



The “New” DoD Mission



- How do we prepare? -

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Developing Mission



- **NHQ is staffing a new DoD mission**
 - Some aspects are classified
 - Field portion will be SBU (sensitive but unclassified)
 - Most CAP personnel will not require security clearances
 - Mission will involve CAP operations nationwide
 - Aerial reconnaissance
 - Damage assessment
 - Light transport of critical DoD personnel/materials
 - Similar to legacy CARDAS/SARDA mission - for a new era
 - Continental Airborne Reconnaissance for Damage Assessment
 - State and Regional Disaster Airlift

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Developing Mission



- **Operational mission (primarily air)**

- Not a “*Comm*” mission – Comm is merely C2 support
- Aerial recon and light transport (DoD personnel)
- Scenario: Post-attack force reconstitution
- Assumed Cyber-Denial environment
 - No functional commercial or DoD long distance communication
 - HEMP also considered in the scenario
- Comm was engaged first because it was necessary to demonstrate the feasibility of DoD tasking by radio only
- Feasibility was validated:
 - 103 confirmed taskable aircraft contacted during DoD COMMEX 17-1
 - Short notice 12 hour exercise on 28 Feb 17

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Developing Mission



- **CAP is not yet formally tasked**
 - Currently being staffed by AF combatant commands
 - OPR is CJCS

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Developing Mission



- **Operations must:**

- Develop the internal processes necessary to enable operations in an internet-denied environment
 - All taskings, coordination and reporting by radio messages
 - Using USMTF formats (e.g., ATO, FRAG-ORDER, etc)
- IT will be developing a stand-alone WMIRS to be run at the ICP
 - Will communicate with NHQ WMIRS by radio messages
 - Pre-formatted voice messages first
(“Whiskey” messages to be introduced soon)
 - Next, WMIRS-generated encrypted messages
(Similar to current Whiskey Tango messages)
 - Finally, data files by radio (once HF modems are available)

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Developing Mission



- **Communications must:**
 - Complete construction of the CAP radio traffic system
 - Already in progress
 - Develop a radio path to every commander & critical staff
 - Critical staff = Those officers needed to task resources / sorties
 - Migrate to ACP-126/127 “teletype” message formats
 - At all levels - For all formal “record” traffic
 - Develop ACP-117 compliant routing indicators and systems
 - Implement MilStd 188-110 HF data
 - vs. current voice traffic
 - Integrate HF encryption
 - Encryption system has already been issued by DoD
 - 6 Triblade stations now operational for DoD liaison

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New Realities – New Environment



- **AF expectations**
 - Radio-only communications path to every commander and key staff
- **CAP internal needs**
 - Ability to task, direct and control air and ground assets by radio only
- **Planning consideration**
 - Plan to be able to meet these expectations and needs in a “cyber denial” environment
 - No available telecommunications or internet
- **New planning tool: Annual wing comm plan template**
 - New paragraph 2.5, HF Planning



The Task: Define the Requirement



- Requires talking to your customers and coordinating your support of their needs
- Define who activates operational assets
 - CC (or CV, etc)?
 - Alert Roster ICs?
 - How about at the squadron level?



HF Planning



- **Define the Requirement**
 - Requirements-based planning
 - What is required in order to perform the mission in a comm-out situation?
- The starting point is determining where stations are needed
 - NOT where you already have stations (or even available operators)
 - Allocating equipment and assigning operators are later steps



HF Planning



First step: Where do we need HF stations located?

- **Factors to consider:**

- Where are our commanders, key staff, IC's located?
- How many HF stations are needed to get traffic into the local area (VHF simplex range, driving range) of each one?
 - **NOTE:** The HF station does **NOT** have to be collocated with the customer (commander, IC, staff member)
- Can multiple customers be served by one HF station?
- How much redundancy is needed to ensure there is always a path?

- **Create a list of the HF stations needed**

- Organized by city, zip code or other geographical designation



HF Planning

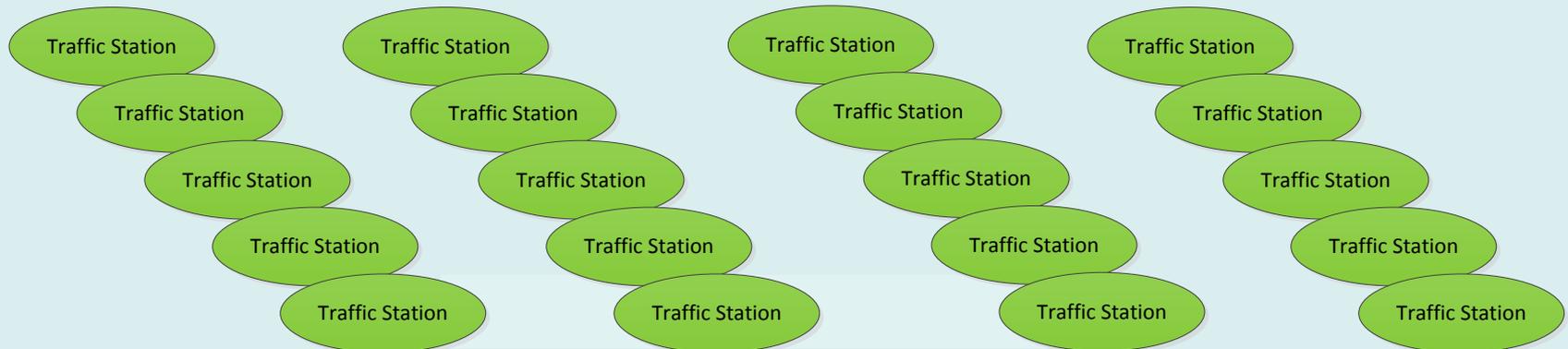


• Next step: Define Infrastructure Requirements

- Will the HF stations also perform infrastructure duties or are additional stations needed?
- How many designated message center stations (MSC) do we need?
 - At least three are recommended in order to cover 24/7
 - Will they be some of the same stations serving specific traffic destinations or will they be dedicated to just message center duties?
- How many net control stations (NCS) do we need for our voice nets?
 - Will they be some of the same stations serving specific traffic destinations or will they be dedicated to just Net Control duties?
- Create a list of the additional HF stations needed for infrastructure duties.
 - ALE capable? Conventional Only?



HF Planning

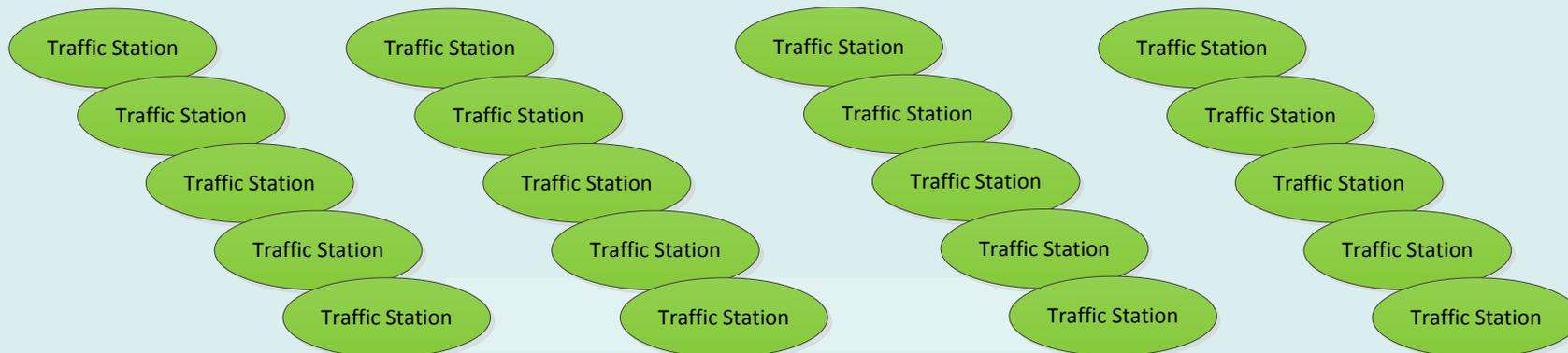
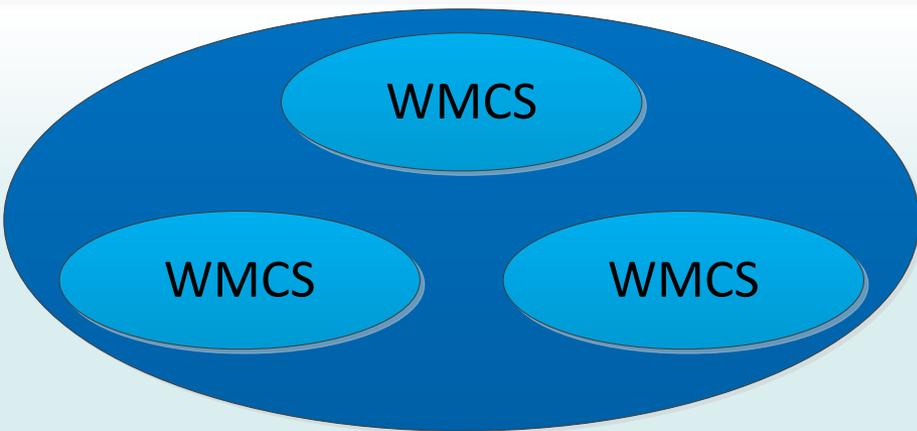




HF Planning

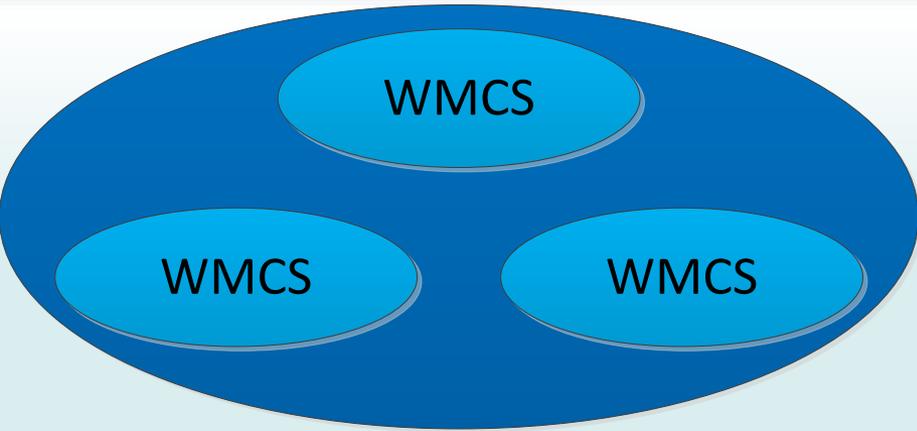


Wing Message Center Team





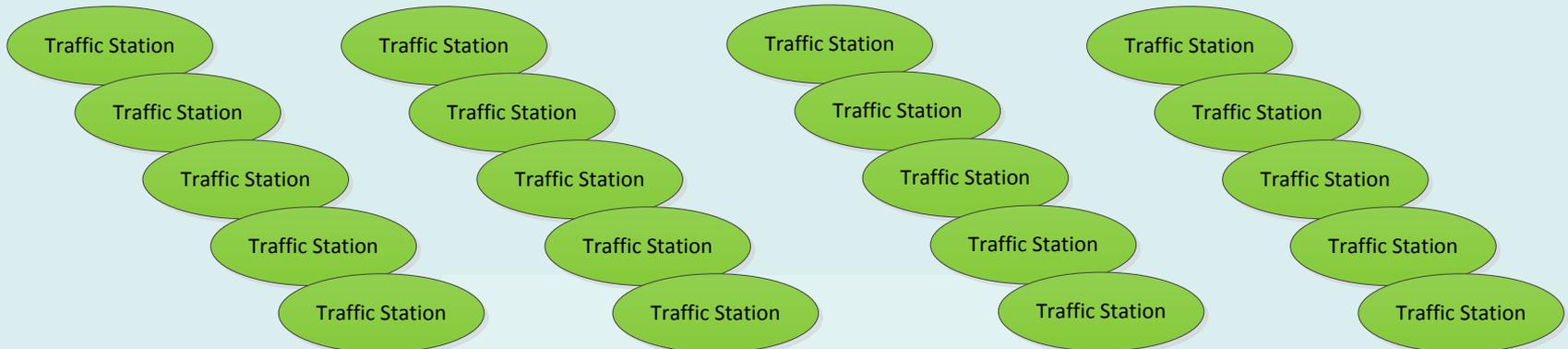
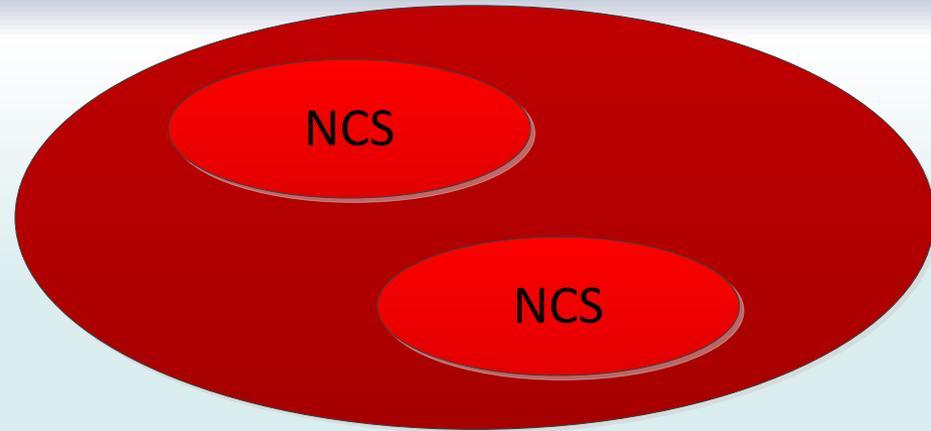
Wing Message Center Team



HF Planning



Wing Net Control Stations



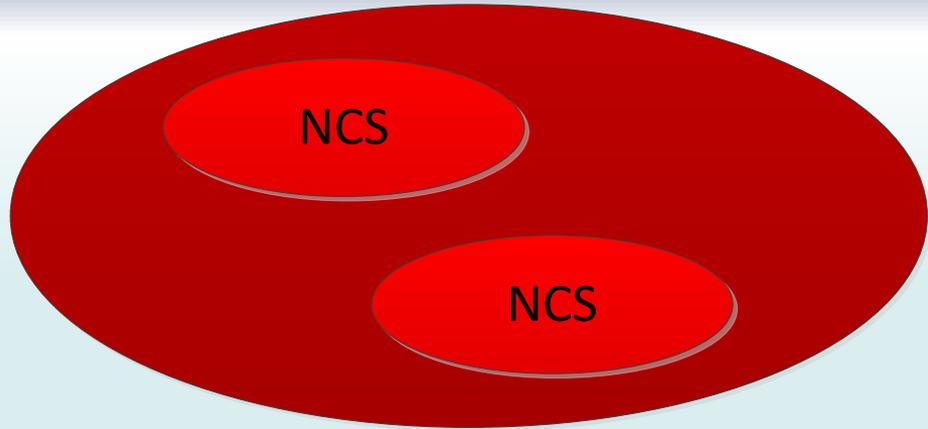
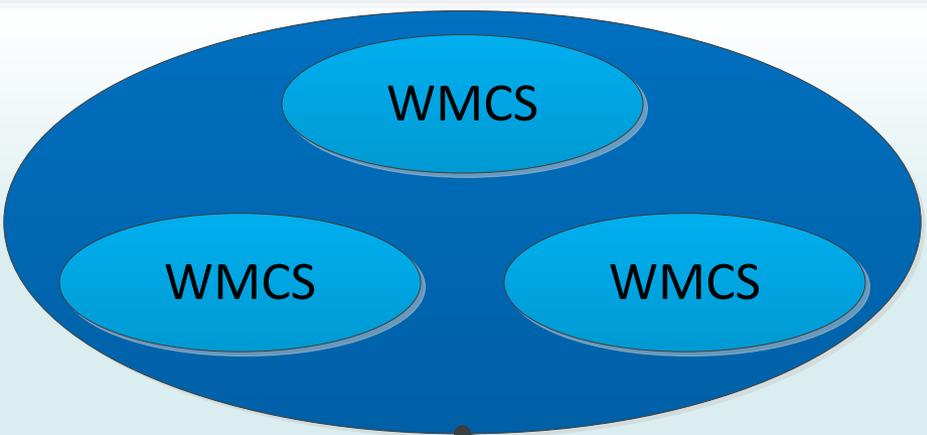


HF Planning

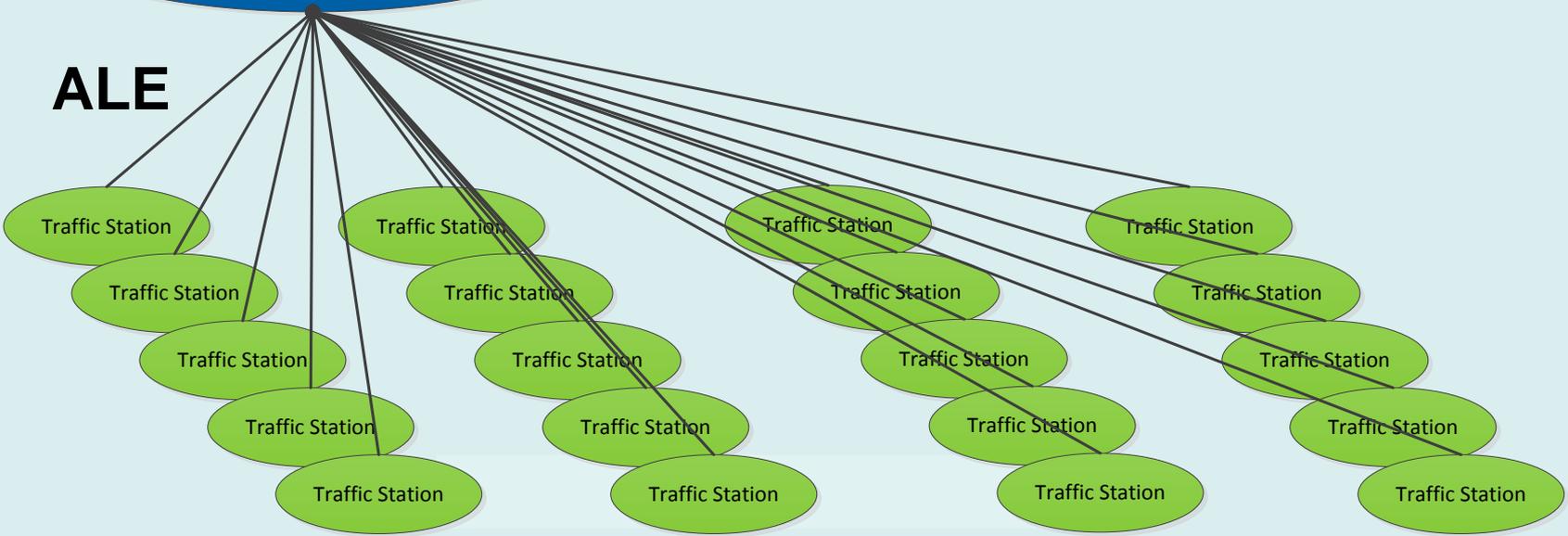


Wing Message Center Team

Wing Net Control Stations

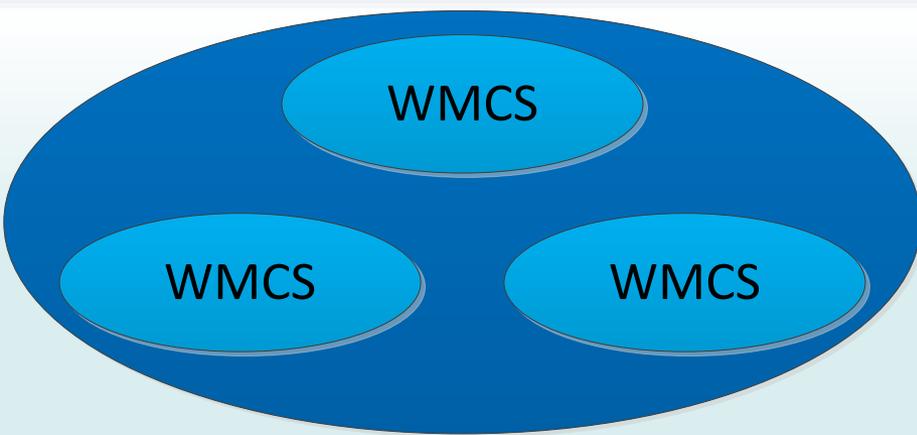


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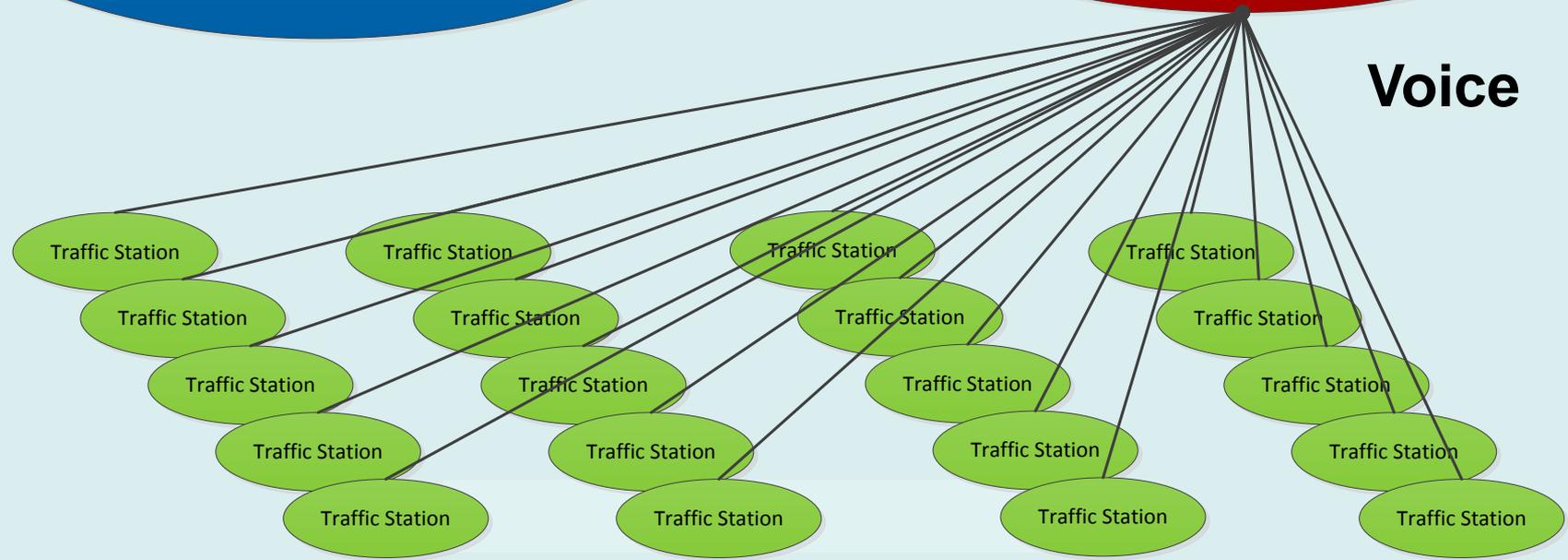
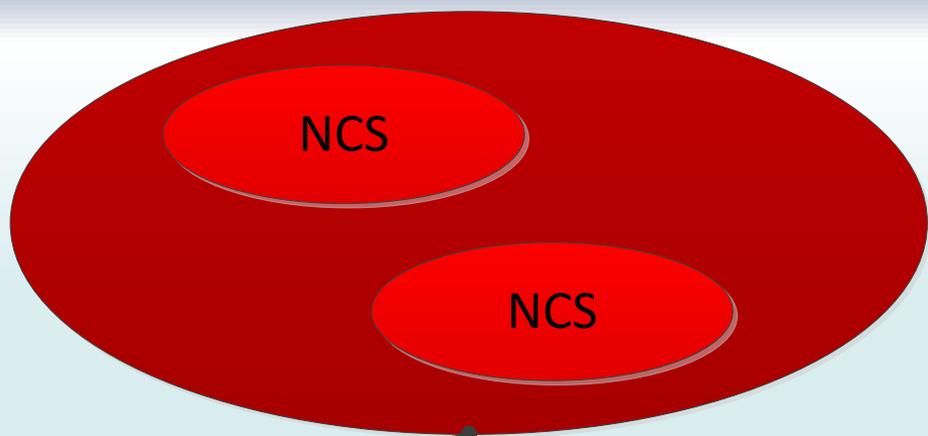
Wing Message Center Team



HF Planning



Wing Net Control Stations





Wing HF Plan

Requirements

Our wing requires fixed HF base stations as follows:

Traffic stations:

Eastville – 3 HF traffic stations. Rationale: Most wing staff located in Eastville to include wing commander, director of operations and two squadrons. Three station redundancy necessary to ensure viable command and control.

Westville – 1 HF traffic station. Rationale: One squadron located in Westville and the High Mt. repeater can be used as an alternate comm path.

Northville – 2 HF traffic stations. Rationale: Wing Headquarters, wing vice commander and 1 squadron are located in Northville. Two station redundancy will be sufficient. One of these stations will be located at Wing HQ (also serves as primary ICP).

Southville – 2 HF traffic stations. Rationale: Two primary ICs live in Southville. Two aircraft and four aircrews also located here. Two traffic station redundancy should be adequate to ensure a traffic path.

Message center stations – Three message center stations are required. If possible the duties will be shared with traffic stations listed above.

Voice net control stations – One dedicated NCS station is required. If possible this duty will be shared with one of the stations listed above.

Total Wing HF Fixed Base Requirement: 12 stations. (Note: This is a max number. Consolidation of duties should allow us to meet all needs with a lower number). Requirements are as follows:

- 8 traffic stations
- 3 message center stations
- 1 voice net control station



HF Planning



- **NOW** it's time to start thinking about existing stations and operators who can fill some of these requirements
 - Identify existing station's duties from the requirement list
 - Do they need additional equipment?
 - If so, list it in your plan
 - Assign known new operators duties from the requirements list
 - If new stations cannot be supported from current wing assets, state that in your plan
 - CAP/DOK staff will work with the new station operators to assemble the exact equipment requirements



HF Planning



- What about those locations where you need an HF station but don't have anyone available?
 - Plan to recruit internally. You don't have to DO the internal recruiting right now. But put down your plans to carry out internal recruiting in the future. You've already identified where you have holes.
 - Unit visits
 - Email campaign
 - Web page, social media, etc.
 - Plan to recruit externally. At some point we will exhaust our internal resources. Then it's time to look outside the organization.
 - Think about giving CAP presentations to local ham clubs
 - Prepare a presentation unit comm officers can give locally
 - Displays at airshows and other local events



HF Planning



Last Step

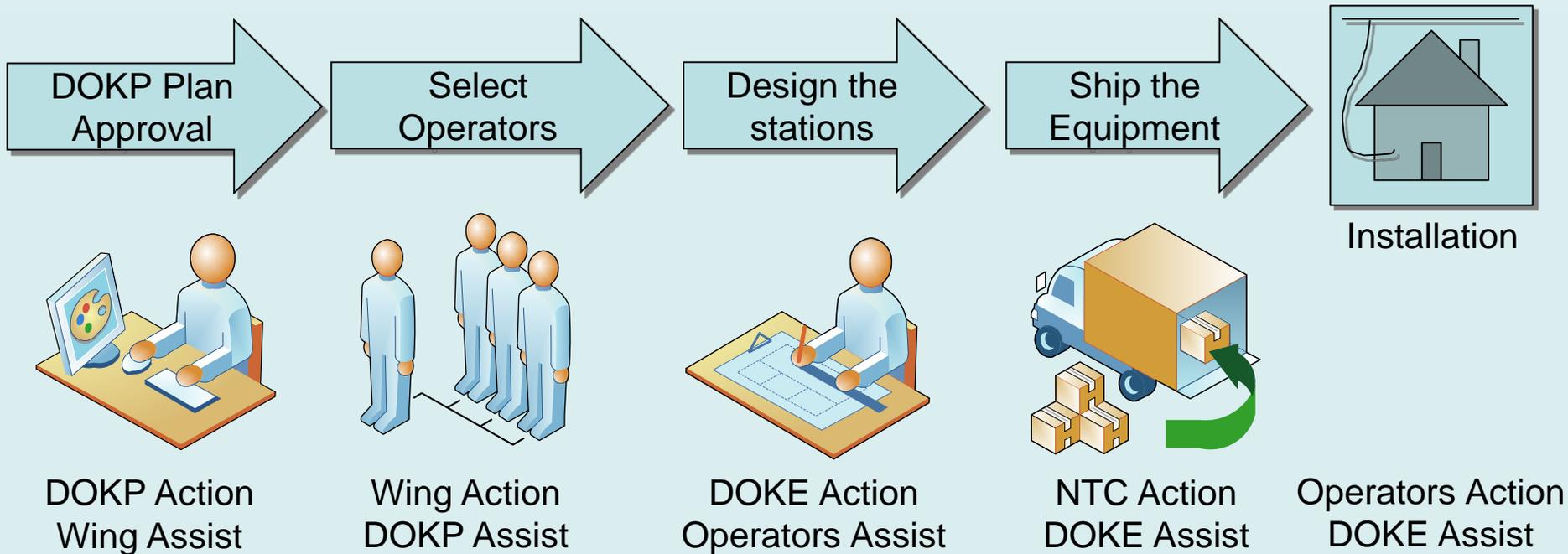
- Using all the information you've gathered so far, assemble a plan that takes you from where you are now to where you've identified that you need to be.
 - Include the list of HF stations required and the locales to be served by each station. You may have overlaps to achieve some redundancy.
 - Include the CAPID's of the operators who will serve specific duties in your plan
 - State which stations/operators need additional equipment
 - State your plans to recruit operators to fill the vacant stations



HF Planning



- **Publish your HF plan**
 - Insert into the annual comm plan
- **Work with NHQ**



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Civil Air Patrol



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