The Department of Defense in California

Alternative Energy Development

Energy Policy: A National Priority

- Current Guidance
  - Federal Laws and Statues
    - Energy Policy Act of 2005
    - Energy Independence and Security Act of 2007
  - Presidential Executive Orders
    - Strengthening Federal Environmental, Energy, and Transportation Management (EO 14323 – Jan 07)
    - Federal Workforce Transportation (EO 13150 – Oct 2000)
    - Federal Alternative Fueled Vehicle Leadership (EO 13031 – Dec 1996)

Key Performance Mandates

- 1. Energy Management: Reduce Energy Intensity by 3% annually (30% by 2015) relative to 2003 baseline
- 2. Water Management: Reduce Water Consumption Intensity by 2% annually (16% by 2015) relative to 2007 baseline
- 3. Renewable Energy: Of the total amount of electricity consumed, 25% will be generated from renewable sources by FY2025

Intensity = consumption per square foot

DoD Energy Initiatives

- DoD/DoE Net Zero Installation Initiative
- Large Scale Renewable Projects (PPA, PPV, EUL)
- Wind Turbine (UESC)
- Biomass Steam Plants (ESCP)
- Geothermal Studies
- Wind Assessments
- Cogeneration Plants (ESPC)
- Landfill Gas (ESPC)
- Solar Photovoltaic Panels
- Green Base Initiative
- Strategy Energy Studies
- Facilities Metering
- LEED Silver Facilities

MCIWEST Commanders Conference Nov 08: Top 5 Strategic Considerations

1. State Budget Deficits
2. Water
3. Energy Development
4. Global Climate Change
5. Access to land, sea, and airspace

Office of the Western Regional Environmental Coordinator
Office of Governmental and External Affairs
Marine Corps Installations West

Marine Corps in the Western Region: Looking to 2050

Western Region Partnership: Land Use Committee
29 October 08

Forging the MAGTF: Installations - the 5th Element

SUPPORT
GROUND
AIR

DEPLOYING FORCES

Air Warfare Training

Logistics, Repair & Maintenance

Recruiting & Basic Training

Amphibious & Land Warfare Training

Evolving Doctrine: The Sea is Still Our Gateway

- From the Sea
- Forward from the Sea
- Operational Maneuver from the Sea
- Expeditionary Maneuver Warfare
- Distributed Operations

DEPLOYING FORCES

Marine Corps Mountain Warfare Training Center Bridgeport

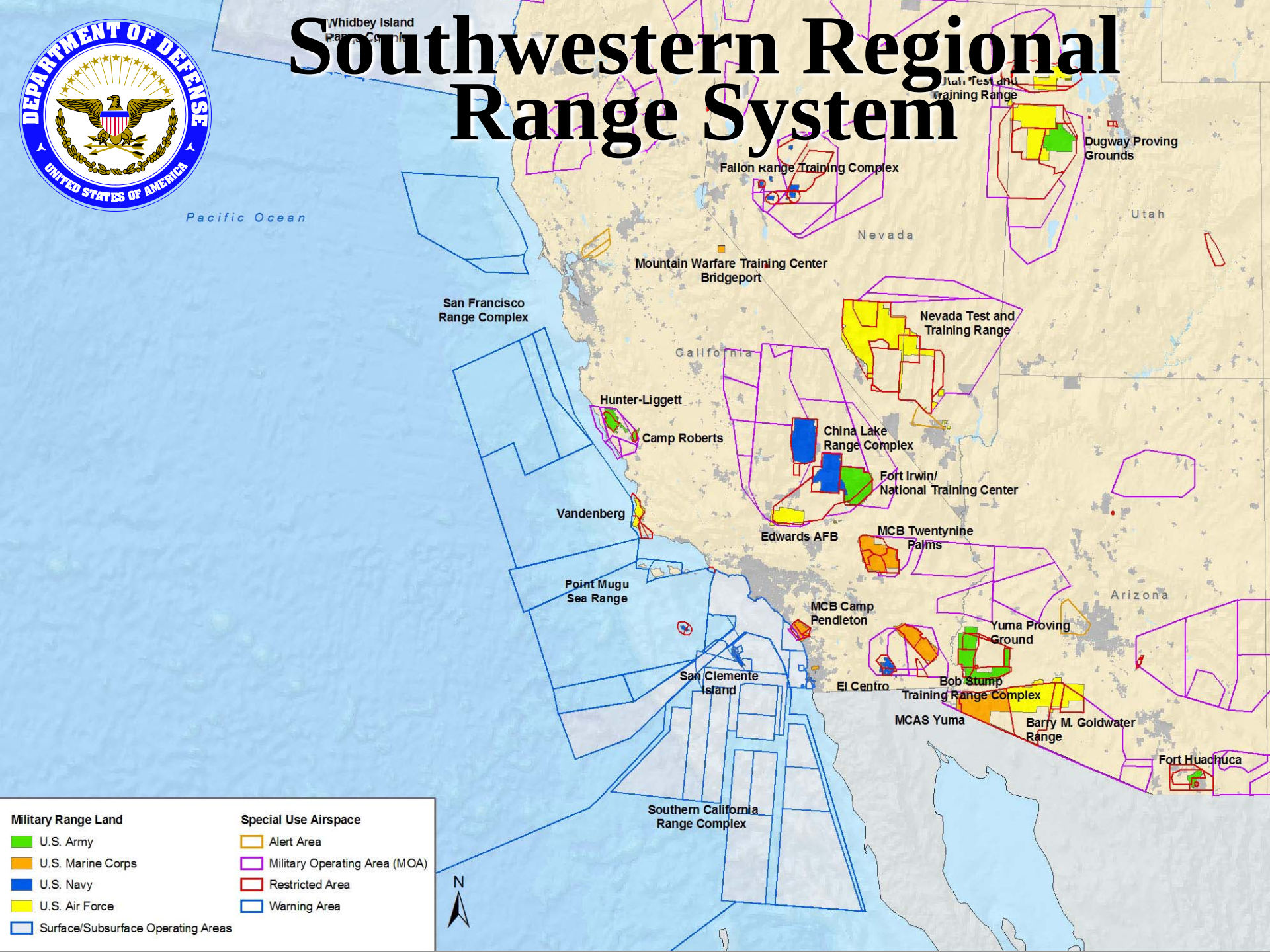
Marine Air Ground Task Force Training Center 29 Palms

Marine Corps Base Camp Pendleton

Chocolate Mt. Range

Barry M. Goldwater Range

Southwestern Regional Range System



Expeditionary Maneuver Warfare

"…Innovative technologies will provide Marines enhanced mobility to cross greater distances and reduce the limitations imposed by terrain, weather, and access denial."

Afghanistan 2001 - 2002

"…The result will be an expanded maneuver space, both seaward and inland..."

Afghanistan Relational Map

How Public Lands Contribute to Readiness: Hawaii to California to Afghanistan

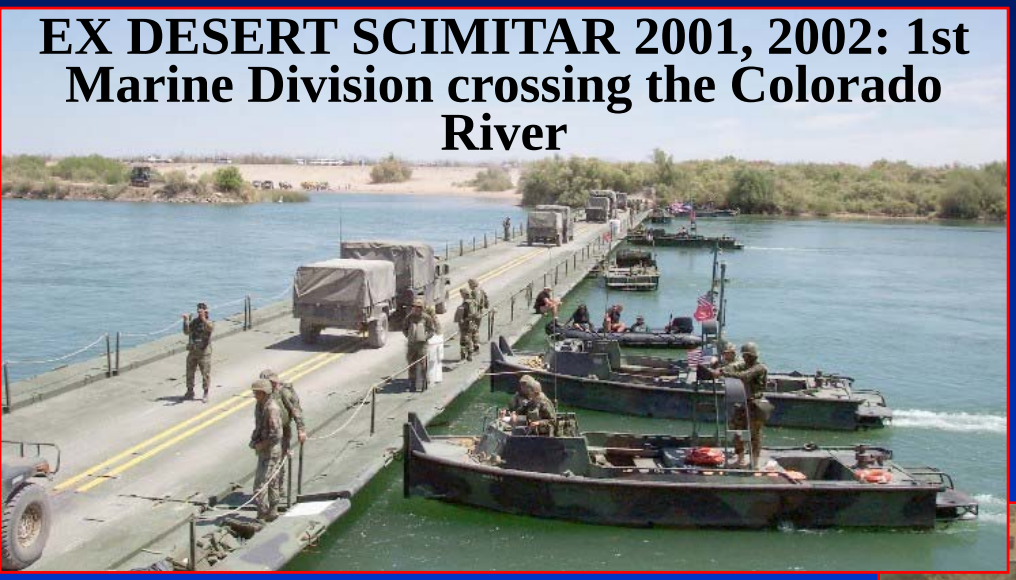
1 Oct 2004: 3rd Battalion, 3rd Marines (3/3) (Hawaii) conducts operational training in the Humboldt-Toiyabe National Forest, Sierra Nevada Mountains, USMC Mountain Warfare Training Center, Bridgeport, CA

Army CH-47 Chinook helicopter supports 3/3 Marines in the Korangal Valley

2 January 05: 3/3 conducts ops in the Hindu Kush Mountains, Korangal Valley, Afghanistan

"…The enemy we fight has lived in the snow and harsh weather of the Hindu Kush all of his life…. if we didn't prepare for the terrain, altitude and weather before getting here - then he might have a chance to get away from us…" **CPL Mattingly 3/3**

We Must *"Train As We Fight"*



EX DESERT SCIMITAR 2001, 2002: 1st Marine Division crossing the Colorado River

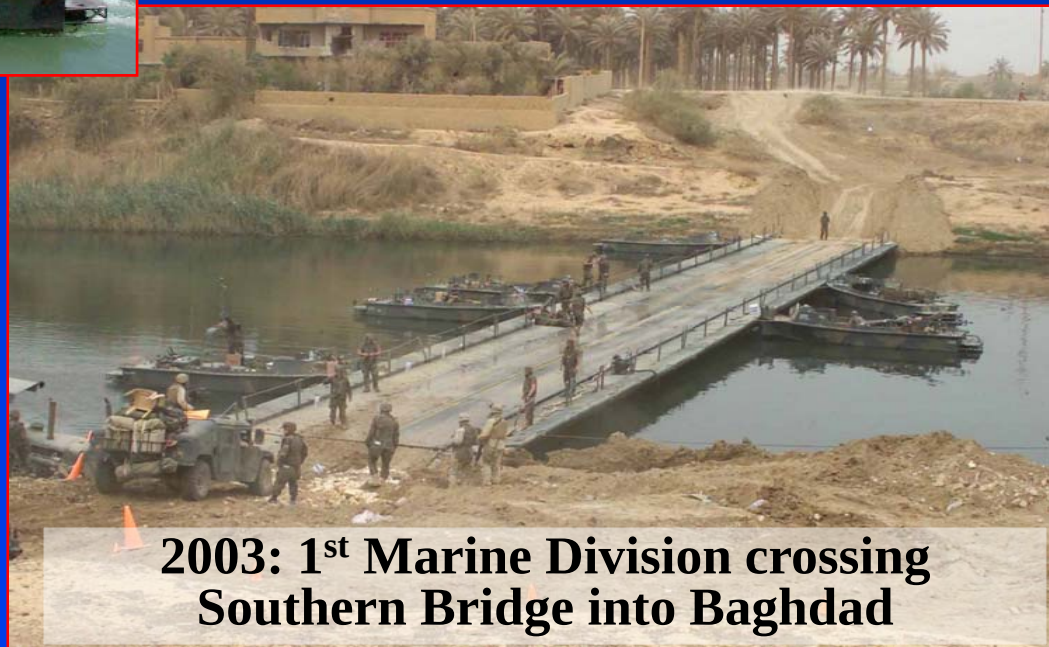
200 Miles across CA to AZ

592 Vehicles

2700 Marines

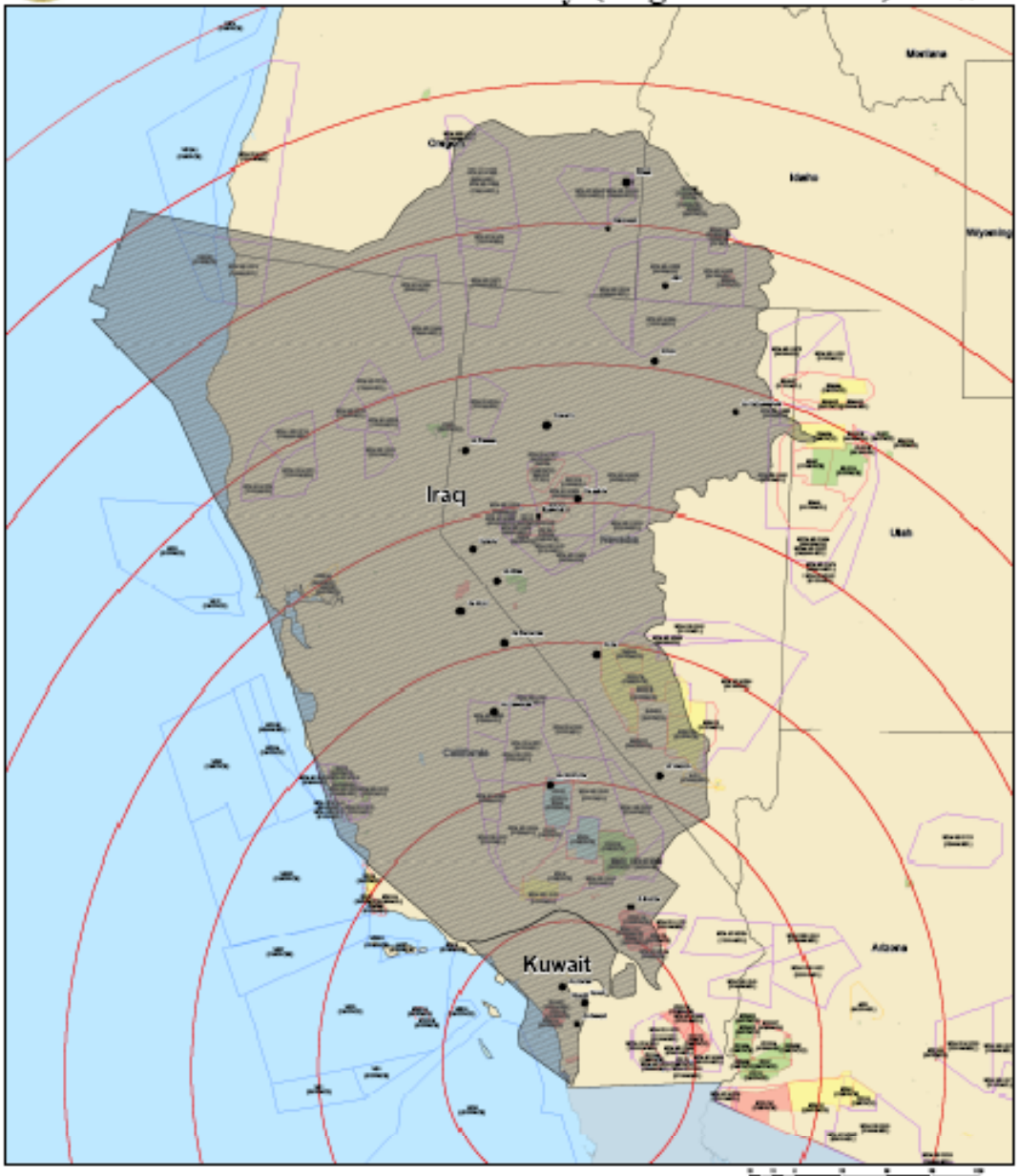
450' expeditionary bridging

DoD does not possess the range of conditions needed to fully rehearse current operational plans unless complemented by public lands



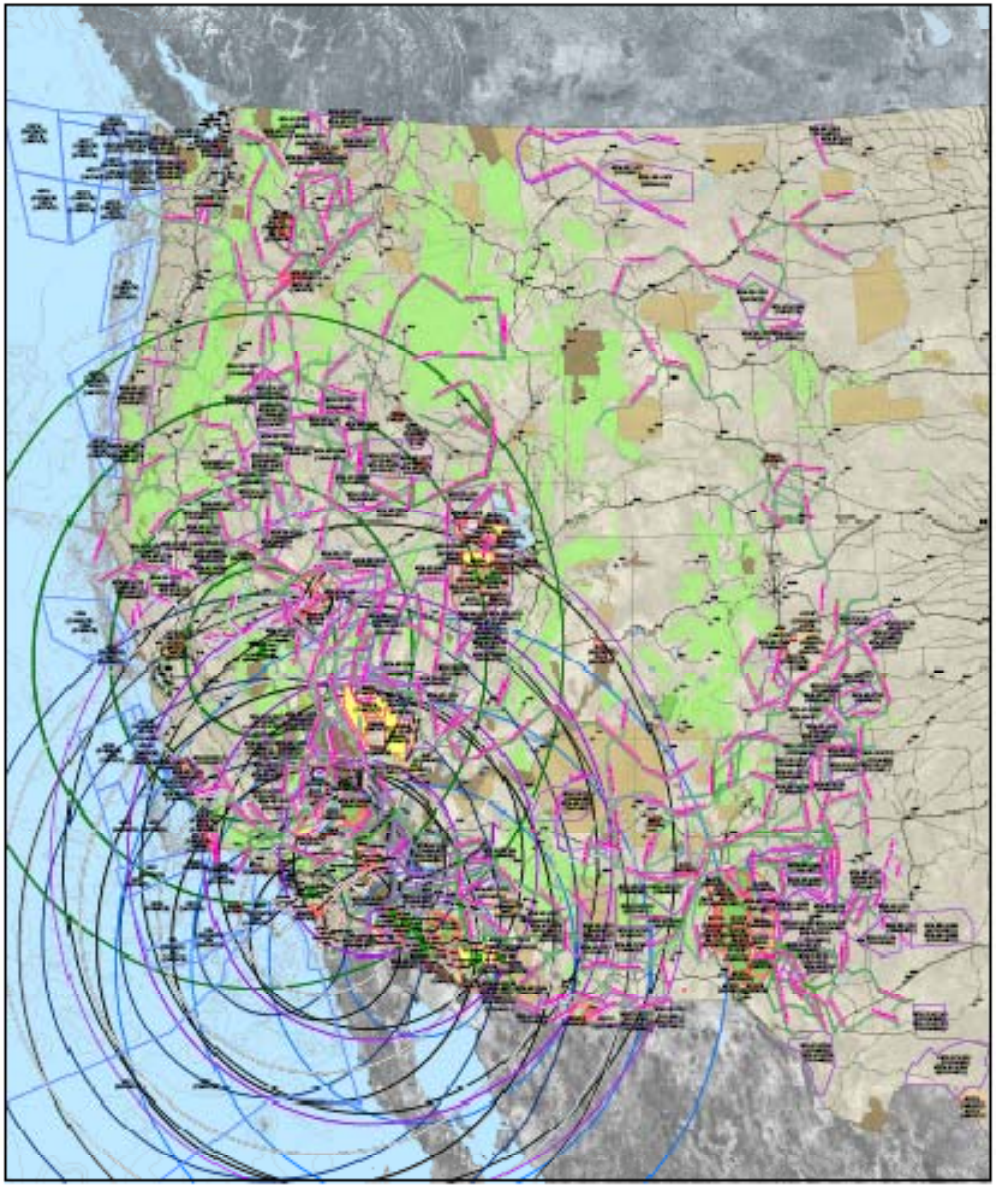
2003: 1st Marine Division crossing Southern Bridge into Baghdad

Southwest US with Iraq and Kuwait Relational Overlay (aligned with CA)



MV-22 Combat Radius,

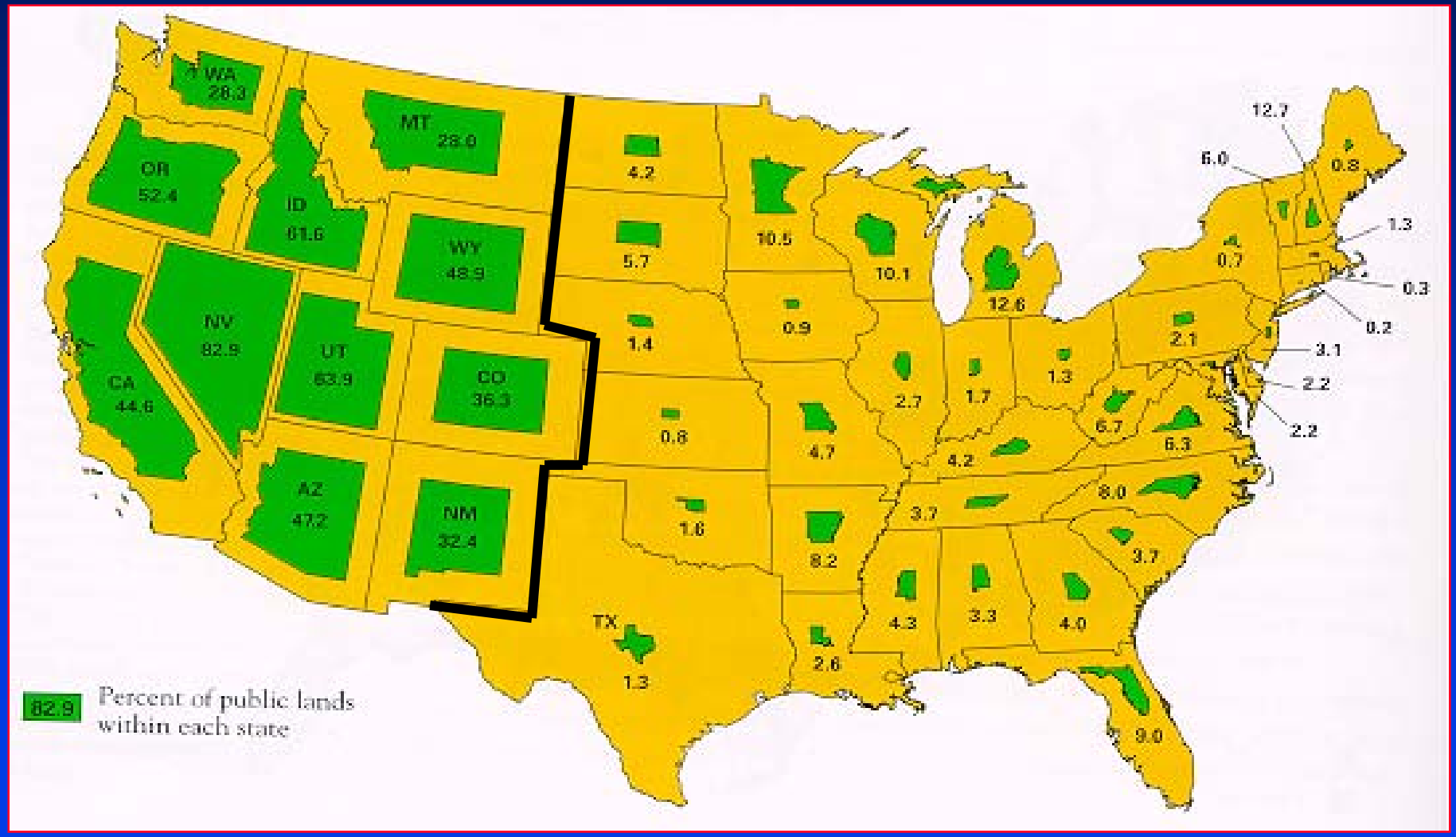
MTR's, Helo Routes, Landing Zones and SUA's



"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

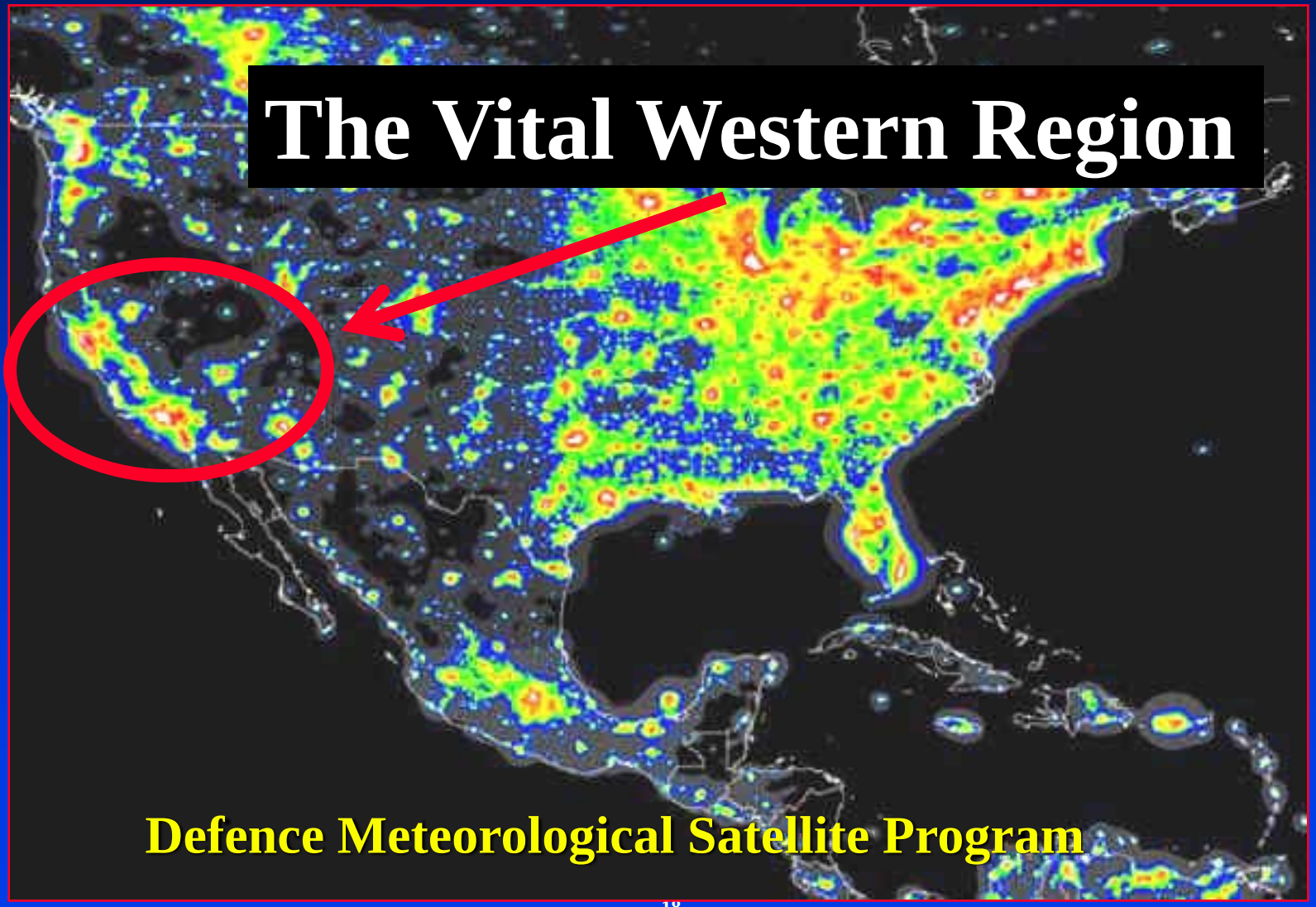
- Charles Darwin

Public Lands in the "West"



*Atlas of the New West, Portrait of a Changing Region, 1997

Urban Development



Western Region

Challenges to Combat Readiness in the Western Region

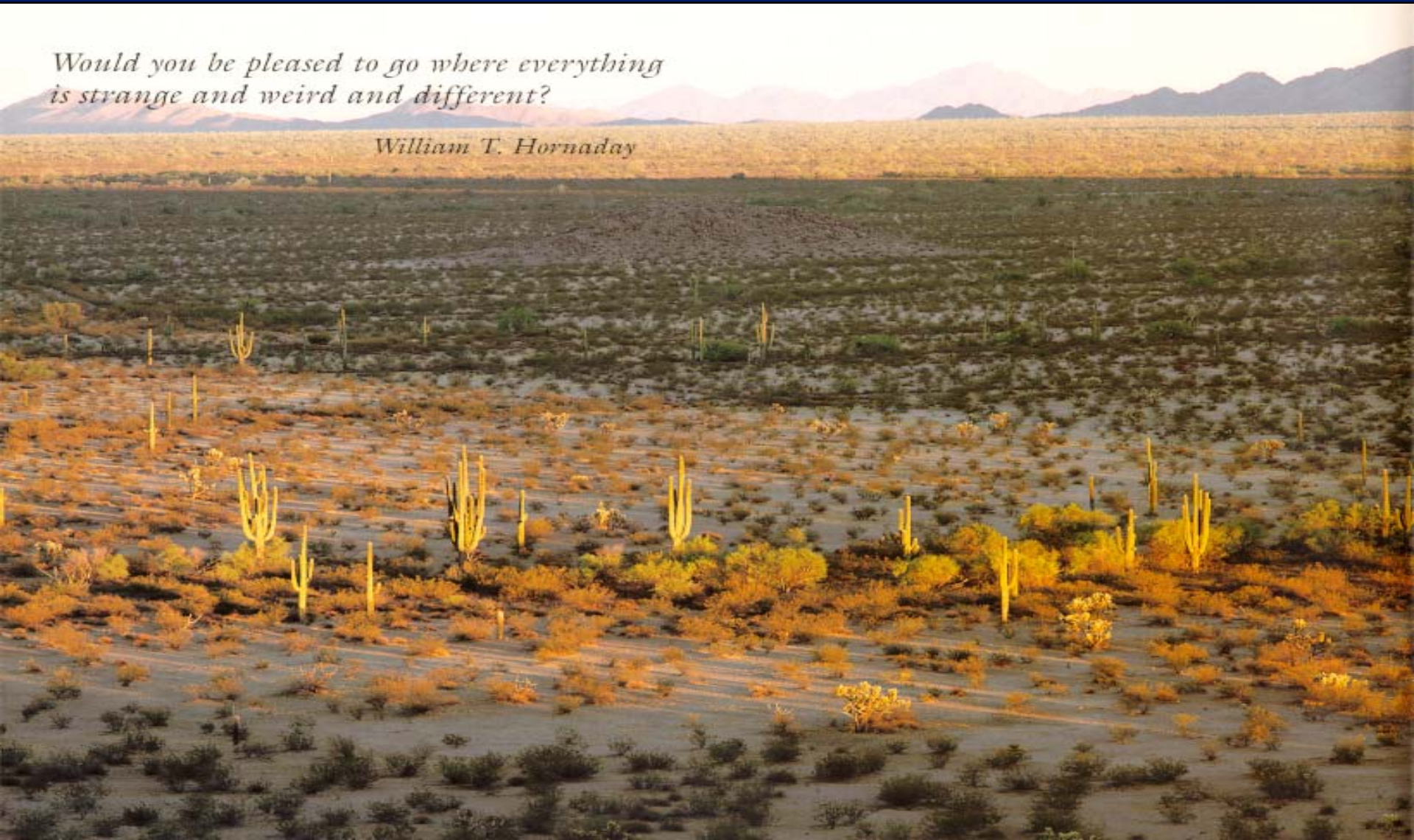
Course to Conflict ?

California Population Changes (1990 – 2000) & Projections (2000 – 2020) for Critical USMC Counties*

- **Imperial:**
  - Chocolate Mt. Range
    - Pop. Change +30%;
    - Pop. Proj. +103%
- **Riverside:**
  - MCB Camp Pendleton
  - Chocolate Mt Range
    - Pop. Change +32%;
    - Pop. Proj +13%
- **San Bernardino:**
  - MCAGCC 29 Palms
  - MCLB Barstow
    - Pop. Change +20.5%
    - Pop. Proj. +16%
- **San Diego:**
  - MCB Camp Pendleton
  - MCAS Miramar
  - MCRD
    - Pop. Change +13%
    - Pop. Proj. +28%
- **Orange:**
  - MCB Camp Pendleton
    - Pop. Change +18%
    - Pop. Proj. +4%
- **Mono:**
  - Mountain Warfare Training Center
    - Pop. Change +29%
    - Pop. Proj. +3%

*California Department of Finance, Demographic Research Unit

The Future: Competition for "Open Space"



North American Electric Reliability Council's

Long Term Reliability Assessment (Oct 06)

- Electric utilities forecast demand to increase over the next ten years by 19 percent (141,000 MW) in the U.S. and 13 percent (9,500 MW) in Canada
- Project committed resources to increase by only 6 percent (57,000 MW) in the U.S. and by 9 percent (9,000 MW) in Canada.
- More than 9,000 miles of new transmission (230 kV and above) are proposed to be added through 2010, with a total of about 12,873 miles added over the 2006–2015 time frame.

Federal Energy Corridor PEIS

SEMPRA Energy Comments 28 Nov 05

- "…We recommend that Department of Defense property be explicitly considered in this process. …"
- "…The most practical corridor routes for pipeline facilities associated with LNG delivery include significant areas of DoD controlled property. …"
- "…Corridors within and adjacent to the U.S. Marines Camp Pendleton. …"

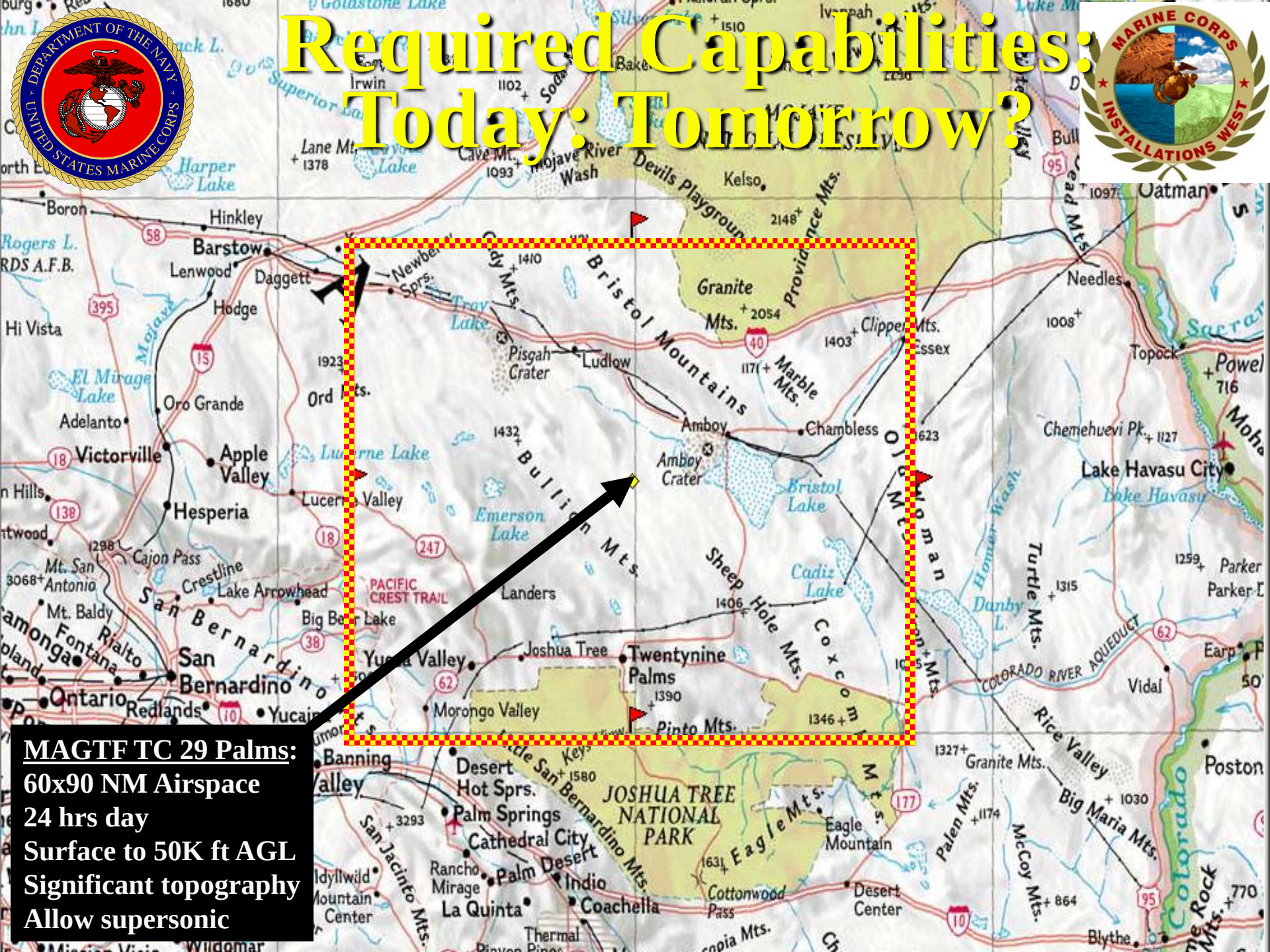
Required Capabilities Document 1 June 06

MAGTF MEB Level Training Range

A 24-hour day-night period on a 50 nm x 80 nm range with Airspace that extends from surface to 50,000 feet AGL. At least some portion of the Airspace must allow supersonic operations. At least some portion of the Airspace should also overlay land area with significant topography. Where the Airspace overlays the training range Land Area, the horizontal limits of the Airspace should extend at least 10 nm beyond the horizontal limits of the Land Area.

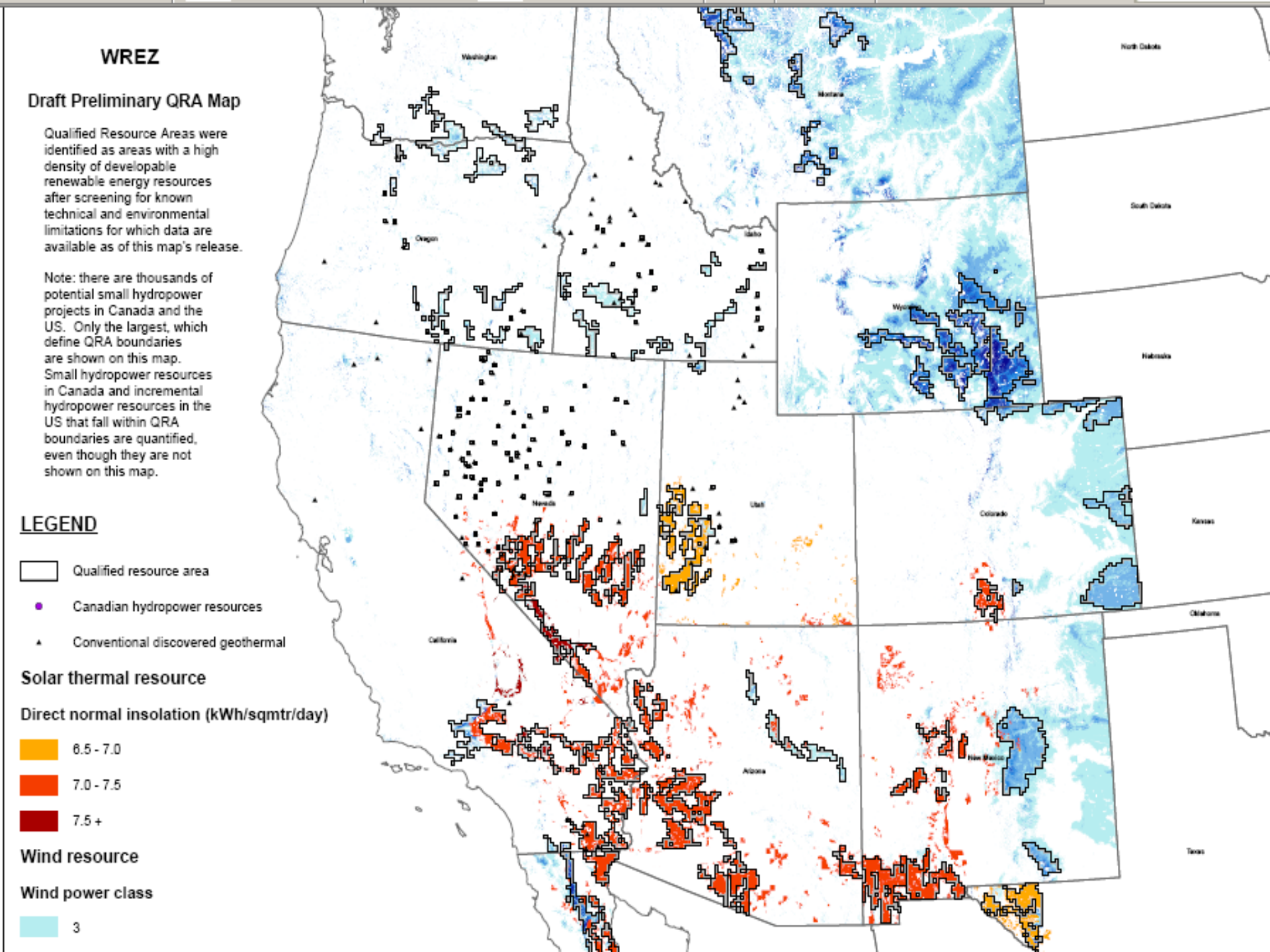
Required Capabilities: Today

Required Capabilities: Today: Tomorrow?



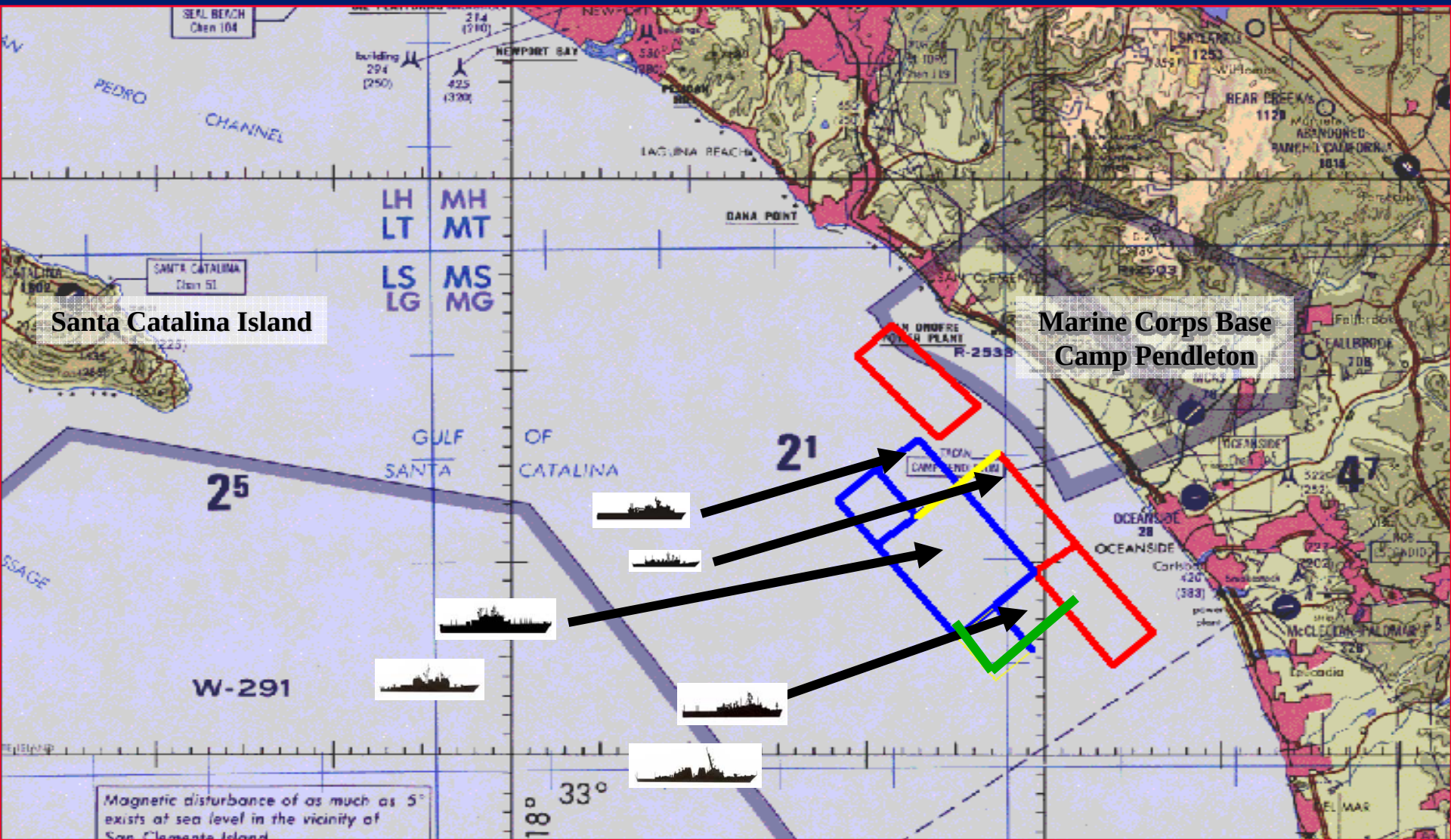
MAGTF TC 29 Palms:

- 60x90 NM Airspace
- 24 hrs day
- Surface to 50K ft AGL
- Significant topography
- Allow supersonic


WREZ
Draft Preliminary QRA Map
Qualified Resource Areas were identified as areas with a high density of developable renewable energy resources after screening for known technical and environmental limitations for which data are available as of this map's release.
Note: there are thousands of potential small hydropower projects in Canada and the US. Only the largest, which define QRA boundaries are shown on this map. Small hydropower resources in Canada and incremental hydropower resources in the US that fall within QRA boundaries are quantified, even though they are not shown on this map.
LEGEND
Qualified resource area
Canadian hydropower resources
Conventional discovered geothermal
Solar thermal resource
Direct normal insolation (kWh/sqmtr/day)
6.5 - 7.0
7.0 - 7.5
7.5 +
Wind resource
Wind power class
3
Washington
Oregon
California
Nevada
Idaho
Montana
Wyoming
Utah
Colorado
Arizona
New Mexico
North Dakota
South Dakota
Nebraska
Kansas
Oklahoma
Texas

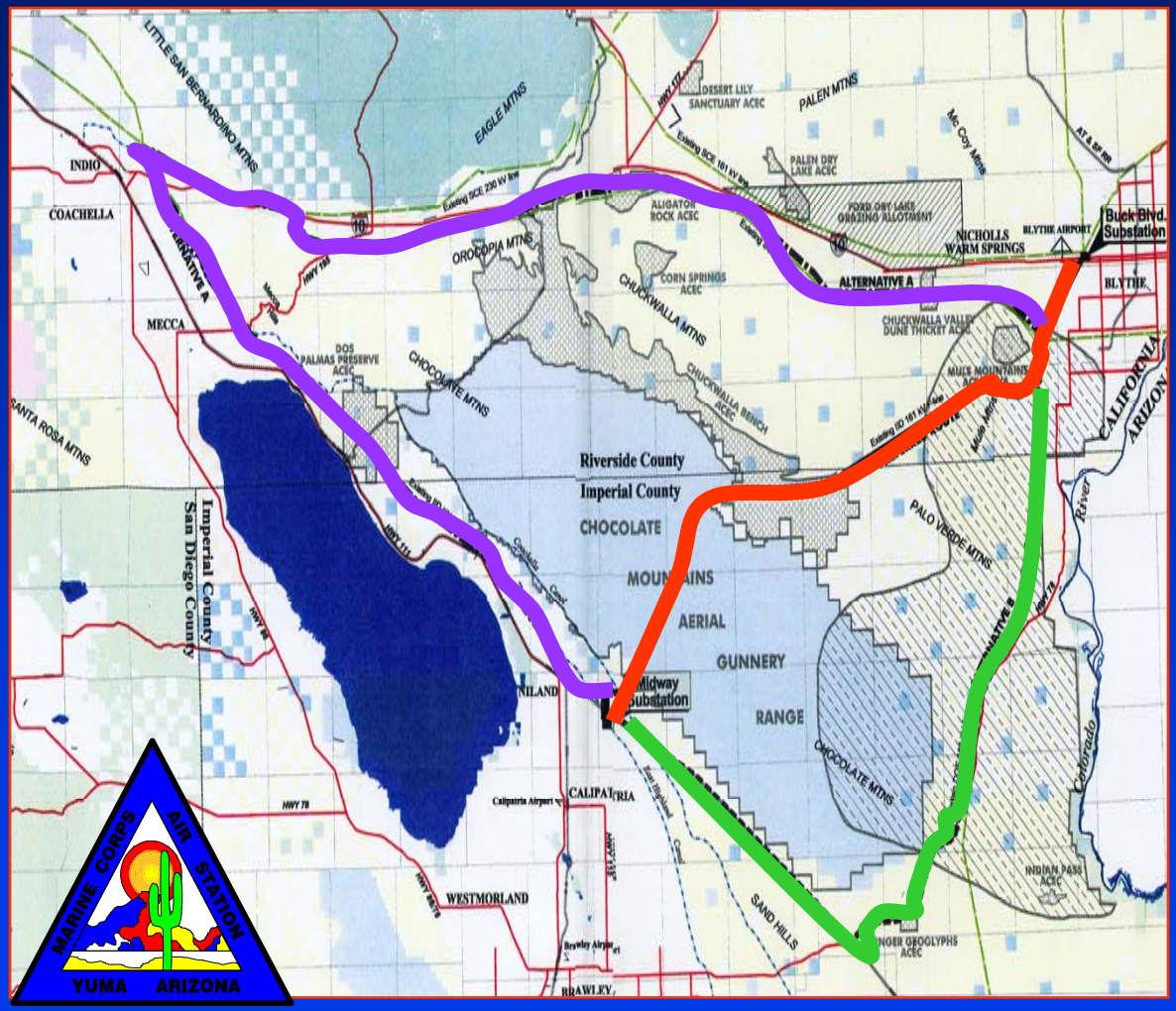
Off-Shore Energy Development

Marine Corps Base Camp Pendleton: Amphibious Operating Area

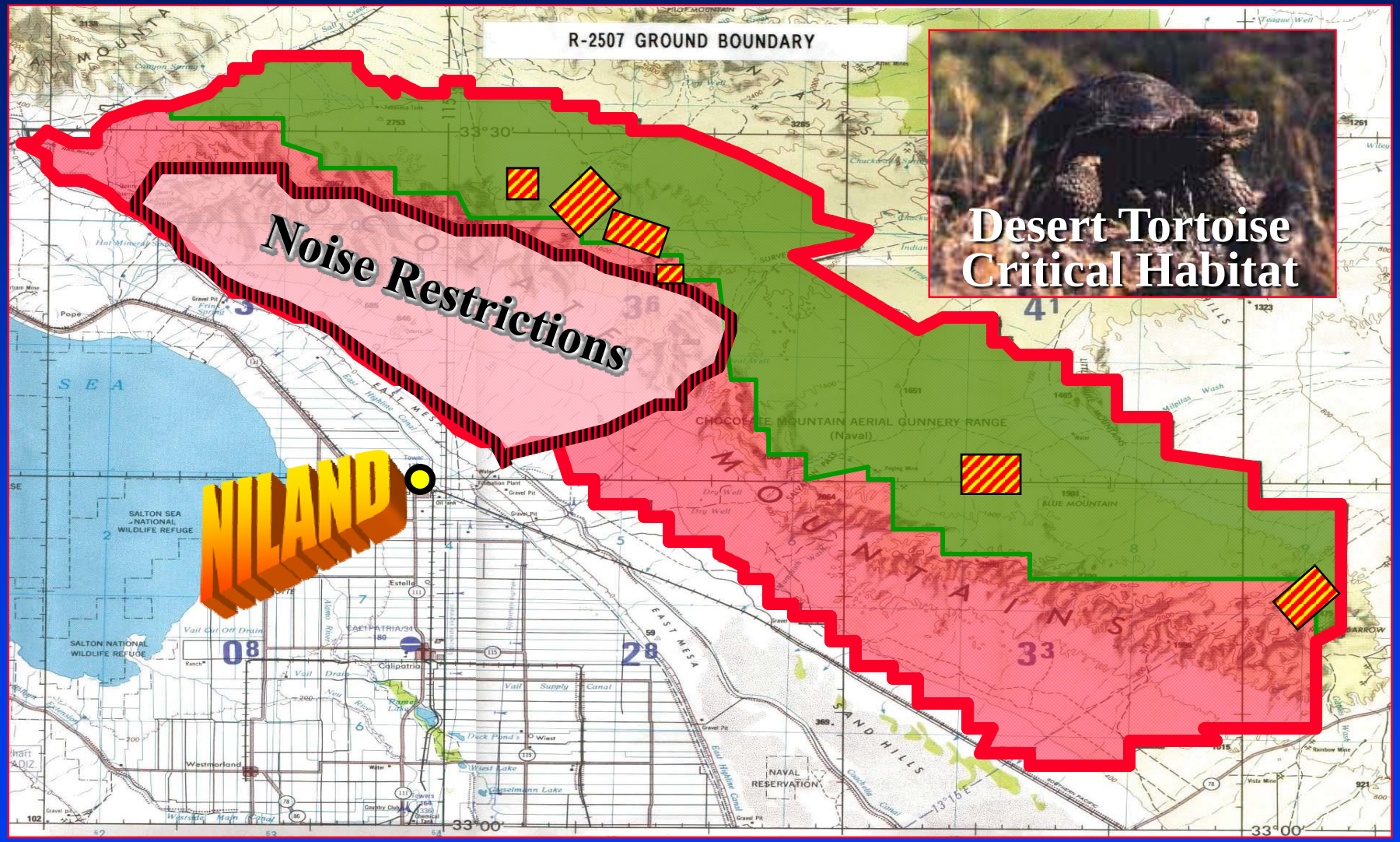


Southwestern Regional Development

- Imperial Irrigation District (IID) request 230kv power line easement through the CMAGR



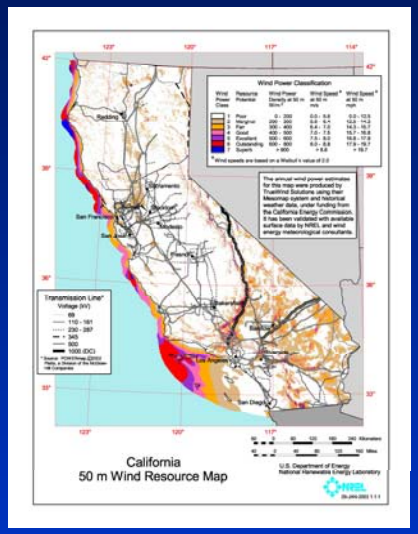
Chocolate Mountains Air Gunnery Range Encroachments

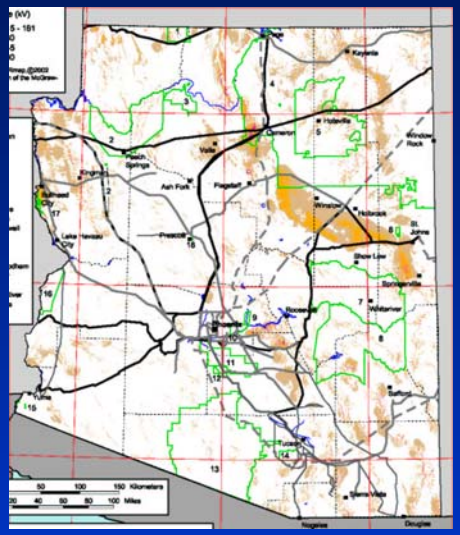


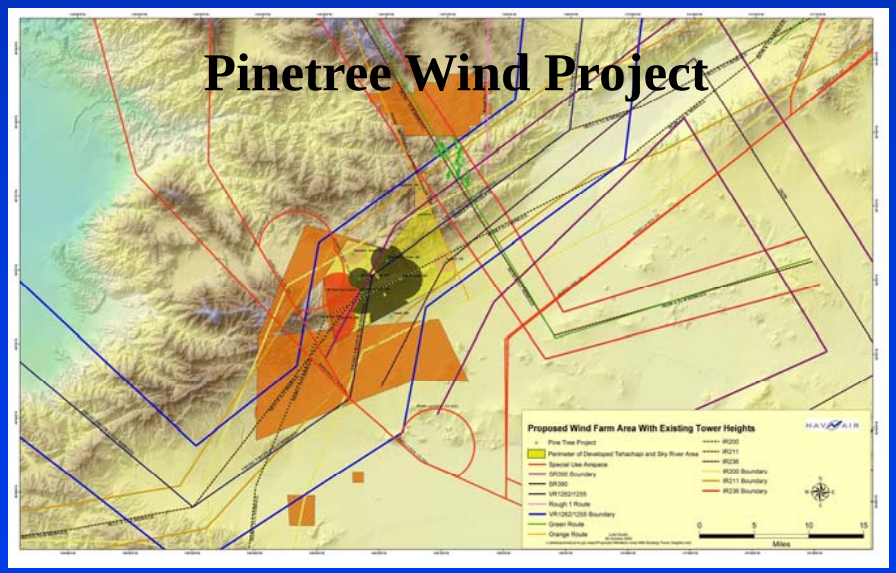
Arizona Clean Fuels: Tacna Refinery

Wind Generated Electrical Facilities

- National Energy Policy
  - BLM Western EIS
    - Over 100 Applications for MET Towers
  - Private Lands
- Impacts to Low Level Military Training Routes
  - 150 – 2500 ft

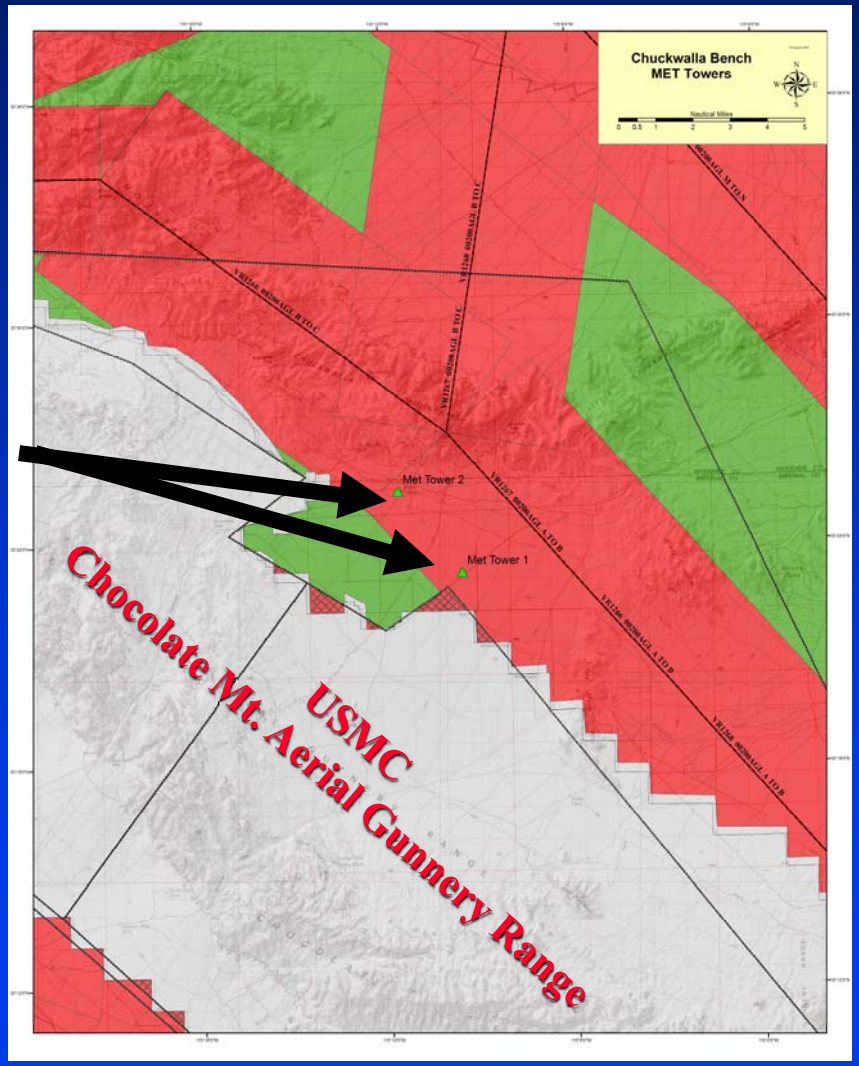


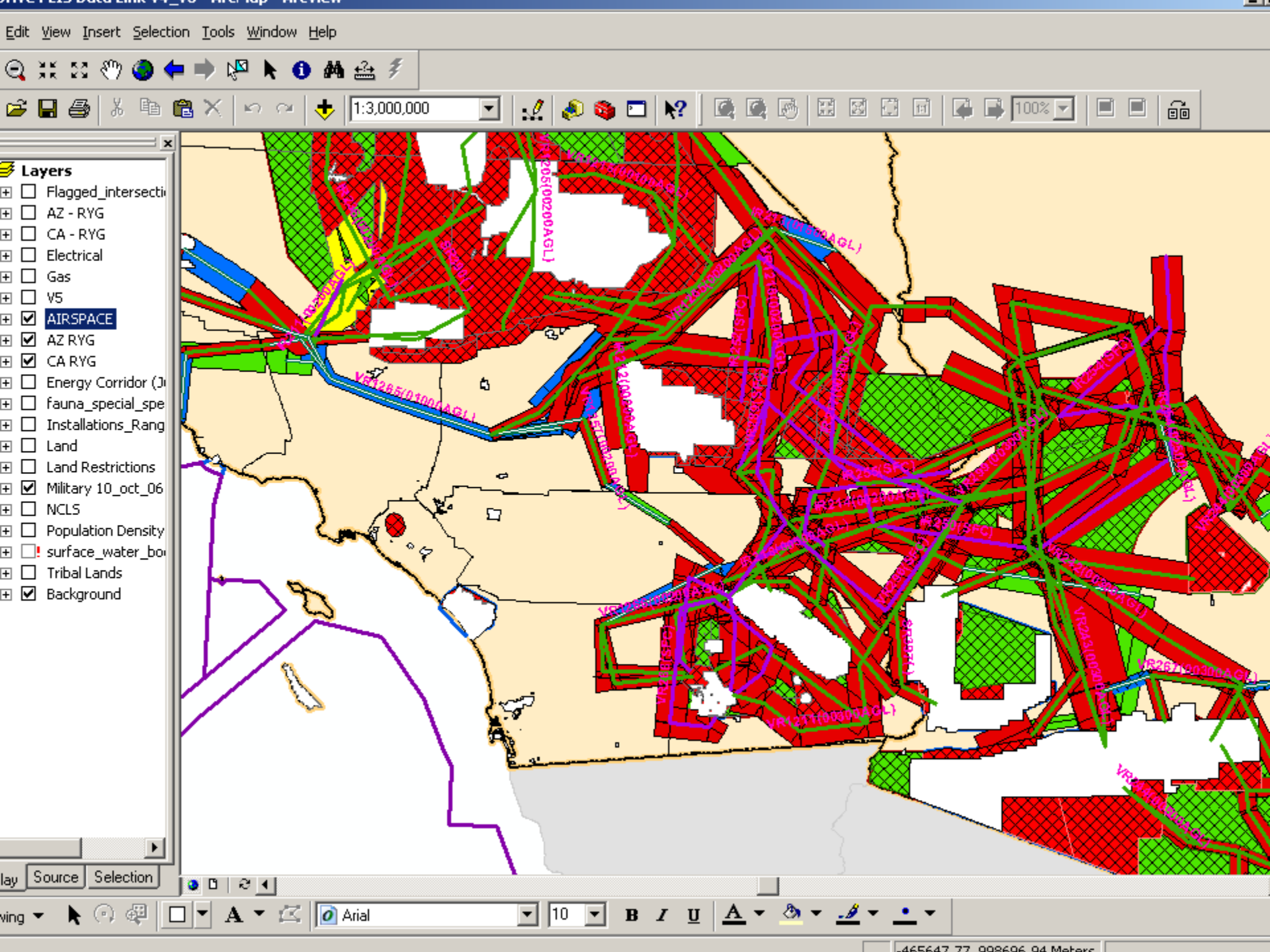




Chuckwalla Bench, AZ: MTRS: VR-1266, 1267 & 1268 (MCAS Yuma)

- Connecting the dots..
  - Primary Assets
    - Frank Stump Range Complex
      - ✓ MCAS Yuma
        - Chocolate Mt. Aerial Gunnery Range
        - Barry M. Goldwater Range
    - Special Use Airspace
    - Yuma Proving Ground
    - NAF El Centro
    - Marine Corps Air Ground Task Force Training Center, 29 Palms

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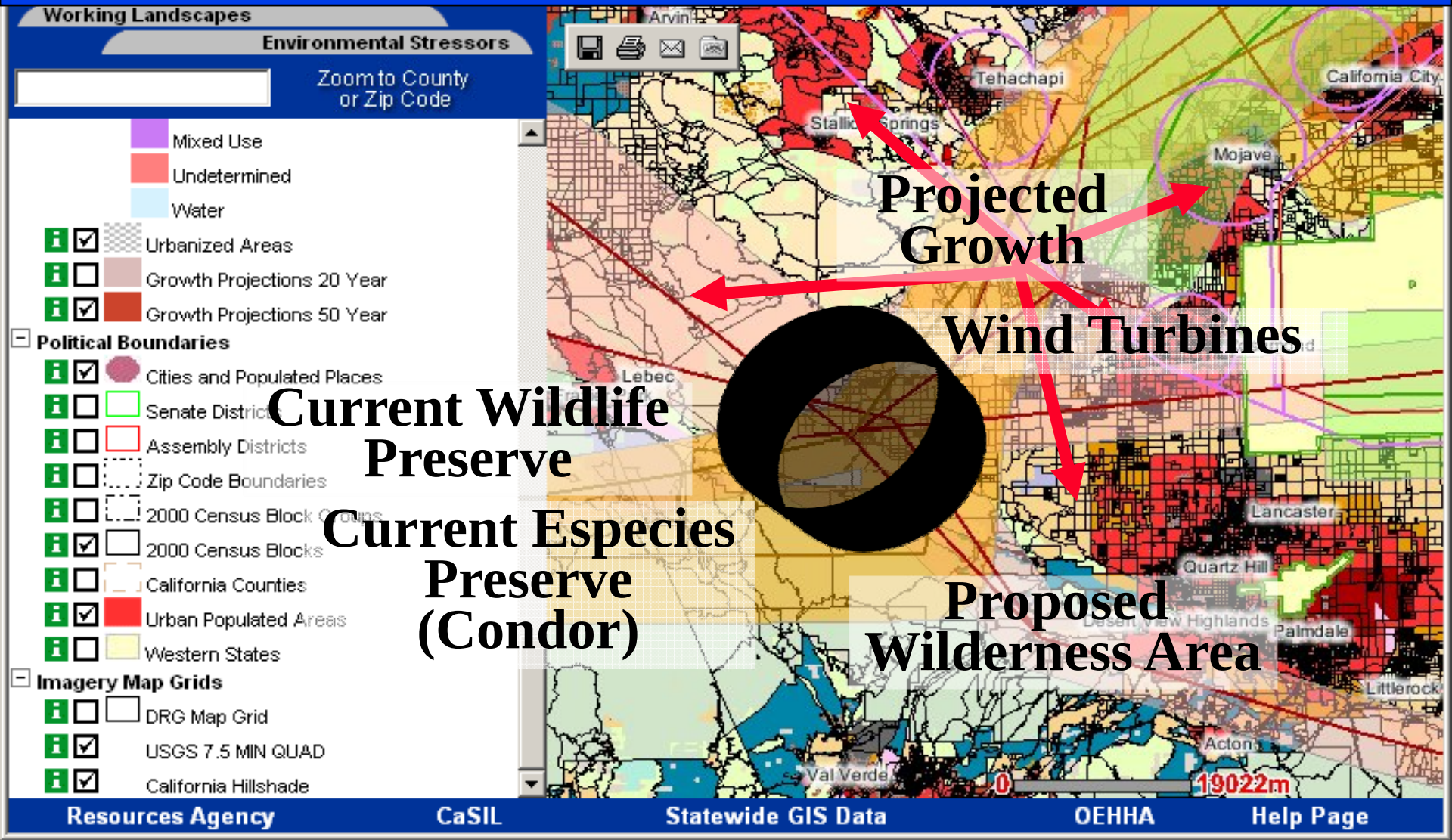
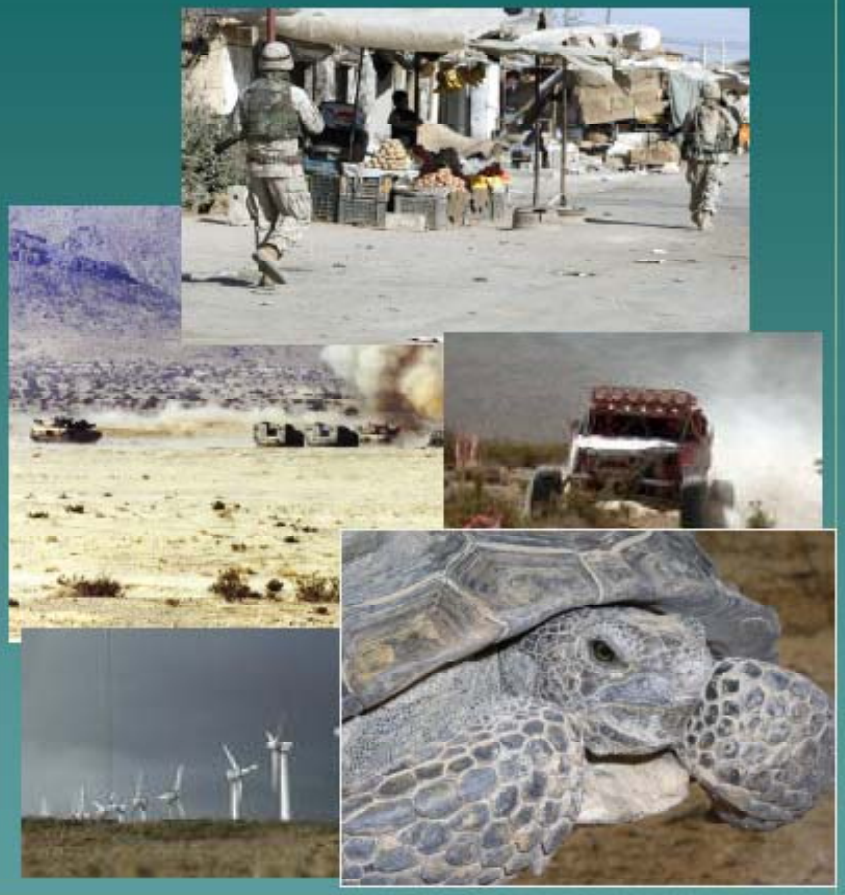
10

White Space: Black Holes



Proposed 29Palms Training Land/Airspace Acquisition Project



Proposed Land Acquisition and Airspace Establishment in Support of Large-Scale MAGTF Live Fire and Maneuver Training

Public Information Brief
November 2008

Marine Air Ground Task Force Training Command/
Marine Corps Air Ground Combat Center
(MAGTFTC/MCAGCC)
Twentynine Palms, CA

Pre-decisional/Draft/FOUO

We Must Train As We Fight

Operation Iraqi Freedom demonstrated a requirement for Marine Expeditionary Brigades to receive sustained, combined arms, live fire and maneuver training.

Pre-decisional/Draft/FOUO

We Must Train As We Fight

MCAGCC 29Palms – Range 215

AL SAQLAWIYAH, Iraq-- Marines with 3rd Battalion, 5th Marine Regiment, patrol through urban streets during Operation Saqlawiyah.

Pre-decisional/Draft/FOUO

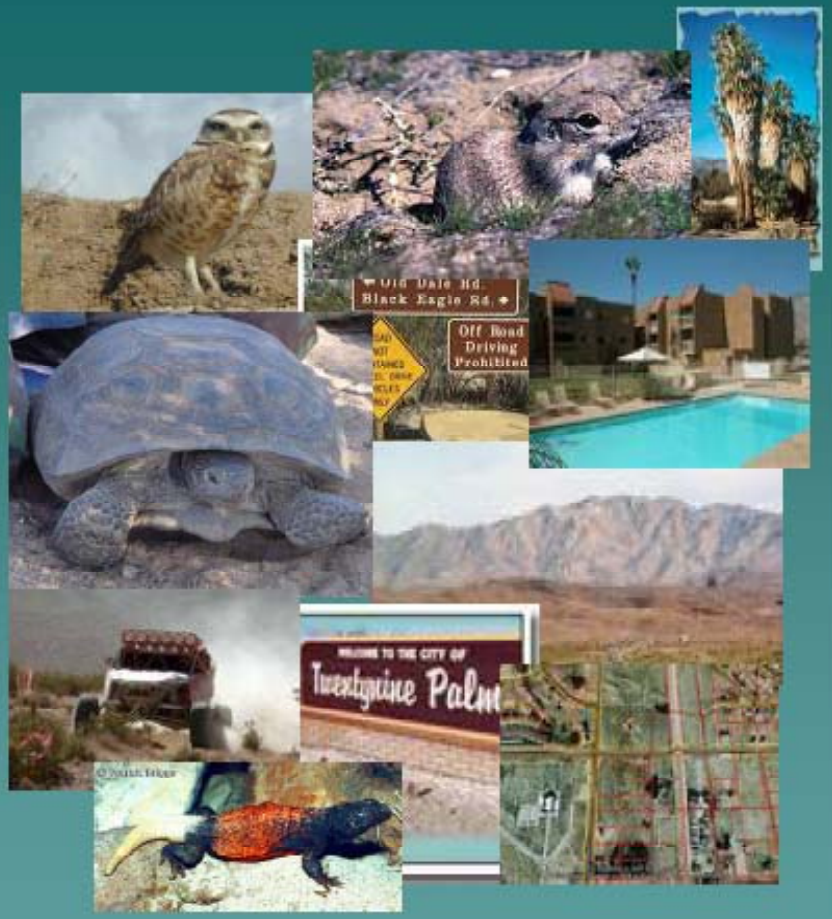
Proposed 29Palms Training Land/Airspace Acquisition Project

Operational Requirement

- Marines deploy globally as a Marine Air Ground Task Force (MAGTF)
  - A MAGTF consists of Ground-, Air- and Logistics-Combat Elements (GCE, ACE and LCE) and a Command Element (CE)
- Marines must train as a Marine Expeditionary Brigade (MEB) to deploy around the globe
  - A MEB consists of a three battalion GCE and a suitably sized ACE – 3,000 to 20,000 Marines
- MEB training requires sustained (48-72 hours) combined-arms, live-fire and maneuver
- No military range in the DoD inventory is currently sufficient to support MEB training
  - Existing training area at 29Palms does not support three battalions moving abreast toward a single objective
- Special Use Airspace is also needed to meet MEB sustained combined arms, live-fire and maneuver training

Pre-decisional/Draft/FOUO

Proposed 29Palms Training Land/Airspace Acquisition Project



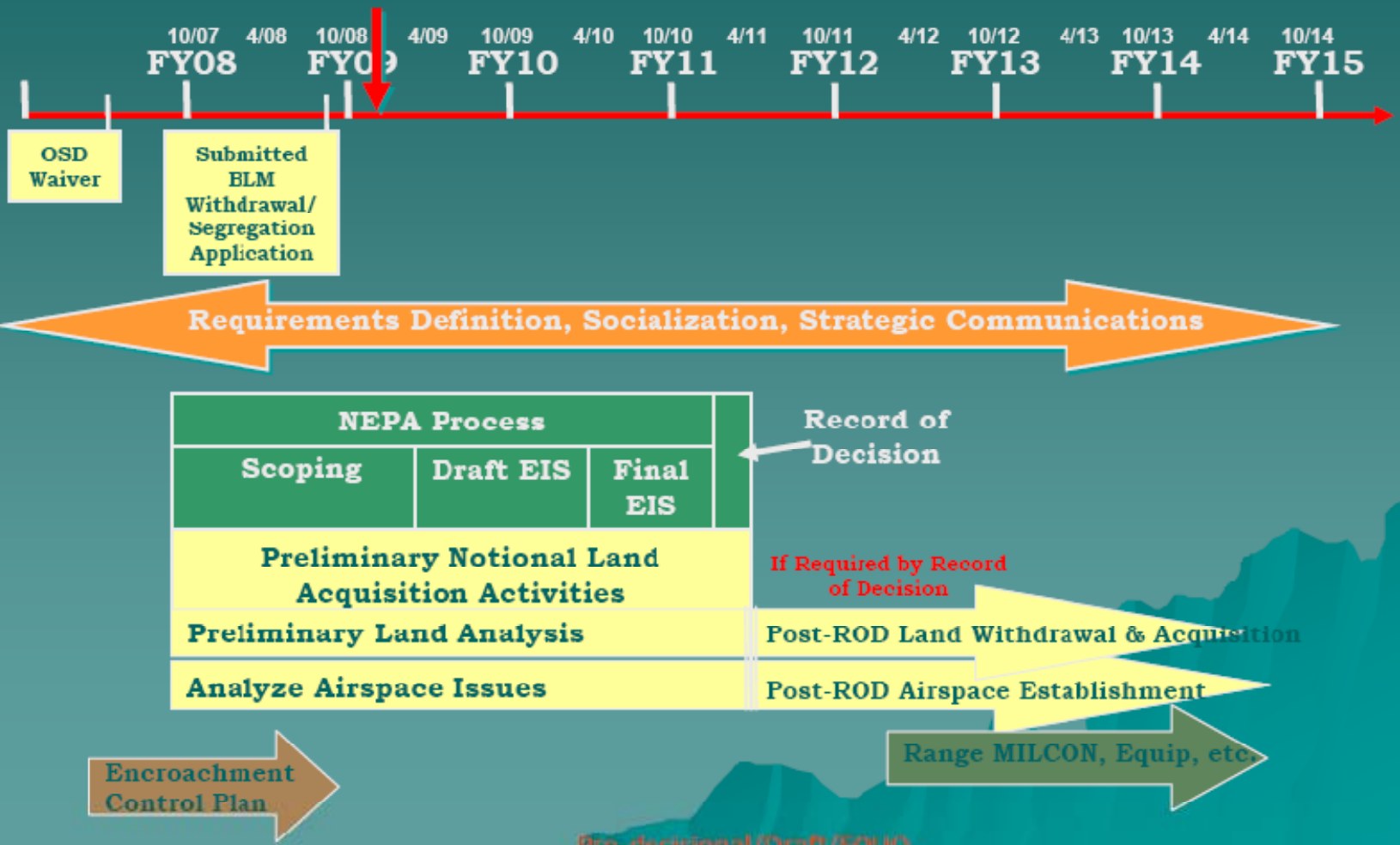
Path Forward

- Began Biology & Archeology Surveys, 2008
- Submitted Military Withdrawal Application to BLM, August 2008
  - Public Meetings held in October 2008
- Initiated Environmental Impact Statement, Issued Notice of Intent, October 2008
  - Scoping Meetings, December 2008
- Complete Draft EIS, 2010
- Complete Final EIS/ROD, 2011
  - Submit Proposed Land Withdrawal Legislation, 2011
  - Prepare Resource Management Plan or Amend Existing Plan, 2012-2014
  - Federal Land Withdrawal 2012
  - Acquire State/Private Lands in 2012
  - Establish Special-Use Airspace, 2013
  - Complete Necessary Range Improvements, 2014
  - Implement and Sustain Required Mitigation, 2014 and beyond
  - Commence MEB-Level Training, 2015

Pre-decisional/Draft/FOUO

Proposed 29Palms Training Land/Airspace Acquisition Project

Path Forward – Project Timeline



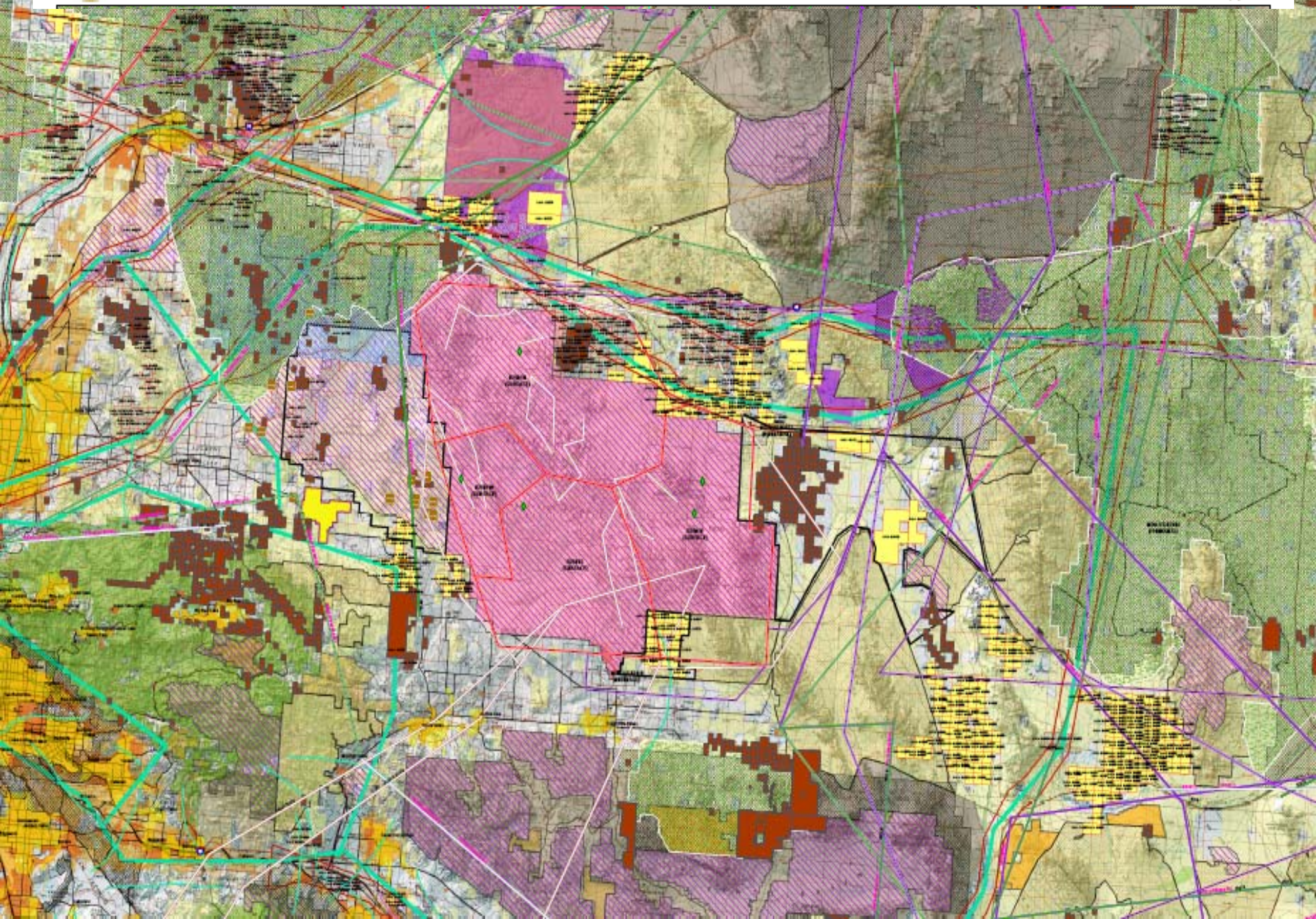
Pre-decisional/Draft/FOUO

Sustainable Planning: Large Scale Regional GIS Mapping

- Composite of all maps + Project Population Growth (2020 & 2050):
  - Basic background: Geographic, infrastructure, environmental, political data
  - Thematics
    - Military Footprint (land & airspace)
    - Conservation: critical habitat, wildlife corridors, desert wildlife management areas, current and proposed wilderness
    - Cultural: Native American tribal interests
    - Recreation: Off-highway vehicle (OHV)
    - Mining: existing surface/sub-surface mining claims
    - Energy: solar, wind, geothermal, proposed transmission corridors, renewable energy zones
    - Planning: General Plans and zoning plans

Mojave Sub-Region: Twentynine Palms and Barstow Extent

with DOD Footprint, Composite Map and Projected Population



A country worth defending…
… is a country worth preserving.

Major General "Mike" Lehnert
Commanding General, Marine Corps Installations West

THANK YOU

DEPARTMENT OF THE ARMY
THIS WE'LL DEFEND
1775
UNITED STATES OF AMERICA

DEPARTMENT OF THE NAVY
UNITED STATES OF AMERICA

DEPARTMENT OF THE NAVY
UNITED STATES MARINE CORPS

DEPARTMENT OF THE AIR FORCE
MCMXLVII
UNITED STATES OF AMERICA