



## UNITED STATES MARINE CORPS

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ABO 2400.2A

GEMD  
21 DEC 1999

### AIR BASE ORDER 2400.2A

From: Commander  
To: Distribution List

Subj: TRANSMISSION OF AIRCRAFT DISTRESS FREQUENCIES 121.5 AND  
243.0 MEGAHERTZ (MHz)

Ref: (a) U.S. Department of Transportation (FAA) Order 7110.65L  
(NOTAL)  
(b) U.S. Department of Transportation (FAA) Order 7210.3N  
(NOTAL)  
(c) OPNAVIST (NATOP) 3710.7R (NOTAL)

1. Purpose. To set forth usage limitations of Aircraft Distress Frequencies 121.5 MHz AND 243.0 MHz and to provide guidance for "transmit capable" units to eliminate the misuse of these frequencies.

### 2. Background

a. The Aircraft Distress Frequencies of 121.5 MHz and 243.0 MHz were established for emergency use only. The frequencies are globally monitored by a number of satellites operating as one system, know as COSPAS-SARSAT. Data from the COSPAS-SARSAT is passed to ground listening stations, sent to Mission Control Centers (MCC) and to a Rescue Coordination Center (RCC). The Air Force RCC at Langley Air Force Base (AFB), disseminates the geographical location for any activated transmitter to the appropriate agencies.

b. There are specific and strict procedures for the use of 121.5 MHz and 243.0 MHz. The end result is that when an aircraft crew has an emergency situation which warrants transmission on these aircraft distress frequencies, the appropriate response will be initiated. Historically, aircraft distress frequencies are the subject of serious interference resulting from the improper testing of transmitters and survival radio sets. The inability to utilize these frequencies during a bona fide emergency has been documented by the Chief of Naval Operations as a contributing factor in several severe aviation-oriented accidents and fatalities.

### 3. Precautionary Measures

a. Testing. Testing of all distress frequency emitting radio equipment (121.5 MHz AND 243.0 MHz) shall be carried out in a proper electromagnetically shielded room, with minimum interference. Normal constructed buildings or maintenance shelters

will not provide adequate shielding for radio testing. A practical test is required to ensure that a shielded room or enclosure will block the radiation of electromagnetic energy. Testing or certification for these facilities is the responsibility of the Assistant Chief of Staff, G-6, Ground Electronic Maintenance Division.

b. Authorized Transmissions. The only authorized transmissions of distress frequencies are those directly concerned with aircraft or aircrew in distress, brief operational check of emergency transmission equipment prior to aircraft launch, packing of seat packs and brief on-air tests of Air Traffic Control transmitting and receiving equipment. When testing, the transmitting agency must identify itself during the transmission and it must be as brief as is humanly possible; normally not to exceed 30 seconds of continuous transmission. The frequency tested must be monitored during testing to ensure the tested transmitter is off the air when testing is completed.

c. Accidental Triggering. Emergency transceiver are very susceptible to accidental triggering. Once triggered, it is difficult to isolate the specific vest, seat or aircraft, due to the proximity to metal surfaces such as other aircraft parked on the flight line next to the transmitter or the transmitter being in or next to a hanger.

(1) Commanding officers possessing such devices are encouraged to indoctrinate all personnel in the proper handling, operational procedures, maintenance procedures and potential problems caused by unauthorized transmissions either inadvertent or deliberate of emergency transmitters.

(2) Pilots of operational aircraft at Marine Corps Air Station (MCAS) Miramar are required to monitor the aircraft distress frequencies at all times. Aircraft attempting to taxi around the flight line and/or depart the station with an active survival radio will be assumed to be in violation of said references (a) through (c).

4. Action. In addition to the precautionary measures discussed above and to ensure against accidental interference on 121.5 MHz and 243.0 MHz, the following action will be taken:

a. Each unit with transmitters installed and tuned to emergency frequencies of 121.5 MHz and 243.0 MHz shall monitor them during the conduct of flight operations to detect inadvertent transmissions as well as actual emergency transmissions.

ABO 2400.2A  
**21 DEC 1999**

b. Each organization possessing a distress emitting transmitter shall establish an alert procedure to notify the appropriate personnel for immediate response to reports of a triggered transmitter.

c. The MCAS Miramar Commanding General and Squadron Commanding Officers will ensure distress frequencies are monitored for possible transmission and/or lapses in frequency discipline, during all installations and removals of systems containing emergency beacons such as ejection seats.

d. The MCAS Miramar Commanding General and Squadron Commanding Officers will notify the appropriate unit commander to take corrective action, when and accidental triggering is detected and the offending beacon or transmitter is identified.

5. Concurrence. The Commanding General, 3d Marine Aircraft Wing and Commanding Officer, Marine Aircraft Group 46 concur in the provisions of this Order.

  
T. A. COUGHLAN  
Chief of Staff

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