight training activities.

Project Location

The location of the proposed Bourbon MOA/ATCAA is shown on **Figure 1**. The Bourbon MOA/ATCAA would be located partially over St. Bernard Parish and partially over the waters of the Gulf of Mexico. The proposed MOA/ATCAA would be directly adjacent to existing SUA known as Snake MOA/ATCAA, Warning Area (W-) 453 and W-148. **Figure 1** includes a 2-dimensional and 3-dimensional representation of the airspace. The proposed vertical segmentation of the MOA/ATCAA is detailed on the 3-dimensional graphic. Under the proposed MOA/ATCAA are the primarily open waters of Breton Sound, Chandeleur Sound, Lake Borgne, the bayous and marshes of Biloxi State Wildlife Management Area and other bayous, and marshes of St. Bernard Parish. The entirety of the proposed SUA is within Louisiana's Coastal Zone Boundary. **Figure 2** shows the proposed Bourbon MOA/ATCAA within the parishes and coastal zone of Louisiana.

Description of the Proposed Action

The Navy proposes to establish the Bourbon MOA/ATCAA east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) adjacent to the existing Snake MOA/ATCAA. The purpose of the Proposed Action is to accomplish training requirements more efficiently for squadrons based at NAS JRB NOLA. Efficiencies are achieved when pilots can train in a SUA of sufficient size and proximity to the base. The Proposed Action is needed because the existing SUA is located a considerable distance from NAS JRB NOLA resulting in prolonged transit times and reduced training time.

The action would not change the existing types or quantities of military flight activities originating from NAS JRB NOLA or occurring in the region. The airspace proposed for the Bourbon MOA/ATCAA is used to transition from NAS JRB NOLA to the current SUA (Snake MOA/ATCAA and Warning Areas). Annual operations would be conducted within the Bourbon MOA/ATCAA up to 240 days per year, which is the current operations tempo for the existing space and the adjacent SUA. The number of annual military flights (4,169) would be the same as current conditions, but instead of straight transition flights (lasting approximately 10–12 minutes), the airspace would be used for training flights (lasting approximately 30–60 minutes).

Training mission scenarios for aircraft utilizing the Bourbon MOA/ATCAA would be similar to those occurring in the existing adjacent SUA and include non-hazardous training activities such as functional check flights, currency, basic fighter maneuvers, Fleet Replacement Squadron training/tactical intercepts, familiarization training, and participation in large scale exercises that would include multiple aircraft and use the connected SUA. Flight activities may occur as either subsonic or supersonic. Supersonic speed is expected to be infrequent in the Bourbon MOA/ATCAA with approximately 13 percent of the annual flights employing supersonic speed. Supersonic speed occurs in one or more short intervals of approximately 30 seconds during a training event, it does not occur for the entire training event. Supersonic speed would have altitude restrictions within certain zones of the MOA/ATCAA which would limit supersonic speed over land areas to an altitude above 30,000 feet.

Subsonic aircraft operations and the resulting cumulative Day-Night Average Sound Level (DNL) within the Bourbon MOA/ATCAA would be below the significance level established by the Federal Aviation Administration. The DNL is also below the level defined by U.S. Environmental Protection Agency to protect public health. The DNL is at a level defined by the Federal Interagency Committee on Urban Noise as compatible with all land uses to include residential and recreational uses. Direct overflights at the lowest possible altitude (4,000 feet above mean sea level), while noticeable, would be very rare over any coastal land area and last for only a few seconds or less. An individual location is not expected to experience this scenario on a recurring or routine basis since aircraft operations would be distributed over a wide area. Supersonic aircraft operations and the resulting C-weighted DNL (CDNL) would be below the threshold defined by U.S. Army Public Health Command as compatible with all sensitive resources. Therefore, there would be no significant impacts to coastal zone resources due to noise from the Proposed Action flight operations.

Some training events may include the expenditure of chaff and flares, consistent with the adjacent SUA. The deployment of chaff and flares within the proposed Bourbon MOA/ATCAA would have negligible impacts to coastal resources. Flares are designed to burn out within 3–5 seconds of release and would be consumed within the SUA and very unlikely to impact the land or water beneath the MOA. Chaff fibers, which are finer than a human hair, would drift in the wind after release and would ultimately settle to the ground or sea. Chaff fibers are non-toxic (aluminum silica) and readily break down in water or soil once they reach the earth's surface and would not be noticeable beneath the MOA/ATCAA. Chaff and flares each contain benign components used in the packaging that ultimately fall to the ground or sink in the water as debris after released from the aircraft. These materials are referred to as "residual materials" and include plastic end caps, felt spacers, and pistons. The potential effects of chaff and flares and

the residual materials have been studied in previous analyses with the overall conclusion that the chemical components of chaff and flares and the presence of residual materials do not impact air, water, or biological resources, particularly in the insignificant quantities of these components that would occur with the Proposed Action. Furthermore, the low annual usage of chaff and flares and the large size of the SUA make any potential impact on coastal resources negligible. Flight operations are widely dispersed within the SUA, reducing the likelihood of chaff fibers, flare ash, or dud flares accumulating in the coastal zone.

Federal Consistency Review

The LCRP is composed of state statutes, which constitute the enforceable policies of the Coastal Resources Program. Statutes addressed as part of the LCRP consistency review and considered in the analysis of the Proposed Action are discussed in **Table 1** below.

Conclusion

The Navy has reviewed the LCRP and reviewed its Proposed Action for how and to what degree the activities could affect Louisiana's coastal zone uses and resources. The Navy has determined that the Proposed Action is consistent to the maximum extent practicable with the applicable enforceable policies of the LCRP.

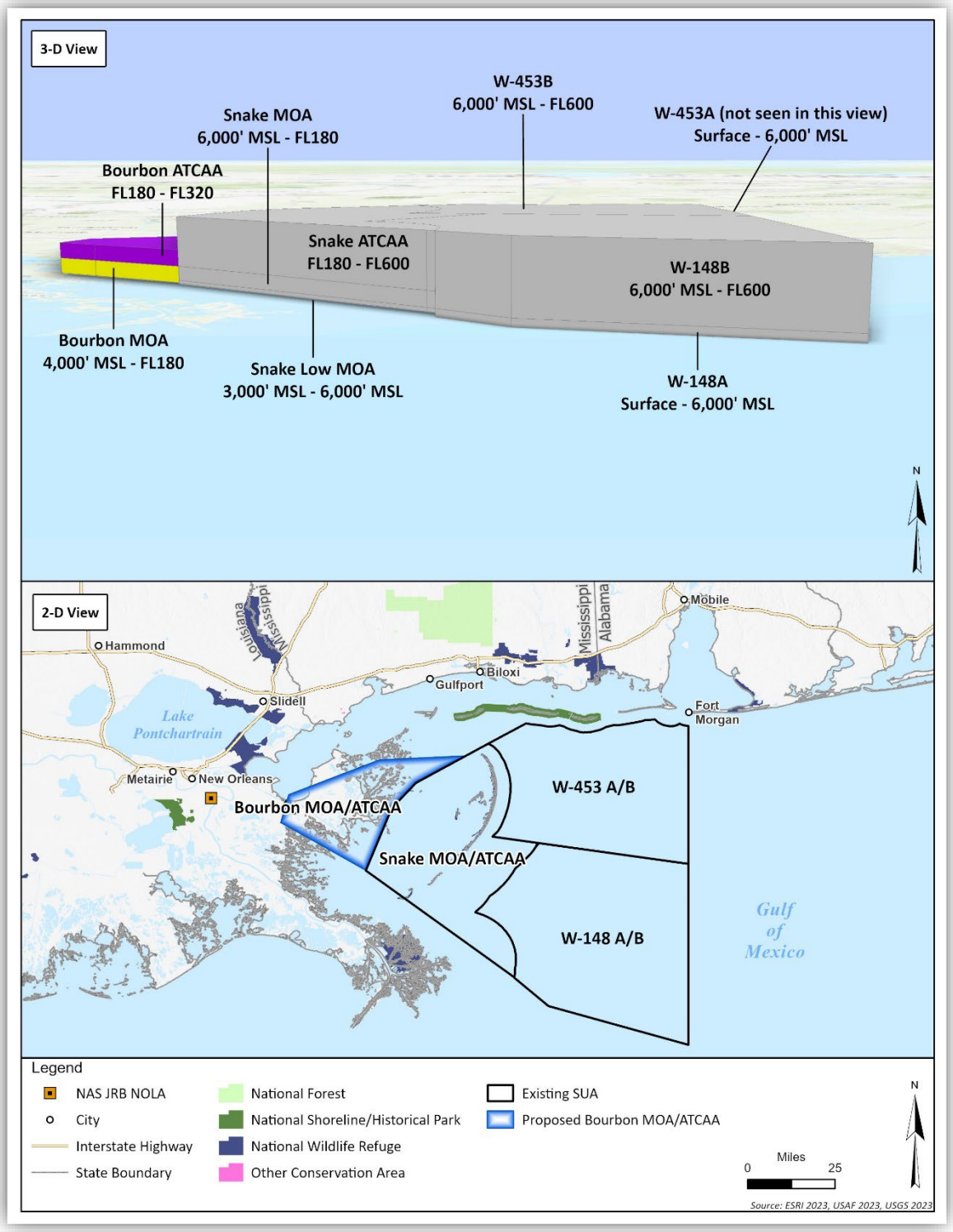

Figure 1: Proposed Bourbon MOA/ATCAA and Existing Adjacent SUA

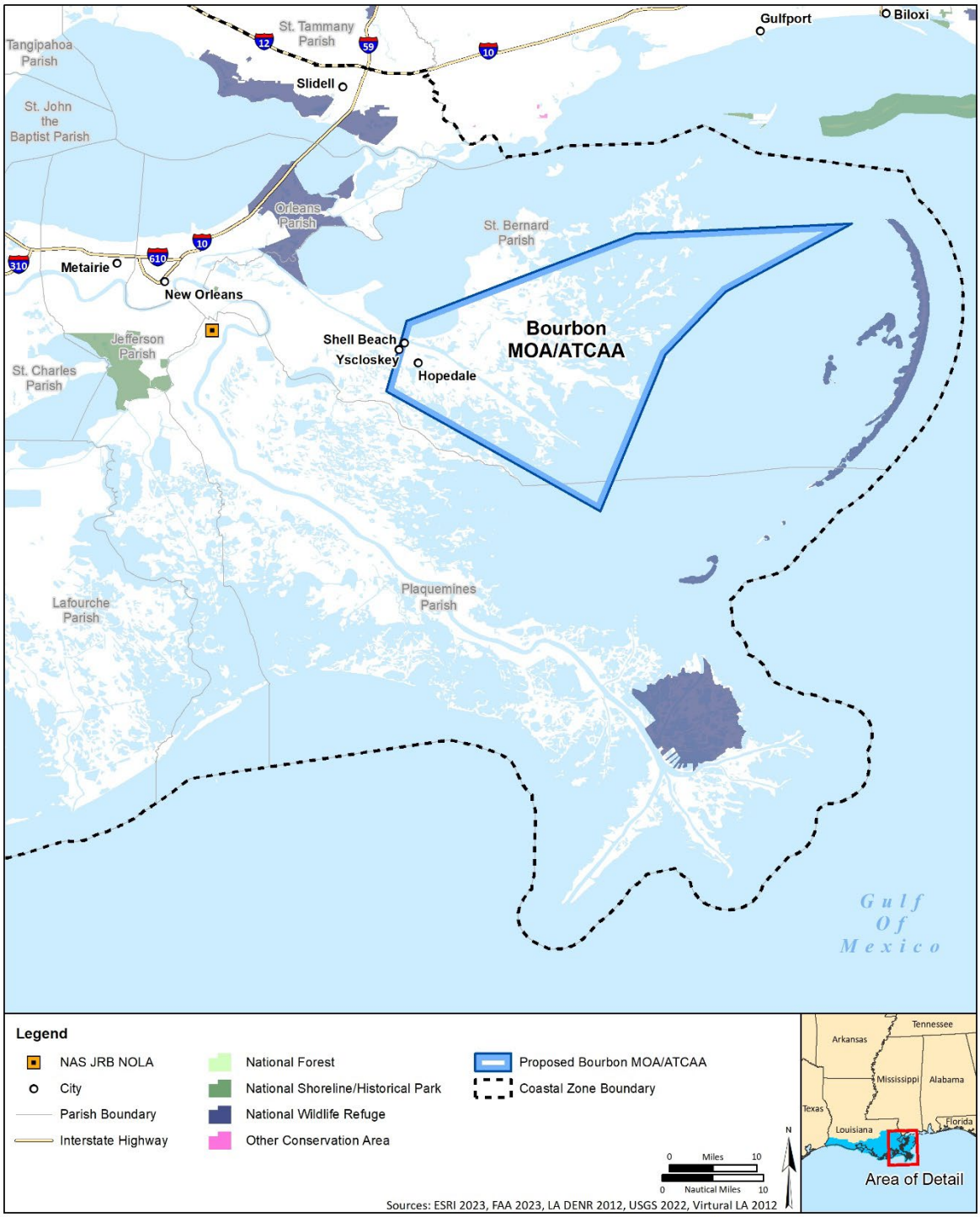

Figure 2: Bourbon MOA Location within the Coastal Zone

Table 1: Louisiana Enforceable Statutes and Federal Consistency Review

Louisiana Administrative Code, Title 43 Part I	Legal Scope	Consistency Evaluation
Section 701 (G). Guidelines Applicable to All Uses	It is the policy of the coastal resources program to avoid the following adverse impacts. To this end, all uses and activities shall be planned, sited, designed, constructed, operated, and maintained to avoid to the maximum extent practicable significant: **Part 1**: reductions in the natural supply of sediment and nutrients to the coastal system by alterations of freshwater flow; **Part 2**: adverse economic impacts on the locality of the use and affected governmental bodies; **Part 3**: detrimental discharges of inorganic nutrient compounds into coastal waters; **Part 4**: alterations in the natural concentration of oxygen in coastal waters; **Part 5**: destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features; **Part 6**: adverse disruption of existing social patterns; **Part 7**: alterations of the natural temperature regime of coastal waters; **Part 8**: detrimental changes in existing salinity regimes; **Part 9**: detrimental changes in littoral and sediment transport processes.	**Part 1**: The Proposed Action does not include alterations of freshwater flow in the coastal zone. The Proposed Action does not include any changes to the existing drainage ditches or canals on the military installation. **Part 2**: The Proposed Action does not include adverse economic impacts to the locality of the use and affected governmental bodies. **Part 3**: The Proposed Action does not include discharges of inorganic nutrient compounds. **Part 4**: The Proposed Action does not include alterations to oxygen concentrations in coastal waters. **Part 5**: The Proposed Action does not include destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and water bottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features. **Part 6**: The Proposed Action does not include disruptions of existing social patterns. **Part 7**: The Proposed Action does not include alterations of coastal waters' natural temperature regime. **Part 8**: The Proposed Action does not include alterations in existing salinity regimes. **Part 9**: The Proposed Action does not include changes in littoral and sediment transport processes.

Louisiana Administrative Code, Title 43 Part I	Legal Scope	Consistency Evaluation
Section 701 (G). Guidelines Applicable to All Uses (*continued*)	**Part 10**: adverse effects of cumulative impacts; **Part 11**: detrimental discharges of suspended solids into coastal waters, including turbidity resulting from dredging; **Part 12**: reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or a wetland forest; **Part 13**: discharges of pathogens or toxic substances into coastal waters; **Part 14**: adverse alteration or destruction of archaeological, historical, or other cultural resources. **Part 15**: fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas; **Part 16**: adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forestlands; **Part 17**: adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern; **Part 18**: adverse disruptions of coastal wildlife and fishery migratory patterns; **Part 19**: land loss, erosion, and subsidence; **Part 20**: increases in the potential for flood, hurricane, and other storm damage, or increases in the likelihood that damage will occur from such hazards. **Part 21**: reduction in the long term biological productivity of the coastal ecosystem.	**Part 10**: The Proposed Action does not result in adverse effects of cumulative impacts. **Part 11**: The Proposed Action does not involve dredging. **Part 12**: The Proposed Action does not involve reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or a wetland forest. **Part 13**: Chaff and flares are non-toxic; thus, the Proposed Action does not include discharges of pathogens or toxic substances. **Part 14**: The Proposed Action does not involve adverse alteration or destruction of archaeological, historical, or other cultural resources. **Part 15**: The Proposed Action does not include detrimental secondary impacts in undisturbed or biologically highly productive wetland areas. **Part 16**: The Proposed Action does not include adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forestlands. **Part 17**: The Proposed Action does not include adverse alteration of areas of public use and concern. **Part 18**: The Proposed Action may cause birds within the coastal zone to experience minor, temporary disturbance from aircraft noise, but these effects are unlikely to pose long-term or population-level impacts. No impacts to fishery migration patterns. **Part 19**: The Proposed Action does not include land loss, erosion, and subsidence. **Part 20**: The Proposed Action does not include increases in the potential for flood, hurricane, or other storm damage. No impervious surfaces would be added as part of the Proposed Action. **Part 21**: The Proposed Action would not directly reduce the long-term biological productivity of the coastal ecosystem.
Section 703	Guidelines for Levees	The Proposed Action does not include construction of levees.
Section 705	Guidelines for Linear Facilities	The Proposed Action does not include development of linear facilities.
Section 707	Guidelines for Dredged Spoil Deposition	The Proposed Action does not include dredged spoil deposition.
Section 709	Guidelines for Shoreline Modification	The Proposed Action does not include shoreline modification.

Louisiana Administrative Code, Title 43 Part I	Legal Scope	Consistency Evaluation
Section 711	Guidelines for Surface Alterations	The Proposed Action does not include surface alterations in Louisiana's Coastal Zone (*all activities are within the airspace above the coastal zone*).
Section 713	Guidelines for Hydrologic and Sediment Transport Modifications	The Proposed Action would not result in hydrologic or sediment transport modifications through such means as controlled diversions, deposition systems, siphons, controlled conduits, water control structures, impoundments, or surface/groundwater withdrawals.
Section 715	Guidelines for Disposal of Wastes	The Proposed Action does not include the location or operation of waste storage, treatment and disposal facilities in the Louisiana coastal zone.
Section 717	Guidelines for Uses that Result in the Alteration of Waters Draining into Coastal Waters	The Proposed Action does not include activities that would result in alteration of waters draining into coastal waters. No changes are expected to the quantity, quality, and rate of flow off the installation.
Section 719	Guidelines for Oil, Gas, and Other Mineral Activities	The Proposed Action does not include oil, gas, or other mineral activities.

Appendix G NHPA Section 106 Documentation

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
N46/028
July 24, 2024

Kristen Sanders
State Historic Preservation Office
Louisiana Office of Cultural Development
PO Box 44247
Baton Rouge, LA 70804-4241

Dear Ms. Sanders:

The United States (U.S.) Department of the Navy (hereinafter referred to as the Navy) is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with proposed flight training activities within a new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA, east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA) (Enclosure 1). In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, the Navy is providing information for your review and concurrence regarding the above-referenced project.

The proposed undertaking establishes a new MOA and associated ATCAA east of NAS JRB NOLA adjacent to the existing Snake MOA/ATCAA to accommodate required flight training activities for squadrons stationed at the base (Enclosure 2). Potential impacts are analyzed in the EA for both the No Action and Proposed Action Alternatives. The EA addresses the airspace utilization.

The Navy's Area of Potential Effects (APE) for this proposed undertaking includes areas directly or indirectly affected beneath the proposed airspace. For this proposed undertaking, the Navy determined that the APE is the land and water under the newly proposed airspace where flight training activities would occur as shown in Enclosure 2.

The Navy is sending a letter to the Chitimacha Tribe of Louisiana requesting the identification of traditional cultural properties and/or other sacred sites or any other concerns with the undertaking. The letter describes the purpose and need of the project and includes a map showing the APE, a description of the APE, a description of all historic properties within and adjacent to the APE, and a detailed project description.

A search of the National Register database was conducted and one National Register of Historic Places (NRHP) structure was identified under the proposed airspace. The historic property is Fort Proctor located in St. Bernard Parish, north of Shell Beach on Lake Borgne. The fort is constructed of granite, brick, and cast iron I-beams. The National Register Nomination Form, which was submitted in 1978, noted that the land has receded and Lake Borgne has partially engulfed approximately two-thirds of the outer earthworks. Currently, Fort Proctor is surrounded by water at least one foot deep, and modern aerial imagery confirms the site is still heavily inundated (Enclosure 3).

A search of the Louisiana State Historic Preservation Office (SHPO) database was conducted for all NRHP-listed or -eligible districts and individual properties under or adjacent to the proposed airspace. In addition to Fort Proctor, two other properties were identified: the Samuel Proctor House (Enclosure 4) and an unnamed residential property (Enclosure 5). As of a 1982 structural survey, the Samuel Proctor House was described as an unoccupied, deteriorated cottage with remains of a front porch. Current aerial images from the SHPO database do not show evidence that the structure is still standing. The second structure was recorded during the same 1982 survey and was described as a deteriorated residential structure. Current aerial images from the SHPO database clearly show this building is no longer extant and has been replaced by a larger, more modern structure.

A search of the National Oceanic and Atmospheric Administration Automated Wreck and Obstruction Information System database noted two shipwrecks under the proposed airspace: the Queen Mary II, a 36-foot cabin cruiser, and an unknown shipwreck. Both are in shallow water, and neither are noted as significant.

Some training events may include the expenditure of chaff and flares, consistent with the adjacent Snake MOA/ATCAA. Flares are fully consumed within the airspace within approximately 5 seconds of release. Chaff fibers (which are approximately 1 inch or less in length and are finer than a human hair) are widely distributed with prevailing wind conditions and ultimately settle to the surface. The fibers are non-toxic and readily degrade in soil or water. The potential effects of chaff and flares have been studied in previous analyses with the overall conclusion that their use does not have significant impacts to air, water, cultural or biological resources. No weapons testing or ordnance expenditure would occur within the new MOA/ATCAA. As such, there would be no direct impacts to ground resources. The subsonic noise level from training activities in the MOA/ATCAA would be 52 A-weighted decibels (dBA) Day-Night Average Sound Level (DNL), which would not exceed the U.S. Environmental Protection Agency threshold for protecting public health and welfare (55 dBA DNL). Similarly, the supersonic noise levels (34–42 C-weighted decibels [dBC] DNL [CDNL]) are well below the level defined by U.S. Army Public Health Command as compatible with residential and noise sensitive areas (62 dBC CDNL). Previous studies have found it is unlikely that noise and vibration associated with air operations would cause structural damage to buildings. In fact, several studies of the effects of noise on historic properties located in high aircraft noise zones have found that vibration resulting from the activities of tour groups, and even vacuuming, generated more structural vibration than that generated by aircraft noise. Subsonic sound of less than 130 dB is highly unlikely to damage structural elements. Noticeable vibration of windowpanes and objects within buildings may occur at sound levels of 110 dB or greater. Flight operations within the Bourbon MOA would not exceed 110 dB.

The proposed undertaking would not impact known or unknown historic properties under the proposed airspace, thus the Navy recommends a finding of "No Adverse Effect" pursuant to 36 CFR part 800.5(b). Attached for your review are copies of relevant documents supporting our finding. This documentation satisfies requirements set forth at 36 CFR part 800.11(e).

The Project Manager at United States Fleet Forces Command is Mr. Greg Thompson, who may be reached via phone (757) 836-6938 or via email at: Gregory.S.Thompson2.civ@us.navy.mil. If you have any additional questions or comments, please contact Dr. John Calabrese at NAVFAC Southeast via phone (904) 657-7447 or via email at: John.A.Calabrese4.civ@us.navy.mil. Thank you for your attention to this matter.

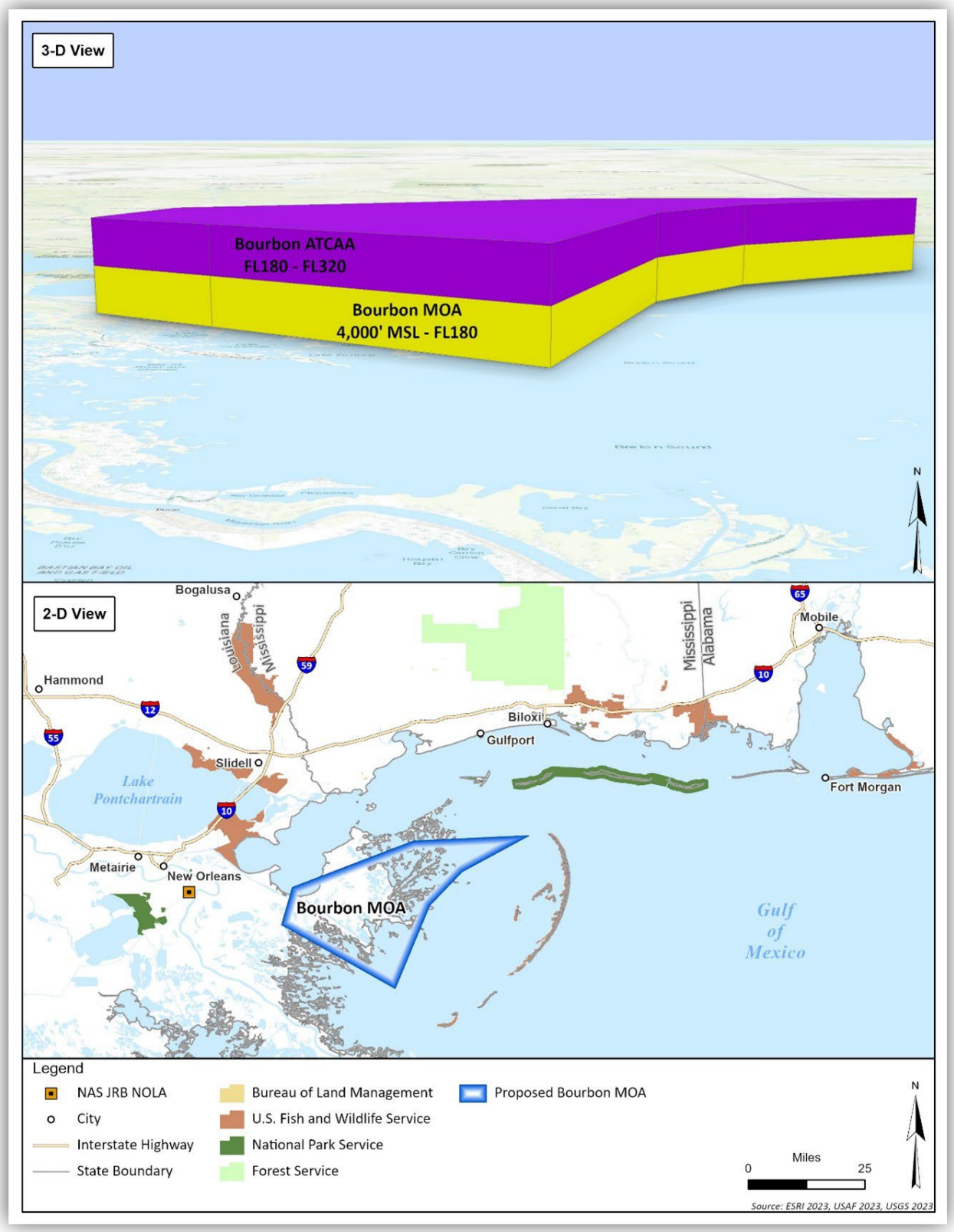
Sincerely,

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. NAS JRB NOLA Location
2. NAS JRB NOLA Proposed Airspace
3. Fort Proctor NRHP Form
4. Samuel Proctor House
5. Unnamed House

Attachment 1 – NAS JRB NOLA Location

Attachment 2 – NAS JRB NOLA Proposed Airspace



Attachment 3 – Fort Proctor NRHP Form

Form No. 10-300 REV. (9/77)

DATA SHEET PH06679 60

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED MAY 2 1978
DATE ENTERED SEP 20 1978

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: Fort Proctor **

AND/OR COMMON: Fort Beauregard

LOCATION

STREET & NUMBER: N of Shell Beach Near Old Shell Beach on Lake Borgne

__NOT FOR PUBLICATION

CITY, TOWN: Shell Beach vic __ VICINITY OF

CONGRESSIONAL DISTRICT: 1st Robert Livingston

STATE	CODE	COUNTY	CODE
Louisiana	22	St. Bernard	087

CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	__OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	X UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	X BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	X OTHER:

OWNER OF PROPERTY

NAME: Shell Beach Properties, Inc.

STREET & NUMBER: 1000 South Carollton Avenue

CITY, TOWN: New Orleans __ VICINITY OF

STATE: Louisiana

LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: St. Bernard Parish Courthouse

STREET & NUMBER:

CITY, TOWN: Chalmette

STATE: Louisiana

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: Louisiana Historic Sites Survey

DATE: 1978

__FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS: State Historic Preservation Office

CITY, TOWN: Baton Rouge

STATE: Louisiana

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X DETERIORATED	X UNALTERED	X ORIGINAL SITE
_GOOD	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The work (or fort) at Proctor's Landing was built on the southern shore of Lake Borgne along a road which ran beside Bayou Terre aux Boeufs. The road and the bayou were both major means of access to the city of New Orleans, and thus a potential invasion route. Today the setting is open, flat, and marshy, much as it was when the fort was built. The only difference is that the land has receded and Lake Borgne has partially engulfed approximately two-thirds of the outer earthworks. The area is, however, completely free of modern intrusions.

The fort was designed as a two-story, square plan tower with four main guns mounted on a parapeted roof terrace. Although the two lower floors were to serve principally as living quarters, eight smaller guns were to be mounted on the second floor. These were to be placed in pairs at the corners. The fort was only completed to a level of 1½ stories. The first floor has a central entrance on the east side which would have been reached by a drawbridge. The magazine is in the center, surrounded by soldiers' quarters. The quarters show considerable concern for comfort. There are vertical slits in the outside walls, which were to be mounted with windows to provide adequate light. Bathrooms were to be installed near the outside walls, with a complete plumbing system. Some of the pipes were installed, but nothing else. Plans also called for paneled doors, fireplaces and other amenities, though these were never installed.

The fort rests upon a spreading brick base, with cisterns below. Sixteen brick piers rise from the base and terminate about six feet above the second floor level. These piers were to support massive groin vaults, which would in turn have supported the gun platform on the roof. The outer walls are also of Flemish bonded brick, approximately four feet thick. Cast iron beams, which resemble modern "I" beams, were installed to support the second floor. They were to have segmental brick vaults running between, but these were never built. The fenestration features granite lintels and sills.

Although plans called for a number of decorative features, including molded doorways and mantels, the only one which was actually installed was a Renaissance Revival doorway at the entrance.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	X ARCHITECTURE	__EDUCATION	X MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	X ENGINEERING	__MUSIC	__THEATER
X 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES

BUILDER/ARCHITECT J. G. Totten, H. A. Wright, P. G. T. Beauregard

STATEMENT OF SIGNIFICANCE

Fort Proctor is significant because it was part of the United States' coastal fortification system prior to the Civil War and also because of certain features of its architecture which were unusual in the design of American forts.

Although Fort Proctor was never completed, the existing work embodies two innovations in fortification design. 1) Full and comfortable living quarters for the soldiers, including bathrooms, were incorporated into the design. In most other forts, the soldiers' living quarters were very restricted and were used only in times of seige. 2) The use of structural iron was unusual in forts in the era before the Civil War. When Joseph G. Totten assumed command of the Army Corps of Engineers in 1838, he instituted a program to improve the technology of fort construction. This program involved in part the use of structural iron, and it is Fort Proctor which best represents this aspect of the improvement program, since no other fort used structural iron to such a great extent.

In the years after the War of 1812, Congress authorized the development of a permanent national system of forts to defend routes which could be used for invasion. (See the attached map, which is page 87 of Willard B. Robinson's American Forts.) Regional fortifications for the defense of New Orleans were conceived as integral links of this extensive national chain.

The board of engineers, led by Simon Bernard (1779-1838), recommended that a chain of forts and batteries be constructed at strategic locations around New Orleans to block potential invasion routes to the city. To protect the approach up the Mississippi River, a work (later named Fort Jackson) was projected for the Plaquemines, opposite Fort St. Philip, the only colonial work to be retained in the system. To defend the northern water communication to New Orleans through Lake Borgne and Lake Pontchartrain, works were projected respectively for Rigolets Pass (Fort Pike) and Chef Menteur Pass (Fort Wood, later renamed Fort Macomb). To defend Barataria Bay, a work was projected for Grand Terre Island (Fort Livingston). To defend the pass used by the English in 1814, a work was projected for Bayou Bienvenue (Battery Bienvenue). To defend a channel leading to New Orleans to the south of Bienvenue, a tower was projected for Bayou Dupre.[1]

It was not until the mid-1840's that Proctor's Landing began to claim attention as a possible invasion route. At that time, the entire system of seacoast defense was undergoing reevaluation in light of new developments in naval architecture. Several sites previously considered too shallow for

9 MAJOR BIBLIOGRAPHICAL REFERENCES

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1856 letter to J. G. Totten from General P. G. T. Beauregard, National Archives, Army and Navy Branch.
Senate Documents, Volume 7, #509, Report of J. G. Totten.
(See continuation sheet)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than one

QUADRANGLE NAME _____ QUADRANGLE SCALE _____

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	15	241290	3306920	B			
C				D			
E				F			
G				H			

VERBAL BOUNDARY DESCRIPTION

The site is bounded by the outer walls of the earthworks of the fort.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE Eileen K. Burden, Archaeologist — Revised by John Easterly

ORGANIZATION Coastal Environments, Inc. — DATE March 1978

STREET & NUMBER 1260 Main Street — TELEPHONE

CITY OR TOWN Baton Rouge — STATE Louisiana

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE X LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE J. Bernard Lamar

TITLE State Historic Preservation Officer — DATE 25 April 1978

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

KEEPER OF THE NATIONAL REGISTER R. B. Rettig — DATE 9/20/78

ATTEST: CHIEF OF REGISTRATION William Lebovich — DATE Sept 18, 1978

GPO 921-803

Form No. 10-300a
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Fort Proctor

CONTINUATION SHEET 1 ITEM NUMBER 8 PAGE 2

8. Significance (cont'd)

navigation were added to the network to defend against the passage of steam-powered vessels with light draft. Proctor's Landing, along with Ship Island (Fort Massachusetts), became part of the revised system for defending New Orleans.

Appropriations for the work at Proctor's Landing were requested in 1847, but funds were not made available for nearly a decade due to widespread skepticism over the strength of the system. Throughout the late 1840's and early 1850's, this skepticism made the forts, including Fort Proctor, low priorities for Congressional appropriations. But it was finally decided that the internal system should be continued and in 1856 work began on Fort Proctor. Satisfactory progress was made in the years immediately following, but a hurricane in 1860 retarded construction. When the state seized Fort Proctor at the beginning of the Civil War, it was still unfinished.[2]

Fort Proctor was a minor lookout post in the Civil War and played no significant role.[3] The reason why the fort was not completed after 1865 was related to the war's impact on ideas about fortification. It seems that the skepticism which had made the forts low priorities in the years after the Mexican War was justified. "Rifled cannons had virtually made obsolete all the forts that had been a part of the permanent system; fortifications based on theory that had taken centuries to develop no longer appeared adequate. Since walls of masonry could not long withstand the terrific impact of rifled cannons, the effect of these weapons on the architecture of forts in North America was to be as revolutionary as the invention of smoothbore cannons had been centuries earlier in Europe."[4]

Form No. 10-300a
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED MAY 2 1978
DATE ENTERED SEP 20 1978

Fort Proctor

CONTINUATION SHEET 2 ITEM NUMBER 9 PAGE 2

9. Bibliography (cont'd)

American Forts: Architectural Form and Function, by Willard B. Robinson. Urbana: University of Illinois Press, 1977.

Interviews with Powell Casey and Willard B. Robinson, 19 April 1978.

Form No. 10-300a
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Fort Proctor

CONTINUATION SHEET ITEM NUMBER PAGE

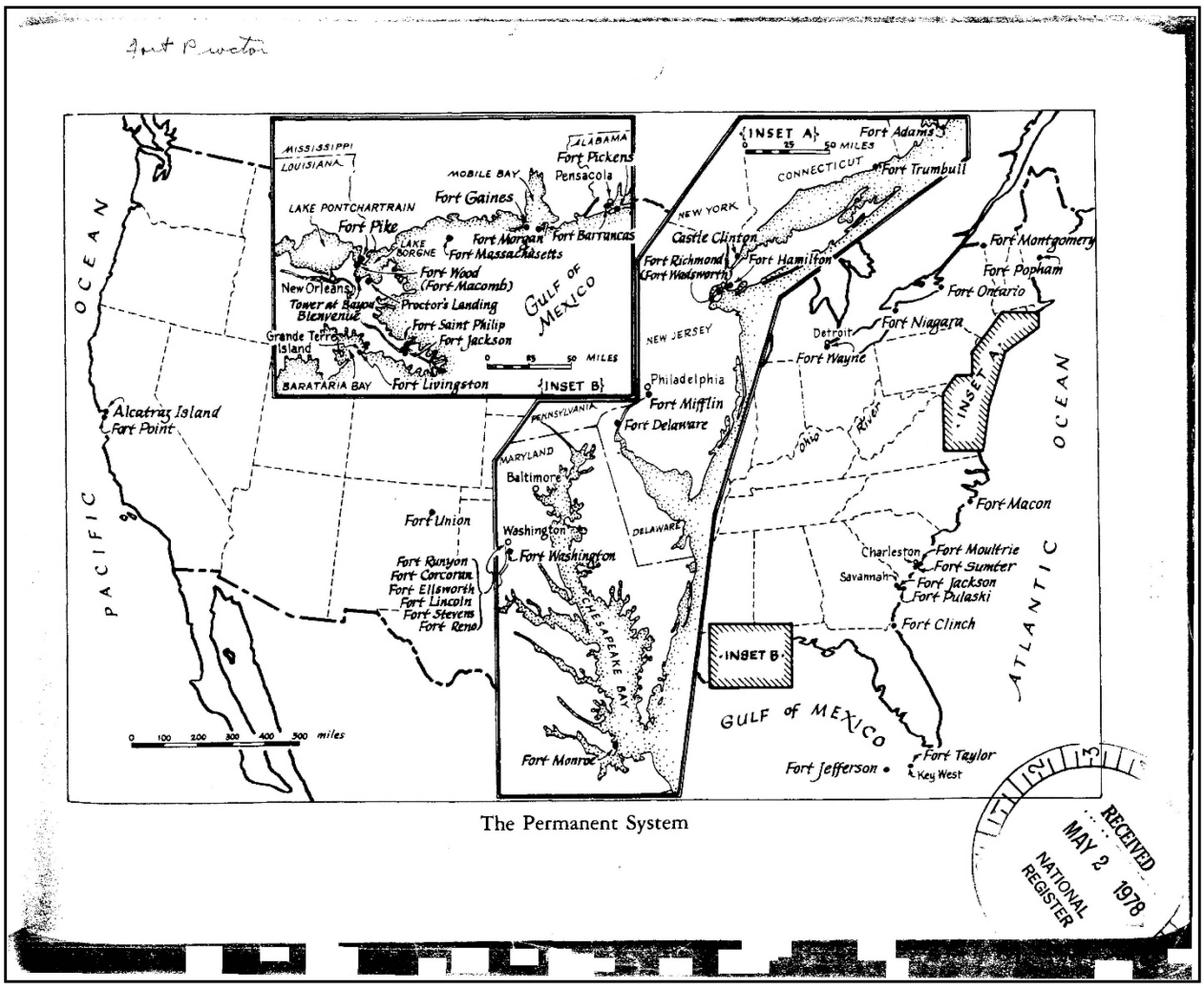
NOTES

1. Willard B. Robinson, "Maritime Frontier Engineering: The Defense of New Orleans," Louisiana History 18 (Winter 1977): 24-31. Hereinafter cited as Robinson, "Maritime Frontier Engineering."

2. Robinson, "Maritime Frontier Engineering," 52-55; Interview with Powell Casey, 19 April 1978. Hereinafter cited as "Casey Interview."

3. Casey Interview.

4. Willard B. Robinson, American Forts: Architectural Form and Function (Urbana: University of Illinois Press, 1977), 126. In his interview, Casey also gave this reason for the fort's abandonment.



The Permanent System

Attachment 4 – Samuel Proctor House

44-00561

STANDING STRUCTURES SURVEY

Site Number 1.A

I. PARISH St. Bernard

MUNICIPALITY

USGS QUAD Delacroix

Township 14S Range 14E Section 84

TYPE OF PROPERTY Unoccupied

NAME (common) Samuel Proctor

NAME (historic) Bartolome Molero

ADDRESS below box 345 Verret Proctor house

DATE OF CONSTRUCTION circa 1840

II. 1. Condition Deteriorated

2. Style Islenos Cottage

3. Floor Plan 1½ story creole cottage

4. Building Material Vertical board clapboard with a tin roof

III. Physical description of property and historic significance

This deteriorated four bay cottage has a gabled roof with a center chimney of exposed brick. There are remains of a front porch. Excellent mill work and interior details.

Rating: Red if restored - a blue or purple

IV. Recorded by Planning Commission

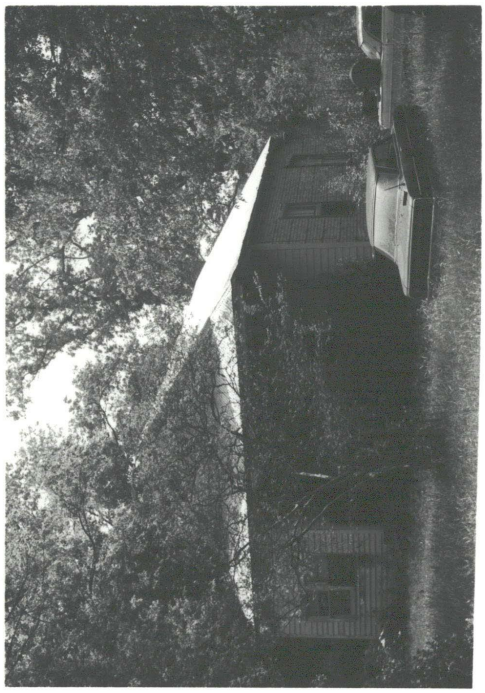
Date June, 1982

For St. Bernard Parish

V. Sources consulted Dr. Cizek

DIVISION OF ARCHAEOLOGY AND HISTORIC PRESERVATION
P. O. Box 44247 Baton Rouge, La. 70804 504 – 342-6682

Attachment 5 – Unnamed House



44-00558 TURES SURVEY VIII

Site Number 3.G

I. PARISH St. Bernard

MUNICIPALITY

USGS QUAD Delacroix

Township 14S Range 13E Section 13

TYPE OF PROPERTY Residential

NAME (common)

NAME (historic)

ADDRESS next door to Jeanne Lagarde's Fashion Boutique

DATE OF CONSTRUCTION circa

II. 1. Condition Deteriorated

2. Style

3. Floor Plan

4. Building Material Clapboard in front asphalt siding in rear with a tin roof.

III. Physical description of property and historic significance

This structure has a gabled tin roof. It has an interior exposed brick chimney. The porch has a hipped roof supported by iron columns and a wooden floor. There are two front doors with two long lights that are rounded at the top. Over each door there is a three light transom. There is a double window with a two over two light configuration.

Rating:

IV. Recorded by Planning Commission
Date June, 1982
For St. Bernard Parish

V. Sources consulted Dr. Cizek

DIVISION OF ARCHAEOLOGY AND HISTORIC PRESERVATION
P. O. Box 44247 Baton Rouge, La. 70804 504 - 342-6682

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
N46/027
July 24, 2024

Melissa Darden
Chitimacha Tribe of Louisiana
PO Box 661
155 Chitimacha Loop
Charenton, LA 70523

Dear Chairman Darden:

The United States (U.S.) Department of the Navy (Navy) is preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with flight training activities within a proposed new Military Operations Area (MOA) and associated Air Traffic Control Assigned Airspace (ATCAA), named the Bourbon MOA/ATCAA, east of Naval Air Station Joint Reserve Base New Orleans (NAS JRB NOLA). The environmental analysis for the EA is being conducted in accordance with the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. The purpose of this letter is to initiate consultation pursuant to the terms of Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations 36 Code of Federal Regulations § 800, with your office for effects on cultural resources located within the Area of Potential Effects (APE).

The Bourbon MOA/ATCAA undertaking will improve training efficiencies by moving training activities closer to the base. The APE within the Bourbon MOA/ATCAA includes land and water areas beneath the proposed airspace that are directly or indirectly affected by the proposed undertaking (Enclosure 1). Potential impacts have been analyzed in the EA for both the No Action Alternative and the Proposed Action Alternative.

Some training events may include the expenditure of chaff and flares, consistent with the adjacent Snake MOA/ATCAA. Flares are fully consumed within the airspace within approximately 5 seconds of release. Chaff fibers are widely distributed with prevailing wind conditions and ultimately settle to the surface. The fibers are non-toxic and readily degrade in soil or water. The use of chaff and flares also results in the residual materials (plastic end caps, felt spacers, plastic pistons, etc.) which are no more than 1-inch by 1-inch in size. These materials are widely distributed throughout the MOA/ATCAA and land on the ground or water as debris after being released from the aircraft. The potential effects of chaff and flares have been studied in previous analyses with the overall conclusion that their use does not have significant impacts to air, water, or biological resources. No weapons testing or ordnance expenditure would occur within the new MOA/ATCAA. As such, no direct impacts would occur to ground or water resources. The noise exposure from proposed flight operations is below the threshold level for land use incompatibility and would not result in any structural damage to property.

Three historic properties, Fort Proctor, Samual Proctor House, and an Unnamed House in St Bernard Parish, were previously recommended to the Louisiana State Historic Preservation Office (SHPO) for nomination to the National Register of Historic Properties (NRHP).

The Samual Proctor House and the Unnamed House have hence been demolished, leaving only Fort Proctor in existence (Enclosure 2). Fort Proctor is located along the western boundary of the proposed MOA/ATCAA and is within the 5 nautical mile standoff distance, significantly reducing the likelihood of overflight and potential for noise or visual impacts. As a result, direct or indirect impacts would be unlikely to the existing historic property.

As part of our consultation efforts, we respectfully request your assistance in identifying the following:

- Traditional Cultural Properties (TCPs) and/or sacred sites that may be located within the current APE;
- historic properties in the APE of which we may not be aware; and/or
- any other concerns with the proposed undertaking.

If you or your Tribe have any information regarding resources of importance or have an interest in participating in the Section 106 process as a consulting party for the proposed undertaking, please let us know. If you request additional consultation, the Navy will work with your office to adopt procedures that will meet your Tribe's needs and requirements for continued consultation.

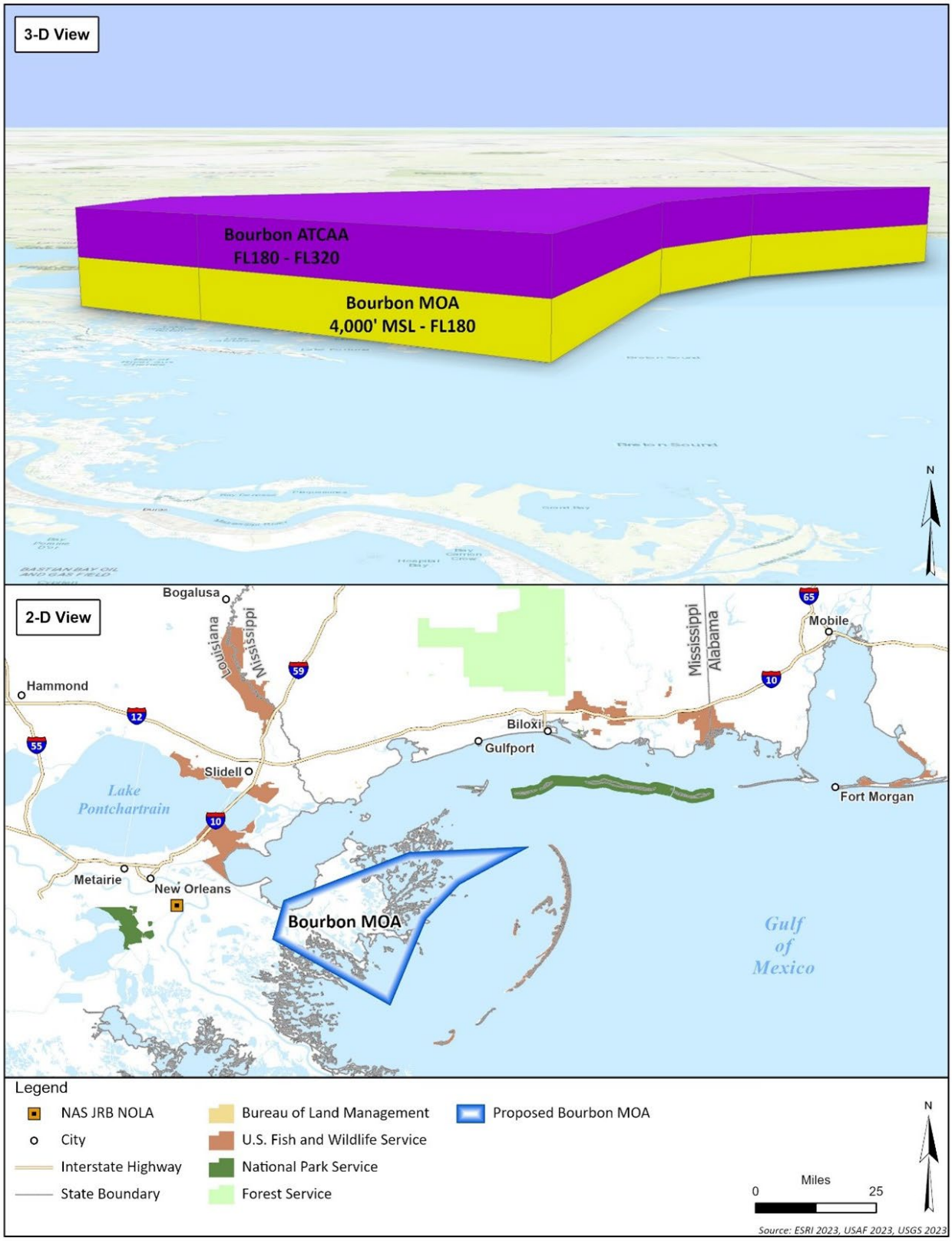
The Project Manager at United States Fleet Forces Command is Mr. Greg Thompson, who may be reached via phone (757) 836-6938 or via email at: Gregory.S.Thompson2.civ@us.navy.mil. If you have any questions or comments, please contact Dr. John Calabrese at NAVFAC Southeast via phone (904) 657-7447 or email at: John.A.Calabrese4.civ@us.navy.mil. Please respond to this letter within 30 days of receipt. Thank you for your assistance.

Sincerely,

M. L. AGUAYO
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. APE, Proposed Airspace
2. Fort Proctor NRHP Form

Attachment 1 – APE, Proposed Airspace



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Form No. 10-300 REV. (9/77)

DATA SHEET PH06679 60

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VERBAL BOUNDARY DESCRIPTION

The site is bounded by the outer walls of the earthworks of the fort.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE Eileen K. Burden, Archaeologist — Revised by John Easterly

ORGANIZATION Coastal Environments, Inc. — DATE March 1978

STREET & NUMBER 1260 Main Street — TELEPHONE

CITY OR TOWN Baton Rouge — STATE Louisiana

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE X LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE J. Bernard Lanier

TITLE State Historic Preservation Officer — DATE 25 April 1978

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

KEEPER OF THE NATIONAL REGISTER R. B. Rettig — DATE 9/20/78

ATTEST: CHIEF OF REGISTRATION William Lebovich — DATE Sept 18, 1978

GPO 921-803

Form No. 10-300a
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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Fort Proctor

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8. Significance (cont'd)

navigation were added to the network to defend against the passage of steam-powered vessels with light draft. Proctor's Landing, along with Ship Island (Fort Massachusetts), became part of the revised system for defending New Orleans.

Appropriations for the work at Proctor's Landing were requested in 1847, but funds were not made available for nearly a decade due to widespread skepticism over the strength of the system. Throughout the late 1840's and early 1850's, this skepticism made the forts, including Fort Proctor, low priorities for Congressional appropriations. But it was finally decided that the internal system should be continued and in 1856 work began on Fort Proctor. Satisfactory progress was made in the years immediately following, but a hurricane in 1860 retarded construction. When the state seized Fort Proctor at the beginning of the Civil War, it was still unfinished.[2]

Fort Proctor was a minor lookout post in the Civil War and played no significant role.[3] The reason why the fort was not completed after 1865 was related to the war's impact on ideas about fortification. It seems that the skepticism which had made the forts low priorities in the years after the Mexican War was justified. "Rifled cannons had virtually made obsolete all the forts that had been a part of the permanent system; fortifications based on theory that had taken centuries to develop no longer appeared adequate. Since walls of masonry could not long withstand the terrific impact of rifled cannons, the effect of these weapons on the architecture of forts in North America was to be as revolutionary as the invention of smoothbore cannons had been centuries earlier in Europe."[4]

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9. Bibliography (cont'd)

American Forts: Architectural Form and Function, by Willard B. Robinson. Urbana: University of Illinois Press, 1977.

Interviews with Powell Casey and Willard B. Robinson, 19 April 1978.

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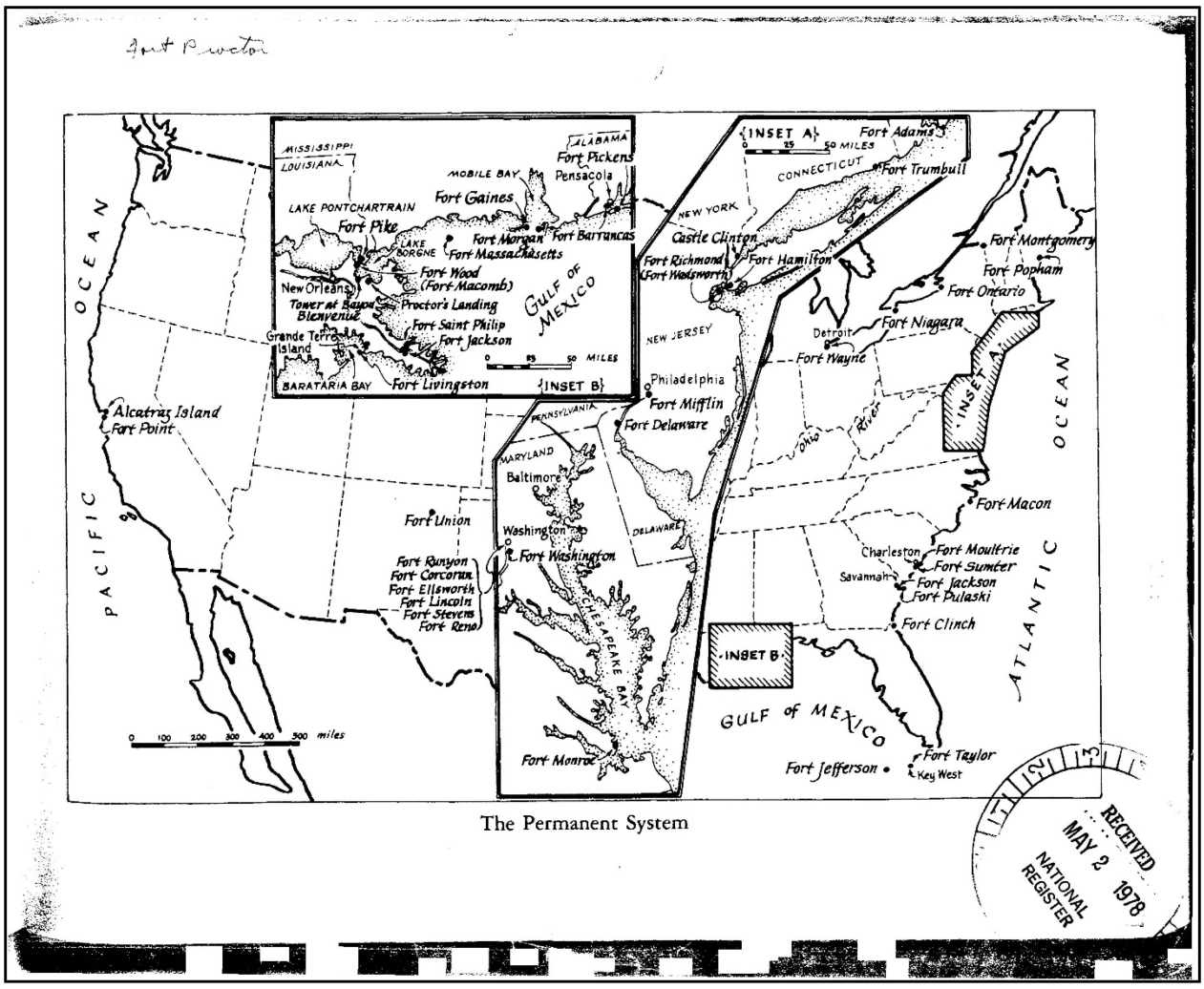
NOTES

1. Willard B. Robinson, "Maritime Frontier Engineering: The Defense of New Orleans," Louisiana History 18 (Winter 1977): 24-31. Hereinafter cited as Robinson, "Maritime Frontier Engineering."

2. Robinson, "Maritime Frontier Engineering," 52-55; Interview with Powell Casey, 19 April 1978. Hereinafter cited as "Casey Interview."

3. Casey Interview.

4. Willard B. Robinson, American Forts: Architectural Form and Function (Urbana: University of Illinois Press, 1977), 126. In his interview, Casey also gave this reason for the fort's abandonment.



The Permanent System