

Compatibility Recommendations

While the Navy can advise local government agencies on land use near the installation by providing information on aircraft noise and accident potential, state and local government agencies possess the authority to preserve land use compatibility through adoption and implementation of the recommendations included in an installation's AICUZ Study.

DEFINITIONS

- AICUZ Program.** The objective of the AICUZ Program is to protect public health, safety, and welfare while preserving the operational capabilities of military air installations through a detailed analysis of aircraft operations, noise exposure, and accident potential.
- Accident Potential Zones (APZ).** APZs follow arrival, departure, and pattern flight tracks and are based on an analysis of operational data. APZs are areas where an aircraft accident is most likely to occur. They do not reflect the probability of an accident.
- Clear Zones (CZ).** CZs extend beyond the runway and has the highest potential for accidents.
- Noise Contours.** Noise contours reflect the noise exposure in the surrounding communities.
- Day-Night Average Sound Level (DNL).** DNL averages aircraft sound levels at a location over a 24-hour period.



For more information about the AICUZ program at NAS Patuxent River, contact the Community Planning Liaison Officer (CPLO)

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2026 AICUZ

AIR INSTALLATIONS COMPATIBLE USE ZONES STUDY

NAVAL AIR STATION PATUXENT RIVER AND WEBSTER OUTLYING FIELD

PREPARED BY U.S. DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND



Naval Air Station (NAS) Patuxent River

NAS Patuxent River is located on a peninsula at the confluence of the Patuxent River and the Chesapeake Bay in St. Mary's County, Maryland, and includes facilities at Webster Outlying Field (OLF). NAS Patuxent River supports research, development, test, and evaluation activities for U.S. naval aviation. Webster OLF, located in St. Inigoes, Maryland, serves as a complementary operational area supporting rotary-wing, fixed-wing, and unmanned aircraft systems testing. Together, the two sites form part of the Patuxent River Complex, established during World War II and continuously modernized to meet evolving naval aviation requirements.

More than 100,000 aircraft operations occur annually at NAS Patuxent River and Webster OLF.

NAS Patuxent River is a major economic driver for Southern Maryland, supporting thousands of military, civilian, and contractor jobs. In fiscal year 2021, NAS Patuxent River supported 61,132 jobs and contributed approximately \$8.7 billion to Maryland's economy.

2026 AICUZ Study Update

This AICUZ update is due to changes in aircraft mix, flight operations, and mission requirements at NAS Patuxent River and Webster OLF. This 2026 AICUZ is an update to previous 2009 and 2017 AICUZ studies. In 2019 a noise study was conducted for the Patuxent River Complex which became the source of noise data for the 2022 Final Environmental Impact Statement for Testing and Training Activities in the Patuxent River Complex. The noise contours for Alternative 2 of this Environmental Impact Statement are utilized in the 2026 AICUZ update.

Aircraft Operations

Aircraft operations at NAS Patuxent River and Webster OLF support a diverse range of test, evaluation, training, and operational mission requirements. Operations include fixed-wing, rotary-wing, and unmanned aircraft system activities conducted during daytime and nighttime periods, under both visual and instrument flight rules.

The main sources of noise at naval air installations are:

- Flight operations; and,
- Ground engine maintenance "run-ups," which are associated with pre-flight and maintenance checks.

Typical Aircraft Operating at NAS Patuxent River/Webster OLF

Fixed-Wing Aircraft

F-35



FA-18



C-12



T-34C



Rotary-Wing Aircraft

H-60



MV-22



Unmanned Aerial Systems (UAS)

UAS



More than 40 models operate at NAS Patuxent River and Webster OLF

Land Use Compatibility

Generalized Land Use Category	Noise Contour (dB DNL)						Safety Zone		
	<65	65-69	70-74	75-79	80-85	85+	CZ	APZ I	APZ II
Single-Family Residential	Yes	No ¹	No ¹	No	No	No	No	No	Yes ²
Rural Single-Family Residential	Yes	No ¹	No ¹	No	No	No	No	No	Yes ²
Multi-Family Residential	Yes	No	No	No	No	No	No	No	No ²
Mobile Homes	Yes	No	No	No	No	No	No	No	No
Commercial	Yes	Yes	Yes ³	Yes ³	No	No	No	Yes ³	Yes ³
Industrial	Yes	Yes	Yes ³	Yes ³	Yes ³	No	No	Yes ³	Yes ³
Public/Institutional	Yes	Yes	Yes ³	Yes ³	No	No	No	No	Yes ³
Agricultural/Rural	Yes	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³
Transportation/ Communication/Utilities	Yes	Yes	Yes ³	Yes ³	Yes ³	No	No	Yes ³	Yes ³
Undeveloped Land	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parks/Exempted Areas	Yes	Yes	Yes	No ⁴	No	No	No	Yes ³	Yes ³

KEY: COMPATIBLE COMPATIBLE WITH RESTRICTIONS INCOMPATIBLE dB DNL: Day-Night Average Sound Level (Decibels)

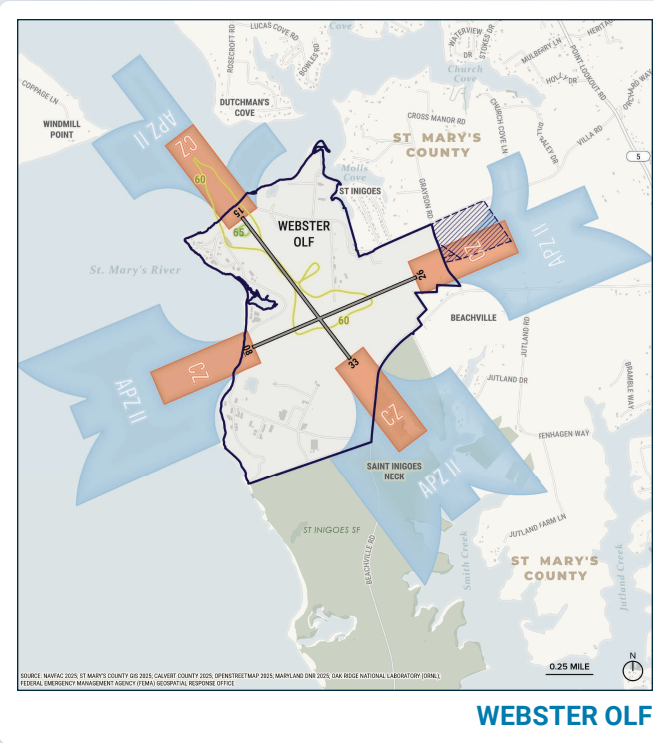
NOTES:

- 1. Residential land use between 65 and 70 dB DNL is discouraged. Residential uses above 70 dB DNL should be prohibited unless there is an absence of viable options within the community. Noise attenuation should be incorporated into the housing.
- 2. Residential land use in APZ II is considered compatible unless densities exceed two dwelling units per acre. When a parcel is partially located within APZ II, cluster development is encouraged so that the residential structures are placed outside of APZ II maintaining open space within the APZs to the maximum extent possible. Rural single-family residential lots are generally assumed to be 1.5 acres and larger.
- 3. Compatible with restrictions.
- 4. Generally incompatible, unless sound level reduction measures to 30 dB can be incorporated.
- 5. A complete list of uses and compatibility recommendations can be found in OPNAVINST 11010.36D.

AICUZ Footprints

The AICUZ footprints for NAS Patuxent River and Webster OLF reflect day-night average sound level contours and accident potential zones (APZ), based on projected aircraft operations.

The Navy recommends that the noise contours and APZs presented in this AICUZ Study be adopted into individual county and municipal planning studies, regulations, and processes to best guide compatible development around the installation to protect the health, safety, and welfare of the community and operational capabilities.



INSTALLATION

DOD-OWNED PROPERTY (OUTSIDE INSTALLATION BOUNDARY)

RUNWAY CENTERLINE

HIGHWAY

PROTECTED LANDS

2026 AICUZ NOISE CONTOURS (DNL)

60

65

70

75

80

85

2026 AICUZ ACCIDENT POTENTIAL ZONES (APZ)

CLEAR ZONE

APZ I

APZ II