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NATIONAL TRANSPORTATION SAFETY BOARD
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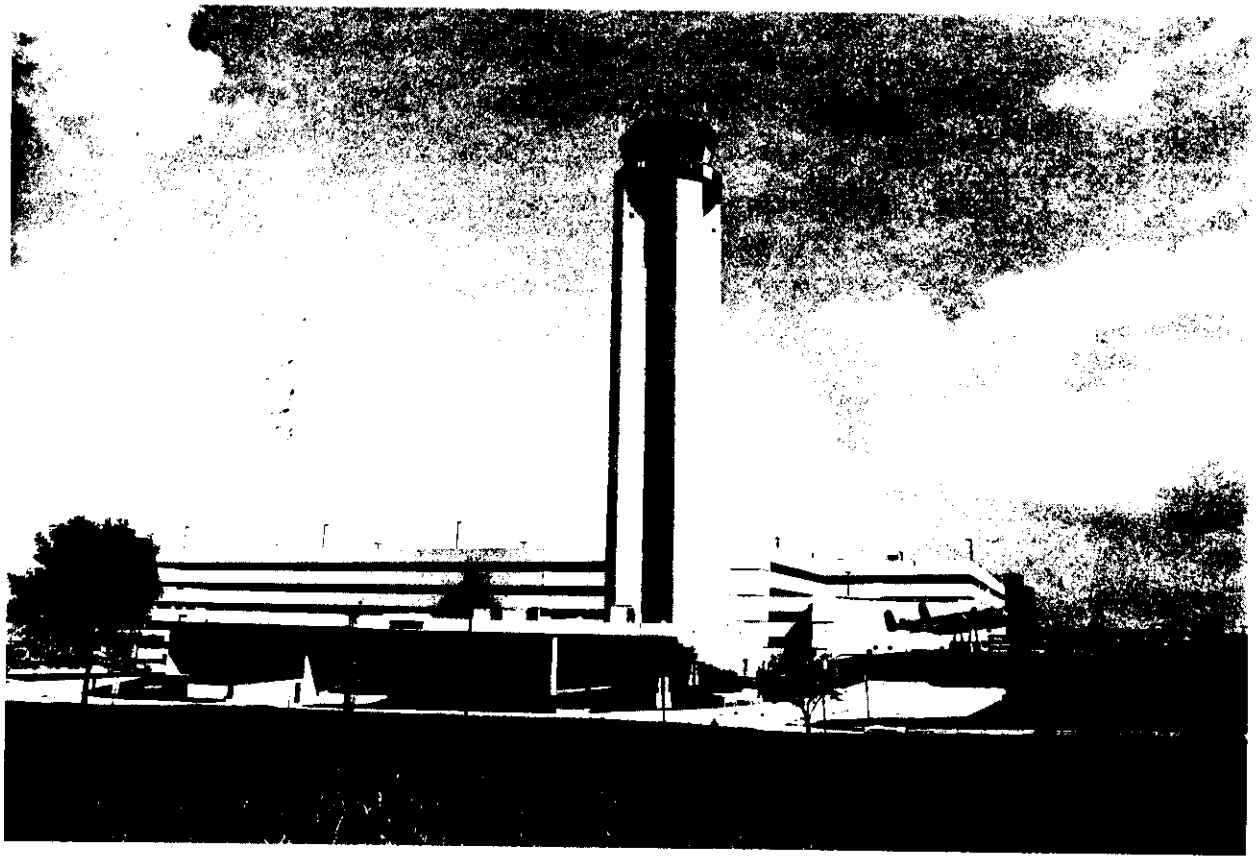
EXCERPTS FAA ORDER 7210.3
FACILITY OPERATION AND ADMINISTRATION

(17 pages)

U.S. Department
of Transportation
**Federal Aviation
Administration**

7210.3M
Facility Operation and Administration



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Prepared by the Air Traffic Rules
and Procedures Service

FACILITY OPERATION AND ADMINISTRATION

7210.3M

FOREWORD

This order provides direction and guidance for the day–to–day operation of facilities and offices under the administrative jurisdiction of the Federal Aviation Administration's Director of Air Traffic. All concerned personnel shall familiarize themselves with the provisions pertaining to their responsibilities. When a situation arises that is not adequately covered, exercise good judgment. The order consists of five parts. Part 1 contains information generally applicable to two or more types of facilities. Parts 2, 3, and 4 contain instructions unique to center, terminal, or flight service facilities. Part 5 contains information applicable to Traffic Management Systems.

James H Washington

for Bill F. Jeffers
Director of Air Traffic

h. During bomb threat situations, facility AT managers or their designees should exercise discretion regarding admittance of visitors to their facilities.

i. Facilities will take action to increase the security whenever such action is feasible. Measures to protect administrative and operational areas and equipment rooms should be taken. FAAO 1600.6 provides additional guidance for the protection of agency facilities, installations, equipment, etc. Examples are:

1. Increase security forces and measures.

2. Ensure that facilities are kept tidy so that out–of–place articles can be easily detected. This concept should be emphasized to all personnel including contractors and their employees.

3. Room or area monitors can be assigned to "look over" the area at frequent intervals for suspicious objects. In this regard, AT personnel assigned temporary administrative duties would be given building warden responsibilities..

REFERENCE–
Paragraph 2–6–2, Medical Clearance Requirements.

4. Outside areas should be kept as neat as possible. Landscaping should, if possible, be done in a manner that will not enhance clandestine activities.

j. Although it is envisioned that the foregoing will be accomplished within existing resources, planning (including budgeting) should be initiated to establish a secure environment.

k. Release information on bomb threat incidents in accordance with the procedures established in current directives. Where no applicable procedures have been established, all information shall be treated as "For Official Use Only."

2–1–9. AIRPORT EMERGENCY PLANS

a. Operational instructions covering airport emergency service at airports served by an ATCT and/or AFSS/FSS shall be issued by the AT manager (the ATCT manager at airports with both facilities) in the form of a LOA. Procedures and/or LOAs for alerting airport emergency equipment at other public–use airports served by the ATCT and/or AFSS/FSS shall also be developed, if deemed appropriate.

b. Responsibility for the prompt dispatch of equipment upon alert notice by the FAA ATCT or the FSS is the joint responsibility of the airport management and the emergency equipment operator. The amount of equipment and number of personnel responding to the emergency will be determined by the equipment operator and should be kept to the minimum required. After receiving the alert and the route to be taken, the personnel operating the equipment are responsible for handling the emergency.

c. Procedures for alerting airport emergency equipment, including additional equipment which may be located off the airport, shall consist only of:

1. Stating the nature and the location of the emergency by means of a signalling system; e.g., a siren and/or telephone. When required, the tower must indicate the route to be taken by the emergency equipment. FSS's shall not specify such routes.

2. Specifying, when required, the category of alert applicable to the emergency.

3. Initiating the alert when, in the opinion of any of the following, a potential or actual emergency exists:

(a) The FAA specialists on duty.

(b) The pilot of the aircraft concerned.

(c) The operator of the aircraft or his representative.

(d) A representative of the airport management.

d. ***Alert Phases:*** Operations personnel may categorize local alerts if the category or phase designations have been coordinated locally and agreed to. It may be desirable for emergency equipment to be alerted on a standby or ready basis by use of a two–phase or three–phase alert system, but keep these actions as inconspicuous as possible without impairing efficiency. A three–phase alert may be set up as follows:

1. ***Alert I:*** Indicating an aircraft approaching the airport is in minor difficulty; e.g., feathered propeller, oil leak, etc. The emergency equipment and crews would standby at the equipment house for further instructions.

2. ***Alert II:*** Indicating an aircraft approaching the airport is in major difficulty; e.g., engine on fire, faulty landing gear, no hydraulic pressure, etc. This could mean emergency equipment would proceed to a predetermined location (end of runway, etc.) to await development of the potential emergency.

3. ***Alert III:*** Indicating an aircraft involved in an accident on or near the airport and emergency equipment should proceed immediately to the scene.

e. After alerting the emergency equipment, notify only the local aircraft operator or his representative and the airport management.

NOTE–
Airport management is responsible for notifying other agencies or personnel.

2–1–10. EXPLOSIVES DETECTION K–9 TEAMS

At many of our major airports a program has been established by the FAA and the Law Enforcement Assistance Administration to make available an explosives detection K–9 team. ATC facilities shall take the following actions should they receive an aircraft request for the location of the nearest explosives detection K–9 team:

a. The facility will relay the pilot's request to the FAA Washington Operations Center, ADA–30, telephone: commercial (202) 267–3333; ETN 521–0111; or DSN 667–5592 providing the aircraft's identification and position.

b. ADA–30 will provide the facility with the nearest location. The facility will have ADA–30 standby while the information is relayed to the pilot.

c. After it has been determined that the aircraft wishes to divert to the airport location provided, the AT facility will ascertain estimated arrival time and advise ADA–30. ADA–30 will then notify the appropriate airport authority at the diversion airport. In the event the K–9 team is not available at this airport, ADA–30 will relay this information to the AT facility providing them with the secondary location. ATC will then relay this to pilot concerned for appropriate action.

2–1–11. INTERSECTION TAKEOFFS

AT managers at ATCT's and at FSS facilities that provide LAA will prepare an airport diagram showing intersection takeoff information as follows:

a. Indicate the actual remaining runway length from each intersection; round all actual measurements "down" to the nearest 50–feet. Obtain measurements from an authentic source and record them on the diagram.

b. If the airport authority requests that certain intersection takeoffs be denied, so indicate on the diagram.

EXAMPLE–
/NO TKOFF/

c. Indicate any access points to a runway from which an intersection takeoff may be made.

2–1–12. AIRCRAFT IDENTIFICATION PROBLEMS

To alleviate any potential misunderstandings of aircraft identifications caused by duplicate, phonetically similar–sounding, or hard to distinguish registration numbers or call signs operating in the same area, facility managers shall ensure that area supervisors report those occurrences to a facility officer and that the following actions be taken.

a. Scheduled air carrier aircraft: When two or more air carriers with duplicate flight numbers or phonetically similar–sounding call signs operate within 30 minutes of each other at the same airport or within the same sector and cause an identification problem on a recurring basis, request that the flight identification numbers be changed by:

NOTE–
Recurrent situations would be aircraft proceeding primarily the same direction through the same sectors three or more times a week, at least two weeks out of four consecutive weeks.

1. In the case of carriers listed in Appendix 4. , contact the appropriate airline office or officer.

2. If other than one of the carriers listed in Appendix 4. contact the operator or the chief pilot of the carrier concerned.

b. *Military aircraft:* Contact base operations of the departure airport and request that action be taken to have the flight identifications changed when duplicate, phonetically similar, or hard to distinguish call signs are causing a flight identification problem. If additional assistance is required, immediately advise the appropriate FAA liaison officer (HQ ACC/DOF, HQ AMC/DOF, NORAD/ADC, HQ AETC/XOS, HQ AFMC/DOF, HQ AFSPC/DOGH) or the military representative assigned to the regional office.

c. Civil aircraft other than air carrier: Advise Civil Operations, ATO–100, when two or more designated call signs are found to be phonetically similar or difficult to pronounce and are causing a flight identification problem.

d. The designated facility officer shall maintain a record of actions taken and provide feedback to area supervisors. That record shall include:

1. Date/time of occurrence.

2. Location (e.g., RUS VORTAC, sector 90, Shannon Airport).

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Section 4. WATCH COVERAGE

2–4–1. BASIC WATCH SCHEDULES

a. Facility AT managers are responsible for preparing watch schedules for their facilities. These schedules shall take into account normal traffic flow thereby permitting the posting of a continuing rotational schedule for an indefinite period of time. Facility management is responsible for appropriate consultation with local unions.

b. Facility AT managers shall, to the maximum extent possible, establish overlapping shifts thereby providing an opportunity for personnel to accomplish a majority of briefings without need for overtime assignment.

c. Facility AT managers shall ensure that air traffic control specialists (ATCS's) assigned to a position of operation:

1. Do not work more than 6 consecutive days.

2. Do not work more than a 10–hour day.

3. Have an off–duty period of at least 8 hours between watches.

2–4–2. DESIGNATING WATCH SUPERVISION COVERAGE

a. Efficient AT services require supervision of each watch regardless of the number of people assigned.

b. When two or more area managers (AM) are on duty at the same time, one shall be designated by the AT AMIC. This assignment shall be rotated.

c. When two or more area supervisors (AS) are on duty in the same area, one shall be designated by the AMIC as ASIC. In ARTCC's, the ASIC becomes the area operations supervisor where appropriate.

d. At facilities where a specialist stands a watch alone, responsibility for the overall operation of the facility during the watch becomes a part of his/her duties except as noted in para. 2–4–10d, Controller–in–charge (CIC) Training.

e. When two or more specialists are on duty and no supervisory personnel are available (see Note), one specialist who is fully qualified and rated in the assigned operational area shall be designated by the facility AT manager as CIC for that watch. Specialists so designated may be required to perform specialist duties in addition to those associated with watch supervision. The CIC designation shall be rotated among qualified specialists. Persons so designated perform the full range of duties associated with watch supervision. Watch supervision by itself does not justify a higher grade; i.e., the CIC does not perform supervisory duties, such as:

1. Evaluating employee performance.

2. Recommending selections, promotions, awards, disciplinary actions, and separations.

3. Explaining and gaining support of employees for management policies and goals.

4. Counseling employees on their performance ratings.

NOTE–
A supervisor is considered available for watch supervision when he/she is physically present in the operational area and is able to perform the primary duties of the supervisory function. If the supervisor leaves the operational area, or is engaged in an activity which may interfere with or preclude the performance of watch supervision duties, then a CIC must be designated.

2–4–3. AREA SUPERVISION

AS's primary function is the supervision of their area and assistance to specialists. It is particularly important that supervisors carefully monitor current and anticipated sector activity to ensure that available controller staffing is deployed at optimal efficiency. Managers shall, to the extent practicable, avoid scheduling supervisors for non–operational duties during periods of known heavy traffic.

2–4–4. RELIEF PERIODS

a. Facility AT managers shall use all available qualified personnel to provide relief periods. First priority should be given to providing a reasonable amount of time away from the position of operation for meals. Additionally, time for such things as briefings and training should be made by rotating work assignments among qualified employees.

b. Supervisors in charge are responsible for knowing the whereabouts of employees to ensure their operational availability. Supervisors are also responsible for ensuring that relief periods are applied in such a manner as to maximize the usage of personnel and to promote the efficiency of the agency.

c. Relief period, i.e., break, is defined by the Comptroller General as being a "brief" rest period that may be assigned by the agency. While no specific timeframe is placed on the duration of relief periods, supervisors and managers will be held accountable to ensure that breaks are of a reasonable duration.

d. Supervisors shall not condone or permit individuals to sleep while on duty. Any such instance shall be handled in accordance with FAAO 3750.4, Conduct and Discipline.

2–4–5. OVERTIME DUTY

Facility AT managers shall ensure that overtime duty is equitably distributed among all eligible employees who desire it. Retain overtime duty records for 12 months.

2–4–6. HOLIDAY STAFFING

a. Facility AT managers shall ensure that the scheduled staffing is adjusted on holidays to a level consistent with the anticipated workload. Application of this policy is not intended to result in a standardized holiday staffing schedule for all holidays. Holiday staffing schedules may vary for individual holidays since the traffic in a particular area cannot always be expected to be the same for each holiday.

b. Prior to establishing work schedules for a Federal holiday, facility AT managers shall:

1. Consider the previous year's traffic statistics for each holiday.

2. Check, as appropriate, with local sources (Air National Guard, USN, USAF Reserves, local flying schools, fixed base operators, etc.) for information concerning anticipated activity.

2–4–7. CONSOLIDATING POSITIONS

Assign personnel to positions as required by activity, equipment, and facility function. Positions may be consolidated in consideration of activity and the qualifications of the personnel involved.

2–4–8. SUPERVISORS HOURS OF DUTY

Hours of duty of facility AT managers and administrative staffs should conform with the duty hours of their regional office.

2–4–9. FACILITY COMPLEMENTS

Facility AT managers will be currently informed by the ATD of their authorized facility personnel complements. The authorized complement will always be the end–of–year employment ceiling authorization. Circumstances may result in the establishment of a complement different from that provided in workload formulas.

2–4–10. CONTROLLER–IN–CHARGE (CIC) TRAINING

a. Prior to being designated as CIC, specialists shall have been facility/area rated/certified for 6 months. The specialist shall also have completed an agency approved and established CIC training course for the assigned option (i.e., En Route CIC, Course 55108, National Flight Service CIC, Course 55025, or Terminal CIC, Course 55024). The ATD manager may issue a facility waiver for the 6 months criteria where a more immediate assignment is indicated. Upon receipt of a waiver from the ATD the facility manager can then issue individual waivers to the 6 months requirement on a case–by–case basis. Waivers to facilities will be for 1 year with renewals based on the result of a yearly evaluation by the region.

NOTE–
In combined radar/tower facilities, specialists that are certified in the tower cab may perform CIC duties in that area of operation provided all of the above prerequisites are met.

b. Specialists that have completed the CIC course, who have performed CIC duties, and who subsequently transfer to another facility shall be required to complete those portions of the course that are specific to the new facility before assuming CIC duties. They shall not be required to fulfill the 6 months experience requirement at the new facility.

c. Upon completion of the CIC course, record an entry noting this in the specialist's Training and Proficiency Record, 3120–1, section 3.

d. At facilities with a VSCS system, a specialist shall not stand a watch alone as the CIC, until that individual has received VSCS system configuration training.

e. When no supervisory personnel are available (see 2–4–2 Note), a specialist who is fully qualified and rated in the assigned operational area, except VSCS configuration training, can be designated by the AT manager or the ASIC as the CIC for that watch if the provisions of subpara. c. above are complied with.

f. At facilities operating with a VSCS system and the specialist designated as a CIC has not received system

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configuration training, a supervisor from another area of specialization shall be assigned responsibility for system configuration functions.

Section 7. WEATHER/VISIBILITY

2–7–1. BACKUP/AUGMENTATION OF WEATHER OBSERVATIONS

a. Facilities where AT personnel provide backup/augmentation of automated weather observations, or take manual observations, shall use FAAO 7900.5, Surface Weather Observing, as the basic source of guidance for completion of observations.

b. In an automated weather environment, elements of automated weather observations may be used for operational purposes (i.e., wind and altimeter).

c. Specialists responsible for providing backup/augmentation of automated weather observations, or manual observations, must be certified by the National Weather Service (NWS).

REFERENCE–
Para. 16–1–2, Certificates of Authority.

2–7–2. RECEIPT AND DISSEMINATION OF WEATHER OBSERVATIONS

a. Facility AT managers shall establish a means by which the receipt of weather observations are immediately known to facility personnel responsible for dissemination to other facility functions and that these functions are made aware of changes as they are posted. This may be accomplished by means of an alerting device, location of weather receiving equipment at positions so that any change of data is recognized, or any other means which may be best suited to the facility work environment.

b. To the extent possible, facility AT managers shall establish procedures to acknowledge receipt of weather observations. Where possible, establish an agreement with the appropriate weather source to share the responsibility for ensuring the receipt of the observation. Automated Surface Observing System(s) (ASOS), Automated Weather Observing System(s) (AWOS), and Automatic Weather Information System (AWIS) locations are not required to acknowledge receipt of observations.

c. The addition or deletion of a weather reporting location shall be coordinated through the appropriate regional office, for forwarding to ATO–100. ATO–100 shall initiate the required actions for additions and/or deletions to the national data base. When adding new weather reporting locations, include a statement that:

1. An aviation requirement exists.

2. The observers are/have been certified by the NWS.

3. No other observation exists in the surface area, if applicable.

4. Identifies the hours that the data will be available if less than 24 hours, i.e., 0800Z–2300Z.

5. Identify what facility will be responsible for observation entry into the system.

2–7–3. LIMITED AVIATION WEATHER REPORTING STATION (LAWRS) HOURS OF OPERATION

Facility AT mangers shall submit to ATR–120/ATA–100 the hours of operation with the date that the facility commences participation in the LAWRS program and any changes thereafter in the hours of participation.

2–7–4. NON–AVIATION WEATHER SERVICE

Facilities shall not enter into agreements with any person or office, including fixed–base operators, to provide weather data for property protection purposes. The FAA shall not be responsible for providing weather information unless it is directly related to the actual or intended operation of aircraft. Personnel shall not encourage nor solicit non–aviation weather activity. Refer requests for this type of weather information to the nearest WSO.

2–7–5. NATIONAL WEATHER RECORDS CENTER

Refer requests for surface weather observations from non–aviation sources; e.g., requests from insurance companies for weather data relative to storm damage, to the National Weather Records Center, Environmental Data Service, Federal Building, Asheville, N.C., 28801.

2–7–6. VISIBILITY CHARTS

Where facilities provide backup/augmentation of automated weather observations, or manual observations, the facility AT manager, in conjunction with NWS personnel, shall prepare and maintain visibility charts in accordance with the following:

a. Prepare a chart(s) or list(s) for daytime and nighttime visibility markers. At local discretion, visibility markers may be depicted on separate daytime

Section 3. COMMUNICATIONS PROCEDURES

3–3–1. SERVICE "F" COMMUNICATIONS

Facility AT managers shall establish procedures to provide interim communications in the event that local or long–line standard Service "F" fail. These shall include the use of telephone conference circuits and the use of airline or other facilities.

3–3–2. TELEPHONE COMMUNICATIONS

a. Answer public access telephones by stating the facility's name and type. The employee may state his name at his discretion. If, for any reason, a caller specifically requests identification, the employee should provide his assigned operating initials in lieu of the actual name.

EXAMPLE–
ARTCC: (The facility's name) Center; e.g., Washington Center.
FSS: (The facility's name) Flight Service; e.g., Prescott Flight Service.
ATCT: (The facility's name) Tower; e.g., Atlanta Tower.
Approach Control: (The facility's name) Approach Control; e.g., Dulles Approach Control.

b. Answer local airport, private exchange (PX), or interdepartmental system type telephones as outlined above, except omit the location name; e.g., Center, Tower, Flight Service, etc.

c. Where the public access telephone is recorded, a beeper tone is not required. In place of the "beep" tone, the FCC has substituted a mandatory requirement that persons to be recorded must be given notice that they are to be recorded and give consent. This notice is given to the public through an entry in the Airmen's Information Manual (AIM). Consent to the record is assumed by the individual then placing the call to an operational facility.

3–3–3. MONITORING FREQUENCIES

a. Frequencies allocated to a facility shall be continuously monitored except:

1. ARTCC's need not monitor 121.5 and 243.0 mHz if other ATC facilities monitor those frequencies in a given area.

2. FSS's equipped with ICSS equipment may reconfigure the ICSS to allow the temporary selection, muting, or rerouting of 121.5 and 243.0 mHz. during the period of an interfering signal; e.g., continuous emergency locator transmitter (ELT), Stuck mike, etc.

b. Facilities shall establish procedures to ensure that frequencies used on a shared basis; e.g., single frequency approach operations, are continuously monitored by one of the positions of operation.

3–3–4. EMERGENCY FREQUENCIES 121.5 AND 243.0 mHz

a. AT facilities shall have transmit and receive capability on emergency frequencies 121.5 and 243.0 mHz as necessary to meet emergency frequency network requirements.

b. Normally, ARTCC emergency frequency capability shall be limited to the transmitter/receiver site nearest the ARTCC.

c. At locations having more than one type of facility, such as an FSS and a tower, or an FSS, a tower, and an ARTCC, a common transmitter and receiver may be shared where practicable. Where this is done, the transmitter shall be equipped with a lockout device to avoid inadvertent interference between facilities.

d. When facilities are in proximity and no derogation of services will result, transmit/receive capability should not be provided for each facility. The following requirements shall be maintained:

1. Geographical area coverage shall not be derogated.

2. DF–equipped facilities shall have transmit/receive capability on 121.5 mHz.

3. Facilities without emergency frequency capability shall have appropriate landlines for rapid relay of emergency information.

e. The two emergency channels shall not be terminated on the same key in the transmitter–receiver selector panels. Neither emergency frequency shall be terminated with any other frequency.

f. To preclude inadvertent use of these frequencies, a mechanical or other appropriate device shall be provided which will require deliberate removal or bypass before any emergency frequency transmit key can be moved to the locked–operate position.

g. UHF emergency frequency 243.0 mHz is installed in military aircraft using an override arrangement. As a result, transmissions on this frequency are received by all military aircraft within the transmitter's area of coverage. Unnecessary emissions on this frequency derogate communications on ATC frequencies and may

interfere with valid emergency communications. Reduce transmissions on 243.0 mHz to the absolute minimum consistent with safety.

h. As a minimum, conduct two–way, ground–to–air checks during low activity periods:

1. Once a week.

2. Following equipment repairs.

3. Following AF maintenance checks.

i. Control facilities should limit broadcasts on 243.0 mHz to the facility in the area of desired coverage and shall insure that broadcasts are not continued unnecessarily.

3–3–5. BATTERY–POWERED TRANSCEIVERS

Facilities equipped with battery–powered transceivers shall ensure that they are maintained in a state of readiness. Transceivers shall be checked at least once a week.

3–3–6. FACILITY STATUS REPORT

Facility AT managers shall notify the AT Operations Service by message, attention ATO–100, with an information copy to the appropriate ATD, of changes in the operational status of communications facilities not covered by FAA Order 7900.2, Reporting of Electronic Navigation Aids and Communication Facilities Data to the NFDC. The following data shall be reported (include the RIS AT 7230–12 in the text):

a. The date and time FAA assumes operation of or decommissions an operations center, message center, data switching center, domestic or international aeronautical fixed telecommunication network (AFTN) "data communication circuit", or international voice circuit.

b. Change in the hours of operation of any of the above and the effective date.

c. Changes required in weather schedule publications and communications systems drawings.

3–3–7. TESTING EMERGENCY LOCATOR TRANSMITTERS

a. The frequencies 121.6, 121.65, 121.7, 121.75, 121.8, 121.85, and 121.9 mHz are authorized to ELT test stations and for use in ELT exercises by the Air Force, Coast Guard, and other search and rescue organizations. Coordination with regional frequency management offices must be effected prior to activating the transmitter. Non–Federal assignments must be obtained through the FCC.

b. Airborne ELT tests shall not be authorized.

c. Aircraft operational testing of an ELT is authorized on 121.5 mHz and 243.0 mHz as follows:

1. Tests should be no longer than three audio sweeps.

2. If the antenna is removable, a dummy load should be substituted during test procedures.

3. Tests shall only be conducted the first 5 minutes of any hour.

d. Normally, there will be no interference on 121.5 mHz or 243.0 mHz as testing will be conducted in a screened or shielded room or test enclosure that will hold the self–contained ELT unit with the antenna fully extended. If interference is noted, it shall be brought to the attention of the repair station operator for corrective action. If the repair station operator does not correct the fault and the interference continues, make a verbal report to the appropriate FSDO.

3–3–8. VSCS FREQUENCY BACKUP

a. Assign each "Radar Associate" position the identical frequencies as the "Radar" position except where precluded by system hardware/software limitations or facility needs.

b. If the conditions of paragraph a. cannot be met, the frequencies needed to control each sector shall be available at another position. This level of redundancy assures all A/G frequencies can readily be covered in the case of VCE outage.

3–3–9. VSCS RECONFIGURATIONS

a. AT VSCS positions listed as "released to maintenance" shall not be reconfigured unless prior approval has been received from AF.

b. When approval has been obtained and the reconfiguration action has been completed, return the previously released position to AF and continue to list the position as "released to maintenance," or as directed by AF.

NOTE–
During the period that the VSCS position is listed as "released to maintenance," this procedure shall be utilized whenever a reconfiguration to the position is required.

3–3–10. VEARS (VSCS EMERGENCY ACCESS RADIO SYSTEM)

a. Facility AT managers shall ensure that local procedures are developed which will accommodate

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Section 3. DISPLAYS

10–3–1. DIGITAL MAP VERIFICATION

Verification of the accuracy of new or modified digital maps shall be accomplished through the use of "targets of opportunity" over displayed fixes, navigational aids, etc. Any observed discrepancies shall be documented to indicate the observed direction and displacement. If any errors cannot be corrected or if a facility is otherwise dissatisfied with the results from "targets of opportunity," a request may be made through the FIFO for a flight check.

10–3–2. DATA DISPLAY FOR BLOCK ALTITUDE FLIGHTS

Facilities operating in the narrowband mode shall ensure that, as a minimum, radar target symbols, aircraft identification's (ACID's), and altitude information are displayed at all sectors affected by altitude assignments involving more than one altitude (Block Altitude) when radar separation is being provided.

10–3–3. SELECTED ALTITUDE LIMITS

Facilities shall insure that:

a. EARTS en route sector selects altitude filter limits to include, as a minimum, the altitude stratum of the sector plus:

1. 1,200 feet above the highest and below the lowest altitude or flight level of the sector where 1,000 feet vertical separation is applicable; and

2. 2,200 feet above the highest and below the lowest flight level of the sector where 2,000 feet vertical separation is applicable.

b. Each NAS En Route Stage A sector and each direct access radar channel (DARC) sector displays altitude limits in the "R" CRD when operating on NAS En Route Stage A, or on the PVD when operating on DARC, and selects the display filter keys on the PVD to include, as a minimum, the altitude stratum of the sector, plus:

1. 1,200 feet above the highest and below the lowest altitude or flight level of the sector where 1,000 feet vertical separation is applicable; and

2. 2,200 feet above the highest and below the lowest flight level of the sector where 2,000 feet vertical separation is applicable.

c. The above procedures are necessary to ensure Mode C target and data block display and to increase safety between IFR and other aircraft entitled to the services afforded by Merging Target Procedures. Exceptions to these procedures for specific altitudes in certain sectors are authorized only with the approval of the ATD manager.

10–3–4. AUTOMATED WEATHER DISPLAY STATUS

Facilities operating in the narrowband mode shall ensure that sector controllers are immediately briefed on any change in the status of the Weather Fixed Map Unit (WFMU) or radar polarization.

Section 4. SERVICES

12–4–1. AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

a. ATIS provides advance noncontrol airport/terminal area and meteorological information for use by aircraft arriving and departing and operating within the terminal area. This can be accomplished by data link text, available upon request, and/or a voice message recording, which is a repetitive broadcast on a voice outlet.

b. Assign ATIS responsibilities to a specific position of operation. These shall include updating ATIS messages and disseminating current messages to pertinent positions of operation.

c. Before being transmitted, the voice and/or text message shall be reviewed to ensure the content is complete and accurate. When appropriate the voice/text shall be cross checked to ensure the message content is the same. In a conventional controller prepared voice recording ensure the speech rate does not exceed 100 words per minute, the enunciation is of the highest quality, and each part of the message is easily understood. Whenever feasible, the review of the message should be made by a person other than the one who prepared the original, preferably a supervisor or CIC.

d. Specific sequential portions of the alphabet may be assigned between facilities or for an arrival and departure ATIS when confusion could result from using the entire alphabet for each ATIS.

1. A LOA shall be established between facilities designating the ATIS codes which will be used by each facility.

2. A facility directive shall be developed designating the ATIS alphabet codes which will be used by each facility or for an arrival and departure ATIS.

REFERENCE–
FAAO 7110.65, para. 2–9–1, Application.

EXAMPLE–
Departure ATIS codes could be assigned codes of "Alfa" through "Mike" and arrival ATIS codes assigned "November" through "Zulu." The ATIS codes may also be divided between facilities.

e. Make ATIS messages a matter of record on facility recorders. If not possible, retain a written record of each message in the facility's files for 15 days.

f. Keep messages as brief and as concise as possible. Optimum duration of up to 30 seconds should not be exceeded unless required for message content completeness.

g. Part–time towers that have ATIS capabilities should record for continuous broadcast the following information during hours of nonoperation:

NOTE–
Those facilities that have ASOS/AWOS shall allow the automated weather report to continue to be broadcast on the ASOS/AWOS frequency and include the applicable information in paragraph 12–4–1(g), 1 thru 5 at the time of closing.

1. The local tower closure time.

2. The appropriate common traffic advisory frequency (CTAF).

3. The frequency for operating radio controlled approach lights.

4. The FAA facility and frequency for additional information.

5. The local tower opening time.

EXAMPLE–
"(Name of tower) tower suspended operation at (time) local time. The common traffic advisory frequency is (frequency). Pilot operated approach lighting is available on frequency. For additional information contact (name of approach control or center) on (frequency). (Name of tower) tower will resume normal operations at (time) local."

12–4–2. PRETAXI CLEARANCE PROCEDURES

a. If a need exists, facilities should develop pretaxi clearance procedures for departing IFR aircraft. Use of CD frequency is desirable for implementing such procedures. However, facilities without CD frequency may use GC frequency for pretaxi clearance if the service can be provided without derogating the primary function of GC. When developing pretaxi clearance procedures, do the following:

1. Coordinate the proposed procedures with the airport users.

2. Inform the Operations Division, ATO–100, when procedures are implemented.

b. Include the following in pretaxi procedures:

1. The procedures are not mandatory.

2. The pilot calls CD or GC not more than 10 minutes before proposed taxi time.

3. The IFR clearance or the delay information should be issued at the time of initial callup.

4. When the IFR clearance is issued on CD frequency, the aircraft is changed to GC for taxi clearance.

Section 5. TERMINAL RADAR

12–5–1. SHUTDOWN OF PAR ANTENNAS

When PAR equipment is not required for ATC controller training, maintenance, or other use, shut down the antenna. Keep the main power supply and the high voltage system energized to permit immediate restoration of PAR equipment for operational use.

12–5–2. RADAR DISPLAY INDICATORS

a. Radar approach and departure control functions will normally be conducted from a TRACON. Either direct view or bright display indicators may be used. These functions may be performed from the tower cab if:

1. Not more than two radar operating positions are required and bright display indicators are used on a permanent basis.

2. More than two operating positions are required and bright display indicators are installed on an interim basis pending the establishment of a TRACON.

3. On a temporary basis if other than bright display indictors are installed.

b. Consider the following if scan conversion type bright display equipment is used:

1. A standard bright display installation consists of one operational and one standby scan conversion unit. The range and centering selected for the master bright display will be the same on all slaved bright display indicators.

2. If the particular radar operating positions concerned require a capability for individual beacon decoding, each bright display position will require a separate scan conversion unit.

3. That a determination must be made if surveillance approach capability would be lost using only scan conversion bright display indicators. If the determination is that it would be lost, at least one direct view indicator must be retained.

c. VFR Radar Advisory Service functions will normally be conducted from the TRACON.

d. A radar bright display installed in the tower cab for LC use shall be positioned where it can be conveniently viewed from the local controller's normal sitting or standing position.

e. PAR functions will normally be conducted in a TRACON.

f. Airport Surface Detection Equipment (ASDE) indicators shall be placed in the tower cab so as to serve the LC and GC positions.

g. The BRITE–I, II, IV, and the Tower Cab Digital Display (TCDD) may be used for any terminal radar function.

h. The 12–inch or larger TV monitor display may be used in lieu of a BRITE display when authorized by the region and the display is certified by airway facilities. Any TV monitor display less than 12 inches shall not be used for ATC separation purposes. It is solely to provide alphanumeric readout capability to the CD/FD position at locations where that position has keyboard access to an ARTS.

12–5–3. FUNCTIONAL USE OF TOWER RADAR DISPLAYS

a. At towers combined with full radar approach control facilities where controllers rotate between the approach control and the tower, certified tower radar displays may be used by local controllers for any terminal radar function provided their ability to satisfy FAA's AT responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility is not impaired. The conditions and/or limitations for the radar usage shall be specified by a facility directive.

b. At towers combined with full radar approach control facilities where controllers do not rotate between the approach control and the tower, or at towers not combined with full radar approach control facilities, certified tower radar displays may be used by local controllers for the following functions:

1. To determine an aircraft's identification, exact location, or spatial relationship to other aircraft.

NOTE–
This authorization does not alter visual separation procedures. When employing visual separation, the provisions of FAAO 7110.65, para. 7–2–1, Visual Separation, apply.

2. To provide aircraft with radar traffic advisories.

3. To provide a direction or suggested headings to VFR aircraft as a method for radar identification or as an advisory aid to navigation.

4. To provide information and instructions to aircraft operating within the surface area for which the tower has responsibility.

5. To ensure separation between successive departures, between arrivals and departures, and between overflights and departures within the surface area for which the tower has responsibility provided:

(a) There is no airspace delegated to the tower;

(b) The local controllers have radar training and certification commensurate with their radar duties;

(c) A LOA, approved by the ATD, exists with the IFR facility having control jurisdiction which authorizes the specific radar function and prescribes the procedures to be used;

(d) The LOA prescribes the process for a transition to nonradar procedures or the suspension of separation authority in the event of a radar outage;

(e) The procedures for giving and receiving radar handoffs or point outs do not impair the local controller's ability to satisfy FAA's AT responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility; and

(f) The procedures for ensuring radar separation do not require the tower to provide radar vectors.

c. Operational applications of tower radar displays other than those outlined in subpara. a. and b., above, and/or the delegation of airspace to a tower require a staff study as prescribed in FAAO 7210.3 para. 2–1–14c., Authorization for Separation Services by Towers.

12–5–4. ASR PERFORMANCE CHECKS

a. Each radar controller is responsible for determining on a day–to–day basis if the quality of their radar display and video display accuracy is satisfactory for ATC purposes. Radar quality and performance is determined by comparing identified targets against data obtained during the commissioning flight check or through minimum performance criteria determined jointly by AT and AF personnel. Radar controllers shall be familiar with commissioning flight check and minimum performance data. AT managers shall make this information available to the controllers. Aircraft selected for these daily checks should be small aircraft similar in size to those used in the commissioning flight checks.

REFERENCE–
FAAO 7110.65, para. 5–1–2, Alignment Check.

b. The daily radar performance check shall be a part of the routine checks of equipment. (See FAAO 7210.3, Preparation of Form 7230–4, para. 4–6–5.) The check shall be accomplished once each watch. It is recognized that on some watches this check may not be accomplished because of a lack of traffic. The facility AT manager may request a special flight check to ensure that the requirements of paragraph 7210.3, 12–5–4, ASR Performance Checks, are met.

12–5–5. DEFICIENCIES IN SYSTEM

Note deficiencies in the radar system on FAA Form 7230–4. Reconcile them as follows:

a. After consultation with the AF representative, the terminal AT manager or his representative shall decide if this radar system is usable. Consider atmospheric or other phenomena that may temporarily affect radar performance.

b. Certification by AF personnel that a malfunction has been corrected shall be entered on FAA Form 7230–4.

NOTE–
AF representatives may ground check the equipment to determine if the radar system is operating satisfactorily or request a special flight check.

12–5–6. RADAR TOLERANCES

ASR systems shall conform to the following tolerances for radar performance checks:

a. *Coverage:* A usable target return (one which is not missed on more than two consecutive scans) will be maintained along the entire airway/route or arrival/departure control routes for which radar service is provided. Tracking accuracy along these routes will be within the fix/map accuracy in subpara. b., below. Radar services for arrival or departure routes are considered to exist between the normal handoff point and a point $^1/_2$ mile from the end of a runway or for secondary airports, the point where the aircraft leaves or enters the bottom fringe of the radar coverage pattern.

1. *Horizontal:* No tolerance assigned.

2. *Vertical–Acceptance Check:* A complete radar coverage pattern shall be flown to determine whether the radar meets engineering and operational specifications.

Section 2. AUTOMATED RADAR TERMINAL SYSTEM (ARTS)

13–2–1. OPERATIONAL USE

a. Do not use ARTS data when the system is released to AF technicians.

b. Verify the operational status of all ARTS components daily prior to operational use.

c. Advise effected facilities when ARTS equipment will not be operational at normal startup time, when it fails, is shut down, resumes operation, or when interfacility mode is lost/regained.

13–2–2. DATA ENTRIES

Facility directives shall prescribe the use of the Scratch Pad and the specific responsibility for entering the current ATIS alpha character, the current General System Information (GSI), and the System Altimeter Setting. When an ARTS facility serves more than one controlled airport, an average of the altimeter settings for those airports may be specified as the System Altimeter Setting. A remote altimeter setting may be used in accordance with FAAO 7210.3, para. 2–8–4, Comparison Checks, in the event that all local altimeter indicators fail. Do not use this procedure whenever conditions indicate the probability of a steep pressure gradient between two locations.

NOTE–
The ARTS II system does not provide a GSI area; however, it does provide the capability to enter and display an assigned altitude.

13–2–3. DISPLAY DATA

a. When a malfunction causes repeated discrepancies of 300 feet or more between the automatic altitude readouts and pilot reported altitudes, request the AUS or AF personnel to inhibit the automatic altitude report (Mode C) display until the malfunction has been corrected.

b. Operate the field inhibit/select switches in the select position for the leader line, ACID, altitude, and handoff fields. The control position symbol and other full data block fields shall be selected/inhibited in accordance with facility directives.

c. Display Mode C on untracked (ARTS IIIA unassociated) targets within each controller's area of responsibility by setting the altitude filters to encompass all altitudes within the controller's jurisdiction. Set the upper limits no lower than 1,000 feet above the highest altitude for which the controller is responsible. In those stratified positions, set the upper and lower limit to encompass at least 1,000 feet above and below the altitudes for which the controller is responsible. When the position's area of responsibility includes down to an airport field elevation, the facility will normally set the lower altitude filter limit to encompass the field elevation, so that provisions of FAAO 7110.65, para. 2–1–6, Safty Alert, and FAAO 7110.65, para. 5–2–18a2, Validation of Mode C Readout, may be applied. AT managers may authorize the temporary suspension of this requirement when target clutter is excessive.

REFERENCE–
FAAO 7110.65, paragraph 5–2–24, Altitude Filters.

13–2–4. USE OF ARTS MODIFY AND QUICK LOOK FUNCTIONS

a. Where ARTS data from a system common to the TRACON and the tower is presented on the TCDD (Tower Cab Digital Display) or the BANS (BRITE A/N System) display in the tower cab, and if operational benefits will accrue by using the MODIFY or QUICK LOOK functions, a facility directive or a LOA shall be prepared specifying:

1. Procedures for data transfer between the TRACON and the tower cab.

2. Communications changeover points.

3. Transfer of control points.

4. Hours or conditions under which facility policy prohibits use of these functions.

5. The responsibility of the local control position to determine whether use of MODIFY or QUICK LOOK functions is satisfactory or some other mode of data transfer is to be used; e.g., voice call or computer handoff.

b. Factors to be considered by the controller in determining use of the MODIFY or QUICK LOOK functions and by the facilities for prohibiting their use include, but are not limited to, light on the face of the TCDD or the BANS display, traffic volume, other duties requiring the controller's attention, and the number of controllers available in the tower.

13–2–5. AUTOMATION PROGRAM CHANGES

The AT managers of automated facilities shall review each SITE PROGRAM BULLETIN (TERMINAL)

issued by AOS–400, local program patches, and changes to the data base to determine any operational/procedural impact. When necessary:

a. Issue a facility directive describing the functional change/s and any resulting procedural change/s.

b. Coordinate any functional, procedural, and airspace change/s with the ARTCC providing automation interface.

13–2–6. AUTOMATIC ACQUISITION/TERMINATION AREAS

a. Facility AT managers shall:

1. Establish automatic acquisition areas for arrivals and overflights at ranges permitting auto–acquisition of targets prior to the ARTCC/ARTS– to–ARTS automatic handoff area when the center is in the radar data processing (RDP) mode.

2. Coordinate with the adjacent automated facilities to ensure that computer handoffs will be initiated only after the aircraft is within their facility's automatic acquisition area. Where this is not feasible due to airspace assignment, facility directives shall require use of an appropriate procedure specified in FAAO 7110.65, Air Traffic Control, to confirm the identity of all aircraft handed off prior to ARTS auto–acquisition.

3. Establish Automatic Acquisition Areas for departing aircraft 1 mile or less from the runway end.

4. Establish Automatic Termination Areas for arriving aircraft 1 mile or less from the runway threshold or, at satellite airports, the minimum radar coverage range/altitude whichever is greater.

5. Prescribe in a facility directive the operating position responsibility for determining if automatic acquisition of a departure track has occurred.

NOTE–
This is intended for operations where automatic acquisition responsibility could be confused, e.g., uncontrolled airports within a single sector, or between different radar sectors that serve the same airport.

b. ATD managers may authorize a distance greater than specified in subparas. 3. and 4. , above, where the operational conditions dictate.

13–2–7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)

a. When their continued use would adversely impact operational priorities, facility AT managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report shall be sent to the ATD whenever they are inhibited. A copy of the report shall be sent to ATO–100.

b. Facility AT managers are authorized to inhibit CA at specific operating positions if an operational advantage will accrue.

c. MSAW Digital Terrain Maps (DTM's) shall be kept current.

d. Regional airspace branches shall:

1. Furnish ARTS IIA, III, and IIIA facilities a copy of:

(a) Newly received FAA Forms 7460–2, Notice of Actual Construction or Alteration.

(b) Emergency Notices of Construction of structures of 200 feet or more above ground level lying within 60 NM of their radar site.

2. Ensure that the daily National Flight Data Digest (NFDD) is provided to ARTS IIA, III, IIIA, and other facilities when it affects their area of jurisdiction.

e. Facility AT managers shall ensure that:

1. The material described in subpara. d. 1. , above, is reviewed and that appropriate corrections to the DTM are made.

2. The magnetic variation of the facility's DTM coincides with the magnetic variation of the facility's radar video maps/geo maps.

NOTE–
The DTM is constructed to align with the radar antenna offset for magnetic north. Consequently, any change in antenna offset will result in a corresponding change in the relative positions of the terrain points and obstacles used to determine DTM bin altitude assignments. This will require not only generating and verifying a new DTM, but also readapting the MSAW and CA data bases; e.g., airport areas, inhibit volume areas, capture boxes, etc., to coincide with the changed declination.

REFERENCE–
FAAO 7210.3, para. 13–2–8, Magnetic Variation of Video Maps/Geo Maps at ARTS Facilities.

3. MSAW parameters are modified, as appropriate, to minimize the extent of inhibit areas as specified in the NAS Configuration Management documents (NAS MD–633 and NAS MD–643) for MSAW and site adaptation.

13–2–8. MAGNETIC VARIATION OF VIDEO MAPS/GEO MAPS AT ARTS FACILITIES

AT managers shall ensure that the magnetic variation of radar video maps/geo maps, MSAW, DTM's, and radar site settings coincide. The magnetic variation shall be verified annually and a change of 2 degrees or more requires a recompiling of the effected map or maps.

NOTE–
The video map is the primary reference for maintaining radar antenna alignment.

REFERENCE–
FAAO 7210.3, para. 13–2–7, Minimum Safe Altitude Warning (MSAW) and Conflict Alert (CA).
FAAO 7210.3, para. 13–2–9, MSAW DTM cartographic certification, updates, and recompilation.)

13–2–9. MSAW DTM CARTOGRAPHIC CERTIFICATION, UPDATES, AND RECOMPILATION

a. The Cartographic Standards Branch, ATA–100, shall be responsible for assuring that the National Ocean Service (NOS) performs the certification of the terrain elevations and the obstacle elevations. Each new or recompiled MSAW DTM shall be certified by the NOS through the AT/NOS Precise Geographic Position and Elevation Program (PREGPEP). Also, NOS shall certify the periodic update of the MSAW obstacle elevation files.

b. The MSAW DTM shall be recompiled by the NOS if:

1. The ASR antenna on which the map is based is relocated more than 300 feet away from its original position and/or,

2. The magnetic variation of the site changes by two degrees or more.

NOTE–
Requests for new or recompiled DTMs are routed to ATA–100. The NOS requires approximately ten weeks to build and deliver a DTM.

13–2–10. DIGITAL MAP VERIFICATION

Verification of the accuracy of new or modified digital maps shall be accomplished through the use of "targets of opportunity" flying over displayed fixes, navigational aids, etc. Any observed discrepancies shall be documented to indicate the observed direction and displacement. If any identified error cannot be corrected or if a facility is otherwise dissatisfied with the results from "targets of opportunity," a request may be made through the FIFO for a flight check.

13–2–11. MODE C INTRUDER (MCI) ALERT PARAMETERS

a. Use the nominal value of parameters specified in the NAS Configuration Management Document (NAS–MD–310) or appropriate Site Program Bulletins for the MCI Alert functions, except for the base altitude parameter, as specified in subparagraph b or c below, unless a waiver to adjust the base altitude parameter value is received from ATO–100.

b. MCI Alert base altitude shall be set at any value between ground level and 500 feet AGL at the discretion of the facility AT manager. Any instance of base altitudes above 500 feet AGL shall be documented and forwarded to ATO–100, through the respective ATD.

c. Facility AT managers are authorized to temporarily adjust the MCI Alert base altitude at a sector(s)/position(s) when excessive MCI Alerts derogate the separation of IFR traffic. For the purpose of this section, temporary is considered to be of less than 4 hours duration, not necessarily continuous, during any calendar day. The following is required when MCI base altitude is adjusted:

1. Log each occurrence on FAA Form 7230–4, when this procedure is being used , including the sector/position and temporary altitude.

2. Documentation shall be forwarded to ATO–100 if it is determined that a temporary adjustment of the MCI base altitude does not meet the needs of the sector/position.

d. Facility AT managers are authorized to inhibit the display of MCI Alert at specified sectors/position.