

Trusted AI Challenge for Armaments Systems Engineering Updates for the Spring Challenge

1. Continued Emphasis on the Three Key Sponsor Questions:

- What are the key ***systems engineering activities and artifacts*** best-suited to build trust in AI-enabled systems?
- What ***infrastructure*** is needed to validate the trust of AI-enabled systems?
- What ***key workforce skills and abilities*** are required for teams to successfully develop and operate AI-enabled systems?

Teams should focus on these general questions to help build trust in AI-enabled systems, and not focus exclusively on Operation Safe Passage.

2. Two changes for the Spring challenge:

- a. Increased Lethality. The unmanned ground vehicle is not 100 percent effective at detecting and clearing mines. Teams will need to describe how they adjust their designs and operating methods to account for potential damage.
- b. Additional Sensing. Accuracy data from a new unmanned aerial system with different sensing capabilities will be released in January. Teams will need to describe how they integrate the different sensing capabilities to increase trust in their designs and their operating methods.

3. Summary of the Spring judging criteria. The judges will evaluate the teams' white papers and presentations against the following criteria:

a. General methods for building trust in AI-enabled systems:

- Systems engineering activities and artifacts
- Infrastructure to validate trust
- Key workforce skills and abilities

b. Operation Safe Passage:

- Methods for addressing increased lethality
- Methods for integrating additional sensing
- Design patterns for trust
- Risk-based operating procedures
- Quantitative methods
- Best practices
- Novel approaches
- Future research
- Transition