



23rd Annual National Test and Evaluation Conference

Encroachment Issues Impacting the Major Range and Test Facility Base (MRTFB)

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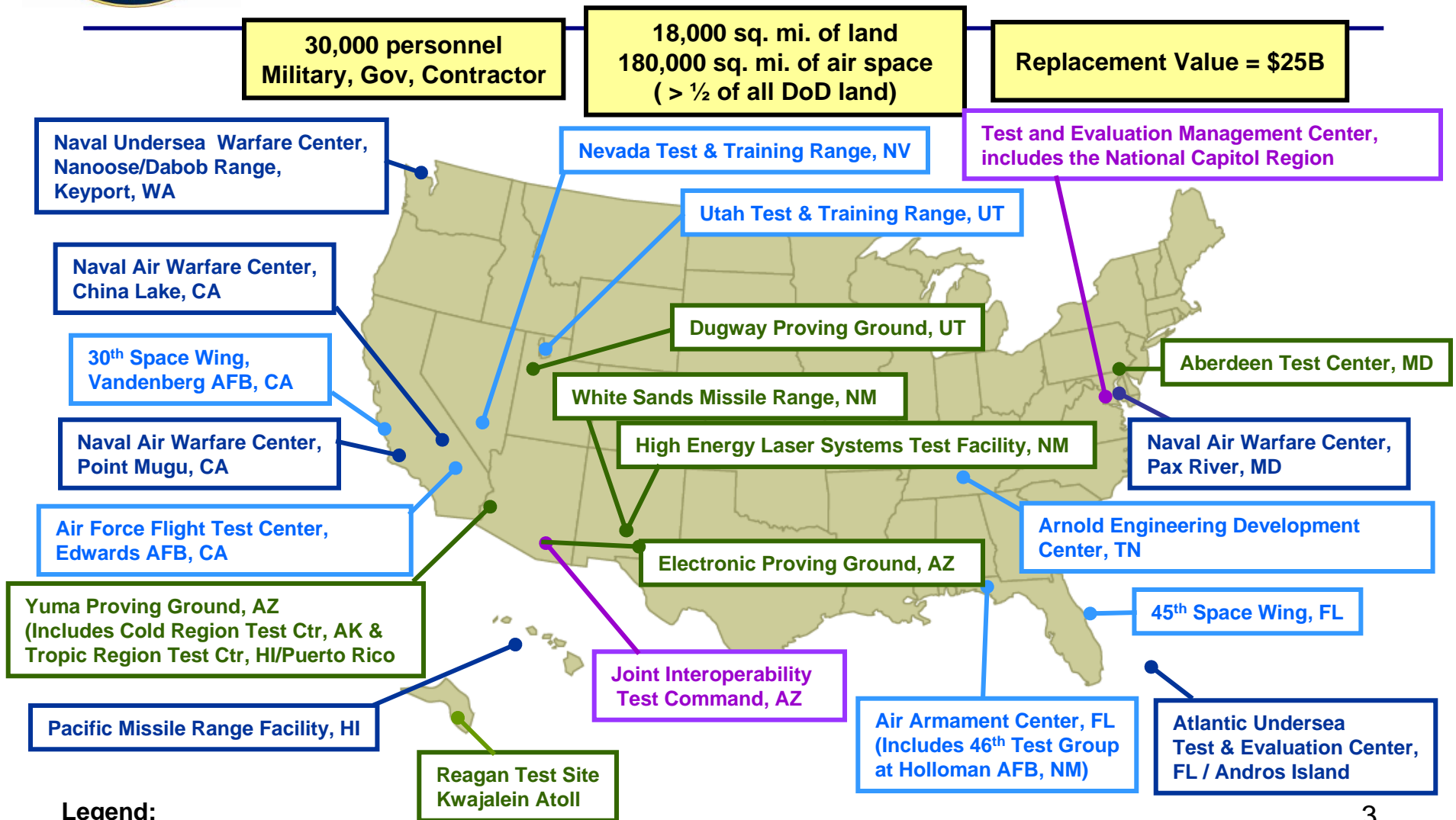
The MRTFB

- **The core set of Test & Evaluation (T&E) ranges & facilities within DoD**
- **Represents a broad base of critical T&E capabilities**
- **A national asset, sized, operated, and maintained primarily for DoD T&E**
- **Available to other users (i.e., DoD, federal agencies, and allies within security provisions)**
- **Operated under uniform funding guidelines**
- **Governed by DoD Directive 3200.11**



Major Range and Test Facilities Base

22 Sites: Army-7; Navy-6; Air Force-7; Defense Agency-2



Legend:

Army, Navy, AF, Defense Agency



MRTFB Survey Questions on Encroachment

- 1. Describe the most significant encroachment issues impacting your MRTFB**
- 2. Describe any potential candidates for partnering projects in the DoD Conservation Buffer Program using DoD's authority in 10 USC Section 2684(a)?**
- 3. Describe any local community or government partnerships you are actively engaged in to help resolve or mitigate your encroachment issues.**
- 4. Provide any notable examples of successful proactive engagement in avoiding or overcoming a encroachment impacts.**



Survey Question One

- 1. Describe the most significant encroachment issues impacting your MRTFB.**



MRTFB Encroachment Responses to Survey

Service	MRTFB	Env	FS	US	N&C	RL	AS	ENG	SR	UDA
Army	APG	X	X	X		X				
	DPG									
	EPG	X	X	X	X		X			X
	HELSTF									
	KWAJ									
	WSMR	X	X	X	X		X			X
	YPG	X	X	X	X	X	X			X
Navy	AUTEC	X	X	X						
	KEYPORT	X	X	X	X	X			X	
	NAWC PR	X	X		X	X	X	X	X	
	NAWC CL	X	X	X	X	X	X	X		
	NAWC PM	X	X		X	X		X	X	
	PMRF	X		X	X				X	
Air Force	30th SW	X	X	X	X	X	X	X	X	
	45th SW	X	X		X			X	X	
	46th TW/TG	X	X	X			X	X		X
	AEDC	X		X	X	X				
	AFFTC	X	X	X	X	X	X	X		
	NTTR	X		X	X	X	X	X		
	UTTR	X	X	X		X	X	X		
Agency	JITC		X							
Totals	21	17	15	14	13	11	10	9	6	4

ENV=Environmental*

FS = Frequency Spectrum

US = Urban sprawl

ENG = Energy

NC = Natural & Cultural

AS = Air Space

RL = Range Limitations

SR = Sea Range Limitations

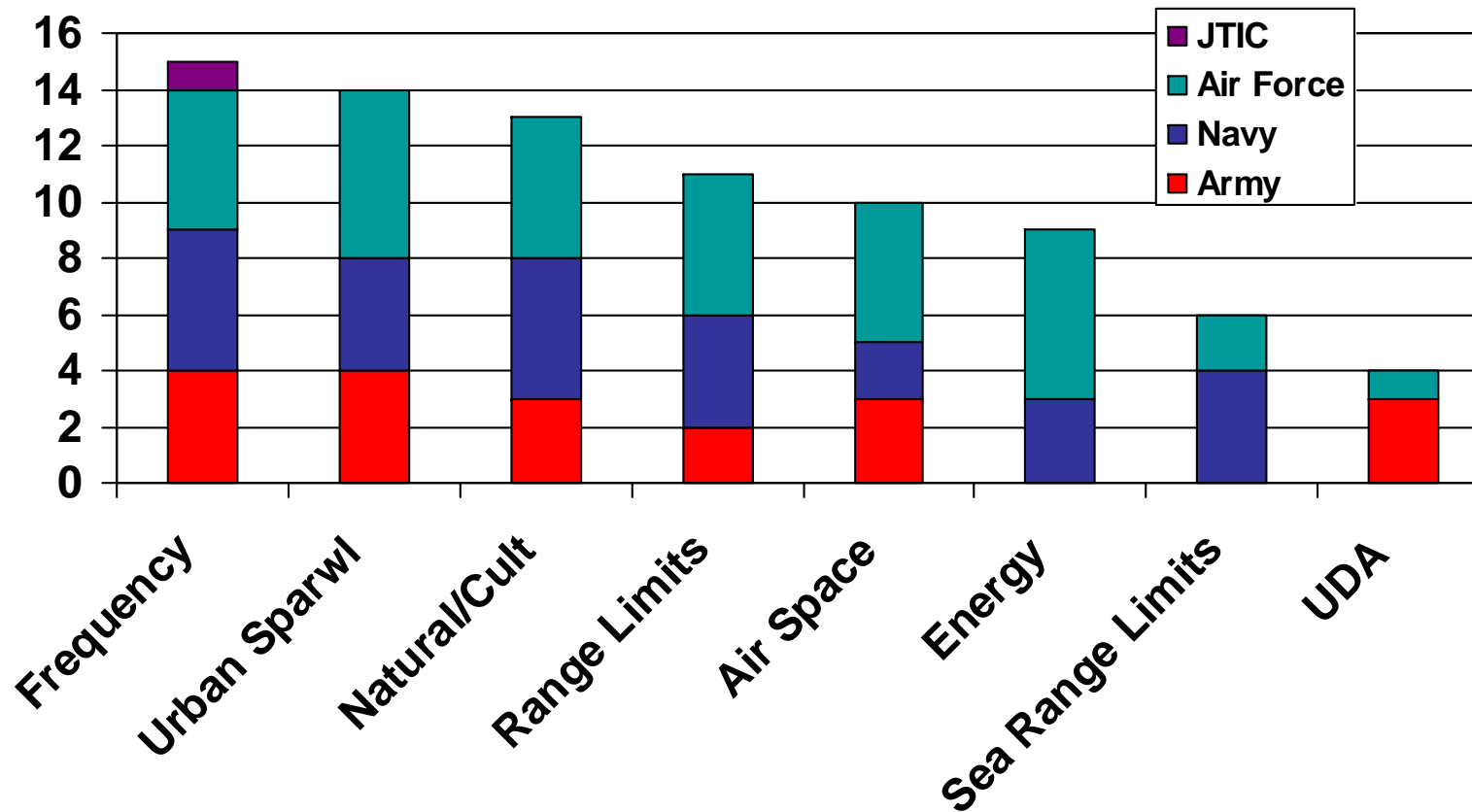
UDAs = Undocumented Aliens

RED = Most Significant Encroachment	
FS =	8
US =	6
ENV =	2

* Environment = anomaly data point



Reported Sources of Encroachment





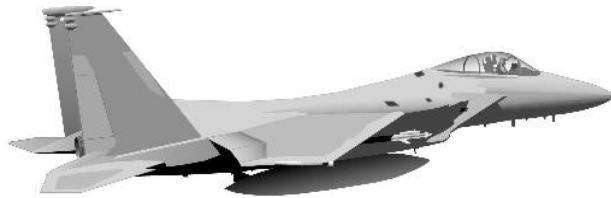
Two Major Encroachments

- **Frequency Spectrum**
- **Urban Sprawl**



Increasing Demands for Radio Frequency (RF) Spectrum

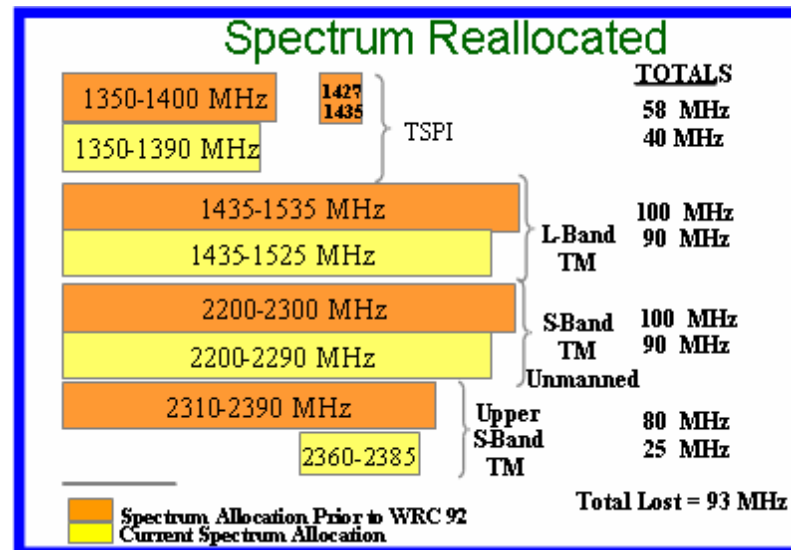
Increasing demand for bandwidth and decreasing available spectrum; RF interference from/with commercial and unlicensed users.



In 1986, the data rate for the F-15 was 256 Kbps



In 1997, the data rate for the F-22 was 5 Mbps





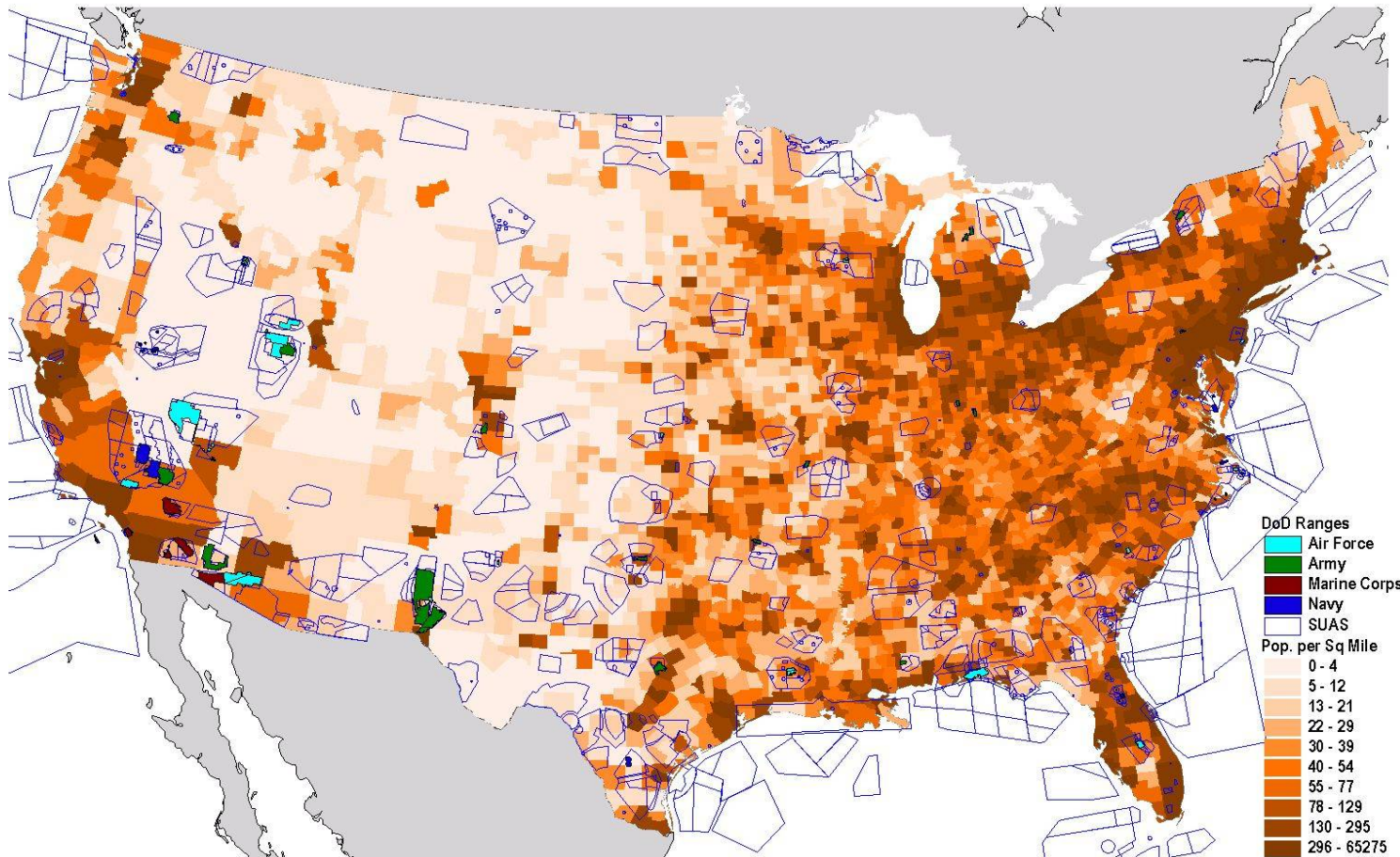
Frequency Spectrum Example

- **22 Examples Reported**
- **15 MRTFB's Responded with similar issue.**
“Our crucial electromagnetic spectrum assets are continuously threatened with reallocation to non-Government usage to bring in auction profits to the US Treasury. The MRTFB frequency bands that remain are being encroached upon by billions of unlicensed/low-powered commercial Part 15 Devices”



Increasing Urban Sprawl

Development of adjacent private and public lands, and commercial developments such as condominiums, air fields and recreation facilities





Urban Sprawl Examples

- **25 Examples Reported**
- **NAWCWD-CL: “Urban growth within the R-2508 Complex and within the boundaries of IR-200, could also negatively impact the NAWCWD-CL mission.**
- **46th TW/TG Condominium development along the Gulf coast if the height impacts instrumentation line-of-sight over the Gulf of Mexico.**
- **NTTC Nellis AFB’s ability to perform its mission is endangered by the ever increasing pressure of urban encroachment. Development can threaten or have the potential to threaten current and forecasted Air Force mission requirements at Nellis AFB (NAFB), Creech AFB (CAFB) and the Nevada Test and Training Range (NTTR) if the type of development is non compatible with the military mission.**



Survey Question Two

- 2. Describe any potential candidates for partnering projects in the DoD Conservation Buffer Program using DoD's authority in 10 USC Section 2684(a)?**



Buffer Partnership Examples

- **14 Examples Reported**
- **AFFTC We have a significant candidate project for partnering under the provisions of 10 USC Section 2684(a) – The R-2508 Sustainability Plan. The focus of this plan is to protect the most critical operating areas within the R-2508 from a joint (tri-service) perspective. Currently three sub-projects have been prepared within the R-2508 Sustainability Plan.**
- **APG is currently partnered with Harford County Land Trust for the Army Compatible Use Buffer (ACUB). Land has been secured surrounding the DOD's only hilly, cross-country automotive test track which has been in operation for over 60 years.**



Survey Question Three

- 3. Describe any local community or government partnerships you are actively engaged in to help resolve or mitigate your encroachment issues.**



Community Partnership Examples

- **57 Examples Reported**
- **30th SW agreements with various organizations for the evacuation, sheltering, or closure of local public and private population centers surrounding Vandenberg AFB,**
- **YPG west of the YPG Laguna/Cibola Area with the State land near Martinez Lake on the Colorado River-
-attempts in the past of private citizens attempting to purchase State land for putting in an airfield within restricted airspace. YPG worked closely with the State to disapprove this action.**



Survey Question Four

- 4. Provide any notable examples of successful proactive engagement in avoiding or overcoming encroachment impacts.**



Proactive Engagement Examples

- **68 Examples Reported**
- **AEDC** There is a very active Arnold Community Council that provides an avenue to address any encroachment issues.
- **AFFTC** partnership with the wind industry to help guide development away from our most critical operating areas.
- **APG** has an active Noise Monitoring program. Monitors are in place in a 4-county area around Aberdeen Proving Ground and are constantly monitored.



What Can We Do About It?

- **Passive Involvement**
- **Proactive Involvement**



In Trouble?? (Passive Involvement)

Act Like You Know What You Are Doing and Keep Going





Proactive Involvement

- **Addressing Frequency Spectrum Encroachment**
 - Central T&E Investment Program (CTEIP) investments
 - Spectral Efficiency Technologies
 - Range Spectrum Requirements Working Group (RSRWG)
 - World Radiocommunication Conference (WRC) 2007 Agenda Item 1.5
 - Competing globally for additional spectrum
 - DoD Spectrum Office, ASD(NII)
 - Developing strategic plan for spectrum
- **Addressing Urban Sprawl**
 - FY2003 National Defense Authorization Act (NDAA) – Authority for Military Departments to partner with state and local governments and not-for-profit land trust associations to acquire easements and other interests in lands adjacent or in the vicinity of military installations.
 - DoD Readiness and Environmental Protection Initiative (REPI)
 - DoD Conservation Buffer Program
Per 10 USC Section 2684(a)
 - Very Successful Program
 - Need more Test Range Participation



Backup

BACKUP SLIDES



RRPI Successes to Date

- **Five of eight RRPI provisions have been enacted:**
 - **MBTA Military Exemption**
 - **MMPA Harassment**
 - **ESA Critical Habitat**
 - **Conservation Partnering (buffers)**
 - **Surplus Land Disposal**
- **Benefits to DoD are tangible**
 - **MBTA – Permanent USFWS rule codifying exemption now in place**
 - **MMPA – Has increased some exercise and training flexibility at sea (but other challenges remain)**
 - **ESA Critical Habitat – Ranges now preserving endangered species under terms of their INRMPs instead of with newly declared critical habitat**
 - **Conservation Partnering / Buffer program has leveraged DoD funding and established win-win strategic partnerships. Significant acres of land already under 2684a conservation to DoD benefit.**



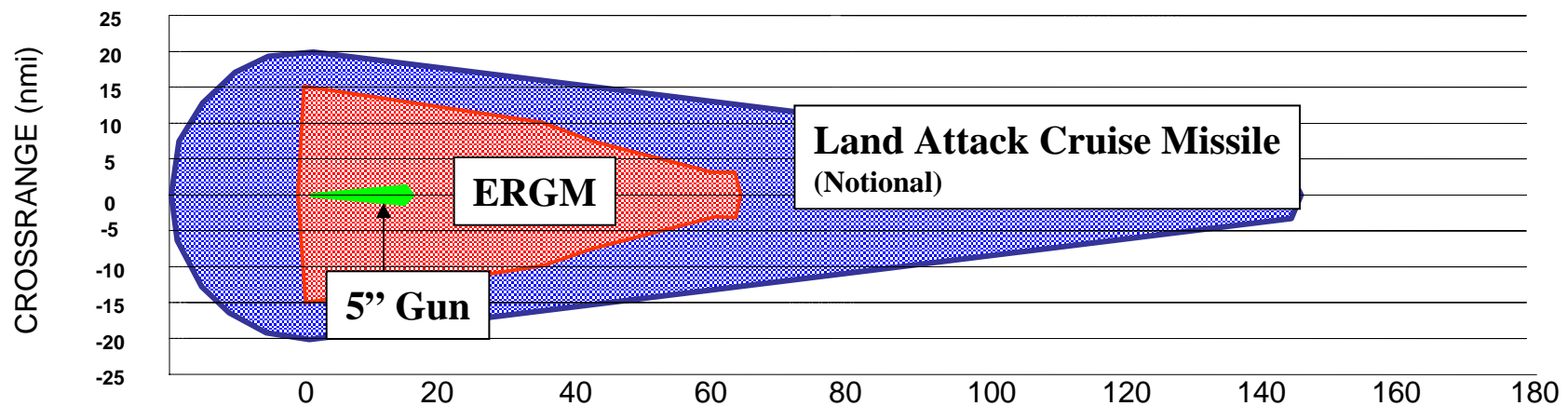
MRTFB Survey Responses

- **Environmental—17**
 - Army - 4
 - Navy - 6
 - Air Force - 7
- **Frequency Spectrum—15**
 - Army - 4
 - Navy - 5
 - Air Force - 5
 - JTIC - 1
- **Urban Sprawl—14**
 - Army - 4
 - Navy 4
 - Air Force - 6
- **Natural & Cultural Resources -13**
 - Army - 3
 - Navy - 5
 - Air Force - 5
- **Range Limitations - 11**
 - Army - 2
 - Navy - 4
 - Air Force - 5
- **Air Space - 10**
 - Army - 3
 - Navy - 2
 - Air Force - 5
- **Energy Projects - 9**
 - Army - 0
 - Navy - 3
 - Air Force - 6
- **Sea Space Limits - 6**
 - Army - 0
 - Navy - 4
 - Air Force - 2
- **Undocumented Aliens - 4**
 - Army - 3
 - Navy - 0
 - Air Force - 1



Increasing Footprint to Support T&E

Increasing three dimensional foot print requirements for evolving faster, longer range weapon systems; environmental concerns and urban development initiatives that restrict airspace use





Increasing Energy Demands

Off-shore drilling platforms, wind energy wind mills, Liquid Natural Gas (LNG) transport and storage, mandated energy corridors



Proposed Energy Corridors; initially 11 Western States; Soon National Footprint





Increasing Demands to Protect Natural and Cultural Resources

Existing and newly established national monuments, water recreation sites, parks, forests, sacred lands and archeological sites

Examples

30th SW: Point Conception Lighthouse – Acquisition of a decommissioned lighthouse (30 acre parcel) from the U.S. Coast Guard will prevent private ownership of the property, where the AF operates a radar system in support of MRTFB operations.

AFFTC: Supersonic and low-level operations can generate pressures from the public to curb operations or conduct them in other areas. An example of this is the operation of parks and wilderness areas.

NAWCWD-CL China Lake: There are literally thousands of archeological sites on the ranges at China Lake. They require substantial management effort and financial support, primarily for surveys.

NAWCWD-PM: California Coastal National Monument – The California Coastal National Monument was created in January 2001. It designates all the rocks along the California shoreline as a national monument under the Bureau of Land Management (BLM). The rocks around San Nicolas Island are included.



Increasing Demands on Air Space

Los Angeles Air Traffic Control Center has reported record traffic counts over the last year. The R-2508 airspace is surrounded by three of the top ten busiest airports in the country; San Francisco bay area to the north, Las Vegas to the east, and Los Angeles basin to the south.

Examples

AFFTC: Airspace is a sought-after commodity, from other DOD Services, commercial and private sources.

NAWCWD-CL: Initial planning for a new airport to serve Las Vegas is underway.

UTTR: Overflights, deviation requests and denial of R-6404D at required altitudes continues to be a challenge to ensure UTTR MRTFB mission accomplishment

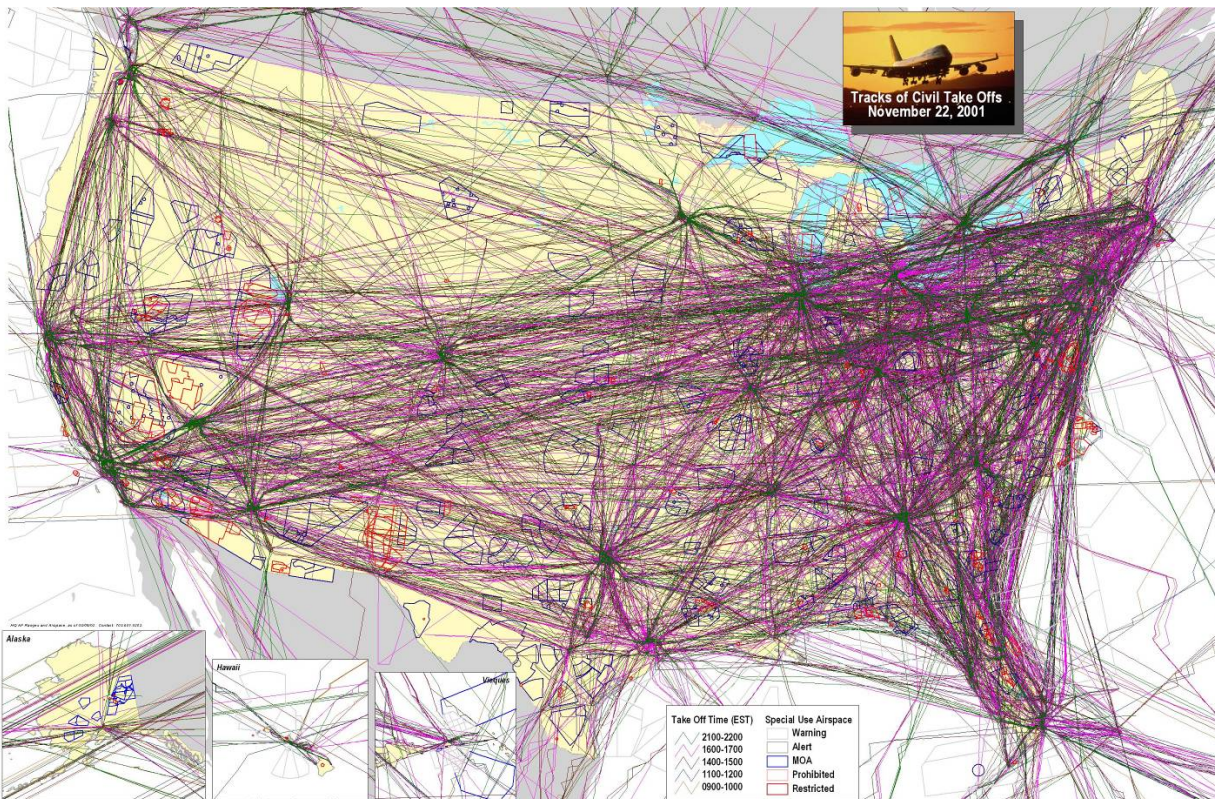
EPG: The FAA has ruled against UAV flight outside of restricted airspace.

NAWCAD-PR: Pressure from increased private and commercial flights (Eastern Shore and SUA Spill-in)



Increasing Demands for Air Space

Increased commercial demand for airspace, long haul and terminal, at all altitudes;
Results in restrictions on DoD Special Use Air Space



Cost to FAA
\$174M through 2005
Est \$35M Annually
2006-2008

Savings to flying industry
\$117M annually in 2003
\$364M annually in 2008



Increasing Demands on Range Space

Examples:

NAWCAD-PR: Reduced access to land based targets and surface operating areas at the Bloodsworth Island Range results in a loss of potential capabilities and benefits.

UTTR: Large footprint weapons require additional property be considered when preventing physical encroachment.

YPG: Cold Regions Test Center's (CRTC's) largest encroachment comes from other Army units. US Army, Alaska (USARAK) has increased in size with the drawdown of OCONUS units. With this increase in size came an increase in the amount of training conducted in the same areas as CRTC uses for testing.

NAWCWD-CL: Urban growth within the R-2508 Complex and within the boundaries of IR-200, could also negatively impact the NAWCWD-CL mission. (IR-200 is the corridor used for testing cruise missiles fired from the Sea Range to the China Lake Land Ranges and is the only such corridor on the West Coast.)

NAWCWD-PM: Channel Islands National Marine Sanctuary (CINMS). The Sea Range encompasses the CINMS, one of fourteen national marine sanctuaries managed by NOAA. As part of the CINMS Management Plan update, NOAA has proposed expansion of the sanctuary along with changes to the regulations that address military activities.

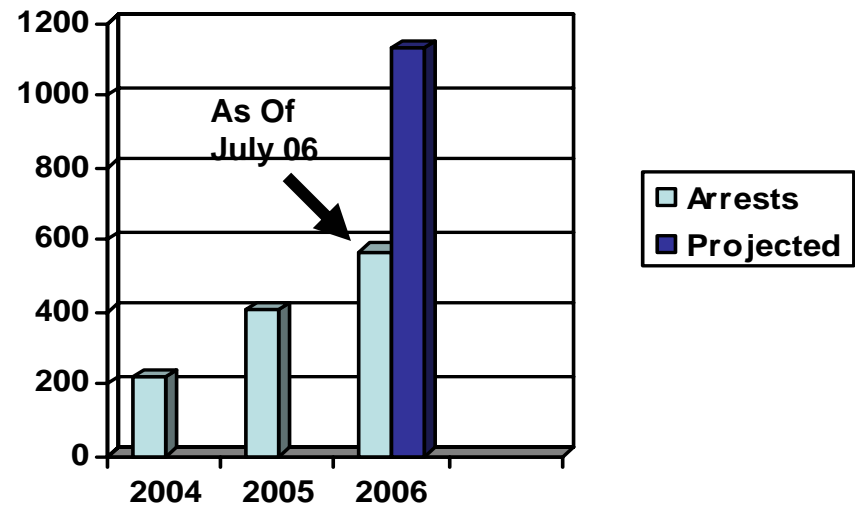


Increasing T&E Safety & Security Concerns from Trespassing Aliens

Undocumented Aliens (UDA's)— Danger to undocumented Immigrants trespassing MRTFB site areas adjacent to foreign borders.

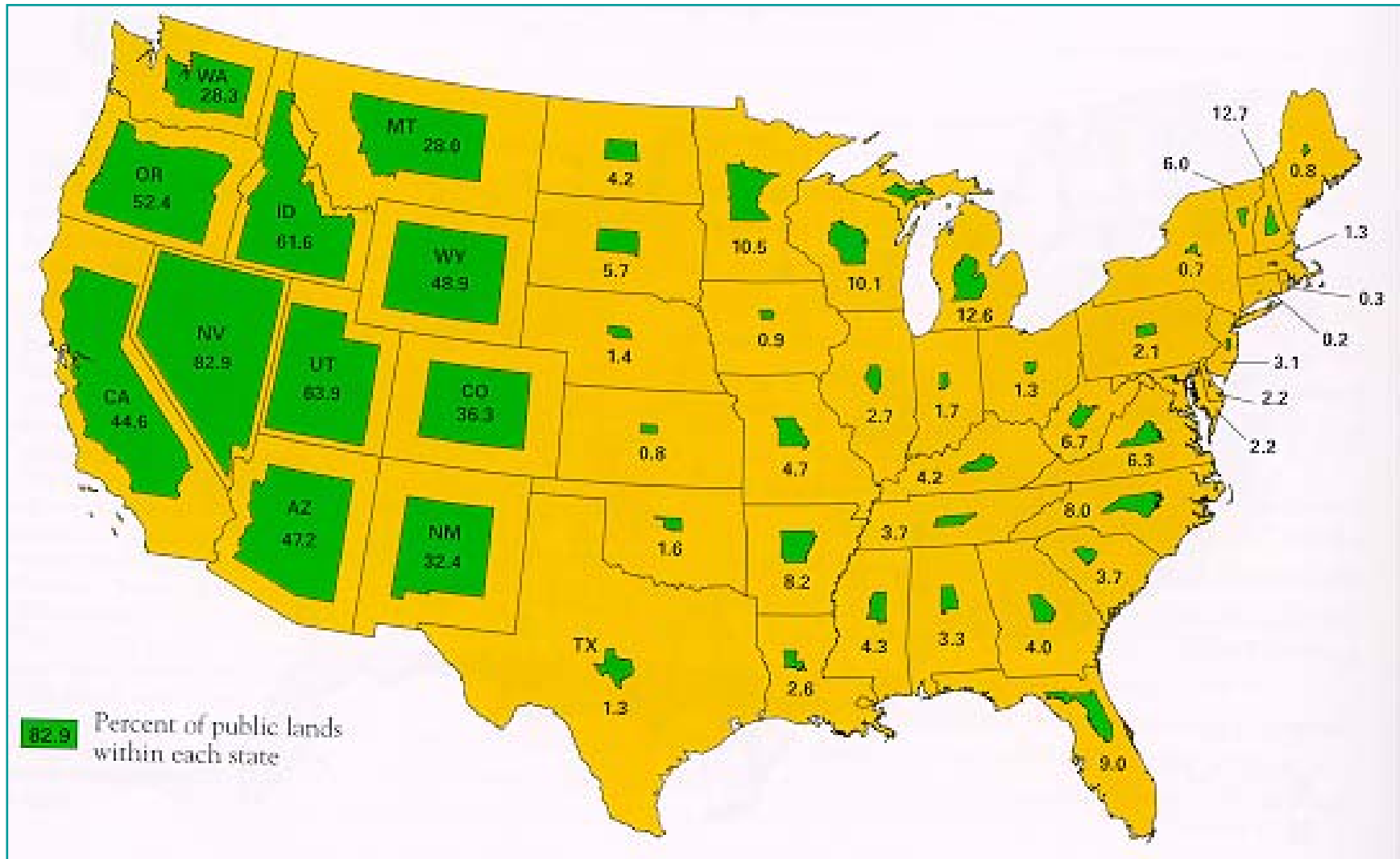


YPG Data





Increasing Urban Sprawl Less Available Public Land





Increasing Energy Demands

Navy serving as DoD lead for negotiations with DOI on Outer Continental Shelf and future year oil & gas exploration and drilling leases. Eglin Range threatened but proactive for compatible use. New leases authorized for VACAPES and Aleutians

