



OFFICE OF THE NATIONAL COMMANDER
CIVIL AIR PATROL
UNITED STATES AIR FORCE AUXILIARY
MAXWELL AIR FORCE BASE, ALABAMA 36112-6332

4 January 2012

MEMORANDUM FOR ALL REGION AND WING COMMANDERS

FROM: CC

SUBJECT: INTERIM CHANGE LETTER – Implementation of HF/ALE

1. High Frequency Automatic Link Establishment (HF/ALE) is the next generation of HF radio technology being implemented throughout the Civil Air Patrol communications system. In the HF/ALE environment, each radio operates automatically across a suite of frequencies. This differs from conventional HF in which a “net” is a gathering of stations, usually on a single frequency at a specific time. In the ALE methodology a “net” is a group of radios continuously scanning a common suite of frequencies.

a. These stations can make or receive calls, referred to as “links,” on any frequency in the suite. Therefore the old “net frequency” is replaced with a suite of frequencies providing improved propagation characteristics and the net time is stretched out to 24/7. These two factors greatly increase the availability of communications between any two given points.

b. In addition to calling and receiving, some stations in the net will periodically transmit an electronic identification called a “sounding” on each net frequency. These soundings are monitored and evaluated by the other radios in the net, each of which assigns a Link Quality Analysis (LQA) value to the sounding and records it in an internal database. The collected data allows an ALE station to automatically select the best frequency from the suite on which to reach another station in the net when requested to do so by an operator.

2. This all means that CAP’s 21st Century HF/ALE system is transitioning away from traditional scheduled voice nets for operational missions. Rather, it will be composed of a system of decentralized point-to-point, peer-to-peer stations strategically located to provide connectivity required for tactical and command and control communications. The system will be organized into a National Command Net and eight Region Command Nets.

a. The National Command Net is already in operation. It is composed of a designated message center station in each region along with at least one alternate, the National Operations Center (NOC), the National Technology Center (NTC), and one station in each OCONUS wing. The NOC and the NTC serve as the net control stations. Only designated stations may routinely operate on this net with the exception of situations during operational missions when the region ALE net is not available or inadequate.

b. Each of the eight regions has been assigned a suite of HF frequencies to be used as the region ALE net. Conventional voice nets remain valuable for confidence checks and training and may also be scheduled on these frequencies. Conventional operations, however, must share the channel with ALE operations--to include automatic ALE soundings. With training and experience, operators will become accustomed to pausing voice operations during a sounding and then continuing when the channel is clear.

c. HF stations should not routinely operate on ALE nets assigned to other regions, or the national net, unless required for operational missions or pre-coordinated testing. Organized tests and

exercises between wings of different regions should be fully coordinated with the appropriate region and wing directors of communications.


3. National Headquarters published an ALE Implementation Plan on 24 Jan 2011, including the new frequency list for each region, and standardized programming requirements for HF radios. The frequencies detailed in this plan have replaced many of your previous HF frequencies. Compliance with this plan is required; however, your feedback based on testing and operational use is critical as CAP develops its ALE capabilities. We expect your feedback to help the plan evolve, possibility identifying the need for additional frequencies.

a. Testing and utilization by wings and regions of the new frequencies began on 1 February 2011. Your transition away from old frequencies should have been complete by 2 May 2011. The test phase, which should include training and actual operational missions, will continue until the final system configuration is published in CAPR 100-1.

b. Please remember that CAP frequency assignments are designated by the Department of Defense as "For Official Use Only" information and appropriate protection is required. Most communications users only need to know the numbered net to which they are assigned.

4. Thank you for your support and assistance in this next important phase of upgrades to our communications system. Please begin integrating HF/ALE into your wing and region communications and operational mission plans. Wings are also encouraged to include HF/ALE training in their annual training plans due at the end of July. This is very important and all wings and regions are required to begin implementing HF/ALE. Additional training materials on HF/ALE are available on the NTC Communications web page in the Downloads and Publications section. If you have any questions please direct them to your region Deputy Chief of Staff for Communications or the National Comm Team.

5. This ICL supersedes previous letter, 1 July 2011, same subject. This ICL expires on 30 April 2012, unless superseded at an earlier date by modified procedures or by being codified into an update to CAPR 100-1.


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Commander

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