Capability Planning for Today and Tomorrow
Army Installation Status Report
# Capability Planning for Today and Tomorrow Army Installation Status Report

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**19a. NAME OF RESPONSIBLE PERSON**
Current Environment

Sizing Variables:

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

- Which installations can accept more mission?
- What are installation constraints today and in the future?
- Are our installations effectively utilizing resources and maximizing efficiencies (land, airspace, energy, water)?
Components of ISR

- **ISRWEB**
  - ISR-I (Infrastructure)
  - ISR-NI (Natural Infrastructure)
  - ISR-S (Services)

**“9” Facility Classes**
- Operations & Training
- Maintenance & Production
- Mobility
- RDT&E
- Supply
- Medical
- Administrative
- Housing & Community
- Utilities & Grounds Improvement

**Major Resource Categories**
- Land
  - Training Areas & Ranges
  - Encroachment
- Air
  - Air Shed
  - Airspace
- Energy
  - Energy Security
  - Renewable Energy
- Water
  - Potable Water
  - Wastewater / Storm Water

**Major Service Areas**
- Command Support
- Housing
- Soldier and Family Support
- Logistics
- Infrastructure Support
- Natural Infrastructure Support
- Security Services
- Information Technology
- Human Resources Management
- Mission Support *
- Health Services *

*Non-BOS Major Service Areas
What is ISR-NI?

- **ISR Natural Infrastructure (ISR-NI)** measures current and future installation capability.
- Provides quantitative AND spatial analysis through an interactive GIS Viewer.
- Ability to perform ‘what-if’ scenarios to provide visibility of mission impacts before they occur.
- Consolidation of existing capability/capacity data (e.g., training areas, energy, water, airspace) into an ‘early warning system.’
ISR-NI Focus

- Commercial Aviation
- Protected Habitat
- Noise Ordinances
- Commercial & Residential Development
- Population Growth
- Water Well
- Deep Strata
- Groundwater Access
- Subsurface Land Access
- Power Plant
- Ammunition Storage Area
- Surface Water Access & Discharge Availability
- Frequency Spectrum
- Air Shed Emissions Availability
- 31,000 ft
- 29,000 ft
- 20,000 ft Mixing Zone

- Airspace
- Air Curtains (Noise Bands)
- APFZ2
- APFZ1
- CZ

- Installation Boundary
- Maneuver & Range Areas
- Wind Turbine Towers

- ISR-NI Focus
- Commercial Communications
What is ISR-NI?
How are ISR-NI Data Utilized?

- **At the Installation Level:**
  - Data can be used to support prioritization of investments for critical projects
  - Capacity data can be used to support current/future missions
  - Provide coordinated response from across multiple garrison activities

- **At the Headquarters Level:**
  - Identify Army-wide installation capacities for realignment
  - Tracks progress made for sustainability initiatives
  - Identify areas for improvement
  - Provide ratings as part of the range evaluation in the G3 Sustainable Range Report
  - Provide data for IMCP metrics
What can ISR-NI tell you?

• Mission Impact to Training (Land, Airspace, Frequency)
  – Restrictions due to T&E species, CERCLA, wetlands, noise, air quality
  – External Encroachment due to sprawl, frequency
  – Camp Bullis, Ft. Belvoir

• Crash Zone / Accident Potential Zone
  Encroachment that go off post (Oceana)
Installation Status Report

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Macro Changes
NI Mapper
What can ISR-NI tell you?

• Macro level look at Over utilized / Underutilized Capacities
  – Utility (electrical, natural gas, and water)

• Status of actionable sustainability initiatives and milestones
ISR-NI Framework

Mission Support
- Land Resources
- Water Resources
- Air Resources
- Energy Resources

Sustainability
- Land Resources
- Water Resources
- Air Resources
- Energy Resources
- Implementation and operations
- Materials Management

Environmental Quality
- Land Resources
- Water Resources
- Implementation and operations

Commander’s Overall Readiness Assessment
At Installation level only

Current Platform Readiness
Future Platform Readiness
Environmental Status
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 Connection to Army Databases

ISR-Natural Infrastructure Topload Data Sources

**ACSIM Databases**
- ISR-I
- ISR-S
- AEWRB
- IGI&S
- SWARWeb

**Commercial**
- Claritas

**ATSC Databases**
- ARRM

Overall – 30% Measures Toploaded
- Mission Support – 23 of 106 Measures (21.7%)
- Sustainability – 17 of 51 Measures (33.3%)
- Environmental Quality – 11 of 13 Measures (84.6%)

Output
- IMCP
- IGI&S
- OSD-NIM
- G3 SRR (FY10)
• 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
"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
### Facility Energy Profile

<table>
<thead>
<tr>
<th>Number</th>
<th>Common Component Name</th>
<th>Selection</th>
<th>Status</th>
<th>Element Name</th>
<th>Green</th>
<th>Amber</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Building Exterior</td>
<td>Amber</td>
<td>U</td>
<td>Building Exterior</td>
<td>Light-colored exterior of stucco or masonry as reflective color or metal. Wellness center with a white or light-colored roof.</td>
<td>Any construction material with evidence of condensation damage on the exterior of the building or interior wall.</td>
<td>Condensation, mold, rot, and water damage.</td>
</tr>
<tr>
<td>3</td>
<td>Building Exterior-Roof</td>
<td>Red</td>
<td>U</td>
<td>Roof Energy</td>
<td>White or light-colored roof or known to have a reflective coating or membrane.</td>
<td>Roof covered with a reflective coating.</td>
<td>Damaged or missing coatings of any kind.</td>
</tr>
<tr>
<td>4</td>
<td>Building Exterior-Walls</td>
<td>Red</td>
<td>U</td>
<td>Building Envelope</td>
<td>The primary building is more than 50% shaded, or evidence of malnutrition due to mold, moisture damage, and/or mildew.</td>
<td>The primary building is more than 50% shaded, or evidence of mold, moisture damage, and/or mildew.</td>
<td>Condensation, mold, and rot.</td>
</tr>
<tr>
<td>5</td>
<td>Building Exterior-Windows</td>
<td>Green</td>
<td>U</td>
<td>Window Energy</td>
<td>Single-pane window. There is clear evidence of condensation or moisture damage.</td>
<td>Single-pane window. There is clear evidence of condensation or moisture damage.</td>
<td>Condensation, mold, and rot.</td>
</tr>
<tr>
<td>6</td>
<td>Building Exterior-Doors</td>
<td>Green</td>
<td>U</td>
<td>Door Energy</td>
<td>No drafts or air leaks around door. Door feels warm in winter and cool in summer.</td>
<td>Small drafts and air leaks that are not related to current weather conditions.</td>
<td>Drafts and air leaks around door. The area around the door is warm in summer and cool in winter.</td>
</tr>
<tr>
<td>7</td>
<td>Water Efficiency</td>
<td>Amber</td>
<td>U</td>
<td>Water Efficiency</td>
<td>High efficiency (SEER 16 or above).</td>
<td>Water efficiency (SEER 16 or above).</td>
<td>Non-standard features with no water-saving features.</td>
</tr>
<tr>
<td>8</td>
<td>Water Efficiency</td>
<td>Red</td>
<td>U</td>
<td>Water Efficiency</td>
<td>Conventional cooling system is SEER 14 or lower.</td>
<td>Throttling or inadequate cooling.</td>
<td>Throttling or inadequate cooling.</td>
</tr>
<tr>
<td>9</td>
<td>Heating</td>
<td>Green</td>
<td>U</td>
<td>Heating</td>
<td>Gas, electric, or hydronic with high efficiency.</td>
<td>High efficiency (SEER 16 or above).</td>
<td>Standard heating system that is 5 years old or more.</td>
</tr>
<tr>
<td>10</td>
<td>Water Heating</td>
<td>Red</td>
<td>U</td>
<td>Water Heating</td>
<td>Water heater with high efficiency.</td>
<td>High efficiency (SEER 16 or above).</td>
<td>Standard water heater that is 5 years old or more.</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>Green</td>
<td>U</td>
<td>Controls</td>
<td>Heavily insulated by observation.</td>
<td>Medium insulation by observation.</td>
<td>Not observed or lightly insulated.</td>
</tr>
</tbody>
</table>
Questions?