



# Sustaining Resource Security for Today and Tomorrow Installation Status Report



Installation Status Report

# Report Documentation Page

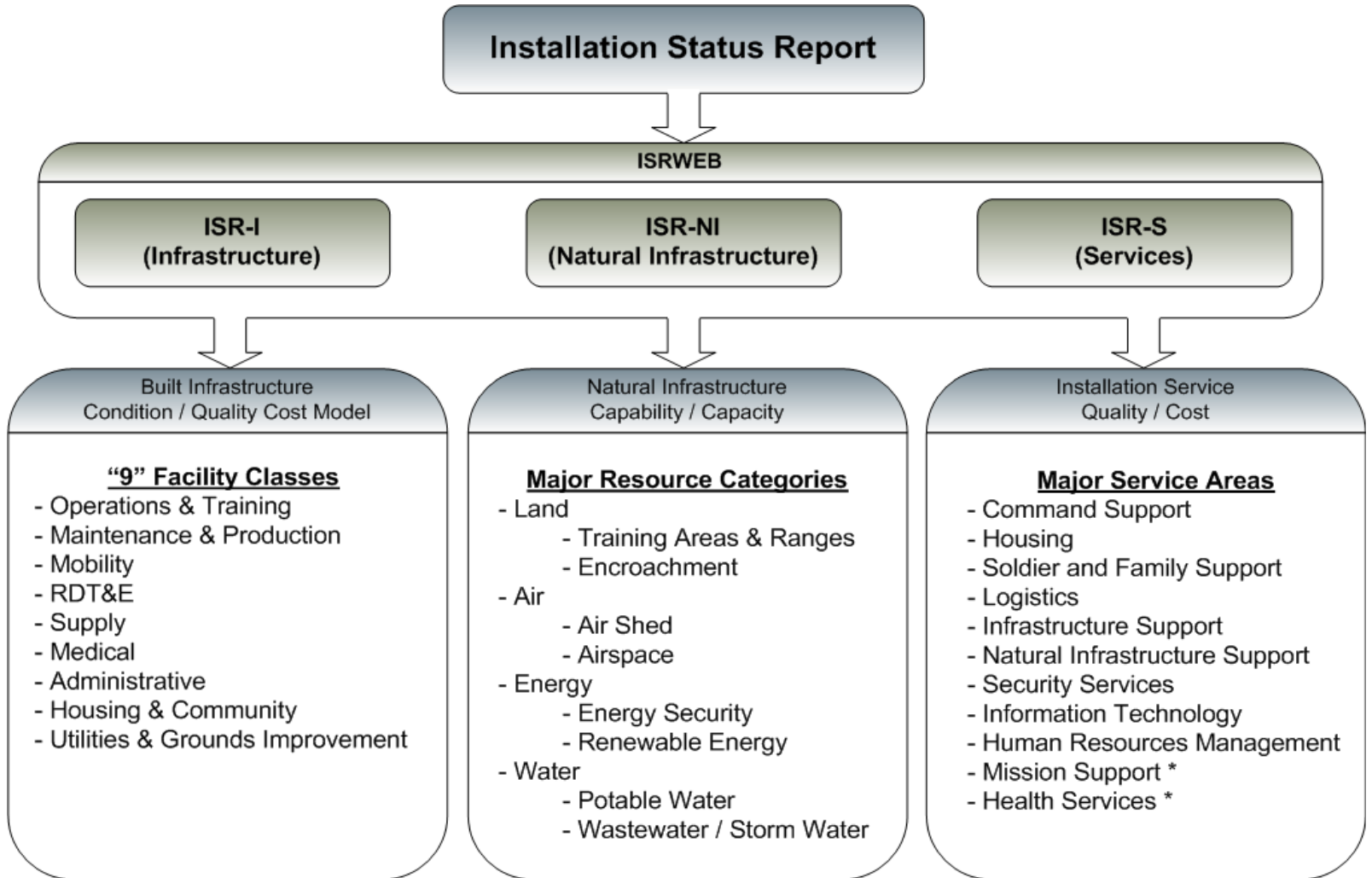
Form Approved  
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE <b>MAY 2011</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2011 to 00-00-2011</b>	
4. TITLE AND SUBTITLE <b>Sustaining Resource Security for Today and Tomorrow</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Army Assistant Chief of Staff for Installation Management,600 Army Pentagon,Washington,DC,20310-0600</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Presented at the NDIA Environment, Energy Security &amp; Sustainability (E2S2) Symposium &amp; Exhibition held 9-12 May 2011 in New Orleans, LA.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>22</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



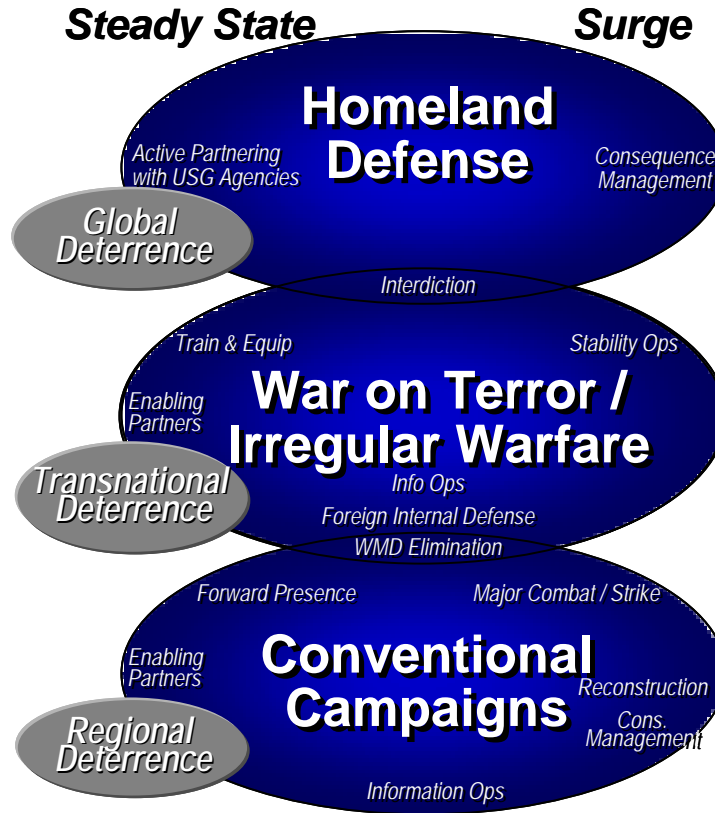
# Components of ISR



\*Non-BOS Major Service Areas



# Why ISR-NI?



### Sizing Variables:

- |             |             |                      |
|-------------|-------------|----------------------|
| Frequency   | Number      | Scale / Intensity    |
| Concurrency | Ops Risks   | Duration             |
| Policy      | Environment | Partner Capabilities |

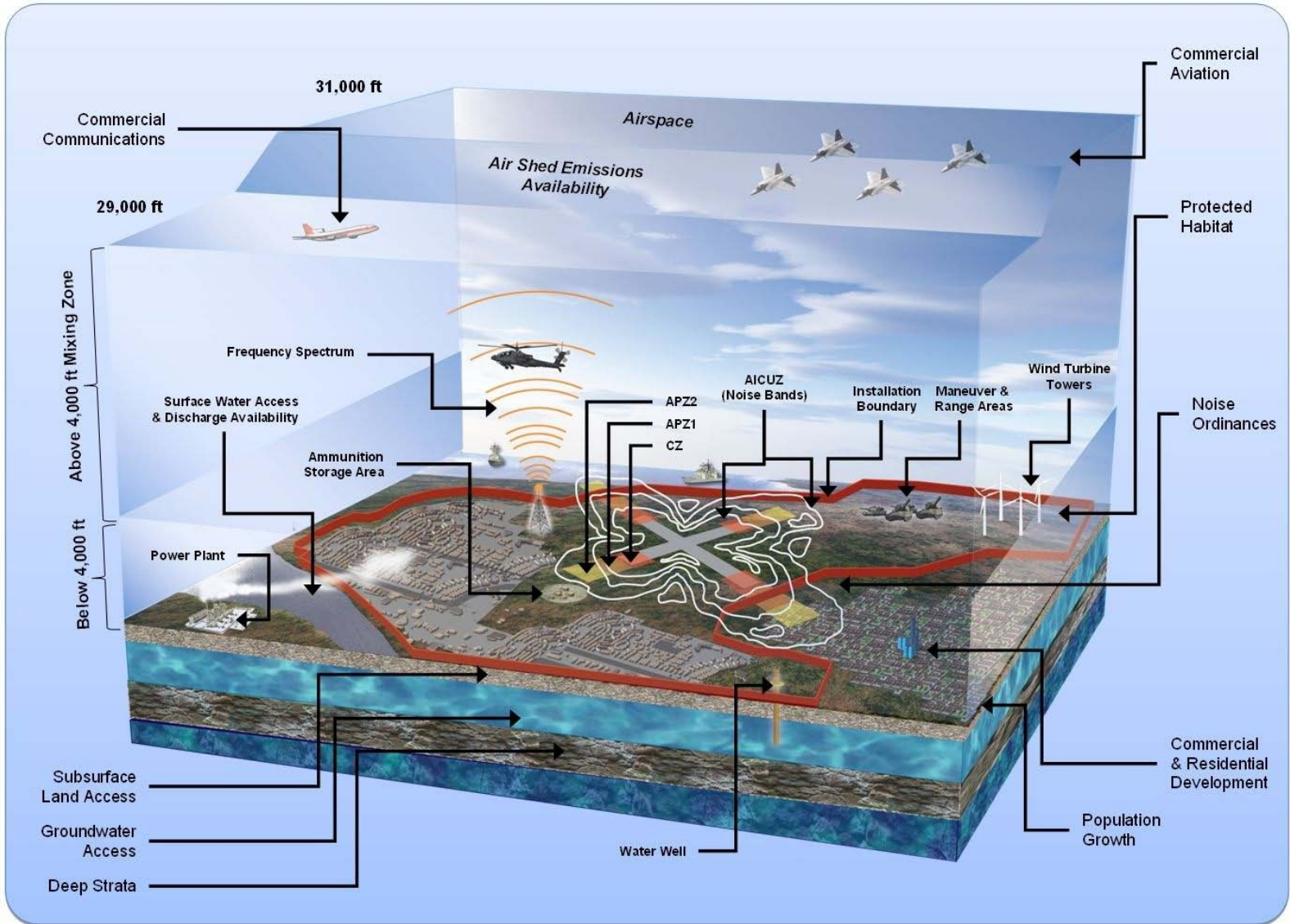


# *ISR-NI Focus*

- Natural Infrastructure provides the following:
  - Quantitative and spatial analysis through an interactive GIS Viewer
  - Ability to perform ‘what-if’ scenarios to provide visibility of mission impacts before they occur
    - Mission essential indicators and risk scores help assign priority for mitigation measures
  - Status of actionable sustainability initiatives and milestones
  - Consolidation of existing natural asset data (e.g., training areas, energy, water, airspace) into an ‘early warning system’

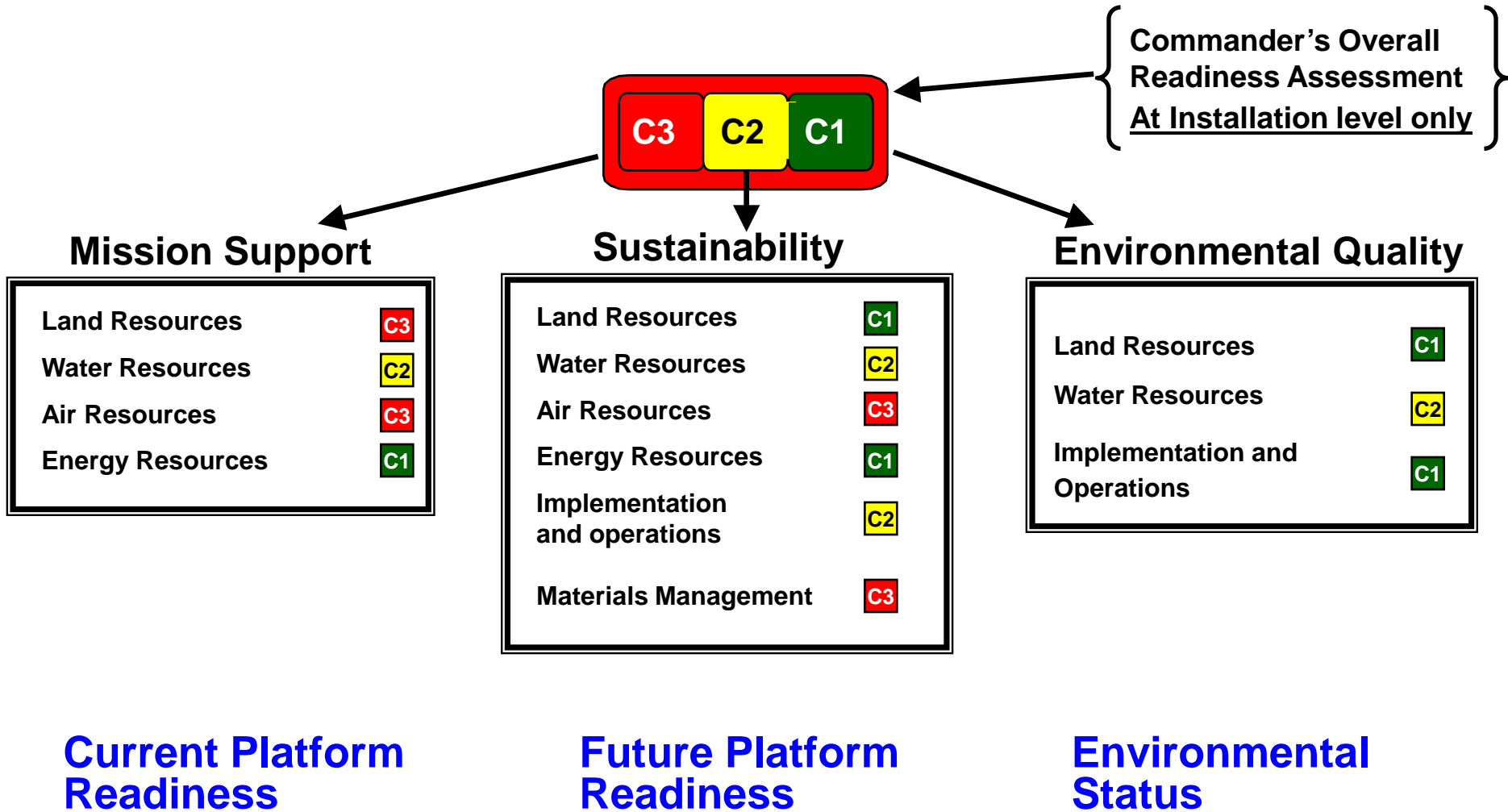


# ISR-NI Focus





# ISR-NI Framework





# ***ISR-NI Data Requirements***

- ISR-NI determines natural asset capability via Performance Measures
  - ISR-NI Measures
    - 170 performance measures for NonVirtual Organizations
    - 86 performance measures for Virtual Organizations
- Auto-populate from existing feeder systems (data consistency)
- Installation data within system persists from year to year, validate and update each cycle
- Rating criteria aligns with Army standards
- ISR-NI requires installation support to be successful – **YOU** know your installation and how ISR-NI can best serve you



# Measures / Functional Leads

Primary Functional Organization-Sustainability Measures	# of Measures	Percent of Total Measures
PAIO	6	11.8%
DPTMS	3	5.9%
DOL	3	5.9%
DPW	36	70.6%
Master Planning*	3	5.9%
<b>Total of 51 Measures</b>	<b>51</b>	<b>100%</b>

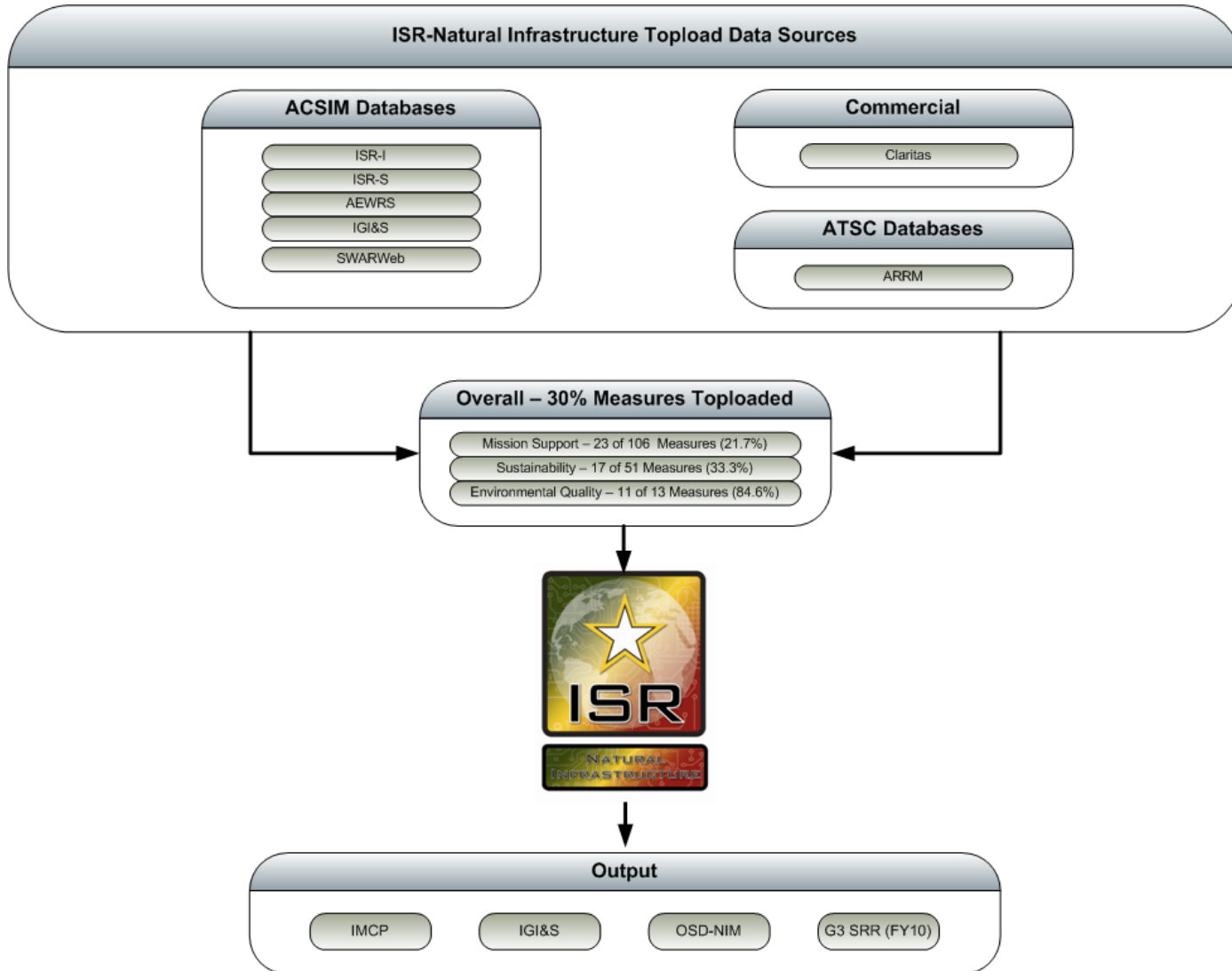
Primary Functional Organization-Mission Support	# of Measures	Percent of Total Measures
DOL	5	4.7%
DPW	51	48.1%
DPTMS	35	33%
NEC	7	6.6%
Environmental	5	4.7%
Master Planning	1	0.9%
Force Protection/Security	2	1.9%
<b>Total of 106 Measures</b>	<b>106</b>	<b>100.0%</b>

\*These functional leads are identified for assistance and are listed for informational purposes.

Primary Functional Organization-Environmental Quality	# of Measures	Percent of Total Measures
DPW	13	100%
<b>Total of 13 Measures</b>	<b>13</b>	<b>100%</b>



# ISR-NI Connection to Army Databases



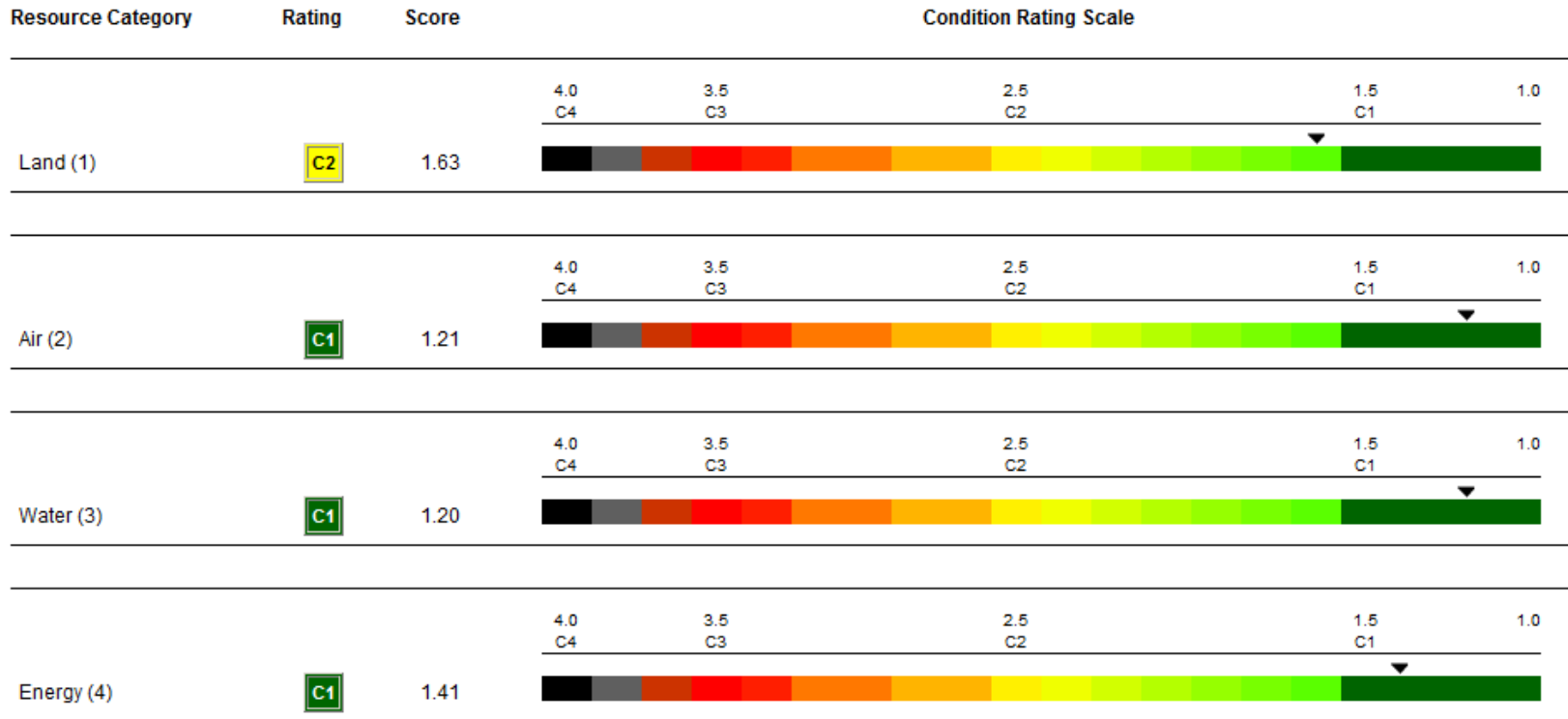


# Measure Rating Definitions

Color Ratings		
Color	Score	Rating Description
<b>Green +:</b>	<b>1</b>	Additional Capability or Outstanding Performance
<b>Green:</b>	<b>1</b>	Supports current mission without work-arounds (adjustments that can increase time and/or cost)
<b>Amber:</b>	<b>2</b>	Minimal or moderate work-arounds (adjustments that can increase time and/or cost) required to accomplish mission
<b>Red:</b>	<b>3</b>	Cannot fully support current mission, or may require significant work-arounds (adjustments that can increase time and/or cost) to accomplish mission
<b>Black</b>	<b>4</b>	Cannot support mission



# Mission Support Results



Sliding Scale Report displays numerical value within condition rating spectrum



# Energy Results

Resource Category	Resource SubCategory	Rating	Score	Condition Rating Scale
Energy (4)	Energy Security (13)	C1	1.40	<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>4.0 C4</span> <span>3.5 C3</span> <span>2.5 C2</span> <span>1.5 C1</span> <span>1.0</span> </div>
Energy (4)	Renewable Energy (14)	C2	1.53	<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>4.0 C4</span> <span>3.5 C3</span> <span>2.5 C2</span> <span>1.5 C1</span> <span>1.0</span> </div>
Energy (4)	Energy (15)	C2	1.55	<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>4.0 C4</span> <span>3.5 C3</span> <span>2.5 C2</span> <span>1.5 C1</span> <span>1.0</span> </div>



# ***Energy Security and Renewable Energy***

- 55% of installations have an energy security plan
- Approximately 20% of installations have electrical demand > 75% capacity
- 12% of installations experienced involuntary interruptions lasting longer than 4 days impacting mission within facilities, laboratories and ranges
  - Caused by weather events, aging infrastructure, utility maintenance, and birds
- 12% of installations have completed annual requirement for energy and water evaluations
- 18% of installations produce energy onsite



# Energy Security and Renewable Energy

Energy Security (MS413)		Green +	Green	Amber	Red	Black
1	Does the base have an approved energy security plan?	0	76	0	58	0
4a	What is the maximum electrical demand compared to the system capacity?	47	20	18	2	7
4b	If the base is supplied by natural gas, what is the maximum daily usage compared to the maximum potential (permitted or infrastructure capacity)?	43	7	2	1	5
5	What existing and new technologies has the base utilized in order to offer fuel flexibility?	0	0	0	0	0
6	What technologies has the base implemented in order to minimize electric demand?	0	0	0	0	0
10	On how many days within the past fiscal year did involuntary interruptions (including blackouts and brownouts; consider anything longer than two hours) occur?	73	39	8	2	6
12	Are there potential energy resources that the base could use to meet long term energy requirements (i.e., Army, private or municipal sources)? If yes, then what type?	0	97	35	0	0
13	Does the base have any issues regarding fuel storage capacity that negatively impact the base's ability to meet current mission requirements? If yes, must provide detailed comment.	0	121	0	16	0
14	What percentage of the base has been captured in the comprehensive energy and water evaluations in the previous FY (total square footage annually)?	0	17	22	60	0

Renewable Energy (MS414)		Green +	Green	Amber	Red	Black
1	What percent of total base energy consumption is produced onsite from renewable energy sources?	0	3	2	19	0
2	What percent of total base energy consumption is purchased from renewable energy sources?	0	6	4	0	0
5	Over the last fiscal year, did the reporting organization meet the EO 13423 alternative fuel goal?	0	10	4	12	0



# Water Results

Resource Category	Resource SubCategory	Rating	Score	Condition Rating Scale
Water (3)	Potable Water (10)	C1	1.18	
Water (3)	Wastewater / Storm Water (11)	C1	1.24	
Water (3)	Water (12)	C1	1.35	
Water (3)	Water (12)	C1	1.14	



# *Water Results*

- 86% of installations have a water vulnerability assessment and response plan
- Approximately 12% of installations have potable demand > 75% capacity during peak periods
  - Caused by aging infrastructure (e.g., main breaks)
- 16% of installations' current storm water systems are inadequate to meet peak storm water flow
- 47% of installations have implemented water reuse/recycling opportunities, rainwater harvesting, and gray water techniques.



# ***FY11 Training Areas and Ranges (MS101)***

- Shortfall of maneuver training land on majority of installations due to increase in doctrinal requirements
- 25% of installations have issues that can significantly impact training in the next 5 years. Examples include:
  - Training Land Shortage
  - Threatened and Endangered Species
  - Environmental Issues
  - Water Shortage



# ISR-NI Data Input Module

ISRWEB Navigation | Select Org | Logout | Help

Resource SubCategory: Training Areas & Ranges (01) | Readiness: MS, SU, EQ | C1, C2, C3, C4

Standards | Add/Edit Resources | General Comments

2. Maneuver Lands - Available Maneuver Land Assets What is the total area available for maneuver training, after training restriction factors are subtracted from the total maneuver land area calculated in Standard #1?  
 Lead Proponent: DPTMS  
 Assistant Proponent: Range Manager, Environmental  
 Data Source: Toploaded from ARRM / ECM (Aug - Oct 2008)

Standard Help | Enter/View Comments

**Notional Data**

Training Type Name	Total Maneuver Area (acres)	Total Number of Training Days Available	Total Acre Days	Total Acre Days Restricted	Available Acre Days Remaining	Percent Acre Days Available
Heavy Maneuver	83,656.7	365	30,534,695.5	<b>4,028,140</b>	26,506,555.5	86.8
Light Maneuver	108,727.7	365	39,685,610.5	<b>5,069,959.5</b>	34,615,651	87.2

Standard Calculation: [ ]

Encroachment Factors - Microsoft Internet Explorer

Resource Subcategory: Training Areas & Ranges (01)  
 Standard #: 2 Training Type Name: Heavy Maneuver

Encroachment Factor	Area Impacted (acres)	Days Encroached	Acre Days Encroached
Cultural Resource Sites	715.7	365	261,230.5
Fauna Critical Habitat	4,682.6	365	1,709,149
Fauna Threatened and Endangered Species	0	365	0
Flora Threatened and Endangered Speceis	64.8	365	23,652
Wetlands	5,766.8	365	2,104,882

Total Acre Days Restricted: 4,028,140 | Close

Validate Data | Transfer Data to Command Viewer | Reports | Metric Conversions | **Map It** | Map It - Instructions

1 2 3 4 5 6 7 8 CANCEL SAVE DATA PRINT

Done | Local intranet

**“Map It” Functionality allows the user to validate the Auto-Populated Mission Support Land Measures.**



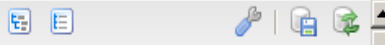


# ***FY11 Fenceline Encroachment (MS102)***

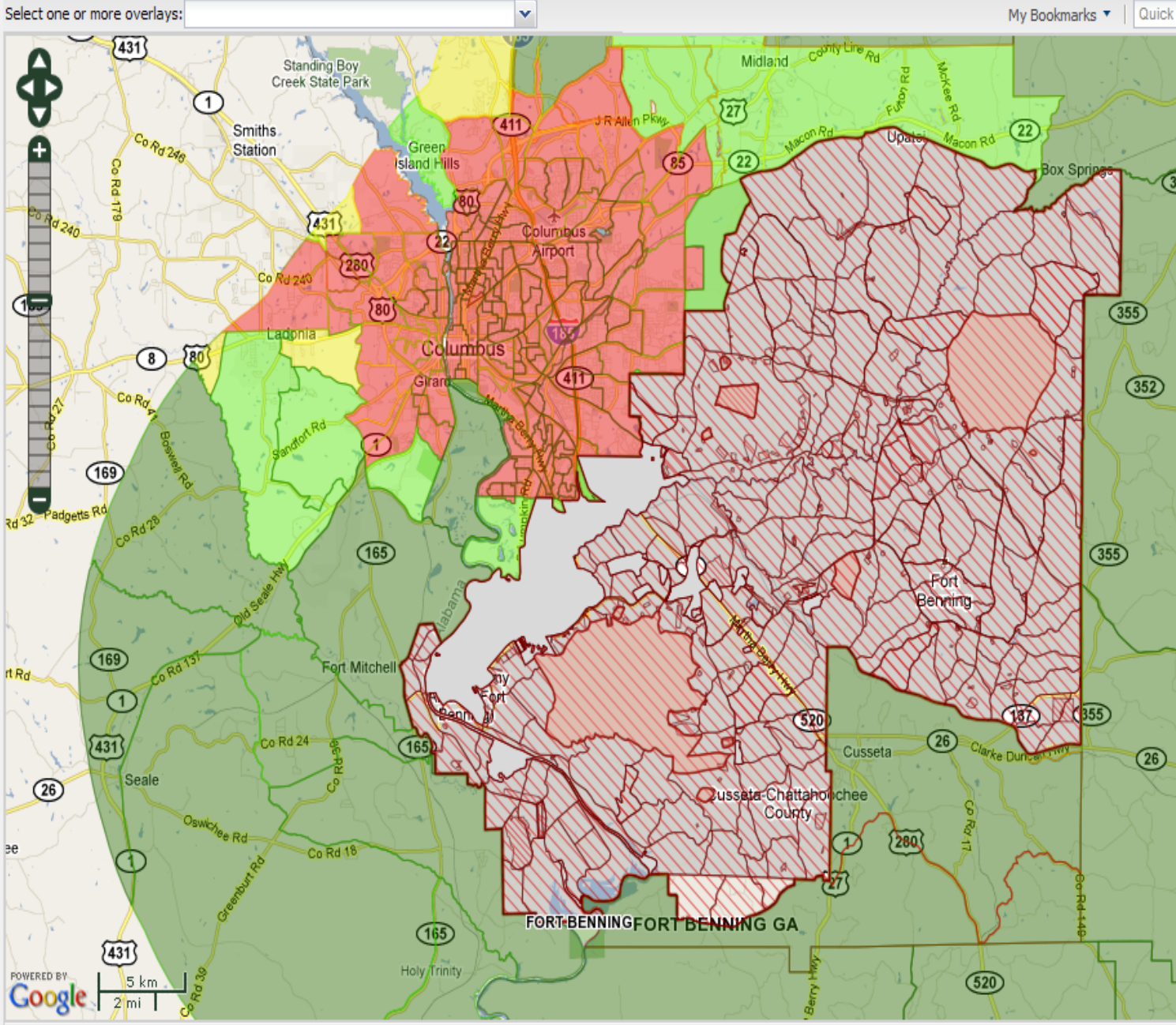
- 41% of installations have contours that go off-post
- 62 installations have approximately 2 million acres under administrative control for training if mitigation measures occurred
- Future Encroachment – 45% of installations estimated to have significant population growth outside the base boundary in the next five years

**Viewer Toolbox**

Table of Contents



- Overlays
  - KML Feeds
  - Graticule
  - Army Mapper ISR-NI Service (Info)
    - Air
    - Environmental Quality
    - Renewable Energy
    - Base Data
    - Land - Future Fence Line Encroachment
      - Population Density Change
      - Population Density Change
      - Population Density Change
      - Population Density Change
    - Land - Future Range Encroachment
    - Land - Future Range Encroachment
    - Land - Current Range Encroachment
    - Land - Current Range Encroachment
    - Land - Off-Post Military Contour
    - Land - Current Fence Line Encroachment
      - Population Density (2008) > 3000
      - Population Density (2008) 3000 - 1500
      - Population Density (2008) 1500 - 1000
      - Population Density (2008) < 1000
    - Land - Maneuver Encroachment
    - Land - Maneuver Encroachment
    - Land - Maneuver Land (MS101)
    - Land - Potential Developmental
    - Land - Potential Land for Development
    - Source - Claritas/IG&S: Encroachment
    - Source - IG&S: ISR-NI Analysis
    - Source - ECM: Maneuver Stance
  - Precipitation (Info)
  - Army Service (Info)
  - Training & Range



# *Questions?*



**Installation Status Report**