

Contact Information

Ryan Warne, GISP

Senior Geospatial Analyst

904 542 6132

ryan.warne.ctr@navy.mil

Naval Facilities Engineering Command Southeast

Building 903

Yorktown Avenue

Jacksonville, FL 32212

US Navy Uses GIS to Minimize Its Impact on Local Communities

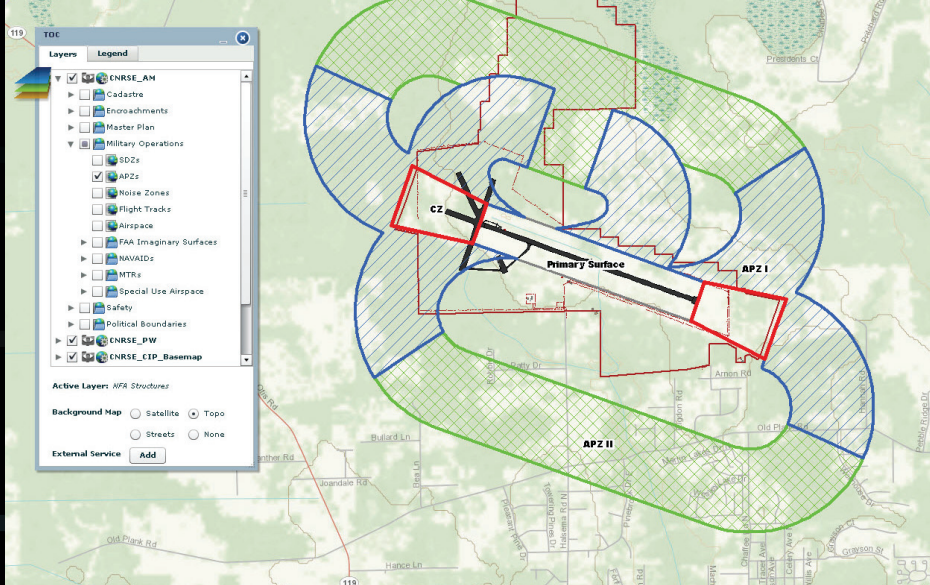
Compatible land use is a critical consideration whenever military installations are close to local communities, whether from urban sprawl, population growth, or mission expansion. To address this issue, the US Department of the Navy created the Navy Community Planning and Liaison Officer (CPLO) position to better understand the interaction between military and civilian activities. CPLOs work directly with community officials to minimize operational impacts and ensure the health, safety, and welfare of the public. The GeoReadiness Center (GRC) at the Commander, Navy Region Southeast in Jacksonville, Florida, provides tailored Esri geographic information system (GIS) support to CPLOs and navy departments from Texas to Puerto Rico. Analyzing both inside and outside the navy fence line using parcel, land-use, and zoning data, the GRC creates custom maps that help CPLOs perform spatial analysis, identify potential impacts, and develop mitigation recommendations for the local community.

Challenge

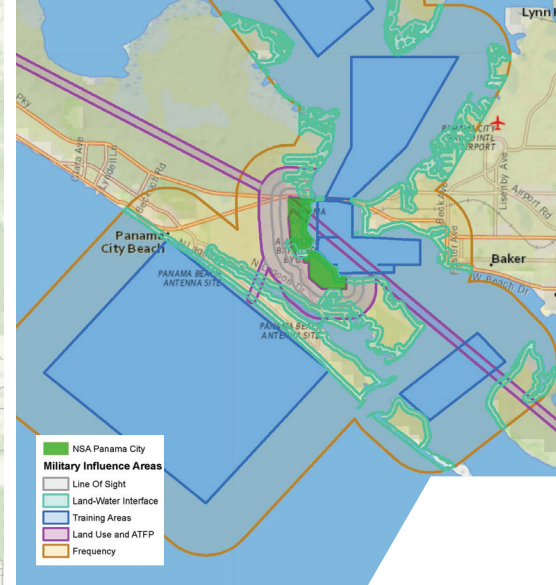
Due to the specialized mission of each military installation, there are unique challenges between the installation and the adjacent community—aircraft noise, accident potential zones (APZ), marine training encroachment, radar or frequency interference, security concerns, airfield obstructions, and more.

Most land-use conflicts are minor, but some underscore the gravity of the CPLO mission. In April 2012, an F-18 from NAS Oceana crashed into an apartment complex in Virginia Beach, Virginia, that was located in an APZ where the construction of residential property was not recommended. Fortunately, there was no loss of life, but this accident highlights the importance of appropriate land-use development near military installations.





Accident Potential Zones Developed for OLF Whitehouse



Military Influence Areas Developed in 2009 for NSA Panama City

Solution

By overlaying GIS-based military aircraft noise contours and aircraft APZs onto residential development data, CPLOs can provide the local community with zoning recommendations to protect adjacent residential areas near landing fields. The same process can be applied to bomb ranges, airspace, sea space, and submarine operating areas and for endangered species protection. Staff use Esri® software to visualize and analyze both the installation's mission and the community's development plans to protect both public and military interests.

The recently released GeoReadiness Explorer (GRX), using Esri ArcGIS® for Server, provides a powerful tool allowing navy and community data usage in a web viewer environment. Online maps created for nontechnical GIS users allow rapid analysis of installation/community compatible-use layers.

Results

The GRC staff continually updates its data, providing CPLOs with a current, accurate picture of activities both on and near local military installations. Using GRX, CPLOs can rapidly develop informed analyses to resolve compatibility issues and engage community leaders with informative land-use depictions. Although restricted to navy use, GRX products and analysis can be shared with the community on an as-needed basis.

GIS analysis helps CPLOs evaluate military and civilian land-use compatibility and identify potential conflicts between the public, environment, and military operations requirements.



Understanding our world.

For more information,
e-mail defenseinfo@esri.com.

esri.com/defense

Copyright © 2014 Esri. All rights reserved. Esri, the Esri globe logo, ArcGIS, and esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

G62286
ESR15M2/14d1