Continuity of Operations Plan Guidance Document
This guidance document is provided by the U.S. Election Assistance Commission (EAC). This guidance document and Continuity of Operations Plan template are intended to support Election Agencies with Continuity of Operations (COOP) Planning.

The EAC maintains a webpage with additional information on COOP Planning at: www.eac.gov/election-officials/contingency-planning
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Introduction

This guidance document supports the U.S. Election Assistance Commission (EAC) Continuity of Operations (COOP) Template.

The Continuity of Operations (COOP) Template uses an “All Hazards” approach. An “All Hazards” approach when developing plans, recognizes flexibility in disaster and hazards planning and the need to combine hazard specific activities with a core approach that encompasses responses that are appropriate to all hazards. The degree of implementation of the COOP depends upon the magnitude and nature of the incident/disaster that caused the disruption. Implement only the parts of the plan that are needed to address the incident or emergency.
Protected Critical Infrastructure Information (PCII) Program

The Protected Critical Infrastructure Information (PCII) Program was created by Congress under the Critical Infrastructure Information Act of 2002. The Program encourages public and private sector owner(s) and operator(s) of physical and cyber critical infrastructure to voluntarily share sensitive security and proprietary data with the Cybersecurity and Infrastructure Agency[1] (CISA). Election infrastructure was designated as Critical Infrastructure by the Department of Homeland Security in 2017. The PCII Program protects information from federal, state, and local disclosure laws, allowing partners to securely share their critical infrastructure information. The PCII Program supports the U.S. Government's ability to understand and identify:

- Security risks and threats from physical and cyber-attacks
- Vulnerabilities and mitigation strategies
- Critical infrastructure security during planning and emergencies

To qualify for the program, the information must relate to the security of critical infrastructure, and the submitter must submit the information to CISA, providing an express statement seeking protection under the Act. The information must be:

- Voluntarily submitted
- Not customarily found in the public domain
- Not submitted in lieu of compliance with any regulatory requirements

For more information, and to access the submission portal, visit http://cisa.gov/electronic-submit-cii-pcii-protection

Template Formatting

The COOP Template is written using Microsoft Word. The document uses the table of contents feature. You do not need to modify the table of contents as long as you utilize the following steps.

1) Ensure that each section of the document has a heading: All sections in the document have already been added as a heading. If adding an additional section, you will need to make it a heading. This allows Word to add the sections of your work to your table of contents automatically once you create it. You can add headings to the different sections of your document by highlighting the title of each section and navigating to the "Styles" tab in the "Home" section of the "Home" menu bar. Then, choose a heading style and click on the option you want to apply it to all your highlighted text, which should be your section title.

2) After making any changes, navigate to “Reference” and select "Update Table" button that appears on the left. Then, click "Update Entire Table" to apply and lock in your changes. While editing the content in your table, click "Save" frequently to ensure the document maintains all adjustments you make.

3) Edit the sections in your table of contents: After creating your table of contents, you can edit it further to display the sections and information you want. For example, if you notice that a section that you don't want to highlight appears in your table of contents, you can find it in the body of your text and remove the heading style from it to remove it from the table. You can also use the "Custom Table of Contents" button at the bottom of the window to adjust each aspect of your table of contents, including the alignment of the table and positioning and inclusion of page numbers. You will then need to update the Table of Contents as outlined in step 2.
Concept of Operations

The concept of operations outlined below identifies key activities in the COOP process. These activities cover before, during, and after a COOP event throughout a phased approach.

**Phase I: Readiness and Preparedness**
Readiness is the ability of an agency to respond to an incident or disaster. It includes the steps to develop the COOP Plan and to train personnel on the implementation of the COOP Plan. Continued readiness and preparedness actions can be found in Plan Maintenance and Test, Training, & Exercises chapter of this document.

**Phase II: Activation**
Actions under this phase are the first actions to be taken in response to an incident or disaster. These actions include:

1) Incident Disaster Notification
2) Plan Activation Triggers
3) Agency Recovery Team Activation
4) Damage Assessment and Prevention of Further Damage
5) Communicating During an Incident/Disaster
4) Damage Assessment and Prevention of Further Damage
5) Communicating During an Incident/Disaster

**Phase III: Alternate Operations**
Actions under this phase are where an agency implements and executes the strategies in the COOP Plan to ensure essential functions are accomplished.

6) Implementing Continuity Operations

**Phase IV: Reconstitution**
Reconstitution is the process of returning to normal operations.

7) Deactivation
COOP and Incident Command System

The Incident Command System (ICS) is a standardized approach to incident management that is used for all kinds of incidents by all types of organizations and at all levels of government; ICS is applicable to small incidents as well as large and complex ones. ICS is a component of the National Incident Management System (NIMS) which is a systematic, proactive approach to guide all levels of government, nongovernmental organizations (NGOs), and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents.

ICS is most likely to be activated on a city, county, state, or federal level and incorporate agencies under those levels. In ICS, COOP falls under the Operations Section. If ICS has been activated and your agency has been incorporated within ICS, then the Agency Continuity Coordinator will serve as the direct interface within ICS to the Operations Section.

For information on ICS including online ICS courses follow the link: https://training.fema.gov/emiweb/is/icsresource/

Figure 1: Example of an ICS Organization (National Incident Management System, Third Edition, October 2017, FEMA)
Agency COOP Team

The Agency Continuity Team is responsible for the overall COOP Plan development and COOP efforts. For larger agencies different staff members maybe assigned to the various positions on the COOP Team. But smaller agencies may not have the staff to assign different staff members to the various positions on the COOP Team. If this is the case an agency may assign the same staff member to the various positions on the COOP Team. But it is important to note that even with one staff member assigned to the various positions on the COOP Team, that person is responsible to carry out all the responsibilities of each COOP Team position assigned.
How to Use the COOP Plan

Note that in the event of an incident/disaster the first priority is to life safety before any secondary measures are undertaken.

The next goal will be to enact the steps outlined in the COOP plan.

- The degree of implementation of the COOP depends upon the magnitude and nature of the incident/disaster that caused the disruption.

- Use common sense and good business practices to adjust the planned recovery activities as appropriate.

- Coordinate the recovery effort through the Continuity Coordinator.

- Write notes in this document as you go through the recovery process. This will provide a central place to record information that can be referenced as needed.

- The “Action Item” boxes provides guidance on specific action items to be addressed in a section of the plan (see example below)

<table>
<thead>
<tr>
<th>Action Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the incident/disaster meet the criteria to activate your Agency’s COOP Plan?</td>
</tr>
</tbody>
</table>
Orders of Succession vs Delegation of Authority

Orders of succession provide for the orderly and predefined assumption of senior agency offices during an emergency in the event that any officials are unavailable to execute their legal duties. (FEMA – Elements of a Viable COOP¹)

Delegations of Authority specify the activities that those who are authorized to act on behalf of the agency head or other key officials may perform to make key policy decisions during a COOP situation.

¹ FEMA Continuity of Operations Planning Web-Based Course: Lesson 2: Elements of a Viable COOP
https://training.fema.gov/hiedu/docs/cgo/week%204%20-%20lesson%202%20-%20elements%20of%20viable%20coop.pdf
Plan Activation Triggers

Plan activation triggers are events that would threaten essential functions and would prompt your Agency to activate your Continuity of Operations (COOP) Plan. A Threat and Hazard Identification and Risk Assessment\(^2\) will also provide information as to potential triggering events your Agency might face. Hazard Mitigation Plans will provide information identifying natural disaster risks and vulnerabilities that are common in your area. You can search for your local by city or county – for example "Los Angeles Hazard Mitigation Plan". In this case both the County of Los Angeles\(^3\) and the City of Los Angeles\(^4\) have a Hazard Mitigation Plan.


\(^4\) [https://emergency.lacity.gov/Local-Hazard-Plan](https://emergency.lacity.gov/Local-Hazard-Plan)
Communicating During an Incident/Disaster

Below are some examples of contacts (fictitious) that you might include in your plan.

### Direct Regulatory and/or Government Agency Partner Contacts

<table>
<thead>
<tr>
<th>Regulatory and/or Government Agency Partner</th>
<th>Point of Contact</th>
<th>Phone Number</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretary of State</td>
<td>State Regional Election Office</td>
<td>(525)555-1111</td>
<td><a href="mailto:State-election@xx.gov">State-election@xx.gov</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Crucial Stakeholders

<table>
<thead>
<tr>
<th>Stakeholder Name</th>
<th>Point of Contact</th>
<th>Phone Number</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Democratic Party Office</td>
<td>Chairperson</td>
<td>(525)555-1111</td>
<td><a href="mailto:Dem-county-party@xx.com">Dem-county-party@xx.com</a></td>
</tr>
<tr>
<td>County Republican Party Office</td>
<td>Chairperson</td>
<td>(525)555-1111</td>
<td><a href="mailto:Rep-county-party@xx.com">Rep-county-party@xx.com</a></td>
</tr>
<tr>
<td>Media</td>
<td>Use PIO media list document for list of media contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Crucial Vendors

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Point of Contact</th>
<th>Phone Number</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting System Vendor</td>
<td>John Smith (Account Manager)</td>
<td>(525)555-1111</td>
<td><a href="mailto:JSmith@ABC_Voting_Systems.com">JSmith@ABC_Voting_Systems.com</a></td>
</tr>
<tr>
<td>Ballot Printing Vendor</td>
<td>Linda Jones</td>
<td>(525)555-1111</td>
<td><a href="mailto:LJones@printing.com">LJones@printing.com</a></td>
</tr>
</tbody>
</table>
Agency Essential Functions Recovery Priorities

It is important to identify your Agency’s Essential Functions as only Essential Functions will be included in your COOP.

Steps to identify and prioritize Essential Functions include:

1) Identify All Organizational Functions
2) Identify Essential Functions
   
   In identifying Essential Functions, Federal Continuity Directive 2\(^5\) says; When reviewing the list of organizational functions, you must identify whether a function is essential or non-essential. The distinction between these two categories is whether or not your organization must perform that function during a disruption to normal operations and must continue performance during emergencies. Essential functions are both important and urgent. Functions that can be deferred until after an emergency are identified as non-essential.
   
   3) Prioritize Essential Functions
      
      Determine the Maximum Tolerable Period of Disruption (MTPD) for each Essential Function. This is the downtime for an essential function before intolerable qualitative and quantitative impacts occur.

   4) Set a Priority Level
      
      The order of recovery of essential functions after an incident/disaster based on Maximum Tolerable Period of Disruption

Sample Priority and Maximum Tolerable Period of Disruption

<table>
<thead>
<tr>
<th>Priority</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12 Hours</td>
</tr>
<tr>
<td>2</td>
<td>24 Hours</td>
</tr>
<tr>
<td>3</td>
<td>24 Hours – 1 Week</td>
</tr>
<tr>
<td>4</td>
<td>1 Week – 30 Days or More</td>
</tr>
</tbody>
</table>

The figure below shows areas where essential election functions may be identified.

Below is a sample list of essential election functions to help guide the user in identifying essential functions for their agency (note this list is not all inclusive):

- Voter Registration and List Maintenance
- Petition Processing and Candidate and Ballot Question Filing
- Voter Information Guide and Sample Ballot
- Ballot Design
- Voting Equipment Programming and Testing
- Preparing and Mailing Out Ballot Packets
- Receiving Returned Mail Ballots
- In Person Voting
  - Locations
  - Election Workers
  - Supplies and Equipment
  - Support
- Accessible Voting
- Ballot Processing
- Election Results Reporting
• Canvass and Certification
  ▪ Ballot Duplication
  ▪ Auditing
  ▪ Provisional Ballot Processing
• Public Information and Communications
Sample Essential Function

The information below is an example of a completed Continuity Operations section of a sample function.

**[Election Night Results Reporting] Continuity Operations**

This section provides an overview of an essential function of your Agency and its Continuity Team.

**Function Description**

Election Night Reporting (ENR) consist of displaying unofficial election results to the public, through our official website, the media, and on social media platforms.

**Contact Information**

The staff listed below are also included on the Agency Continuity Team Call Tree.

<table>
<thead>
<tr>
<th>Name</th>
<th>Role/Title</th>
<th>Work Phone Number</th>
<th>Home Phone Number</th>
<th>Mobile Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuity Team Lead: [Jane Doe]</td>
<td>County Clerk</td>
<td>(525)555-1111</td>
<td>(525)555-1111</td>
<td>(525)555-1111</td>
</tr>
<tr>
<td>Alternate Continuity Team Lead: [John Doe]</td>
<td>Assistant County Clerk</td>
<td>(525)555-1111</td>
<td>(525)555-1111</td>
<td>(525)555-1111</td>
</tr>
</tbody>
</table>

**Critical Time Periods**

<table>
<thead>
<tr>
<th>Critical Time Period</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>When polls close at 9pm to 9am the following day.</td>
<td>The results from the election will continue to be updated until final certification of the election. But this function covers the first 12 hours after the polls close.</td>
</tr>
</tbody>
</table>
[Election Night Results Reporting] Recovery Strategies

Resource Requirements
This section summarizes the resources required to support the Essential Function within the Maximum Tolerable Period of Disruption (MTPD):

- Alternate Facilities
- Interoperable Communications
- Vital Records
- Human Capital (Personnel)
- Equipment
- Dependencies

Alternate Locations
The following locations have been identified as alternate locations to perform the Agency’s essential function.

<table>
<thead>
<tr>
<th>Alternate Location</th>
<th>Operational Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Annex Building, 1222 Broadway, City, Sate, Zip.</td>
<td>Limited Operational Capability—access to official website and on social media platforms</td>
</tr>
<tr>
<td>(Name, Address, POC, Contact Info)</td>
<td></td>
</tr>
<tr>
<td>(525)555-1111, Mobile-(525)555-1111, <a href="mailto:Email-jsmith@City.state.gov">Email-jsmith@City.state.gov</a></td>
<td></td>
</tr>
</tbody>
</table>
Interoperable Communications

Communications can be an integral part of an essential function. This includes communications between personnel, internal elements, other organizations, and the public. In addition, Information Technology assets and systems fall under interoperable communications. The table below lists communication and technology assets that are needed to support the Essential Function.

- **Recovery Time Objective (RTO)** refers to the maximum downtime acceptable for a technology asset.
- **Recovery Point Objective (RPO)** is defined as the acceptable amount of irrecoverable data loss measured in terms of time.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Communication/Technology Asset</th>
<th>RTO</th>
<th>RPO</th>
<th>Agency Controlling Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to official website and social media platforms</td>
<td>1 hour</td>
<td>0 minute/hour</td>
<td>County IT Department</td>
</tr>
<tr>
<td>Email</td>
<td>1 hour</td>
<td>0 minute/hour</td>
<td>County IT Department</td>
</tr>
<tr>
<td>Phone</td>
<td>1 hour</td>
<td>0 minute/hour</td>
<td>County IT Department</td>
</tr>
</tbody>
</table>
**Vital Records**

This section lists vital records that have been identified as necessary to support your Agency’s essential functions. Vital records consist of information resources (e.g., paperwork, computer files) essential to the conduct of business.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Vital Record</th>
<th>Essential Function Record Supports</th>
<th>Record Type [Paper/Electronic]</th>
<th>Backup/Alternative Location(s)</th>
</tr>
</thead>
</table>
| CSV file with data to populate official website | • Election night reporting  
• Continued updating of election results  
• Final certification of the election | Electronic | Data on encrypted USB flash drive  
Printed paper copy of results (PDF)  
Data on election office’s vote tabulation system |
| Printed paper copy (PDF) | • Election night reporting  
• Continued updating of election results  
• Final certification of the election | Paper | Data on encrypted USB flash drive  
Data on election office’s vote tabulation system |
| Underlying base data used to populate interactive Election Night Reporting platform (internal/external) | • Election night reporting  
• Continued updating of election results | Electronic | Initial set up data from election office’s vote tabulation system |
**Human Capital (Personnel)**

The table below lists minimum staffing requirements by position needed to support the Essential Function during an incident/disaster.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Position</th>
<th>Skills Required</th>
<th>Minimum FTEs Required to Operate During an Incident/Disaster</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Clerk or Assistant County Clerk</td>
<td>Update election results to official website and social media platforms</td>
<td>1 FTE</td>
</tr>
<tr>
<td>Temporary Election Worker</td>
<td>Phone and in-person customer support</td>
<td>1 FTE</td>
</tr>
<tr>
<td>County IT Staff</td>
<td>Internet and phone connectivity support</td>
<td>½ FTE</td>
</tr>
<tr>
<td>County Annex Building Emergency Contact</td>
<td>Building access</td>
<td>¼ FTE</td>
</tr>
</tbody>
</table>
**Equipment**
The table below lists equipment needed to support the Essential Function.

- **Recovery Time Objective (RTO)**: Refers to the maximum downtime acceptable for a technology asset.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Item</th>
<th>RTO</th>
<th>Equipment Specs and/or Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer to access website and social media platforms</td>
<td>1 hour</td>
<td>Computer with internet access</td>
</tr>
<tr>
<td>Printer</td>
<td>1 hour</td>
<td>Standard printer</td>
</tr>
<tr>
<td>Encrypted USB flash drive</td>
<td>1 hour</td>
<td>FIPS 197 certified AES 256-bit hardware-encryption in XTS mode</td>
</tr>
</tbody>
</table>
Dependencies

Dependencies are other services/processes that are needed to effectively perform the Essential Function. The Essential Function relies on the following internal and external services and processes.

<table>
<thead>
<tr>
<th>Dependency Service/Process</th>
<th>Dependency Owner (Agency and contact info)</th>
<th>Actions if Services/Process is Unavailable (List actions or attached any documented actions/procedure/plans)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote tabulation system</td>
<td>County Clerk</td>
<td>Contact Vendor: ABC Voting Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Continuity Procedures
The following are detailed steps associated with continuity procedures of the Essential Function after an incident/disaster.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contact County Annex Building emergency contact for building access</td>
<td>County Clerk</td>
</tr>
</tbody>
</table>
| 2    | A minimum of two election officials take the encrypted USB and printed paper PDF of the unofficial election results to the County Annex Building | County Clerk  
                            |                                       | Assistant County Clerk               |
| 3    | Provided access to an internet connected computer at the County Annex Building | Assistant County Clerk  
                            |                                       | County Annex Building  
                            |                                       | Emergency Contact                    |
| 4    | Upload election results data into Election Night Reporting database and PDF of results to the election office’s website | Assistant County Clerk |
| 5    | Compares election results posted on the website to printed PDF of election results to verify accuracy | County Clerk  
                            |                                       | Assistant County Clerk               |
| 6    | Post link to Election Night results to social media pages             | Assistant County Clerk               |
| 7    | Print additional copies of PDF election results for posting in a public area or distributing to media and public, as needed | Assistant County Clerk               |
| 8    | Repeat process until unofficial final Election Night results have been posted | County Clerk  
                            |                                       | Assistant County Clerk               |
Related Documents
The following documents support business continuity efforts for the Essential Function.

[Add or delete rows as needed to the table below]

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Document Description</th>
<th>Document Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election Night Reporting (ENR) Procedures</td>
<td>County procedures to conduct election night reporting</td>
<td>Election office’s shared drive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Tests, Training, & Exercises

Organizations that test/exercise their continuity plans are substantially more successful at recovery than those that do not. Testing/Exercising is also the most effective method of training on response procedures and creating a culture of preparedness. The Department of Homeland Security has developed the Homeland Security Exercise and Evaluation Program (HSEEP). HSEEP provides guidance on the testing/exercising process as well as completing an After-Action Report (AAR). More information on HSEEP can be found following this link: https://www.fema.gov/emergency-managers/national-preparedness/exercises/hseep

It is a good idea to conduct tests/exercises prior to the required annually update in order to incorporate lessons learned from the test/exercise in the annual update. An (AAR) should be completed after every test/exercise.

Types of Exercises

Exercises are classified based on the extent of the actual resources being employed and the manner in which they are tested. The following are examples of exercise types that can be used:

Discussion-Based Exercises

Discussion-based exercises are normally used as a starting point in the building-block approach of escalating exercise complexity. Discussion-based exercises include seminars, workshops, tabletop exercises (TTXs), and games. These types of exercises typically highlight existing plans, policies, interagency/inter-jurisdictional agreements, and procedures. Discussion-based exercises are valuable tools for familiarizing agencies and personnel with current or expected capabilities of an entity. Discussion based exercises typically focus on strategic, policy-oriented issues. Facilitators and/or presenters usually lead the discussion, keeping participants on track toward meeting exercise objectives.

Seminars: Seminars are informal discussions unconstrained by real-time portrayal of events and led by a presenter. They are generally employed to orient participants to, or provide an overview of, authorities, strategies, plans, policies, procedures, protocols, response resources, and/or concepts and ideas. Seminars provide a good starting point for entities that are developing or making major changes to their plans and procedures.

Workshops: After seminars, workshops represent the second tier of exercises. They differ from seminars in two important respects: participant interaction is increased, and the focus is on achieving or building a product (such as a draft plan or policy). Workshops are often employed in conjunction with exercise development to determine objectives, develop scenarios, and define evaluation criteria.

A workshop may also be used to produce new standard operating procedures (SOPs), emergency operations plans (EOPs), MAAs, multi-year plans, or improvement plans. To be effective, workshops must be highly focused on a specific issue, and the desired outcome or goal must be clearly defined.

Tabletop Exercises (TTX): TTXs involve key personnel discussing hypothetical scenarios in an informal setting. This type of exercise can be used to assess plans, policies, and procedures or to assess the systems needed to guide the prevention of, response to, and recovery from a defined incident. TTXs typically are aimed at facilitating understanding of concepts, identifying strengths and shortfalls, and achieving changes in the approach to a particular situation. Participants are encouraged to discuss issues in depth and develop decisions through slow-paced problem solving, rather than the rapid, spontaneous decision making that occurs under actual or simulated emergency conditions. The effectiveness of a TTX is derived from the energetic involvement of participants and their assessment of recommended revisions to current policies, procedures, and plans.

TTX methods are divided into two categories: basic and advanced. In a basic TTX, the situation established by the scenario materials remains constant. It describes an event or emergency incident (i.e.,
scenario) and brings discussion participants up to the simulated present time. Players apply their knowledge and skills to a list of problems presented by the leader/moderator; problems are discussed as a group; and the leader generally agrees on and summarizes the resolutions.

In an advanced TTX, play revolves around delivery of pre-scripted messages to players that alter the original scenario. The exercise controller (or moderator) usually introduces problems one at a time in the form of a written message, simulated telephone call, videotape, or other means. Participants discuss the issues raised by the simulated problem, applying appropriate plans and procedures.

**Operations-Based Exercises**
Operations-based exercises are used to validate the plans, policies, agreements, and procedures solidified in discussion-based exercises. Operations-based exercises include drills, functional exercises (FEs), and full-scale exercises (FSEs). They can clarify roles and responsibilities, identify gaps in resources needed to implement plans and procedures, and improve individual and team performance. Operations-based exercises are characterized by actual reaction to simulated intelligence; response to emergency conditions; mobilization of apparatus, resources, and/or networks; and commitment of personnel, usually over an extended period of time.

**Drills:** A drill is a coordinated, supervised activity usually employed to validate a single, specific operation or function. Drills are commonly used to provide training on new equipment, develop or validate new policies or procedures, or practice and maintain current skills.

**Functional Exercises (FE):** An FE is designed to validate and evaluate individual capabilities, multiple functions, activities within a function, or interdependent groups of functions. Events are projected through an exercise scenario with event updates that drive activity at the management level. An FE simulates the reality of operations in a functional area by presenting complex and realistic problems that require rapid and effective responses by trained personnel in a highly stressful, time-constrained environment.

**Full-Scale Exercises (FSE):** The FSE is the most complex type of exercise. FSEs are multi-organizational exercises that validate many facets of preparedness. They focus on implementing and analyzing the plans, policies, procedures, and cooperative agreements developed in discussion-based exercises and honed in previous, smaller, operations-based exercises. In FSEs, the reality of operations in multiple functional areas presents complex and realistic problems that require critical thinking, rapid problem solving, and effective responses by trained personnel. During FSEs, events are projected through a scripted exercise scenario with built-in flexibility to allow updates to drive activity. FSEs are conducted in real time, creating a stressful, time-constrained environment that closely mirrors real events. The level of support needed to conduct an FSE is greater than that needed during other types of exercises.