OEA Compatible Use
Case Study
NAS Fallon

I. Background

A. JLUS Nomination Reference

The Naval Air Station Fallon (NAS Fallon) Joint Land Use Study (JLUS) is a joint, collaborative effort between NAS Fallon and the cities of Fallon and Fernley and the County of Churchill and portions of seven north-central Nevada counties: Eureka, Mineral, Lander, Lyon, Nye, Pershing, and Washoe. Based on a Fiscal Year 2011 JLUS nomination, the NAS Fallon JLUS was completed in June 2015.

NAS Fallon prepares all Navy Carrier Air Wings for operational deployments and is home to the Naval Strike and Air Warfare Center (NSAWC), which includes the well-known Navy Fighter Weapons School (TOPGUN) and Carrier Airborne Early Warning Weapons School (Top Dome) . These activities are vital to the overall Navy mission; the land and airspace used for the activities must be protected. Conversely, the landowners, residents, recreationalists, and business owners surrounding NAS Fallon and within the Fallon Range Training Complex (FRTC) must also be protected from adverse impacts that could occur due to training activities performed at NAS Fallon and the FRTC.

With leadership by local sponsor Churchill County, the JLUS sought to guide planning and land use decisions about development surrounding NAS Fallon and within the FRTC.

B. Community/Installation Situation and Description

NAS Fallon is made up of the main base area and the FRTC. The main base area includes the primary operational facilities, including administrative buildings, barracks, and three runways (one of which is the longest runway in the Navy). The FRTC includes four bombing ranges and the airspace supporting flight operations.

The terrain surrounding NAS Fallon and the FRTC is a unique combination of northern Nevada desert, wildlife refuges, alkali flats, and farmlands found in the Lahontan Valley.

A majority of the land surrounding the installation is used for agriculture, some of which has been preserved through conservation easements under the Readiness and Environmental Protection Integration (REPI) program. Urban development occurs approximately 3.5 miles north-northwest of the base located in the City of Fallon.

C. Military Mission

NAS Fallon supports the U.S. Navy by providing a center of excellence in Naval Strike

Warfare enabling testing on numerous weapons systems and combat and air maneuver tactics due to its premier location and relatively few compatibility conflicts. Protecting the NAS Fallon mission helps to ensure readiness for U.S. Naval aviation

The primary mission of NAS Fallon is to prepare U.S. carrier-based air wings to work as a cohesive unit prior to deployment. NAS Fallon is the premier training and warfare center for naval aviators with 57,000 flight operations annually. This number is projected to increase to approximately 63,000 flights operations annually in the future.

II. Compatibility Challenges

At NAS Fallon, compatibility concerns relate, for example, to the expansion and integration of civilian unmanned aerial systems (UAS) into the airspace, given the Federal Aviation Administration selection of Nevada as one of the Test Sites for the commercial UAS. In addition, compatibility concerns include the appropriate level of coordination and communication regarding development within areas needed for low-level flight training and supersonic maneuvers, and generally, concern about increasing geothermal resource development. Moreover, the NAS Fallon JLUS identified an overall general interest in the preservation of the natural environments and species relative to mission impacts. All of these issues, if left unmanaged or without enhanced coordination efforts, could unintentionally jeopardize the Navy's ability to train its resident and visiting personnel at NAS Fallon and the FRTC.

Much of the land beneath the FRTC belongs to the Federal government, managed by the Bureau of Land Management and Bureau of Reclamation. Close coordination across sister Federal agencies was a hallmark of the NAS Fallon JLUS.

Numerous factors influence whether community and military plans, programs, and activities are compatible or in conflict. For the Naval Air Station Fallon (NAS Fallon) Joint Land Use Study (JLUS), 24 compatibility factors were identified, to include:

- Air Quality
- Biological Resources
- Coordination/Communication
- Cultural Resources
- Dust, Smoke and Steam
- Energy Development
- Frequency Spectrum Capacity
- Frequency Spectrum Interference/Impedance
- Housing Availability
- Infrastructure Extensions
- Land Use
- Land, Air and Sea Space Competition

- Light and Glare
- Noise and Vibration
- Public Trespassing
- Safety
- Scare Natural Resources
- Vertical Obstructions
- Water Quality and Quantity

III. Description JLUS Sponsor Organization and Approach

The organizations and entities that participated in developing the JLUS are:

- City of Fallon
- City of Fernley
- Churchill County
- Lyon County
- Eureka County
- Lander County
- Mineral County
- Nye County
- Pershing County
- Washoe County
- Bureau of Land Management
- Bureau of Reclamation
- Fallon-Paiute Shoshone Tribe
- Nevada Farm Bureau
- Nevada Cattleman's Association
- Nevada Division of State Lands (Nevada State Planning Agency)
- Nevada Department of Wildlife
- United States Fish and Wildlife Service

Two committees, comprised of city, county, military, and other partner agencies and organizations, guided the development of the NAS Fallon JLUS. These committees were the Policy Committee, which is responsible for the overall direction of the JLUS, and the Technical Committee (TC). The TC is responsible for identifying and studying technical issues. The TC assists in reviewing the analysis and the development and evaluation of implementation strategies and tools.

The participants approached the project agreeing that a successful JLUS would require balancing the different needs of all involved stakeholders. Several guidelines formed the basis upon which the strategies were developed:

- In concert with the Nevada state laws, the Implementation Plan was

developed with the understanding that the recommended strategies must not result in a taking of property value. In some cases, the recommended strategies can only be implemented with new enabling legislation.

- In order to minimize regulation, where appropriate, strategies were recommended only for specific geographic areas to resolve the compatibility issue.

- In lieu of eliminating strategies that do not have 100 percent buy-in from all stakeholders, it was determined that the solution / strategy may result in the creation of multiple strategies that address the same issue but tailored to individual circumstances.

IV. Findings and Recommendations

D. Implementation Strategy

One of the key recommendations is for the formation of a JLUS Coordination Committee that will be responsible for overseeing the progress of the implementation in the months and years after the JLUS is completed.

The strategies identified by the JLUS are:

Biological Resources

- Collaborate with USFWS on species that may be considered for listing
- Develop management strategies to protect Greater Sage Grouse

Communication

- Establish a JLUS Coordination Committee to provide oversight and monitoring of the JLUS implementation
- Establish Military Compatibility Areas (MCAs) for use by stakeholders to identify where, geographically, each JLUS strategy should be applied
- Formalize Navy cooperation with federal and state agencies
- Develop or amend real estate disclosure language/ rental agreements
- Create and maintain a GIS data clearinghouse
- Establish an unmanned aerial system (UAS) coordination group
- Establish procedures for plan review and comment between NAS Fallon and local jurisdictions and agencies

Cultural Resources

- Protection of known cultural resources
- Coordinate access protocols to cultural resources within the FRTC ranges

Dust, Smoke, Steam

- Consider compatibility when permitting geothermal operations and promote dry cooling in winter
- Reduce potential for fugitive dust from fallow lands

Energy Development
- Update land use and zoning ordinances to consider non-reflective solar energy projects
- Coordinate with DoD Siting Clearinghouse on renewable energy projects

Frequency Spectrum Interference/Impedance
- Provide signage noting areas that GPS and cellular technologies could be impacted by military training operations
- Formalize communication procedures relative to frequency use
- Promote joint infrastructure and facilities

Infrastructure Extensions
- Implement transmission line utility corridors into master plans
- Amend Assembly Bill 239, Sections 27.5 and 27.7 to Consider Military Compatibility and Energy Conservation
- Routinely evaluate the ability for local jurisdictions to provide infrastructure and services to NAS Fallon

Land Use
- Enhance Transfer of Development Rights (TDR) program
- Amend Churchill County Cluster Development Ordinance
- Limit future Navy land withdrawals

Land/Air/Sea Spaces
- Identification and development of unmanned aerial system operating areas/corridors
- Develop memorandum of agreement for coordination of aviation activities

Light and Glare
- Develop Dark Skies ordinances

Noise and Vibration
- Develop sound attenuation building standards for new construction and building expansion
- NAS Fallon should notify communities of supersonic training exercises

Safety Zones
- Maintain current individual fire management training
- Maintain NAS Fallon's role in wildland fire detection and monitoring
- Update Churchill County Fire Plan
- Conduct a comprehensive wildlife/bird hazard assessment for aircraft

- Secure land within the Runway 07/25 Clear Zone for aircraft safety

Vertical Obstructions

- Enact building/structure height limitations under flight paths
- Provide NAS Fallon notification of proposals for structures greater than 75 feet

Water Quality/Quantity

- Conduct regional water resources studies
- Evaluate cooperation on flood control response between NAS Fallon, Churchill County, and the City of Fallon

E. Status

The Policy Committee accepted the NAS Fallon JLUS in June 2015. Initial implementation of strategies has begun and will span through 2018 and beyond.