Tuesday, April 7

- **9:00am – 10:30am :** Opening Keynote - Ms. Susan Davenport
    - **Title -** *AI-Enabled Autonomy Is Not Optional: Why the Air/Space Force Needs Trustworthy Autonomy to Win at Machine Speed.*
- **10:30am – 11:00am :** Break
- **11:00am – 12:30pm :** Technical Session 1 - Causal Reasoning for Artificial Intelligence Systems
- **12:30pm – 2:00pm :** Lunch
- **2:00pm – 3:30pm :** Panel Discussion - Bridging Lab to Field - Technology
- **3:30pm – 4:00pm :** Break
- **4:00pm – 5:30pm :** Technical Session 2 - Trustworthy, Explainable, and Evaluated AI
- **5:30pm – 6:30pm :** Reception

Wednesday, April 8

- **9:00am – 10:30am :** Keynote Day 2 - Nathaniel Bastian.
    - **Title -** *The Need for Operational AI Red-Teaming in the Department of War*.
- **10:30am – 11:00am :** Break
- **11:00am – 12:30pm :** Invited Talk - Dr. Franceso Restuccia
    - **Title -** *Toward (Truly) Resilient Networking and Learning in Tactical Cyber-Physical Systems.*
- **12:30pm – 2:00pm :** Lunch
- **2:00pm – 3:30pm :** Technica Session 3 - Multi-Agent Systems and Distributed Tactical Autonomy
- **3:30pm – 4:00pm :** Break
- **4:00pm – 5:30pm :** Technical Session 4 - Autonomous Sensing, UAS, and ISR Systems
- **5:30pm – 6:30pm :** Plenary Session: TBD

Thursday, April 9

- **9:00am – 10:30am :** Technical Session 5 - Decision Intelligence, LLM Reasoning, and Human-AI Collaboration
- **10:30am – 11:00am :** Break
- **11:00am – 12:30pm :** Technical Paper Session 6 - Embodied AI, Robotics, Bio-AI, and Physical Systems

Session 1: Causal Reasoning for Artificial Intelligence Systems

1. **Causal Learning for Fault and Anomaly Detection in Unmanned Aerial Systems**
   Atul Rawal
2. **Discussion of Artificial Intelligence from an Artificial Reasoning Perspective**
   Adrienne Raglin
3. **Uncertainty-of-Information-Driven GAN (UoI GAN): Quantifying and Communicating Uncertainty to Decision-Makers**
   Sunny Anjon Basak, Rajendran Swamidurai, Adrienne Raglin
4. **Adversarial Causal Deception Scenarios: Preliminary Modeling and Policy Formation**
   Milo Fritzen, Andrew Forney, Adrienne Raglin, Sunny Basak, Peter Khooshabeh

Session 2: Trustworthy, Explainable, and Evaluated AI

1. **Distilling Deep Reinforcement Learning into Interpretable Fuzzy Rules: An Explainable AI Framework**
   Simon Khan, Sanup Araballi, Chilikuri Mohan
2. **LLM Forensic Evaluation: Diagnosing Actionability, Uncertainty, and Human Comprehension in High-Stakes Outputs**
   Jaye Nias, Saurav Aryal, Christopher Watson, Jeremy Blackstone, Simone Smarr, Lucretia Williams, Gloria Washington
3. **Evaluating Generative Image Expansion for Long-Range Maritime Vision Tasks**
   Jaye Nias, Saurav Aryal, Joseph Sankah, Jeremy Blackstone, Armisha Roberts, Simone Smarr, Lucretia Williams, Gloria Washington
4. **Adaptive Interception in Dynamic Domains: Exploration of Hybrid Reinforcement Learning in Pursuit-Evasion Tasks**
   Matther Akinmolayan, Darsana Josyula, David Casbeer
5. **From Rules to Reasoning: Evolving Agentic AI for Strategy Synthesis in Multi-Agent Wargaming Environments**
   Amauri Straford, Anaiya Reliford, Charles Milligan

Session 3: Multi-Agent Systems and Distributed Tactical Autonomy

1. **Communication-as-Control: Intent-Aware Interaction for Scalable Multi-Agent Coordination**
   Mahdi Iman, Tian Lan
2. **AI-Against-AI Conflict in Distributed Tactical Autonomy**
   Mahdi Iman, Tian Lan
3. **Predictive Auxiliary Learning for Belief-based Multi-Agent Systems**
   Qinwei Huang, Rui Zuo, Stefan Wang, Simon Khan, Garett Katz, Qinru Qiu
4. **Resilient and Adaptive Autonomy Using Multi-Agent Reasoning**
   Josef Schaff

5. **Causal Representation Learning for Generalizable Multimodal Understanding: A Case Study in Social Media Post Classification**
   Pingchuan Ma, Chengshuai Zhao, Bohan Jiang, Saketh Vishnubhatla, Ujun Jeong, Alimohammad Beigi, Adrienne Raglin, and Huan Liu

Session 4: Autonomous Sensing, UAS, and ISR Systems

1. **Systemic Evaluation of Lightweight YOLOv8 for Real-Time Aerial Detection**
   Moath Alsafasfeh, Mandoye Ndoye, Dewan Noor
2. **On the Utility and Limitations of the MSTAR Dataset for Deep Learning-Based SAR Target Recognition**
   Charles Milligan
3. **Toward a Closed-Loop Autonomous Sensing Framework for UAS-Based Particulate Matter Mapping**
   Aniaya Reliford, Sonya Smith
4. **Aerial-borne Data Management Center (ADMC)**
   Chieh Tsai, Hossein Rastgoftar, Salim Hariri
5. **A Decentralized Framework for Resource-Constrained Task Redistribution**
   Doron Reid, Anaiya Reliford, Anietie Andy, Sonya Smith, Marcus Alfred and Sean Phillips

Session 5: Decision Intelligence, LLM Reasoning, and Human-AI Collaboration

1. **Symbolic Mediation of Language-Based Decision Support in Tactical Contexts**
   Jaye Nias, Lashaun Baddol, Saurav Aryal, Jeremy Blackstone, Simone Smarr, Lucretia Williams, Gloria Washington
2. **Reasoning Knowledge-Gap in Drone Planning via LLM-based Active Elicitation**
   Zeyu Fang, Beomyeol Yu, Cheng Liu, Zeyuann Yang, Rongqian Chen, Yuxin Lin, Mahdi *Imani, Tian Lan*
3. **Design Considerations for Augmented Reality Supported Tactical Decision Making Systems**
   Simone Smarr, Alexis Davis, Niya Tranham, Nicholas Abram, Saurav Aryal, Jaye Nias, Lucretia Williams, Jeremy Blackstone, Gloria Washington
4. **A Comparison of Reinforcement Learning and Optimal Control Methods for Path Planning**
   Qiang Le, Yaguag Yang, Issac Weintraub
5. **Egocentric Team AI: Enabling Tactical Reasoning from the Operator's View**
   Soham Hans, Yunzhe Wang, Volkan Ustun

Session 6: Embodied AI, Bio-AI, and Physical Systems

1. **Repari2Skill: A Vision Language Action Framework for Robotic Furniture Repair**
   Mukesh Mani, Huang Xin, Qingping Li

2. **Cloud-Orchestrated Autonomous Bioreactor Arrays for Closed-Loop Strain Characterization**
   Carlos Barajas, Justin Edaugal, Samuel McKey, Seneca Bessling
3. **Transformer-Based Classification of Parkinson's Disease from EEG Using BIDS-Formatted OpenNeuro Datasets**
   Raven Lee, Caleb Cooper, Manliang Feng, Jinghe Mao
4. **Time-Aware Two-Dimensional Packing for Slicing-Aware 3D Printing Throughput Optimization**
   Saurav Aryal, Stephone Christian, Montaque Blayne
5. **A Unified Naming and Addressing Scheme for Hybrid DTN/NDN Communication Protocols**
   Ronald Langrin, Jeremy Blackstone