



United States
Department of Energy
National Nuclear Security Administration
International Nuclear Security

**Designing and Developing Tabletop
Exercises**



INS International
Nuclear Security
Reducing Risk of Nuclear Terrorism

Key Points

- What are the various Table-Top Exercises (TTX) components that must be considered in this type of exercises?
- What are the team compositions and responsibilities in a TTX?
- What are the Rules of Engagement (ROE) and methods for realistic play for both Security and Adversary Forces?
- What does it take to make a good TTX?

Tabletop Exercises (TTX) components

- Clearly Defined Objectives
- Realistic Scenario
 - Scenario Injects
- Participant Roles and Responsibilities
- Communication and Coordination Focus
- Documentation and Evaluation Criteria
- After Action Review (AAR)
- Follow-Up and Improvement Plan

A tabletop exercise is not simply a discussion event—it is a structured process intended to identify strengths, weaknesses, and opportunities for improvement. Documentation captures that process and turns discussion into actionable outcomes.

TTX Design Team Composition

Position	Why They Are Needed
Exercise Director	Provides strategic oversight, approves objectives, ensures the exercise supports organizational priorities, and resolves planning issues.
Lead Planner / Planning Team Lead	Manages the planning process, coordinates meetings, tracks tasks, and ensures products are completed on schedule.
Subject Matter Experts (SMEs)	Ensure technical accuracy and realism. For nuclear security exercises, this may include physical protection, cyber security, insider threat, emergency response, CAS operations, or regulatory experts.
Scenario Development Lead	Creates the storyline, injects, and decision points that drive discussion and test objectives. Ensures the scenario is challenging but plausible.
Facilitator Lead	Designs discussion questions and keeps the exercise on track during execution. Helps participants focus on objectives rather than debating scenario details.
Evaluation Lead	Develops evaluation criteria, identifies performance measures, and ensures observations are collected for the AAR. Evaluation planning should begin early in exercise design.
Player Representatives	Representatives from the organizations being exercised. Their involvement ensures the scenario reflects actual plans, procedures, and capabilities.
Logistics Coordinator	Manages facilities, communications, participant materials, audiovisual support, and exercise administration.
Safety/Security Representative	Particularly important for security-focused exercises. Ensures discussions involving sensitive information remain appropriately controlled and exercise conduct remains safe.

Rules of Engagement & Realistic Play Guidance

Universal Exercise Rules

1. Safety Overrides Realism
2. Real-World Laws and Policies Still Apply
3. Exercise Artificialities Must Be Acknowledged

Security Force Realistic Play Guidelines

1. Use Actual Procedures
2. Maintain Tactical Discipline
3. Simulated Force Application
4. Communication Procedures
5. Use-of-Force Simulation

Adversary Realistic Play Guidelines

1. Act According to Scenario Intelligence
2. Challenge Defensive Systems Realistically
3. Avoid “Supervillain” Behavior
4. Follow Exercise Adjudication Rules

What items/materials do you need for a good TTX?

- No-Fault Learning Environment
- Realistic Scenario that is challenging but achievable.
- Facilitator and Participant guides to keep everyone informed and focused
- Note taking materials
- Probability of Hit (PH) / Probability of Kill (PK) Tables
- Rapporteur / Scribe
- Good attitude

Example TTX setups



Map and Game piece set up



Digital map setup

Advanced TTX setup





Questions?