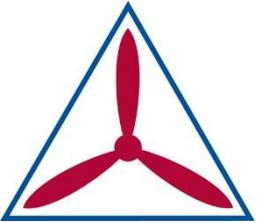


Civil Air Patrol



How to Plan HF at Wing Level

Mr. Malcolm Kyser
HQ CAP/DOK
LtCol Michael Marek
HQ CAP/DOKP



Webinar Presenters



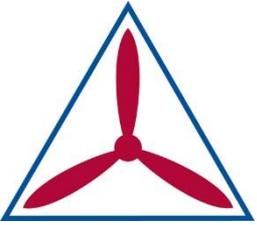
John Desmarais
Director of Operations
National Headquarters



Malcolm Kyser
Chief of Communications
National Headquarters

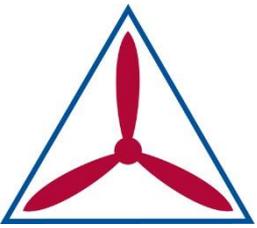


LtCol Michael Marek
Communications Plans &
Programs Division Head



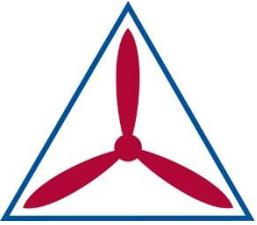
Webinar Rules of Engagement

- **Webinar attendees will be in listen only mode. We have several hundred members signed up, so having everyone with an open microphone would not work.**
- **We will try to answer questions throughout the webinar. Just type your questions, and we will either answer you directly via text or provide a voice answer to your question.**
- **The webinar itself, questions, and chat log are being recorded, so please remain respectful.**



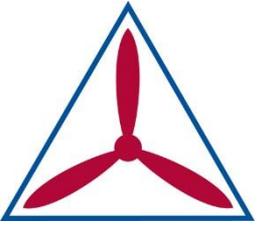
New Realities – New Environment

- **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

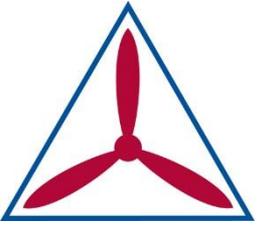


The Task: Define the Requirement

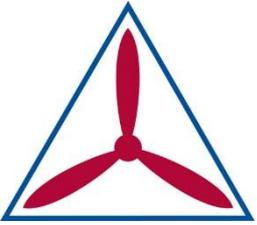
- **Requires talking to your customers and coordinating your support of their needs**
- **Who activates operational assets?**
 - **CC (or CV, etc)?**
 - **Alert Roster ICs?**
 - **How about at the squadron level?**



- **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

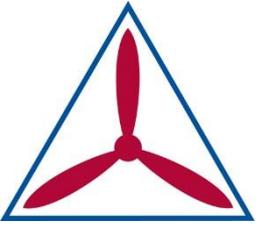


- **First step: Where do we need HF stations located?**
 - Where are our commanders, key staff, IC's located?
 - How many HF stations are needed to get traffic into the local area (VHF simplex range, driving range) of each one?
 - NOTE: The HF station does **NOT** have to be collocated with the customer (commander, IC, staff member)
 - How many customers can 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 to meet all the expectations
 - Organized by city, zip code or other geographical designation



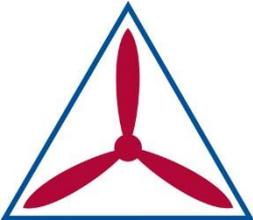
- **Next step: Infrastructure (or support)**

- Will the HF stations also perform infrastructure duties or are additional stations needed?
- How many designated message center stations 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 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

- **Next step:**
 - **Combine the lists to assemble your overall HF station requirement**



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).

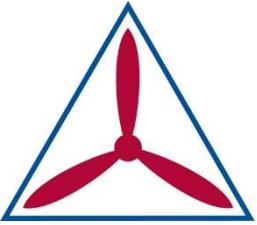
Southville – 2 HF traffic stations. Rationale: Two primary ICs live in Southville. Two aircraft and four aircrews also located here. Two traffic station redundancy should be adequate to ensure a traffic path.

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

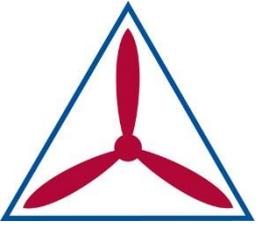
Voice net control stations – One dedicated NCS station is required. If possible this duty will be shared with one of the stations listed above.

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

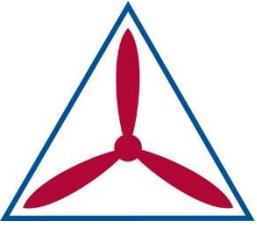


- **NOW** it's time to start thinking about existing stations and operators who can fill some of these requirements
 - Assign existing stations duties from the requirement list
 - Do they need additional equipment?
 - If so, list it in your plan
 - Assign known operators duties from the requirements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



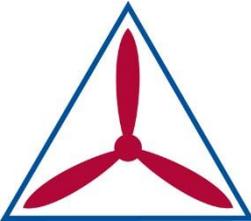
HF Planning

- **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**
 - **MARS operators located in your state**

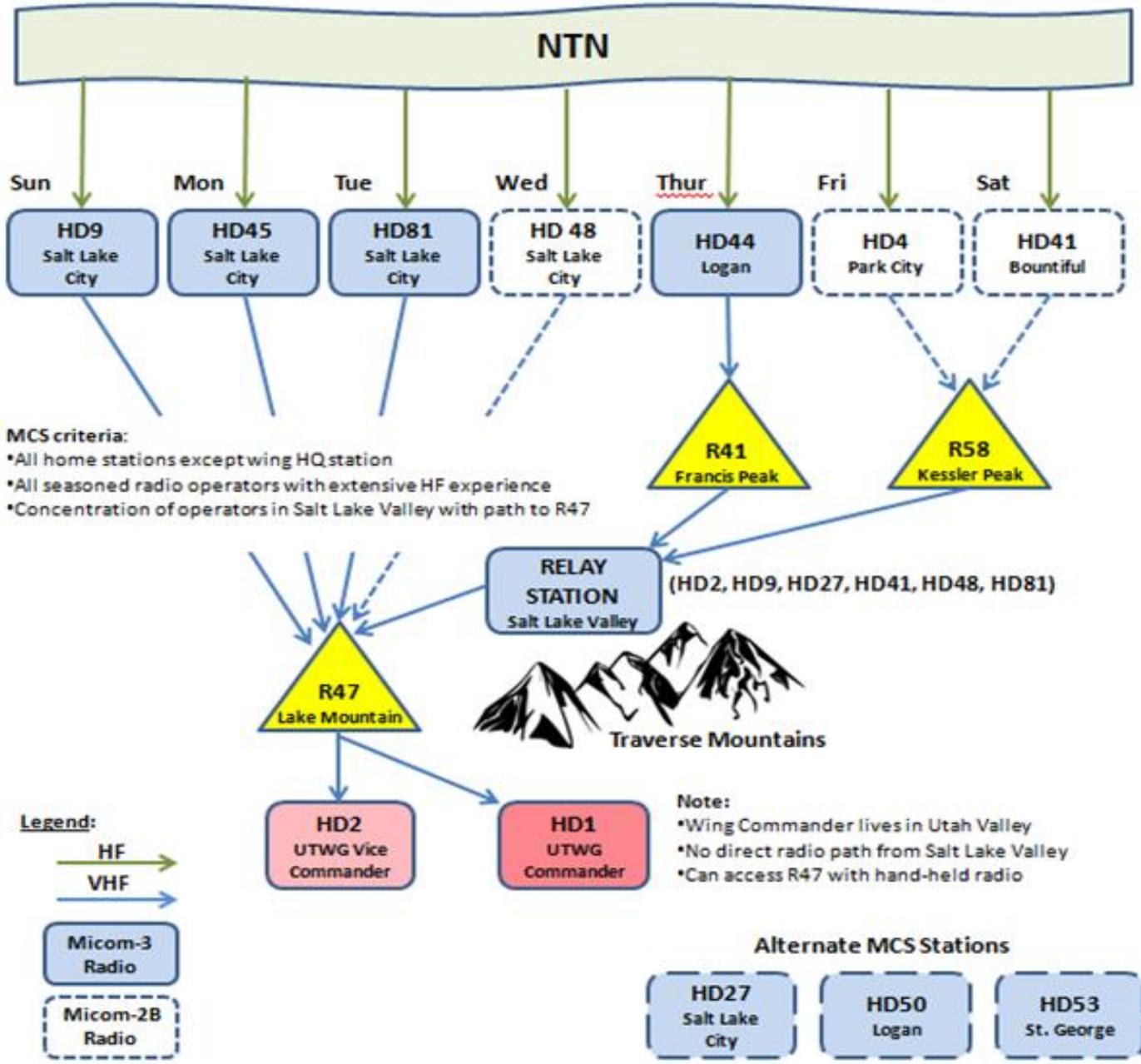


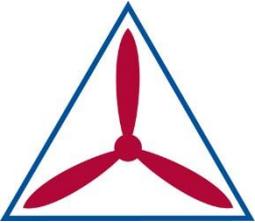
Last Step

- **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**



Utah Wing HF Plan





SDWG/CC - Rural Rapid City (Piedmont)

Primary path -- HF via Micom 3 at SDWG/CC residence. Path to be added from existing wing inventory.

Secondary paths -- Rapid City area MCS/AMCS delivery by local phone call, three VHF repeaters, or local hand delivery. Path in service now.

Rushmore Composite Squadron/CC (Rapid City)

Primary path -- Rapid City area MCS/AMCS delivery by local phone call, Rapid City repeater, or local hand delivery. Path in service now.

Crazy Horse Composite Squadron/CC (Custer)

Primary path -- HF via Micom 2b or 3 in member's home. Path to be added from existing wing inventory.

Secondary path -- Rapid City area MCS/AMCS delivery by Mt. Coolidge repeater. Secondary path in service now.

Spearfish Composite Squadron

Primary path -- HF via Micom 2b or 3 in member's home. Path to be added from existing wing inventory.

Secondary path -- Rapid City area MCS/AMCS delivery by Mt. Coolidge repeater. Secondary path in service now.

Sioux Falls Composite Squadron/CC

Primary path -- Sioux Falls area MCS/AMCS delivery by local phone call, Rapid City repeater, or local hand delivery. Message Center not currently active. Need additional Micom 3.

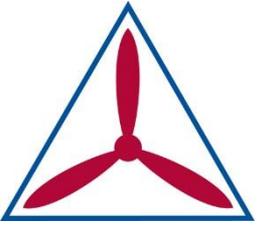
Big Sioux Composite Squadron/CC (Brookings)

Primary path -- HF via Micom 2b or 3 in member's home. Path to be added from existing wing inventory.

Secondary path -- No local phone call from MCS/AMCS or VHF path currently possible. Potential for VHF beam in Sioux Falls to reach White repeater.

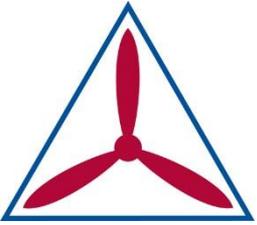
Pierre Composite Squadron

Primary path -- Pierre area MCS/AMCS delivery by local phone call, Pierre repeater, or local hand delivery. Message Center not currently active. Radio needed for MCS/AMCS??



- **Publish your HF plan**

- **Insert into the annual comm plan**
- **To begin before April, submit a copy to CAP/DOKP now**
- **You can then begin working with DOKP, DOKE and the NTC to design your stations and get equipment shipped.**
 - **Begin recruiting operators for the needed locations**
 - **DOKE will work directly with the operators to design their station and assemble a detailed shipping list for the NTC**
 - **The NTC will ship the list defined by DOKE directly to the operator you've identified.**
 - **DOKE will provide setup and initial testing advice and assistance in conjunction with you and your staff**



Questions?

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Communications Plans and Requirements

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