



HQ, Alabama Wing
Civil Air Patrol
USAF Auxiliary
105 South Hansell St.
Maxwell AFB,
Alabama 36112
14 October 2023

Operation Order SER-AL-24-2 (TACTICAL REPEATER QUARTERLY EXERCISE)

References:

- A. CAP Regulation 100-1, dtd. 6 April 2016, Radio Communications Management
https://www.gocivilairpatrol.com/media/cms/R100_001_162D77B8183A1.Pdf
- B. CAP Regulation 100-3, dtd. 6 April 2016, Radiotelephone Operations
https://www.gocivilairpatrol.com/media/cms/R100_003_4C83447E87350.Pdf

Time Zone Used – Central Daylight Time (CDT) Local

Task Organization: Participating personnel and equipment are under the operational control of the designated Incident Commander (OPCON)

I. SITUATION.

- A. CAP's Radio Communications Program supports Homeland Security, search and rescue, emergency preparedness, disaster relief, and other operational missions; augments existing communications services in the event of actual natural disasters, acts of terrorism, or other manmade disasters; and supports the U.S. Air Force.
- B. Weather. <https://www.aviationweather.gov>
- C. Light Data. <https://www.usno.navy.mil/USNO/astronomical-applications/data-services/data-services>

II. MISSION. Group III will ensure the scheduling, inventory, inspection, and air and ground operational exercise of assigned tactical repeaters equipment and qualified operators quarterly. Execution of flight operations will be executed at the direction of a designated IC.

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III. EXECUTION.

- A. Commander's Intent. Assuring the success of our operational missions is in a large measure dependent upon the reliability and effectiveness of our communications network. Our ability to extend the reach of our radio communications through employment of tactical repeater systems is a key capability. A quarterly effectiveness evaluation assures this capability will be available when needed. I encourage all commanders to make use of this activity to train additional members in the installation and operational procedures associated with tactical repeater equipment.
- B. Orders to Subordinate Elements.
 1. Director of Operations (DO).
 - a. Assume lead staff element responsibilities for oversight of this mission.
 - b. In cooperation with the Wing and Group III. CCs, appoints an IC to manage flight operations associated with this mission.
 - c. Ensure coordination between Group III CC and the Director of Communications.
 - d. Inform the Wing CC of any degradation of tactical repeater capabilities identified during quarterly evaluation.
 2. Director of Communications (DC).
 - a. In coordination with DO and GP III CC, develop a quarterly plan to utilize ground and flight operations associated with this mission to further the objectives of the ALWG communications program. Such plans could include communications coverage surveys, communicator training, or other activities to advance communication capabilities.
 - b. Coordinate and task select wing communication elements in support of quarterly evaluations.
 - c. Provide DO a verbal or email summary of communication program impacts following the quarterly mission.
 - d. As necessary, coordinate the employment of airborne repeater systems with the Director of Communications, SER.
 3. Group III
 - a. Assume lead unit responsible for execution of this mission.

- b. Update the DO and DC for each execution sortie of this mission.
- c. Schedule and post the execution of this mission to the wing calendar. Employment of tactical repeater systems associated with emergency service exercises or formal instruction at NESA/SE may substitute for a quarterly exercise with the approval of the ALWG DO.
- c. Prepare an internal unit directive providing guidance on the scheduling, inventory, inspection, and ground and air operational exercise of assigned tactical repeater equipment and qualified operators quarterly. Provide DO and DC copies.

4. IC

- a. Assume management responsibility for the execution of flight operations associated with the execution of this mission.
- b. Prepare, brief, and debrief CAPF 104 associated with flight operations.
- c. Assure the completion of appropriate WMIRS entries.
- d. Assure the completion of a mission specific ORM.
- e. Provide DO a mission complete verbal after action report.

C. Coordinating Instructions.

- 1. Use of the airborne tactical repeaters is restricted to 12,500' AGL or less. At that altitude the effective range is generally about 150 miles to a mobile unit, slightly less for a handheld receiver.
- 2. Channels 1-6 only may be used during airborne operations. Channels 1 and 2 are on the same frequencies as ground repeaters and can cause problems if not coordinated.
- 3. Airborne repeaters are not authorized during IFR flight operations.

IV. SERVICE SUPPORT.

A. Administration and Personnel:

- 1. All participants will be active CAP members with valid ID card in their possession. All members must have completed General Emergency Services and Basic ORM training and have those qualifications reflected in eServices.

2. Wear of duty appropriate uniforms IAW CAPR 39-1 is required of all mission participants. CAP identification card and CAPF 101, CAP Specialty Qualification Card, will be carried on person.

3. Use of WMIRS for mission record keeping is mandatory.

B. Logistics.

1. Messing is an individual responsibility.

2. Corporate vehicles will be inspected prior to utilization and will be cleaned at the end of exercise.

3. Petroleum, Oil, and Lubricants (POL).

a. Corporate aircraft will obtain POL products through Fixed Base Operators; payment will be made using the National Credit Card

b. The ALWG Form 173-RA, Alabama Wing Fuel/Oil Receipt Checklist and Addendum, and associated receipts will be uploaded to the WMIRS sortie within 24 hours of purchase. The upload will be a one-page PDF document with the fuel form and receipts side by side.

4. Maintenance. Participating elements will coordinate with the ALWG Maintenance Officer for unscheduled maintenance requirements.

5. Supply. Inventory of tactical repeater systems will include the following components:

- Original shipping container.
- Repeater to include its detachable protective cover.
- AC power cable.
- 12V battery cable with post clamps.
- Coax with PL259 connector and magnetic mount base.
- ¼ wave antenna.
- PL259 to N-Type adapter.
- Aircraft power cable.
- Aircraft antenna coax.

V. COMMAND & SIGNAL

A. Mission Symbol/Number: A5, 24-T-3499 (Communications Testing and Training)

B. Contacts.

DO	Col Jayson Altieri, CAP	DO@alwg.us 919 600-4053
DC	Maj David Hester, CAP	DC@alwg.us
IC	TBD	TBD

C. Safety.

1. Only members of CAP may operate CAP vehicles. All personnel operating vehicles will have a valid CAP and state driver's license and will operate all vehicles in accordance with applicable state and local laws.
2. Members installing tactical repeaters in CAP aircraft MUST ensure that the aircraft has properly wired auxiliary power and antenna connections, or that appropriate adapter cards are used. Power and antenna connectors on the repeaters may not be modified to meet local aircraft wiring.
3. Group III CC assure the completion of a quarterly CAPF 16 (ORM) prior to commencing the exercise.

Signed

ALTIERI
Col, Director for Operations
FOR THE COMMADER

OFFICIAL:

BABBITT
Assistant Operations Officer (PLANS)

Annex A - Standard Operating Procedure (TACTICAL REPEATER EMPLOYMENT PROCEDURES)

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Annex A - Standard Operating Procedure (TACTICAL REPEATER EMPLOYMENT PROCEDURES) to Operation Order SER-AL-24-2 (TACTICAL REPEATER QUARTERLY EXERCISE)

Standard Operating Procedure (TACTICAL REPEATER EMPLOYMENT PROCEDURES)

- I. SITUATION.** CAP's Radio Communications Program supports Homeland Security, search and rescue, emergency preparedness, disaster relief, and other operational missions; augments existing communications services in the event of actual natural disasters, acts of terrorism, or other manmade disasters; and supports the U.S. Air Force.
- II. MISSION.** As an element of unit emergency service preparedness, commanders at all levels will train additional members in the installation and operational procedures associated with tactical repeater (HIGHBIRD) equipment.
- III. EXECUTION:**
- A. Commander's Intent. Assuring success of our operational missions is in a large measure dependent upon the reliability and effectiveness of our communications network. Our ability to extend the reach of our radio communications through employment of tactical repeater systems (HIGHBIRD) is a key capability.
- D. Orders to Subordinate Units.
1. Director of Communications (DC).
 - a. Will affect required coordination for the employment of air and ground tactical repeater systems with the Director of Communications, SER.
 - b. Provide DO an immediate verbal or email summary of identified tactical repeater operational limitations or missing components following use by ALWG units.
 2. Units.
 - a. To permit required coordination with SER, inform the ALWG DC of the intent to employ ground or air tactical repeater systems NLT 7 days prior to use.
 - b. EXCEPTION - The DC will be informed of the employment of tactical repeater systems for missions assigned by the National Operations Center as early as possible to permit expedited coordination.

c. Units informing the DC of the planned use of tactical repeater systems will provide the following information:

- (1) Date(s) and planned operating period.
- (2) Contact information for assigned IC/Project Officer
 - (a) Ground Operations.
 - Planned operational location (latitude/longitude or physical address)
 - Antenna to be used (i.e. supplied quarter wave magnetic mount or connection to an elevated VHF antenna)
 - Tactical Repeater Channel to be used.
 - Contact information (phone or call sign) for individual controlling the repeater operation at the operational location.
 - (b) Air Operations.
 - Aircraft tail number and call sign.
 - Assigned or planned operational orbiting location or route of flight.
 - Planned altitude.
 - Crew member contact information (such as Command Channel 1, Tactical Channel, XYZ repeater).
 - Tactical Repeater Channel to be used.

E. Coordinating Instruction.

1. Use of the airborne tactical repeaters is restricted to 12,500' AGL or less. At that altitude the effective range is generally about 150 miles to a mobile unit, slightly less for a handheld receiver.
2. Channels 1-6 only may be used during airborne operations. Channels 1 and 2 are on the same frequencies as ground repeaters and can cause problems if not coordinated.
3. Airborne repeaters are not authorized during IFR flight operations.
4. During the conduct of ground operations tactical repeaters will remain stationary.

IV. SERVICE SUPPORT.

V. COMMAND & SIGNAL.

Signed

ALTIERI

Col, Director for Operations
FOR THE COMMANDER

OFFICIAL:

BABBITT
Deputy Director for Emergency Services (PLANS)

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