




## EVENT PLANNING TABLETOP (TYPE 1)

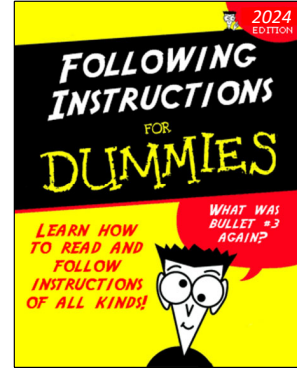


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Updated 05/23/2024

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## HOUSEKEEPING

- Introductions
- Pen/pencil & paper
- Cell phones
- Side conversations
- Questions
- Breaks
- Restrooms
- Class Exercises
- In case of emergency
- No wandering or exploring other areas of the building



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## LEARNING OBJECTIVES

- At the end of this course, students will be able to:
  - Describe the different types of events
  - Create measurable exercise objectives
  - Describe the planning process and what is different based on the event type
  - Describe how to deal with problems that might be encountered during the planning process
  - Properly complete an ICS-202 Incident Objectives form
  - Explain how to use check lists as a planning aid
  - Create an event plan for a functional area of a drill or public service event
  - Create an After Action Report (AAR)

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## AGENDA

- Types of Planning Situations
- Event Specific Considerations
- The Planning Process
- Tabletop Exercise - *ICS-202 Incident Objectives*
- Problems and Pitfalls
- Common Planning Considerations
- Checklist as a Planning Aid
- Tabletop Exercise – *The Planning Meeting*
- Individual Exercise - *After Action Report*



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We deal with many different kinds of situations, incidents, exercises, drills, activations, event, etc.

For the purposes of this presentation we will use the terms “**Exercise**”, “**Event**”, “**Drill**”, or “**Incident**” interchangeably for all of these planning situations.

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### TYPES OF PLANNING SITUATIONS

-  Drills, Exercises, and Training Events
-  Public Service Events
-  Incidents

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### Drills, Exercises, and Training Events

- Multi-agency interoperability full scale exercise
- County-Wide Comms Drill – full scale exercise
- CERT support - full scale exercise
- Fox Hunts – functional and full scale exercises
- Interoperability functional exercise
- County Quarterly Drill – functional exercise
- Hospital exercises
- Table top exercises
- Workshops

↑  
DEGREE OF COMPLEXITY

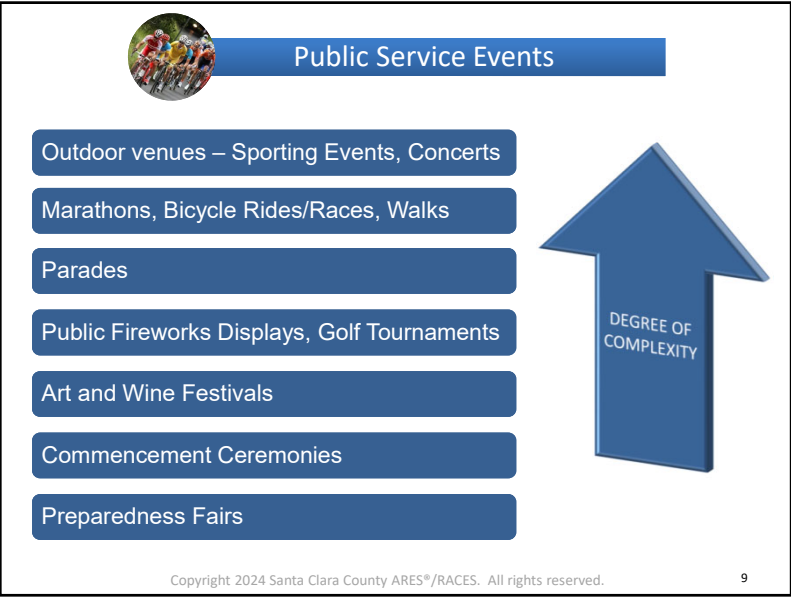
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### Drills, Exercises, and Training Events

- Usually a fixed operational period
- Can have long lead time for planning
- Interact with City or County governmental agencies or entities
- Can involve the entire event communications with multi-combinations of communications methods and resources or just a few of these

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Net Control</li> <li>• Field Operations</li> <li>• Packet Operations</li> <li>• Shadowing Operations</li> </ul> | <ul style="list-style-type: none"> <li>• Amateur Radio</li> <li>• Commercial Radios</li> <li>• Public Safety Radios</li> <li>• Others</li> </ul> |
|--|--|

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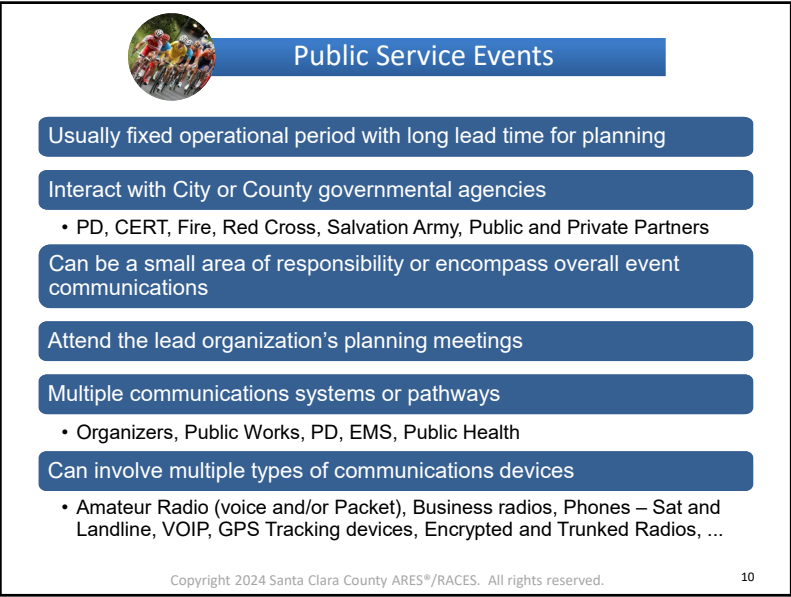


**Public Service Events**

- Outdoor venues – Sporting Events, Concerts
- Marathons, Bicycle Rides/Races, Walks
- Parades
- Public Fireworks Displays, Golf Tournaments
- Art and Wine Festivals
- Commencement Ceremonies
- Preparedness Fairs

DEGREE OF COMPLEXITY ↑

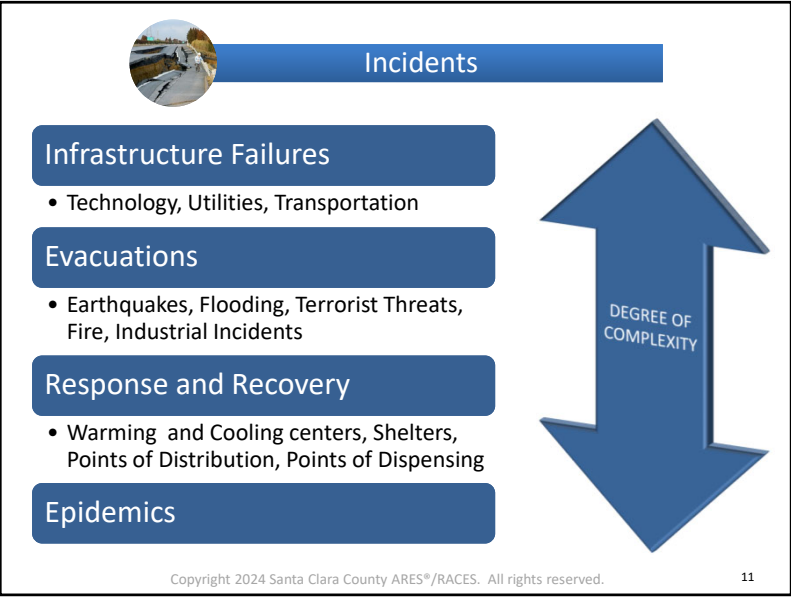
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**Public Service Events**

- Usually fixed operational period with long lead time for planning
- Interact with City or County governmental agencies
  - PD, CERT, Fire, Red Cross, Salvation Army, Public and Private Partners
- Can be a small area of responsibility or encompass overall event communications
- Attend the lead organization's planning meetings
- Multiple communications systems or pathways
  - Organizers, Public Works, PD, EMS, Public Health
- Can involve multiple types of communications devices
  - Amateur Radio (voice and/or Packet), Business radios, Phones – Sat and Landline, VOIP, GPS Tracking devices, Encrypted and Trunked Radios, ...

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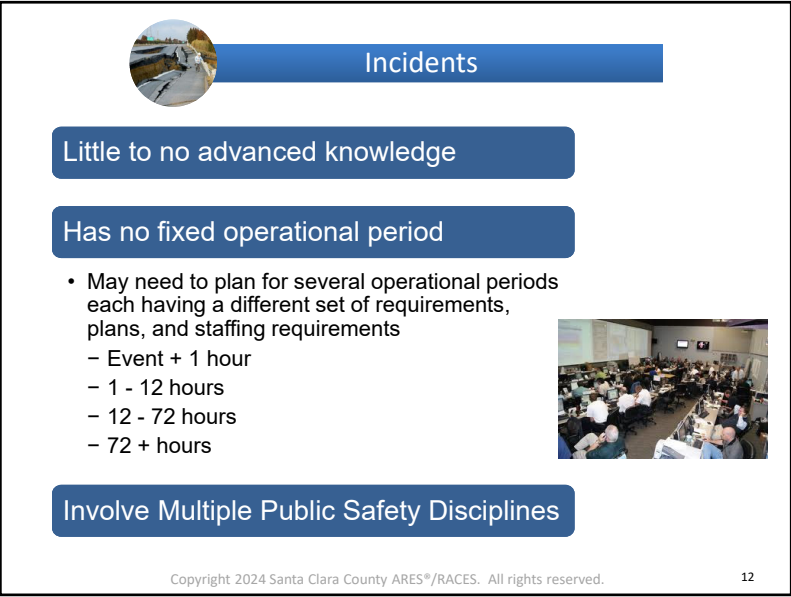


**Incidents**

- Infrastructure Failures
  - Technology, Utilities, Transportation
- Evacuations
  - Earthquakes, Flooding, Terrorist Threats, Fire, Industrial Incidents
- Response and Recovery
  - Warming and Cooling centers, Shelters, Points of Distribution, Points of Dispensing
- Epidemics


DEGREE OF COMPLEXITY ↑

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**Incidents**

- Little to no advanced knowledge
- Has no fixed operational period
  - May need to plan for several operational periods each having a different set of requirements, plans, and staffing requirements
    - Event + 1 hour
    - 1 - 12 hours
    - 12 - 72 hours
    - 72 + hours
- Involve Multiple Public Safety Disciplines





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## Incidents

- May use any and all available volunteer resources for communications
- Can involve mixing volunteer communication resource types
- May involve the use of non-hams ACS (Auxiliary Communications Service volunteers)
- May involve the use of SUVs (spontaneous unaffiliated volunteers)

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## PLANNING

*“Why should I develop a plan? It’s just one more thing to go wrong.”*  
*“If you fail to plan, you are planning to fail”*

**What is a plan?**

- A plan defines the means to achieve a set of goals and objectives.

**What is planning?**

- **Planning is the process by which a plan is formulated and documented.**

**How detailed does a plan need to be?**

- **Must contain sufficient detail that the staff knows what must be done but still follow the KISS principle.**

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## THE PLANNING PROCESS

- Establish Goals and Objectives
- Form a Planning Team
- Create/Document plans
- Meet and Review Plans
- Modify Plans – Meet and Review – Repeat
- Conduct Event / Exercise
- Conduct Hot Wash – Generate After Action Report

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Establish Goals and Objectives

### Difference between Goals and Objectives

- Goals relate to your aspirations, where do you want to be.
- Objectives are your road map, how do you get there.
- Limit the number of exercise objectives to enable timely exercise conduct.

| GOALS                | OBJECTIVES            |
|----------------------|-----------------------|
| Broad statements     | Detailed statements   |
| Abstract             | Specific and concrete |
| Intangible           | Tangible              |
| Difficult to measure | Measurable            |

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 Establish Goals and Objectives

Planners should create objectives that are **SMART\***

|                    |            |            |           |                                |
|--------------------|------------|------------|-----------|--------------------------------|
| S                  | M          | A          | R         | T                              |
| Simple<br>Specific | Measurable | Attainable | Realistic | Task<br>Oriented<br>Time Bound |

**Don't try to cover too broad an area**  
**Can it be determined if the objective was achieved?**  
**The objective should not be too difficult to achieve**  
**The objective should present a realistic expectation**  
**The objective should be task oriented/time bound**  
**The objective should focus on a behavior or procedure**

\* Ref. FEMA IS-120A, *An Introduction to Exercises* Course  
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## DOCUMENT GOALS & OBJECTIVES

We use an ICS-202 Incident Objectives form

|  |  |                                    |                                      |
|--|--|------------------------------------|--------------------------------------|
| ICS 202 INCIDENT OBJECTIVES<br>XND RACES                             | 1. INCIDENT NAME   | 2. DATE                            | 3. TIME                              |
| 4. OPERATIONAL PERIOD  | 5. MISSION NUMBER  |                                    | XSC -                                |
| 6. GENERAL CONTROL OBJECTIVE FOR THE INCIDENT (include alternatives) |  |                                    |                                      |
| 7. WEATHER FORECAST FOR PERIOD                                       |  |                                    |                                      |
| 8. GENERAL SAFETY MESSAGE  |  |                                    |                                      |
| 9. ATTACHMENTS (mark if attached)                                    |  |                                    |                                      |
| <input type="checkbox"/> ICS 204 Assignment List (comms)             | <input type="checkbox"/> ICS 201 Incident Briefing (RACES)       |                                    |                                      |
| <input type="checkbox"/> ICS 211A Check in List                      | <input type="checkbox"/> ICS 205 RACES Radio Communications Plan |                                    |                                      |
| <input type="checkbox"/> ICS 214 Unit Log                            | <input type="checkbox"/> Other                                   |                                    |                                      |
| 10. ADDITIONAL REMARKS   |  |                                    |                                      |
| ICS 202<br>XND RACES   |  | 11. PREPARED BY (planning section) | 12. APPROVED BY (incident commander) |

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### ICS-202 INCIDENT OBJECTIVES

|  |   |                                 |                 |
|--|---|---------------------------------|-----------------|
| <b>ICS 202 INCIDENT OBJECTIVES</b><br>XND RACES                      | 1. INCIDENT NAME<br>Xandau Fire Works Event | 2. DATE<br>05/04/19             | 3. TIME<br>1000 |
| 4. OPERATIONAL PERIOD<br>07/04/2019 1600-2300                        |   | 5. MISSION NUMBER<br>XND-19-06T |                 |
| 6. GENERAL CONTROL OBJECTIVE FOR THE INCIDENT (include alternatives) |   |                                 |                 |
|  |   |                                 |                 |
| 7. WEATHER FORECAST FOR PERIOD                                       |   |                                 |                 |
|  |   |                                 |                 |

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### ICS-202 INCIDENT OBJECTIVES

|  |   |                                      |
|--|---|--------------------------------------|
| 8. GENERAL SAFETY MESSAGE<br>This activity will take place at Central Park. If is expected there will be over 25,000 spectators in attendance and over 200 city staff and volunteers.<br><br>All participants must follow XND Performance Standards. Maintain hydration and use sunscreen. Have flashlights for nighttime work. Slight chance of light wind by 2130 so a light jacket may be needed. |   |                                      |
| 9. ATTACHMENTS (mark if attached)  |   |                                      |
| <input checked="" type="checkbox"/> ICS 204 Assignment List (comms)  | <input checked="" type="checkbox"/> ICS 201 Incident Briefing (RACES)       |                                      |
| <input checked="" type="checkbox"/> ICS 211A Check in List   | <input checked="" type="checkbox"/> ICS 205 RACES Radio Communications Plan |                                      |
| <input checked="" type="checkbox"/> ICS 214 Unit Log   | <input checked="" type="checkbox"/> Other: 2019 XND Fireworks Op Plan       |                                      |
| 10. ADDITIONAL REMARKS   |   |                                      |
|  |   |                                      |
| ICS 202<br>XND RACES   | 11. PREPARED BY (planning section)  | 12. APPROVED BY (incident commander) |

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## ICS-202 INCIDENT OBJECTIVES

### Are these SMART Objectives?

- Send all ICS-213 message forms with 100% accuracy within 3 minutes or less per form.
- Complete all required forms with 96% accuracy by end of shift.
- Meet communication needs of served agency during the operational period to satisfaction of the Incident Commander.
- Net control will conduct H&W checks of all staff every 30 minutes and promptly notify IC of anyone missing.
- Provide all first-time participants with 30 minutes of Packet experience with a mentor sending and receiving ICS-213 forms.
- Notify Medical staff of all aid requests within 2 minutes of receipt.

## TABLETOP GROUP ACTIVITY

Establish a Planning Leader: they are responsible for coordinating your team's efforts. It is suggested it should be someone with experience working events of various types (Type 2 or very experienced Type 3).

Develop and document Incident Objectives for the following event.

### GOAL:

- Provide communications support for the Mockingbird Heights Mummy Race which takes place from 2000 to 2400 on Halloween. Provide support for participant safety, track all participants, request any necessary medical aid when needed, provide race officials with situational awareness.
  - There are 4 checkpoints, a start and finish line, two medical locations, and 7 key race officials.

Remember you're only completing the ICS-202 Incident Objectives form at this point, you are not planning the entire event.

Your finished product will be an ICS-202.

## GROUP BREAKOUT DISCUSSION

What are your objectives? Are they SMART?

What did you determine for Safety?

Other thoughts/comments/observations?



### Form an Exercise Planning Team



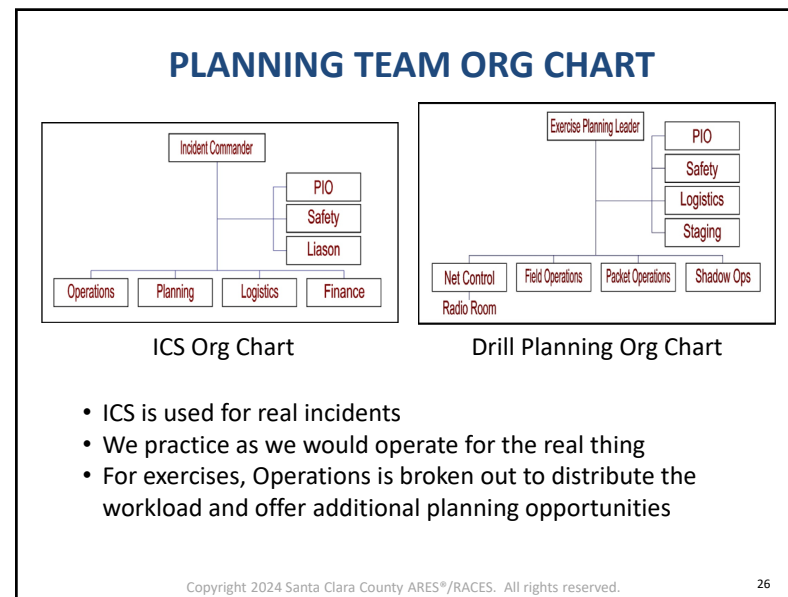
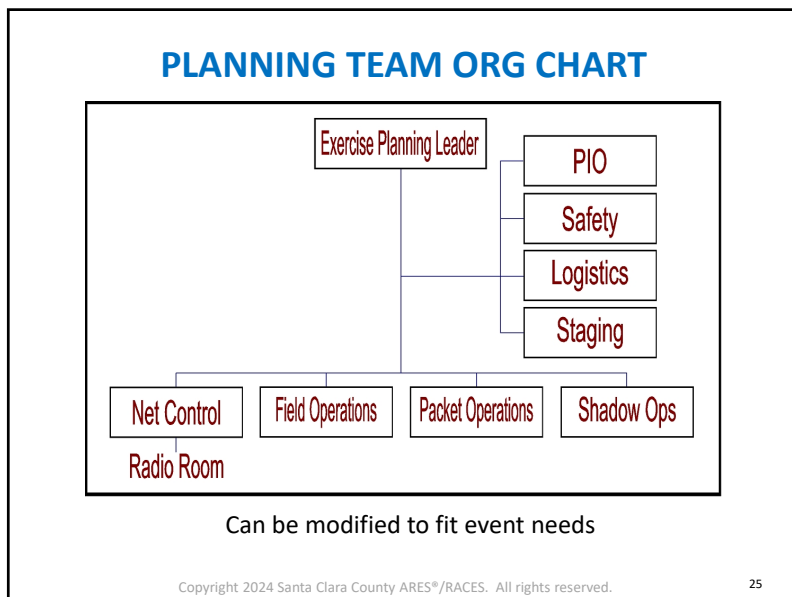
A planning team can consist of multiple team members in the case of a complex situation such as a major exercise. It can be just one person in a less complex event or activity.

- In an activation, for the first few hours it may be just you!

For drills and exercises the planning team may or may not be responsible for conducting the exercise.


Assign task/roles for each area planner.

- Net Control, Packet, Field Ops, Shadow, Staging, Safety, ....



- ### PLANNING CONSIDERATIONS
- Some things to think about while developing the plan
- Purpose of the event
  - Goals and Objectives
  - Scenario (for simulated events)
  - Capabilities you can provide – don't over promise
  - Expectation of served agency – get their feedback for your AAR
  - Communications needs (voice, packet, shadows, etc.)
  - Staff – Who, skill levels, how many
  - Logistics - Materials/Equipment
  - Safety Requirements/Considerations
  - Participant Guidelines/Artificialities/Simulation Guidelines
  - Participant Instructions/Briefing
  - Hot Wash – Participants and Staff
  - After Action Report
- 
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- Create/Document plans
- Create a written plan for each functional area of the exercise
  - Make sure your plan addresses the overall Goals and Objectives
  - Review previous plans for similar events
  - Review previous AARs for lessons learned
  - Determine and document staffing and equipment needs
  - All planners should coordinate their plan with other area planners
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### Create/Document plans


We use the following to document our plans

- ICS-202 Incident Objectives
- ICS-201 Incident Briefing
- ICS 205 Communications Plan

For the large county wide communication drills, typically:

- The Incident Commander/Planning Leader selects the planning staff
- The head of each function (Field Ops, Net Control, Shadow, Packet, Staging, Logistics, Safety, and PIO) documents the details of each area and recruits staff
- This distributes the workload; gives everyone experience

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### Meet and Review Plans

The planning meetings should include discussions on:

- **Assigned Roles and Responsibilities** – Ensure the exercise team members understand their roles and responsibilities and are equipped to complete them successfully.
- **Plan Coordination** – All functional areas should be involved and consulted.
- **Follow Up** - Schedule several mid-term meetings (as needed) to integrate and verify that compatibility exist between all the exercise components, timelines, and schedules.
- **Final Planning Meeting** – final review of all plans and components of the entire exercise for all planners and ALL staff members.

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### Conduct Exercise

Recruit Participants for Drills and Public Service Events

Set up at the exercise site


Introduce the exercise to the assembled participants.

- Distribute participant materials and hold briefings

Conduct the exercise as planned according to your timeline

Mitigate (and document) any problems that occur during the event

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### Conduct Hot Wash (Debrief)

An Exercise Debrief session is conducted that is open to participants, staff and evaluators to collect feedback.

Conduct an exercise debrief.


Compile all pertinent notes, observations, and hard copy documentation. These notes should include the observations voiced by exercise participants during exercise play and the debrief discussion, as well as other observations.

Have a meeting with Planning Staff to discuss the exercise


- What worked? / What needs to be changed/improved?

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Generate After Action Report




AAR includes


- Description of exercise and its goals and objectives
- Results achieved
- Problems and concerns
- Observations and feedback
- Lessons learned
- Improvement ideas for future events
- Appendices & Attachments
  - Copies of all drill planning documents
  - Copies of all drill paperwork, forms, notes, etc.
  - A scenario discussion summary that includes any identified communications gaps and their respective recommendations that can be traced back to comments/observations at the exercise.

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Continuous Improvement Planning



The continuous improvement process focuses on using the information documented in the AAR to implement improvements.

The lessons, observations, and insights from the AAR must be translated into actions that result in capability improvements.

An After Action Conference should be held, in which the exercise planning team, exercise implementation team (if different), and others gather to review the AAR.

Make changes to training, procedures, documentation and equipment to address any issues noted.

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PROBLEMS AND PITFALLS

(AKA: THINGS TO KEEP IN MIND)

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## PROBLEMS AND PITFALLS DURING EXERCISES

- Confusion about when to ID, and how to use tactical and team calls.
- Decide in advance of the exercise what your tactical calls will be; they should be obvious, like “Xanadu EOC” or “Station 88”
- Not knowing how to program radio
- Not knowing how to exchange 3<sup>rd</sup> party traffic
- Not using phonetics, or using non-standard ITU phonetics
- Not using “This is drill traffic” when passing traffic during a exercise
- Not keeping a dedicated radio on the team’s primary frequency
- Not advising repeater owner or control op before commandeering a repeater
- Staff didn’t show up or is late
- Equipment malfunction
- Stuck Mic
- Weather issues
- Other unforeseen events / problems

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## PLANNING CONSIDERATIONS COMMON TO MOST ACTIVITIES

- Frequency Selection
- Fundamental Overload
- Intermod
- Antenna Placement
- Transmit Power Selection
- Physical Space, Equipment, Documentation and Staffing

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## FREQUENCY SELECTION



### Repeater vs. Simplex

- Use simplex for events with people in close proximity
- Use repeaters when wider coverage is needed
- Repeater users can use less power than if they used simplex
- Repeaters don’t work well if users are near each other – desense

### Band Selection

- Use 2m and 70cm where dependent on field volunteers
- Just about any HT works on 2m; most have a dual-band HT
- Use 1.25m for packet comms when possible
- Many EOCs have 220 packet radios
- Use different bands when close proximity is required

### Frequency Selection

- Space across the band if possible; perform intermod calculations
- Identify backup frequencies in advance
- You’re not the only one on the air: other individuals, events, jammers

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## FUNDAMENTAL OVERLOAD

FOR MORE DETAIL, CONSULT THE ANTENNAS COURSE

### What is fundamental overload?

- 1) The effect of a signal at the receiver input that is too strong for the receiver circuits to process properly
- 2) Overload of a radio receiver due to the strength of a transmitted signal’s fundamental or intended component
  - Ham radios w/ wide filters are more susceptible than commercial radios
  - Most cases of interference are due to fundamental overload

### Remedies:

- Reduce the power of the transmitter
- Separate the antennas (power is reduced by square of the distance)
- Point antenna(s) in a different direction (if not omnidirectional)
- Select a frequency that is as far away as possible from offending signal
- Select a frequency in another band
- Ferrite beads at antenna feed point
- Ferrite beads on all cables entering and leaving the radio
  - Power cable, serial cable, coax ...

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## INTERMODULATION DISTORTION

FOR MORE DETAIL, CONSULT THE ANTENNAS COURSE

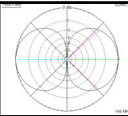
**Commonly called “intermod” or “IMD”**

| What is intermodulation distortion?   | Remedies:  |
|---|--|
| <ul style="list-style-type: none"> <li>Two signals combining in such a way as to create intermodulation products – signals at various combinations of the two original frequencies</li> <li>IMD can be generated inside a transmitter or receiver or externally by signals mixing together in non-linear junctions or connections (also called passive intermod or “PIM”)                             <ul style="list-style-type: none"> <li>- Loose connections, rusty bolts, dissimilar metals, etc.</li> </ul> </li> <li>May be a combination of fundamental and harmonic frequencies</li> </ul> | <ul style="list-style-type: none"> <li>Avoid 3rd order intermod frequency relationships<br/> <math>2*f1 - f2</math>, <math>2*f2 - f1</math>, <math>f1 + f2 - f3</math>,<br/> <math>f1 - f2 + f3</math>, ...</li> <li>Reduce power</li> <li>Use directional antennas</li> </ul> |

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## ANTENNA PLACEMENT

FOR MORE DETAIL, CONSULT THE ANTENNAS COURSE




Vertical Dipole Side View

- Reduce interference with proper antenna placement
- Typical vertical antenna pattern
  - Most energy is directed horizontally, very little energy is directed vertically
- Vertical separation is best for confined areas
  - i.e. collinear, 10-20 ft vertical separation; with no horizontal offset
  - Combine vertical and horizontal separation when necessary
- Example (vertical ½ wave dipole):
  - 10 ft vertical separation is approx. = 50 ft horizontal (36 dB)
  - 20 ft vertical separation is approx. = 225 ft horizontal (48 dB)
  - Source: <http://www.repeater-builder.com/antenna/separation.html>
- If possible, locate different net controls at different places
  - Alleviates constraints on frequency selection, antenna placement
  - Resource Net is very flexible – three repeaters to choose from

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## TRANSMIT POWER SELECTION



- 10-50 watts will de-sense anything nearby
- If using repeaters
  - Minimize local de-sense by minimizing power on voice channels
  - Repeaters usually have very good “ears”; can hear you with less power
- If using simplex
  - De-sense isn't as much a problem on the same channel
  - Could still cause a problem on adjacent channels
- Use the minimum power required (except for packet – hidden node)
- Reducing power can help with both fundamental overload and intermodulation distortion

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## PHYSICAL SPACE, EQUIPMENT, DOCUMENTATION, STAFFING



- Tables, chairs, forms control, paper weights
- Shelter from: rain, moisture on paper, wind, noise, sun light, crowds
- Lighting if working after dark
- What quantity and type of message traffic is expected
- Schedule of operators
  - Pre-scheduled or On-demand
  - Limitations on number of participants at any one time
- Briefing documents for participants
  - Purpose/objectives of exercise
  - Schedule
  - How paperwork will be handled
  - Any procedures specific to this event or served agency
  - ICS Forms (205, 211, 213, 214, 309) - people will forget to bring

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## CHECKLISTS AS A PLANNING AID

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## USE OF CHECKLIST

- What does a checklist do?
  - It supplies a set of checks to ensure the obvious but critical stuff is not overlooked.
  - It ensures that people talk, coordinate and accept responsibility while being left the power to manage the nuances and “unpredictabilities”
  - It reminds us of the minimum necessary steps and makes them explicit.
- Why is a checklist necessary?
  - It mitigates faulty memory and distractions

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## TYPES OF CHECKLISTS

- ▶ Common to all areas
- ▶ Overall event planning - Incident Commander (IC)
- ▶ Net Control
- ▶ Packet
- ▶ Field Operations
- ▶ Shadow
- ▶ Logistics (materials)
- ▶ Safety
- ▶ Staging
- ▶ Public Information Officer (PIO)



**Samples provided as part of class handouts**

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## COMMON TO ALL AREAS (EXCEPT SHADOWS)

- Power requirements
  - AC power available
  - AC Power Supplies
  - Generators / Batteries
  - Power Distribution
- Tables, chairs, forms control, paper weights
- Forms, T-cards, clipboards, pens, maps
- Shelter from: rain, wind, noise, sun light, crowds
- Lighting if working after dark
- If Credential evaluations are needed or desired (Net Control, Field Ops, Packet, Shadow) work with the evaluators for those areas.

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## INCIDENT COMMANDER OVERALL EVENT PLANNING

- The IC is responsible for the overall event plan. He/she develops a framework for the exercise and determines the following initial planning considerations:
  - What do I want to get out of the exercise? Goals, Objectives
  - How complex do I want it to be?
  - How long will it go?
  - What do I want to evaluate/test?
  - What is the scenario?
  - Who do I need to help me plan the exercise?
  - Form a Planning Team and conducts planning meetings.
  - Simulation Cell considerations if required
  - Obtain Activation Number (6-8 weeks in advance for SCCo OEM)
  - Will Credential Evaluations be needed? Contact Evaluation Coordinator.

## NET CONTROL PLANNING FOR AN EVENT



- Components of a net control plan
  - Net types / quantity
  - Frequency selection
  - Power level selection
  - Antenna placement
  - NC Operator/Scribe Schedule
  - Personnel requirements/assignments
  - Net control scripts
  - Net control briefing
- Equipment
  - Radios, headset, footswitch, audio splitters
  - Antennas, masts, cables, coax, connectors, safety markings
  - Power – available on-site, generators, batteries, solar

## NET CONTROL NET TYPE AND QUANTITY CONSIDERATIONS

- Resource Net
  - Directed net
  - Common for county exercises and many city exercises
  - Required for activation under DSW and mutual aid
  - For smaller events, consider an informal “talk in” frequency
  - Larger nets will probably need an experienced NCO, scribe
  - If possible, arrange event so everyone doesn’t need to be travelling at the same time
  - Doing Demobilization Resource Net with an off-site operator frees staff to pack-up and depart event venue

## NET CONTROL NET TYPE AND QUANTITY CONSIDERATIONS

- Message Net / Field Team nets
  - Directed net
  - Formal traffic: shelters, schools, fire stations, ...
    - How many teams? Messages per team? Time/message? Operator quality?
    - Usually about 4-5 teams max per net based on traffic levels
  - All informal: parades, bike races, checkpoints, rovers
    - How long to gather key data (crowd size, etc.), health & welfare?
    - Usually no more than 15-20 per net
  - Mixture
    - Think through traffic types, quantity of messages per team, quantity of teams, health & welfare checks, capability of likely net control operators, availability of net control operators
  - Larger nets will need a scribe

## NET CONTROL

### NET TYPE AND QUANTITY CONSIDERATIONS

- Shadow Nets
  - Usually works best as an open net with a liaison instead of NCO
  - Most shadows need to talk to another shadow, not to net control
  - Traffic is almost always informal (usually no forms-based traffic)
  - Try to stay with one shadow net whenever possible
    - Shadows are highly mobile/portable
    - Radio is in pouch, backpack, vest, etc.; difficult to switch frequencies
    - HT output is mono; difficult to tell which frequency is in use
    - Working two frequencies usually only possible with 2 HTs; 2 earbuds
  - Open net performance is dependent on everyone on net
    - Consider: who the operators will be; how “chatty” the principals are; number of shadows; number of expected messages per shadow; ...
  - If you need more than one net, divide according to traffic clusters
    - Geography, functional area, etc.

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## NET CONTROL

### NET TYPES AND QUANTITY CONSIDERATIONS

- Command Net
  - For event staff to communicate with each other
  - Large events can benefit greatly; some medium events, too
  - Typically operated as an open net (may or may not have NCO)
- Packet Nets
  - May use existing county BBS frequencies
  - May use separate training BBS and non-SCCo frequencies
  - Can greatly reduce the traffic level on message nets
  - Encourage use, especially when formal message traffic is needed
- Staging nets and other tactical nets
  - Where and when needed
  - Can be quite large, but relatively simple – check-in/out; H&W
- Create the ICS-205 Communications Plan

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## NET CONTROL

### ICS 205 – COMMUNICATIONS PLAN


| COMMUNICATIONS PLAN<br>SCCo ARES/RACES/ACS |           | 1. Incident Name/Location<br>Countywide RACES/CERT Exercise, Moffett Field | 2. Activation Number<br>XSC-18-08T                  | 3. Operational Period Date/Time<br>From Date: 10/27/2018 To Date: 10/27/2018<br>From Time: 0600 To Time: 1600 |                |                             |                |              |   |
|--|-----------|--|---|---|----------------|-----------------------------|----------------|--------------|---|
| Ch #                                       | Function  | Call Sign and/or Sys / Net / Ch / TG Name                                  | Assignment  | Rx Freq. N / W  | Rx Tone or NAC | Tx Freq. N / W or + / - / S | Tx Tone or NAC | Mode (A,D,M) | Remarks   |
|  | Emergency | 9-1-1  | All event staff and participants                    | Telephone   |                | Telephone                   |                | M            | For actual emergencies, first call 9-1-1. Then report the situation to Net Control, prefacing your message with "THIS IS NOT A DRILL."  |
|  | Resource  | AABBT Resource Net Primary   | RACES resources traveling to or from the drill site | 146.115 W   |                | +                           | 100.0          | A            | Directed Net. Link to NNAC. Link requests at 9600. Link after frequent breaking departing resources (~1600). Frequency open to non-participant use. (Check for message net utilization. Link to AABBT |
|  | Resource  | WBASH (UHF) Resource Net North   | RACES resources traveling to or from the drill site | 440.800 W   |                | +                           | 100.0          | A            |   |
|  | Resource  | NNAC Resource Net South  | RACES resources traveling to or from the drill site | 444.825 W   |                | +                           | 110.9          | A            | Linked from AABBT   |

- Function – primary function
- Call Sign and/or Net – e.g. repeaters call sign, name of the net
- Assignment – brief description of how used
- Rx Freq (narrow / wide ), Rx Tone, Tx Freq (N/W), Tx Tone
- Mode – Analog, Digital, Mixed
- Remarks – important comments for implementation
- Plan for backup frequencies in case of failure, jamming, overload, ...

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## NET CONTROL

### SCHEDULING CONSIDERATIONS



- Resource Net
  - Beginning of event
    - Start net from home; hand-off net to on-site operator as soon as net control station is up and running at event
  - During event
    - May run as open net; may have peak usage during shift changes
  - End of event
    - Start net from event; hand off to off-site operator as soon as possible so you can pack up and leave the event location
- Staging Net (or event tactical net)
  - Ready to go prior to arrival of first participants
  - Runs until last participant leaves
- Field nets; shadow nets
  - Ready to go prior to first assignment
  - Runs until last assignment is completed

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## NET CONTROL SCHEDULING CONSIDERATIONS



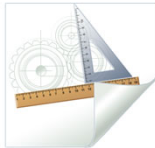
- Operator capability
  - Drills are an excellent time to learn, but you can frustrate people and discourage participation if the nets aren't run efficiently
  - Public service events are a chance to showcase our talents; you can create a public image problem if nets aren't run well
  - Consider pairing experienced with inexperienced for "elmering"
- Shift overlap
  - Typically plan for 30 minute overlap in shifts
  - Usually covers relief briefings, snags at staging, paperwork, etc.
- Expect things to go wrong
  - It's an unfortunate reality that not everyone will honor their commitment to be there on time (or even be there at all!)

## NET CONTROL SCHEDULING CONSIDERATIONS



- For training events such as drills
  - Rotate staff on a regular basis
  - Shorter shifts can accommodate more training/eval opportunities
    - Minimum shift recommendation: 1 hr
  - Create net control schedule for the whole event, including Resource Net before and after the event
  - Make all other schedules subservient to the net control schedule
    - No one can miss their net control assignment or else all activities for that net are impacted
- Demobilization
  - Allow for possibility of event running faster/slower than expected

## NET CONTROL FINALIZING THE PLAN



- Personnel requirements/assignments
  - Net control and scribe for each shift
  - Back-up/waiting list in case of no-shows
  - Pre-assign first and last shift – pre-assign all shifts if possible.
- Net control script contents
  - Introduction, check-ins, instructions, regular announcements/ID, health and welfare, check-out/hand-off, closing
- Briefing
  - Purpose/objectives of net
  - Schedule
  - Net control script
  - How paperwork will be handled
  - Any procedures specific to this net or event or served agency

## PACKET SPECIFIC FREQUENCY AND POWER LEVEL SELECTION



- Frequency Selection
  - BBS network has 144, 220, and 440 frequencies
    - 144 - most common
    - 220 - less chance of interfering with voice
  - Not heavily used by most packet users
  - Driven by most accessible BBS node
  - Have a backup frequency plan and define conditions for switching
    - There may be intermod!
    - There may be intentional interference
- Power Selection
  - You need to have a strong signal so others can hear you
  - But 25-50 watts will de-sense anything near by
  - Coordination with voice nets is needed

## PLANNING A PACKET NET

- What type of packet communications will be needed
- Equipment
  - BBS Utilization - remote or local BBS
  - Radios
  - TNCs
  - Antennas, mast, tripod, weights
  - Coax and connectors
  - Printer for printing messages
    - Paper
    - Ink/Toner
    - Special power needs
  - Sunlight shielding
- Power requirements
  - Is AC power available
  - AC Power Supplies
  - Generators / Batteries
  - Power Distribution

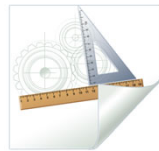


## PACKET OTHER CONSIDERATIONS



- Try to balance packet message load among the BBS nodes
  - May want to add a backup node (W5XSC-1) for practice
- Have a clear understanding of the message flow between packet stations
- Have a clear understanding of the paper flow for each packet station
- Packet operators will also be on a voice net for H&W checks
  - Select a voice net and alternative for all packet operators

## PACKET OTHER CONSIDERATIONS



- Personnel requirements/assignments
  - Packet Operator for each shift
  - Back-up/waiting list in case of no-shows
  - Pre-assign first and last shift
- Predetermined message contents
  - Introduction, check-ins, instructions, regular announcements/ID, health and welfare, check-out/hand-off, closing
  - Event Notices (bulletins)

## FIELD OPERATIONS PLANNING

- What type of field communications will be needed
  - Fixed location
  - Mobile in vehicle
  - Mobile on foot or bicycle
- How many Nets – coordinate with Net Control Planner
  - What quantity and nature of message traffic is expected
  - Messages per hour
  - Informal vs Formal messages
  - How many people assigned per net based on traffic levels
- Weather Considerations
- Equipment – provided by operators or pre-staged?
  - Radios
  - Headset, footswitch, audio splitters
  - Antennas, masts, cables, safety markings
  - Coax and connectors



## FIELD OPERATIONS PLANNING

- Schedule of operators
  - Pre-scheduled
  - On demand
  - Limitations on number of participants at any one time
- Briefing documents for participants
  - Purpose/objectives of event
  - Schedule
  - Any procedures specific to this event or served agency
- Credential Evals should be coordinated with Evaluation Coordinator

## SHADOW PLANNING



- What is expected shift length
- Who can use or might need a Shadow
- Determine potential traffic levels for Principals
- Determine how mobile the Principal will be (fixed vs highly mobile)
- Environment/Weather considerations
- Determine staffing needs
  - Assign Shadows to Principals based on expected traffic levels and the Shadows ability/experience/fitness
  - Shadow Equipment
  - Power requirements for shift
  - Is the demeanor/personality of shadow and principal a good match
  - Are the duties of the Principal compatible with the Shadow (dressing rooms, medical issues, etc.)

## SHADOW PLANNING

- Frequency selection – coordinate with NC and other event planners
  - Simplex or Repeater
  - Is a Crossband repeater needed
- Plans to deal with Stuck Mic or Jammers
- Publish list of Tactical Calls for all Shadows  
(IE: Pete's Shadow, IC's Shadow, Police Liaison, etc.)
  - Include Principals name and assigned Tactical Call
- Create Briefing Document for Shadows
- Determine if Credential Evaluations will be needed/offered
  - Assign Shadows being evaluated to appropriate traffic level positions
  - Coordinate with Credential Evaluator
- Conduct briefing, answer any questions
- Plan for relief operators

## LOGISTICS PLANNING

- Determine equipment needs from each planner and IC
- Develop list of what is available and who will supply it even if a planner will provide it for their own area of responsibility
- Seek out items still needed and arrange to borrow/obtain them prior to the event
- Use a Spread Sheet to document all equipment needs and who will provide each item
- Share list with IC and all planners
- Determine how to locate/provide items still needed

**Logistics - Equipment - Name Of Exercise**

|    | A                               | B          | C                  | D  |
|----|---------------------------------|------------|--------------------|--|
| 1  |                                 |            |                    |  |
| 2  | <b>Staging</b>                  |            |                    |  |
| 3  | <b>Equipment</b>                | <b>Qty</b> | <b>Provided By</b> | <b>Notes</b>                               |
| 4  | Pop-Up                          | 1          | name               |  |
| 5  | Table                           | 2          | name               |  |
| 6  | Chairs                          | 2          | name               |  |
| 7  | Clip Boards                     | 2          | name               |  |
| 8  | Signs identifying stations      | 3          | name               |  |
| 9  | T-Cards                         | 25         | Trailer            | Record assignment of participants to Teams |
| 10 | HTs                             | 1 each     | All Staff          | Maintain contact on Command Net            |
| 11 |                                 |            |                    |  |
| 12 |                                 |            |                    |  |
| 13 | <b>Location 1 -Evaluators</b>   |            |                    |  |
| 14 | <b>Equipment</b>                | <b>Qty</b> | <b>Provided By</b> | <b>Notes</b>                               |
| 15 | Pop-Up                          | 1          | Evaluators         |  |
| 16 | Table                           | 1          | Evaluators         |  |
| 17 | Chairs                          | 2          | Evaluators         |  |
| 18 | Dual Band Radio for evaluations | 1          | Evaluators         |  |
| 19 | Clip Boards                     | 2          | Evaluators         |  |
| 20 | Sign identifying evaluators     | 1          | Evaluators         |  |
| 21 | Evaluation forms and documents  |            | Evaluators         |  |
| 22 |                                 |            |                    |  |
| 23 |                                 |            |                    |  |
| 24 | <b>Location 1</b>               |            |                    |  |
| 25 | <b>Equipment</b>                | <b>Qty</b> | <b>Provided By</b> | <b>Notes</b>                               |
| 26 | list of equipment here          | 4          | name               | 3 for exercise                             |
| 27 | Traffic Cone                    | 2          | name               |  |
| 28 |                                 |            |                    |  |
| 29 | <b>Location 2</b>               |            |                    |  |
| 30 | <b>Equipment</b>                | <b>Qty</b> | <b>Provided By</b> | <b>Notes</b>                               |
| 31 | Pop-Up                          | 1          | name               |  |
| 32 | Table                           | 1          | name               |  |
| 33 | Chairs                          | 2          | name               |  |

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## SAFETY PLANNING

- Prepare Safety Briefing to be included in participant packet at Staging
- Obtain or verify supplies
  - Caution Tape and Flagging Tape
  - Traffic Cones
  - First Aid Kit
  - Fire Extinguisher for each generator within 25'
  - Pan under generator needed to catch fuel/oil spills
  - Map of venue showing key locations
- Identify Safety Issues and mark
  - Trip hazards – cones at end of tripod legs and end of guy lines/ropes
  - Overhead and eye level obstructions – tie caution tape flags
  - RF fields – RF exposure evaluation – FCC Form 610
  - Power distribution/electrocution
- Contact for 911, local phone numbers for Fire & PD

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## SAFETY PLANNING

- Other Site Issues
  - Vehicles / Trailers: Wheels chocked
  - Storage bins/supplies: Keep out of public walkways
  - Maintain clear walkways for public
  - Antennas away from power lines
- Personal Safety – *Make part of safety briefing*
  - Stay hydrated (Note: Coffee is not a substitute for water)
  - Use sun protection
  - Weather related issues - hypothermia, heat exhaustion, etc.
  - Participants wearing specified Safety Vests
  - Is other safety gear needed--how to obtain, issue, track
  - Report any unsafe condition or activity to IC or Safety Officer
  - Document procedures for reporting a real emergency

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## STAGING PLANNING

- Documentation
  - DSW List
  - Event Sign-up/position lists
  - Event planning documents as appropriate from area planners
  - Participant materials (one for each participant including staff)
    - ICS-205
    - Safety Briefing (2 copies, one copy to be signed and returned to Staging)
    - Map of event location/facilities if appropriate
    - Any briefing documents based on scenario ISC-201, ISC-202
- Forms/supplies
  - ICS-211
  - ICS-214 (In case participants forget to bring one)
  - T-Cards (include instruction on how to fill it out)
  - Clipboards & pens
  - File Folders
  - Paper weights
- Equipment
  - Tables and chairs
  - Pop-up or other shelter
  - Radio, antenna, power, headphone, etc. if the staging net will be run from the Staging location
  - Signage to identify Staging Location

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## PUBLIC INFORMATION OFFICER (PIO) PLANNING

- Documentation
  - Event planning documents as appropriate
- Forms/supplies
  - Brochures (ARRL, County, etc.) to distribute to public
  - Press Kit if appropriate
  - Business Cards
  - ID Badge or other visible identification
  - Clipboard & pen
  - Paper weights
- Equipment
  - Table, chair, pop-up or other shelter if appropriate
  - Radio for demonstration if appropriate
  - Signage to identify location for public information about event

## TYPE 1 CREDENTIALS F1, N1, P1, S1

- In addition to the training and participation requirements:
- Operator skill: Plan, design, and set-up information flow and communications support for an approved county drill, event or incident. Must be approved by Credential Program Manager.
- Give it a try
  - Join the staff for the next county wide communications drill!
  - Take on a planning role with your city

### Current Credential Holders

|    |    |    |    |
|----|----|----|----|
| F1 | N1 | P1 | S1 |
| 5  | 6  | 0  | 5  |
| F2 | N2 | P2 | S2 |
| 17 | 12 | 13 | 9  |



## TABLETOP EXERCISE THE PLANNING MEETING

- Return to previous team
  - Planning Leader (PL) (Same as previous unless there is a good reason to change)  
Recruit and assign planners to each role
  - Area Planners
    - Net Control Planner
    - Packet Planner
    - Field Ops Planner
    - Shadow Planner
    - Logistics Planner (Assign if only enough people are on your team to staff this position)
    - Staging Planner (Assign if only enough people are on your team to staff this position)
    - Safety Planner (Assign if only enough people are on your team to staff this position)
    - PIO Planner (Assign if only enough people are on your team to staff this position)
- ALL: Use handout - Drill Planning Task Checklists
- PL: Review ICS-202 Incident Objectives with the planning team (<5 Minutes)
- Area Planners: coordinate plans with other planners (overview only)
- **Area Planners: (15 minutes ) Create a quick overview for your planning area to include staff and equipment needs and summarize your initial thoughts. Ask questions of other planners as needed.**
- PL: Complete an ICS-201 as if you were preparing for a participant briefing
- PL: Answer questions and provide guidance to your planning team
- The Instructor will be your simulated 'Served Agency Representative' for any questions
- **PL: Conduct a planning meeting to share ideas/plans with the planning team and discuss. Rework ideas/plans based on meeting.**
- PL: Be prepared to summarize and explain the teams plans

### GROUP BREAKOUT DISCUSSION ANSWER THE FOLLOWING

1. What type and quantity of staff do you need? Explain your reasoning.
2. How many and what type of nets do you need?
3. What are your equipment considerations/needs?
4. How will you send medical requests?
5. How will you send dropped out runner information?
6. What safety concerns were raised?
7. What other major issues/concerns were noted?
8. Other comments, thoughts, or questions?



### AFTER ACTION REPORT - HOMEWORK

Create an After-Action Report for your exercise

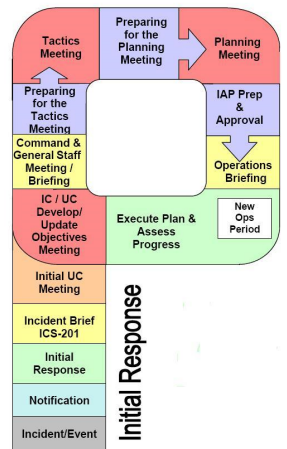
Base your AAR on the plans your created today. Think about how this type of event may unfold and if your plans cover all aspect of what could happened at the event. If you think the plans are lacking then note that.

- Your AAR is for your planning area only, not the entire event.
- Use the AAR template provided.
- Complete all fields as if this event actually happened.
- Include all relevant fields
  - Description of exercise and its goals and objectives (on ICS-202)
  - Results achieved
  - Problems and concerns
  - Observations and feedback
  - Lessons learned
  - Improvement ideas for future classes/tabletop exercises
- Like all documents - Make it Legible – someone else needs to read it.

### IN SUMMARY

- Keep your goals and objectives measurable and attainable in the allotted time.
- Don't over complicate your planning.
- The best laid plans can go sideways in an instant.
- Nothing ever goes as planned.
- You will have challenges that you need to address on the fly
- Gather feedback at the end of an exercise or incident.
- Make sure you do an AAR. **Required for County Mutual Aid Events.**
- Make the corrections and improvements as soon as possible.
- Your follow-on exercise should proof your changes and improvements and build on the skill levels of your participants.
- Be open to ALL creative solutions and resources (staffing and equipment) that present themselves.

### THE PLANNING 'P'



## REVIEW LEARNING OBJECTIVES

- At the end of this course, students will be able to:
  - Describe the different types of events
  - Create measurable exercise objectives
  - Describe the planning process and what is different based on the event type
  - Describe how to deal with problems that might be encountered during the planning process
  - Properly complete an ICS-202 Incident Objectives form
  - Explain how to use check lists as a planning aid
  - Create an event plan for a functional area of a drill or public service event
  - Create an After Action Report (AAR)

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## QUESTIONS



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## THANK YOU!

Please email your **After-Action Report** to instructor within 7 days. Use Subject: AAR Planning Class 2024

If you have questions or feedback about this or other training activities, you can join our Training discussion group.

<https://scc-ares-races.groups.io/g/training>

This is a moderated group.

If you would like to help plan the next County Wide Drill contact me: ke6tim@arrl.net

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## Final Assignment

Please complete the course evaluation within one-week.

To get course credit you need to:

- A) Attend at least 90% of the class
- B) Participate in class tabletop discussion and planning
- C) Complete and turn in the After-Action Report
- D) Complete the on-line class evaluation

If you do these, you will get credit for the course.

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# Online Class Evaluation

Log Into: <https://www.scc-ares-races.org/activities/events.php>  
Under the EVENTS Menu click on "Submit Class Evaluation"

The screenshot shows a web interface with a left-hand navigation menu and a main content area. The navigation menu includes links for Home, Log Out, Activities Home, SCC ARES/RACES Home, Comments/Bugs, and Events. Under the Events menu, there are links for List Events By Date, List Events I Joined, Create a New Event, Modify an Event, Delete an Event, List/Print an Event Roster, Log Event Participation, and Submit Class Evaluation. A large red arrow points to the 'Submit Class Evaluation' link. The main content area features a 'Calendar of Events' section with a filter for 'Current events' and a table listing an event titled 'Training Net - Message Passing Practice' on 02/16/21 at 8:30 PM. Below this is a description of the training net and another event titled 'ARES/RACES Communications Drill - CITY participation'.