Developing and Assessing Resilient Systems in Support of National Security Missions

10—11 April 2018
Information Technology Laboratory
US Army Research and Development Center, Vicksburg, MS

Classification: UNCLASSIFIED (FOUO) and open to US residents and members of the FIVE EYES countries

Co-Chairs:
Dr. Simon Goerger, USACE, Vicksburg, MS.
Dr. John Hummel, FS, Argonne National Laboratory, Argonne, IL
Dr. Jennifer Schneider, Collaboratory for Resiliency and Recovery, Rochester Institute of Technology, Rochester, NY

Are you a strategic thinker? Do you view resilience holistically? Do you wish to collaboratively contribute to planning our future? Then this event is for you!

Recent events continue to demonstrate the need to create systems that are resilient to natural and manmade disruptions. This two-day workshop on April 10 & 11, 2018 at the USACE in Vicksburg, MS is focused on the continued development of a resilience strategy within the National Security mission space. This workshop will focus on the resilience of critical infrastructure and deployable systems needed by US forces and supporting agencies to meet operational requirements. It will also examine external forces, such as environmental and political factors, that impact the critical system performance or are the drivers of these missions.

This is a different kind of event.
This is not a symposium, but an active workshop. Participants will not present on their specific efforts, but rather come together to share and learn from each other. Discussions and activities will rely on your ability to strategize, see the system of systems framework that creates or impedes resilience, and yet be able to understand the details and shortfalls of our capabilities to measure and develop a resilient state for the infrastructure or deployable systems.

The aim of the workshop is to leverage our collective experience to create a vision and purpose set or ‘roadmap’ for our efforts to develop systems as we address the current and emerging challenges that forestall community and national resilience. We will look at resilience as:

The ability of an entity—e.g., asset, organization, community, region—to anticipate, resist, absorb, respond to, adapt, and recover from a disturbance from either natural or man-made events. For Infrastructure, we will consider the ability to absorb damage and recover from disruption. For Deployable Systems, we will approach it as the ability to successfully complete its planned mission(s) in the face of environmental and adversarial threats, and has capabilities allowing it to flexibly adapt to future missions with evolving threats.
We will consider resilience based on impact to performance a group into three categories: 1) Physical, 2) Virtual, and 3) Operational with the social/human component being a thread that weaves throughout the three categories.

The workshop deliverable is a white paper that will be used to inform future analysis of operation readiness as well as research and development focus areas to meet required concepts to provide resilience.

The workshop will use the following definitions of resilience to help frame discussions.

<table>
<thead>
<tr>
<th>Workshop Component</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop</td>
<td>The ability of an entity—e.g., asset, organization, community, region—to anticipate, resist, absorb, respond to, adapt, and recover from a disturbance from either natural or man-made events</td>
<td>MORS Workshop on Analytical Support for Societal and Regional Resiliency in Support of National Security. Argonne National Laboratory. September 10-12, 2013.</td>
</tr>
<tr>
<td>Deployable Systems</td>
<td>A resilient engineered system is able to successfully complete its planned mission(s) in the face of environmental and adversarial threats, and has capabilities allowing it to flexibly adapt to future missions with evolving threats.</td>
<td>Cottam, B., Parnell, G., Pohl, E., Specking, E., &amp; Small, C. (2016). Quantifying Resilience to Enable Engineered Resilient Systems: Task 1 Report. Fayetteville, AR: CELDI.</td>
</tr>
</tbody>
</table>

This event will be limited to 90 participants. Please register as soon as possible to ensure your participation.

No meals are provided during this event; however, box lunches (~$15 a meal) are available via registration. Box meal options will include meat and vegetarian options.

Register at: