

White Sands Missile Range (WSMR) Overview

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Presenter: Dan Hicks, Deputy Executive Director for Strategic Initiatives

Mr. Hicks will present the WSMR Overview, a short WSMR Video clip, and share a few thoughts on the SunZia Transmission Project.

White Sands Missile Range presentation to Las Cruces City Council



WHITE SANDS MISSILE RANGE

Mr. Dan Hicks
January 13, 2014

U.S. Army Test and Evaluation Command





Army Acquisition's Rebalance to the Pacific

*Ms. Heidi Shyu: “The Army must focus more on technological battlefields where the Army **will not** enjoy **uncontested aerial environments**. The Army will face enemies with **missile fleets, cyber attack capabilities and the ability to shoot down U.S. drones.**”*

*“There [are] countries that have a lot of missiles, so **our air/missile defense becomes more important**”*





Bottom Line Up Front

WSMR is uniquely positioned to respond to emerging threats

National asset with unique terrain, airspace, and the ability to control the frequency domain

World class Instrumentation and Instrumentation development capability

Unique ability to replicate theatre environment for operational realism

A Tri-Service range installation regionally partnered with Bliss and HAFB

Routinely Conduct Nationally/ Globally Important Missions

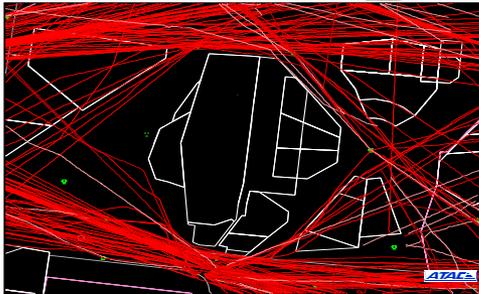




A National Treasure



- Land area
- Air space
- Frequency



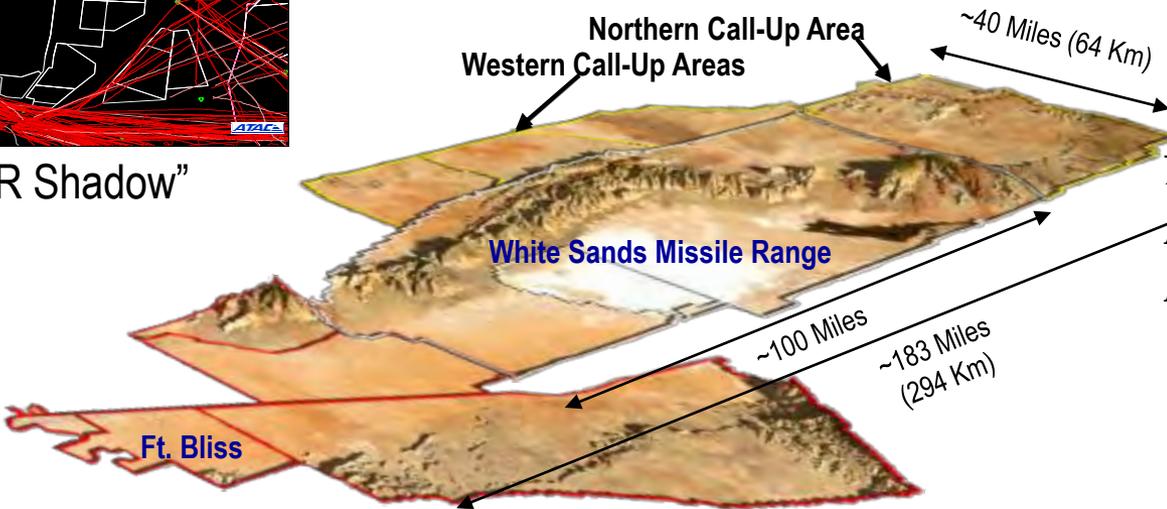
“WSMR Shadow”

Stable / Mild Climate

20yr Avg. Temperature.

Winter Summer

High	61°F	92°F
Low	36°F	69°F



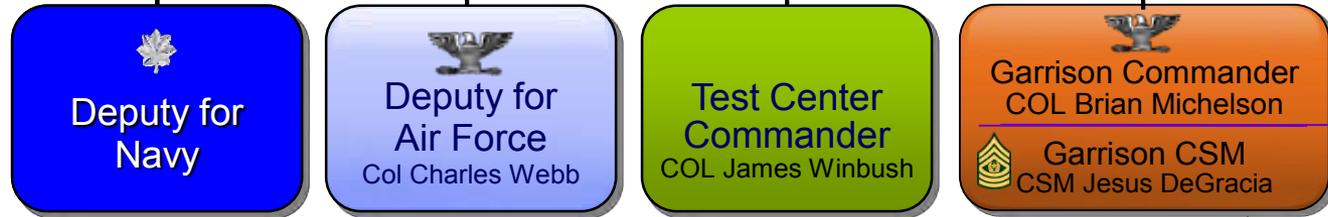
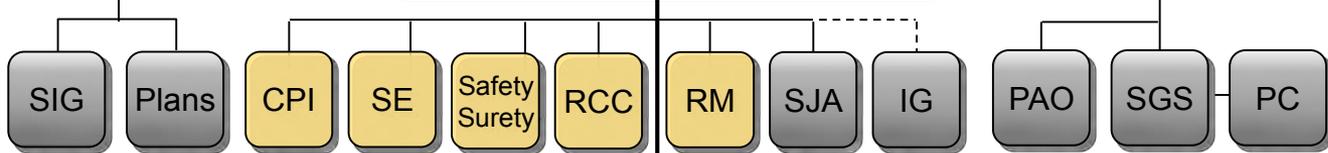
Dry / Clear Atmosphere

Avg. RH- 42%, Avg. Rainfall 11.7"

Avg. Visibility 30 km



Team White Sands





White Sands Missile Range

Annual Economic Impact

- Payroll & Contracts \$781.9 million
- Construction Contracts \$ 40.5 million
- Utilities \$ 11.2 million

- Total Full Time Personnel – 10184
- Total number of Transient Personnel – 10018
- **Total Economic Impact - \$834 Million**

About \$2.3 million per day

WSMR is a reimbursable range



Army Test and Evaluation Command



White Sands Missile Range Mission Impacts From Current Proposed SunZia Power Line Routing

*Army Proven
Battle Ready*





Bottom line up front

The Army and the Department of Defense are very supportive of renewable and alternative energy.

The DoD has defined renewable energy mandates that each Service must achieve to reduce our overall reliance on carbon fuels.

WSMR is actively working towards these mandates and has recently activated the Army's largest LCPV Solar Array.

WSMR strongly supports Sunzia and NM's desire for renewable energy development.

WSMR, Army, and OSD want to ensure the Sunzia project is located in the best location to minimize the impact to all stakeholders.



There are very real threats in the world!

Iran plans to unveil cruise missile, dismisses U.S. deployment of air defense shield in region

English.news.cn 2012-09-09 23:41:32



TEHRAN, Sept. 9 (Xinhua) -- Iran's Defense Ministry announced on Sunday it will unveil a new cruise missile, dismissing U.S. deployment of air defense shield in the region.

Deputy Defense Minister and head of the ministry's Aerospace Organization General Mehdi Farahi said Sunday that his ministry plans to unveil a highly advanced cruise missile, the semi-official Fars news agency reported.

"God willing, Meshkat (Lantern) cruise missile with a range of 2,000 km will be unveiled in the near future," Farahi told Fars.

"Meshkat Cruise Missile can be fired from land, air and sea," Farahi was quoted as saying.

According to the report, Iran's former cruise missile can travel a distance of no more than 300 km.

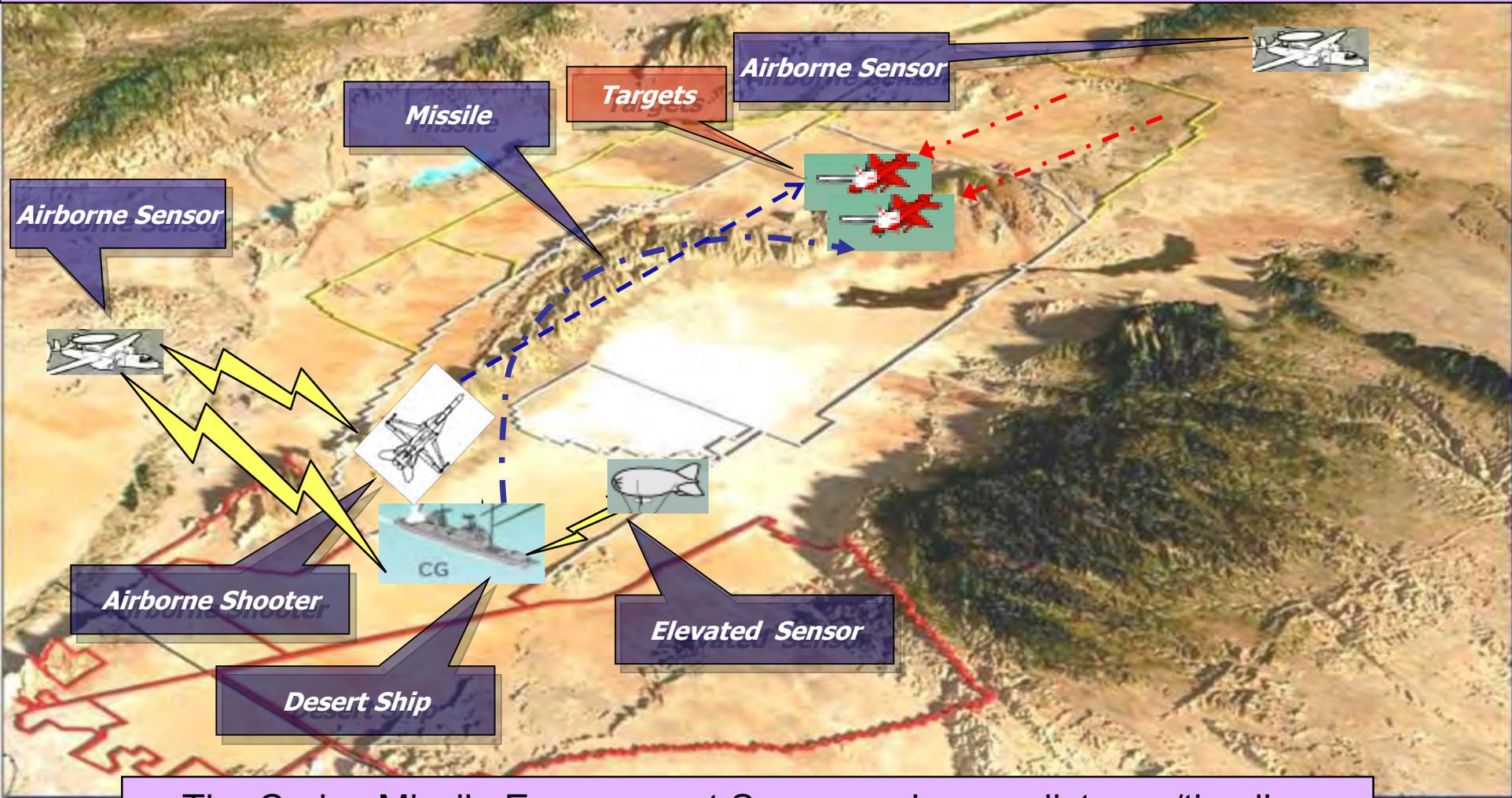




WSMR is the only range capable of providing the necessary environment to develop and test these programs



Current and Future Test Scenarios on WSMR



The Cruise Missile Engagement Sequence is very distance/timeline dependent and requires all of WSMR & the Northern Extension Area

Target Test Geometry

3D Perspective
from this location
looking East

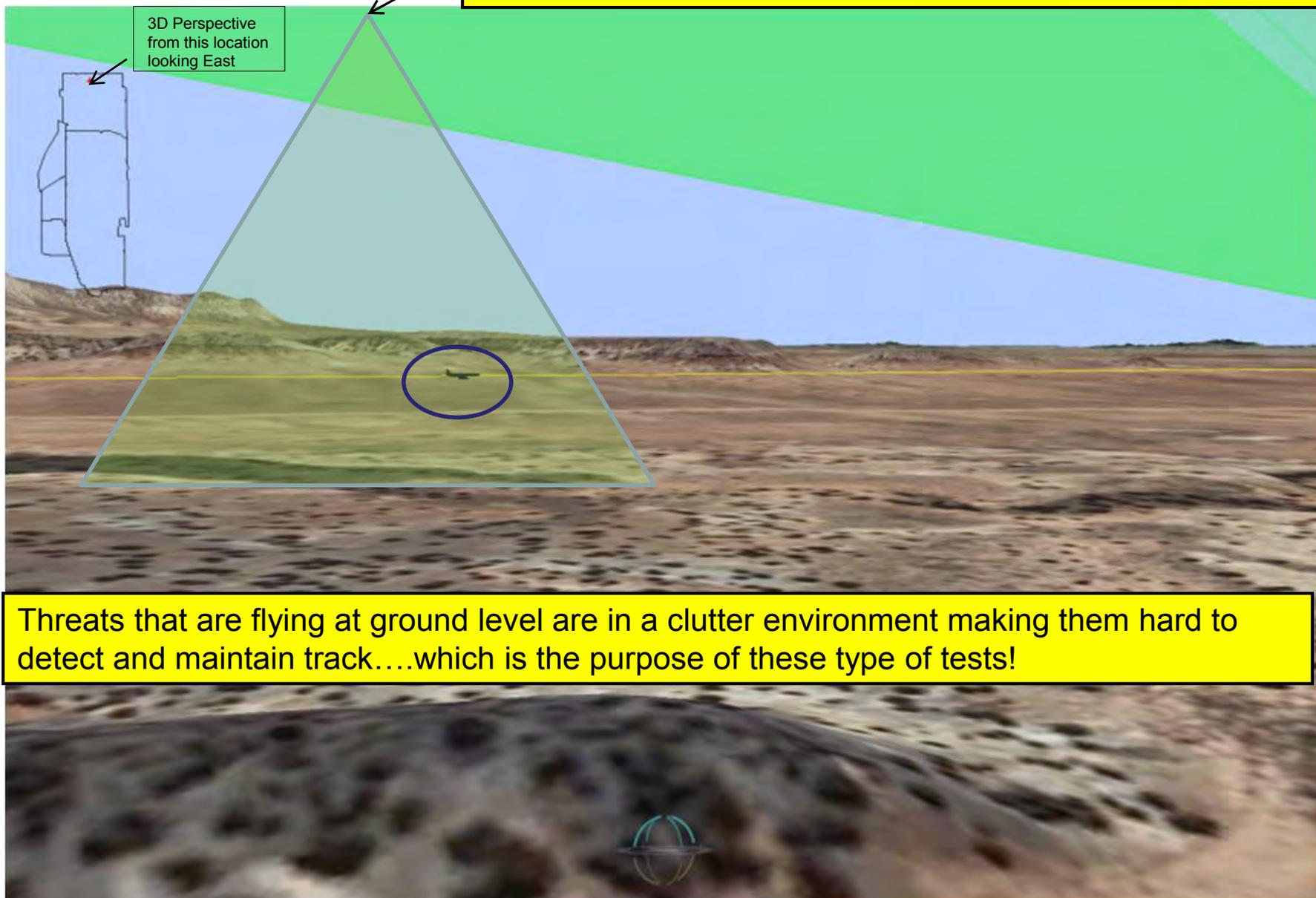
The threat cruise missile flies low
on the deck at very fast speeds.

The green shaded area represents a ground
radar located to the south – the threat is
shielded by the mountains and can not be
detected.



Elevated sensors are needed to track threats at long ranges that are outside the coverage of a ground or sea radar

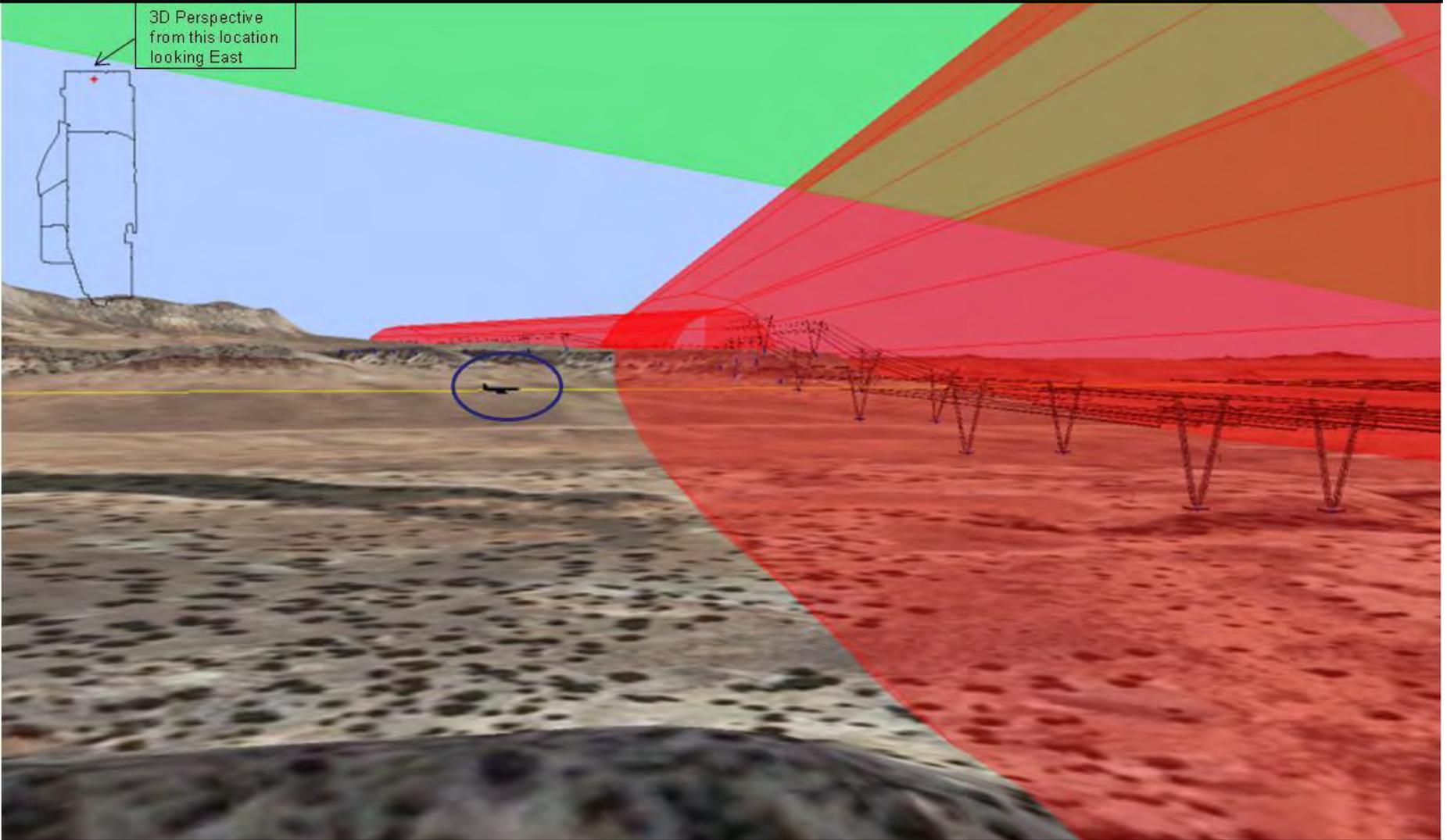
3D Perspective
from this location
looking East



Threats that are flying at ground level are in a clutter environment making them hard to detect and maintain track....which is the purpose of these type of tests!

This image shows a representation of the SunZia transmission line along BLM's Modified Preferred Alternative Route

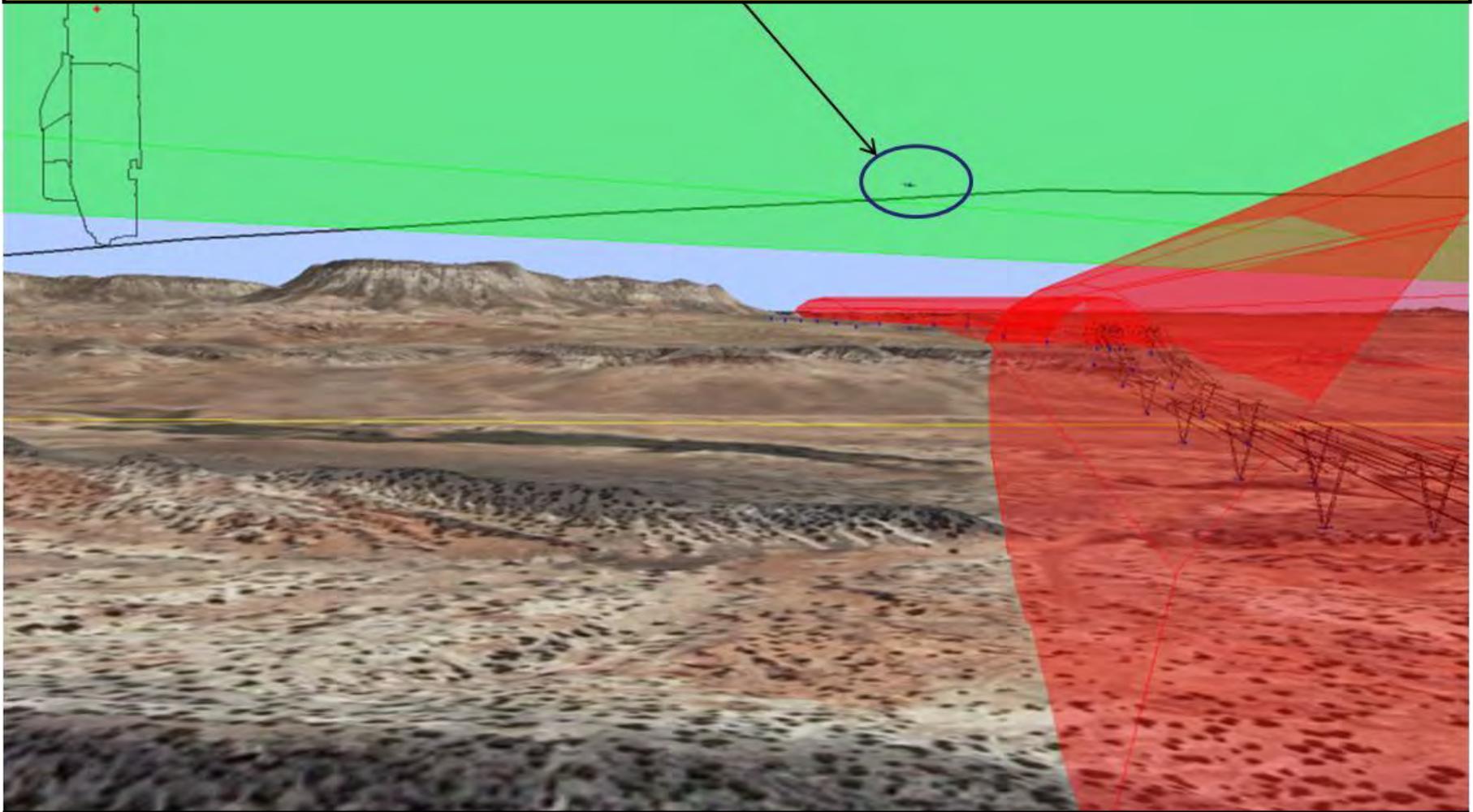
3D Perspective
from this location
looking East



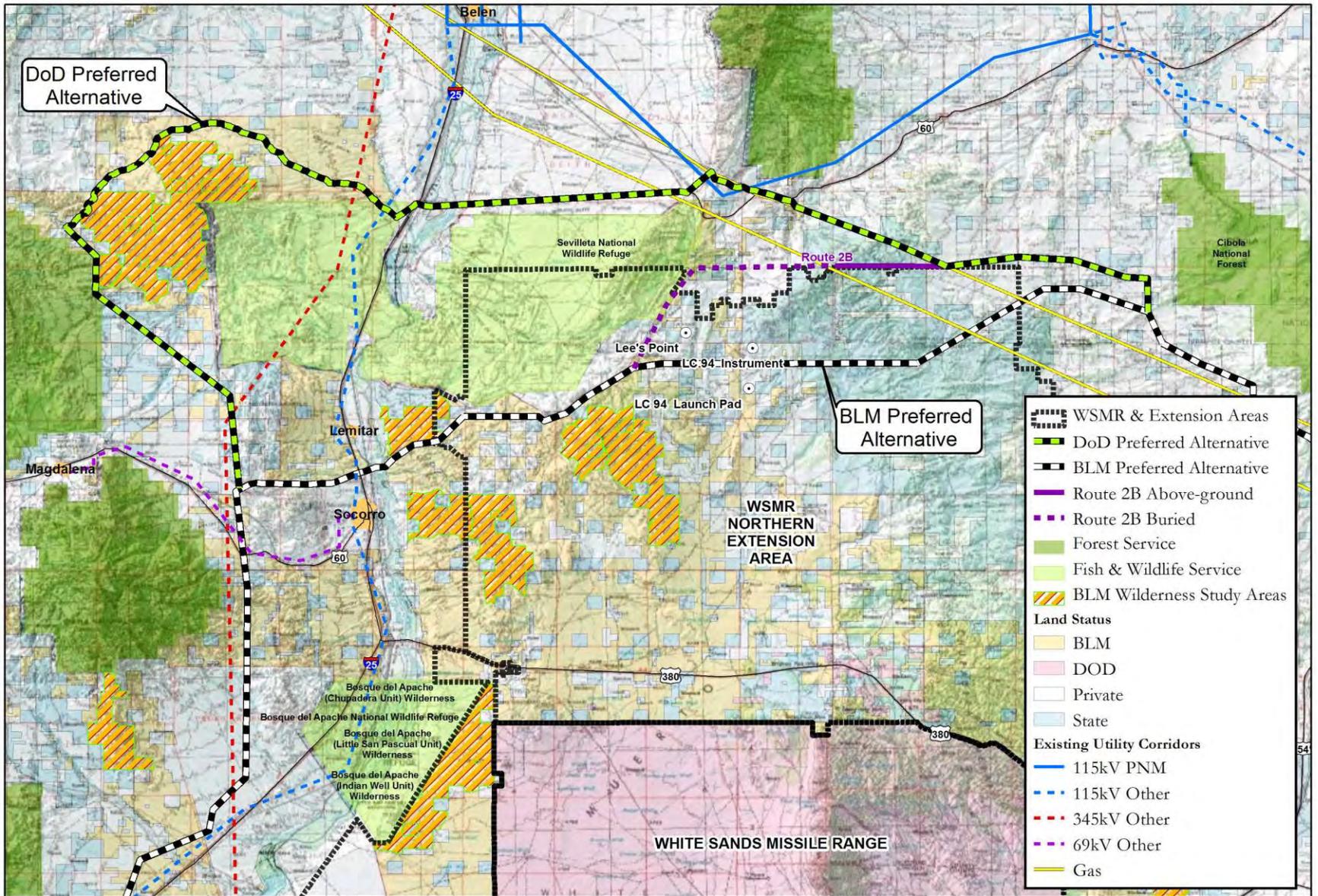
The red shaded area represents a standard 500 foot protection buffer around critical infrastructure. Targets would have to fly above this buffer.

A target flying over the transmission line and buffer and will be out of the ground clutter

- more detectable by airborne sensors
- invalidates test objectives

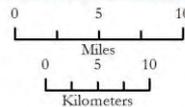


This distance out of the ground clutter will vary from 3-5 miles depending on speed and type of the target.

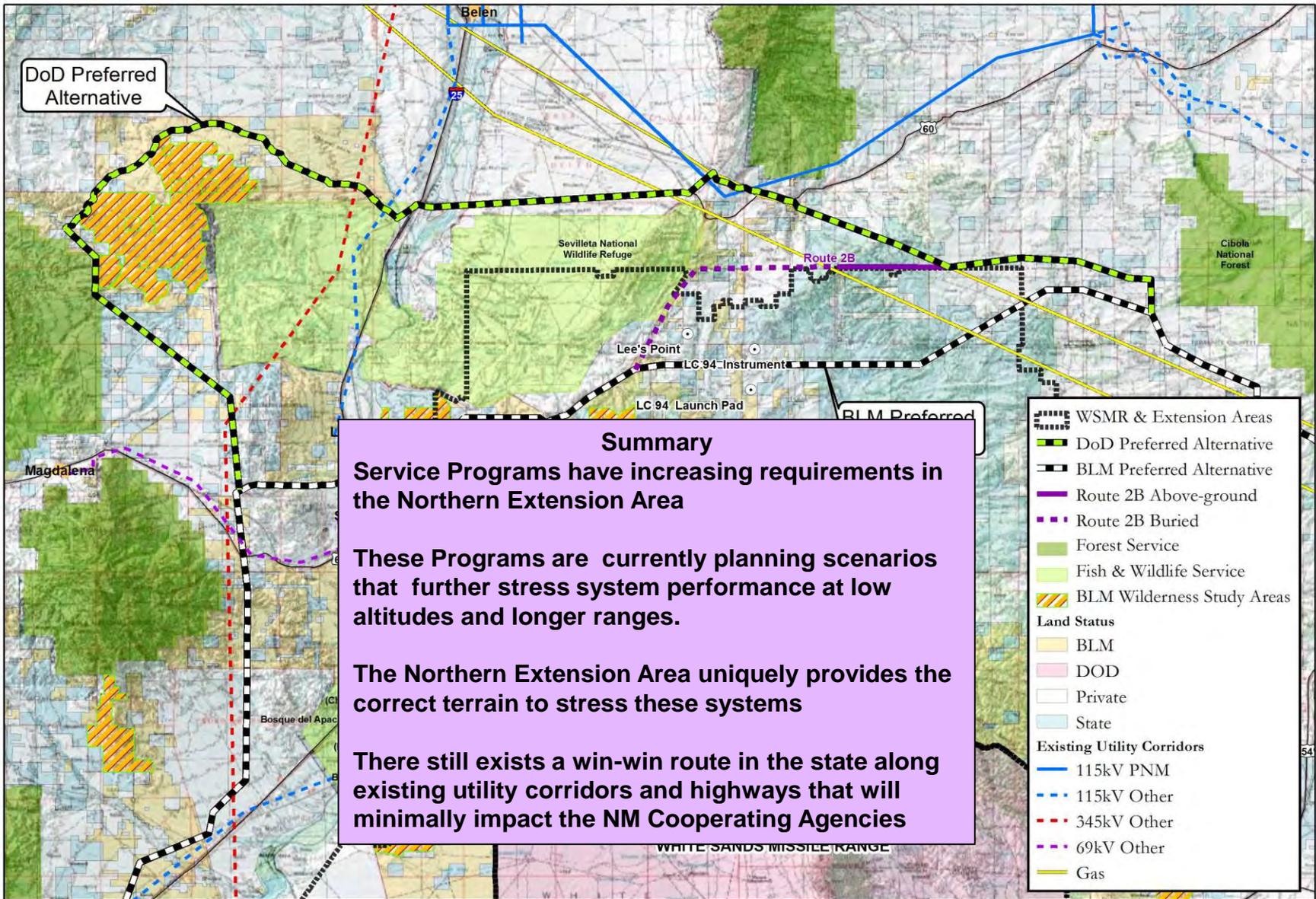


WHITE SANDS MISSILE RANGE

Sun Zia Routes - DoD & BLM Preferred Alternatives
 March 2013



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DoD Preferred Alternative

BLM Preferred Alternative

Summary

Service Programs have increasing requirements in the Northern Extension Area

These Programs are currently planning scenarios that further stress system performance at low altitudes and longer ranges.

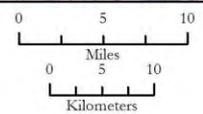
The Northern Extension Area uniquely provides the correct terrain to stress these systems

There still exists a win-win route in the state along existing utility corridors and highways that will minimally impact the NM Cooperating Agencies

- WSMR & Extension Areas
- DoD Preferred Alternative
- BLM Preferred Alternative
- Route 2B Above-ground
- Route 2B Buried
- Forest Service
- Fish & Wildlife Service
- BLM Wilderness Study Areas
- Land Status**
- BLM
- DOD
- Private
- State
- Existing Utility Corridors**
- 115kV PNM
- 115kV Other
- 345kV Other
- 69kV Other
- Gas

WHITE SANDS MISSILE RANGE

Sun Zia Routes - DoD & BLM Preferred Alternatives
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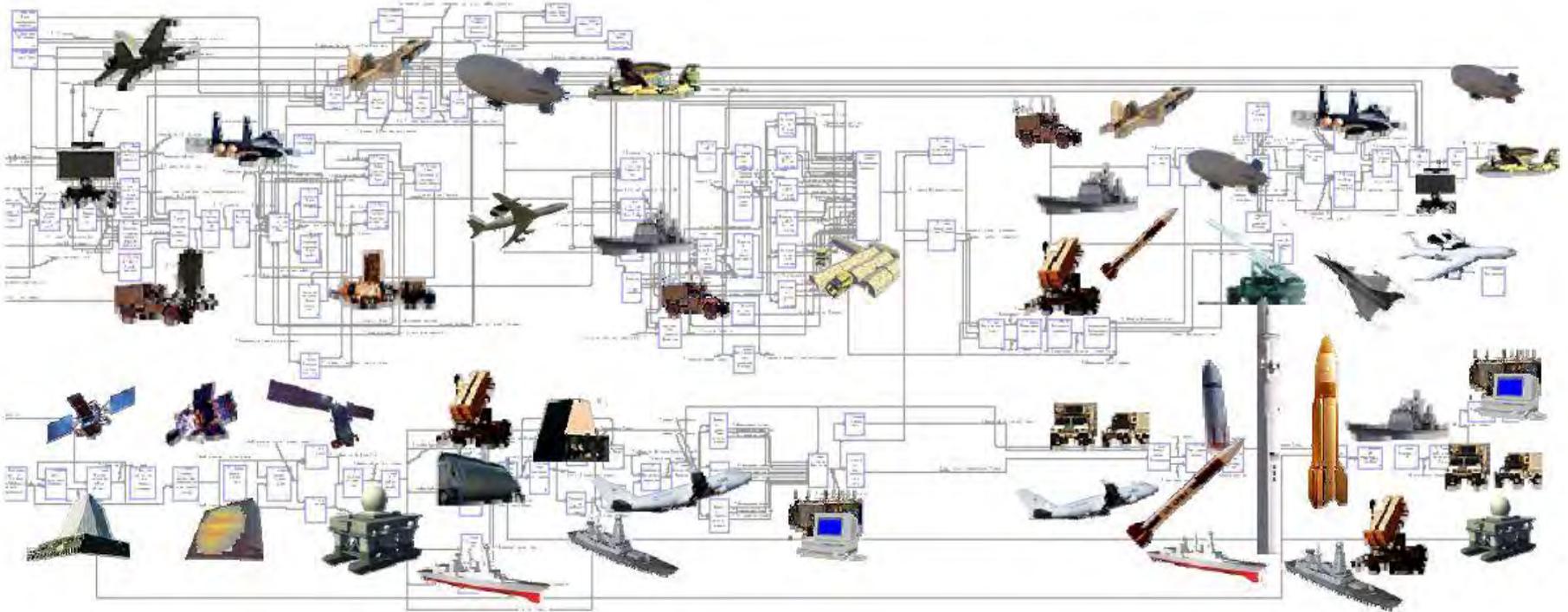


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WSMR has increasing test requirements to support DoD's integrated system of system testing

Joint Air and Missile Defense Architecture



RECOMMENDATION

Working together we can still find the win – win solution in the state