Sustaining Resource Security for Today and Tomorrow
Installation Status Report
Components of ISR

Installation Status Report

ISRWEB

ISR-I (Infrastructure)
Built Infrastructure Condition / Quality Cost Model

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

ISR-NI (Natural Infrastructure)
Natural Infrastructure Capability / Capacity

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

ISR-S (Services)
Installation Service Quality / Cost

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
Why ISR-NI?

Sizing Variables:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Number</th>
<th>Scale / Intensity</th>
<th>Concurrency</th>
<th>Ops Risks</th>
<th>Duration</th>
<th>Policy</th>
<th>Environment</th>
<th>Partner Capabilities</th>
</tr>
</thead>
</table>

Steady State
- Homeland Defense
- Global Deterrence
- Enabling Partners
- Active Partnering with USG Agencies
- Interdiction
- Stability Ops
- Train & Equip
- Major Combat / Strike
- Forward Presence
- WMD Elimination
- Foreign Internal Defense
- Reconnaissance
- Information Ops
- Cons. Management

Surge
- Consequence Management
- War on Terror / Irregular Warfare
- Transnational Deterrence
- Regional Deterrence
- Conventional Campaigns
- Info Ops
- Enabling Partners
- Why ISR-NI?
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

Mission Support
- Land Resources (C3)
- Water Resources (C2)
- Air Resources (C3)
- Energy Resources (C1)

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

Future Platform Readiness
- Implementation and Operations (C1)

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 requires installation support to be successful – **YOU** know your installation and how ISR-NI can best serve you
Measures / Functional Leads

<table>
<thead>
<tr>
<th>Primary Functional Organization</th>
<th># of Measures</th>
<th>Percent of Total Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAIO</td>
<td>6</td>
<td>11.8%</td>
</tr>
<tr>
<td>DPTMS</td>
<td>3</td>
<td>5.9%</td>
</tr>
<tr>
<td>DOL</td>
<td>3</td>
<td>5.9%</td>
</tr>
<tr>
<td>DPW</td>
<td>36</td>
<td>70.6%</td>
</tr>
<tr>
<td>Master Planning*</td>
<td>3</td>
<td>5.9%</td>
</tr>
<tr>
<td>Total of 51 Measures</td>
<td>51</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Primary Functional Organization</th>
<th># of Measures</th>
<th>Percent of Total Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Quality</td>
<td>13</td>
<td>100%</td>
</tr>
<tr>
<td>Total of 13 Measures</td>
<td>13</td>
<td>100%</td>
</tr>
</tbody>
</table>
ISR-NI Connection to Army Databases

ISR-Natural Infrastructure Topload Data Sources

ACSIM Databases
- ISR-I
- ISR-S
- AEWRB
- IGi&G
- SWARWeb

Commercial
- Clarias

ATSC Databases
- ARRIM

Overall – 30% Measures Toploaded
- Mission Support – 23 of 100 Measures (23.0%)
- Sustainability – 17 of 51 Measures (33.3%)
- Environmental Quality – 11 of 13 Measures (84.6%)

Output
- IMCP
- IGi&G
- OSD-NIM
- G3 SRR (FY10)
## Color Rating Definitions

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

<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Rating</th>
<th>Score</th>
<th>Condition Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land (1)</td>
<td>C2</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Green]</td>
</tr>
<tr>
<td>Air (2)</td>
<td>C1</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Green]</td>
</tr>
<tr>
<td>Water (3)</td>
<td>C1</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Green]</td>
</tr>
<tr>
<td>Energy (4)</td>
<td>C1</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Green]</td>
</tr>
</tbody>
</table>

Sliding Scale Report displays numerical value within condition rating spectrum
## Energy Results

<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Resource SubCategory</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (4)</td>
<td>Energy Security (13)</td>
<td>C1</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Renewable Energy (14)</td>
<td>C2</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy (15)</td>
<td>C2</td>
<td>1.55</td>
</tr>
</tbody>
</table>

### Condition Rating Scale

- **4.0** (C4)
- **3.5** (C3)
- **2.5** (C2)
- **1.5** (C1)
- **1.0**

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Michelle Fulton/(571) 256-8154/DAIM-ODO/Michelle.R.Fulton@us.army.mil
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 (MS413)

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Green +</th>
<th>Green</th>
<th>Amber</th>
<th>Red</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does the base have an approved energy security plan?</td>
<td>0</td>
<td>76</td>
<td>0</td>
<td>58</td>
<td>0</td>
</tr>
<tr>
<td>4a</td>
<td>What is the maximum electrical demand compared to the system capacity?</td>
<td>47</td>
<td>20</td>
<td>18</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>4b</td>
<td>If the base is supplied by natural gas, what is the maximum daily usage compared to the maximum potential (permitted or infrastructure capacity)?</td>
<td>43</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>What existing and new technologies has the base utilized in order to offer fuel flexibility?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>What technologies has the base implemented in order to minimize electric demand?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>On how many days within the past fiscal year did involuntary interruptions (including blackouts and brownouts; consider anything longer than two hours) occur?</td>
<td>73</td>
<td>39</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>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?</td>
<td>0</td>
<td>97</td>
<td>35</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>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.</td>
<td>0</td>
<td>121</td>
<td>0</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>What percentage of the base has been captured in the comprehensive energy and water evaluations in the previous FY (total square footage annually)?</td>
<td>0</td>
<td>17</td>
<td>22</td>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

### Renewable Energy (MS414)

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Green +</th>
<th>Green</th>
<th>Amber</th>
<th>Red</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What percent of total base energy consumption is produced onsite from renewable energy sources?</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>What percent of total base energy consumption is purchased from renewable energy sources?</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Over the last fiscal year, did the reporting organization meet the EO 13423 alternative fuel goal?</td>
<td>0</td>
<td>10</td>
<td>4</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>
# Water Results

<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Resource SubCategory</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (3)</td>
<td>Potable Water (10)</td>
<td>C1</td>
<td>1.18</td>
</tr>
<tr>
<td>Water (3)</td>
<td>Wastewater / Storm Water (11)</td>
<td>C1</td>
<td>1.24</td>
</tr>
<tr>
<td>Water (3)</td>
<td>Water (12)</td>
<td>C1</td>
<td>1.35</td>
</tr>
</tbody>
</table>

**Condition Rating Scale**

- 4.0 (C4)
- 3.5 (C3)
- 2.5 (C2)
- 1.5 (C1)
- 1.0

Michelle Fulton/(571) 256-8154/DAIM-ODO/Michelle.R.Fulton@us.army.mil
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.
• 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
Questions?