ZME Standard Operating Procedures
Effective December 01, 2019

INTRODUCTION

This document is a combined SOP for the ZME ARTCC (hereafter referred to as ZME). It supersedes all previous SOP documents. These policies set forth guidelines that protect the commitment and participation of all ZME controllers as well as the dedication, time and effort made by our instructors and mentors. Every controller, regardless of rating, provides time freely in order to enhance the virtual air traffic controlling experience. We strive to provide the best possible experience for controllers and pilots alike and believe that these policies will help us to achieve these goals.

1. ACTIVITY AND REMOVAL

1) ACTIVITY

a. To remain as an active member,

i. Home Controller

a. Has been and continues to be assigned to the ZME ARTCC by the appropriate channels within VATSIM and VATUSA and is included on the ZME roster displayed on the ZME and VATUSA websites.
b. Logs in and actively controls at least 1 hour per calendar month using a valid ZME ARTCC call sign. The OBS call sign does not qualify as active controlling. However, hours obtained on the sweat box server during authorized training do qualify.
c. Logs at least 50% of all controlling time in each calendar month within ZME airspace.
d. Controllers holding an OBS rating (i.e. those who have not attained a S1 rating) must contact a ZME instructor/mentor for induction within 28 days of joining.

ii. Visiting Controller

a. All prospective visiting controllers must submit visiting controller applications via the ZME website.

b. Visiting Controllers must be signed off by a ZME instructor to control in ZME airspace. This signoff requirement is waived for visitors belonging to ARTCCs where LOAs have been established that permit automatic privileges to control at ZME minor facilities. This sign off requirement may also be waived at the discretion of the ATM, DATM or TA.

c. Visitors must control for at least one hour per calendar month on a valid control position at ZME.

d. Visitors must familiarize themselves with the ZME website, procedures, frequencies, facilities, LOAs and policies.

e. Visitors represent ZME when controlling a ZME position. Any actions which present ZME in a negative manner will not be tolerated.

2) **Leave of Absence**.
    a. Any ZME controller may request a Leave of Absence in writing to either the ZME ATM or DATM. The request should state an estimated length of leave up to a maximum of 180 days, and a brief reason for the absence. The reason does **NOT** need to be so specific that personal information is revealed.
    b. During a Leave of Absence, a controller is relieved of all responsibilities of their position and must not exercise the controlling privileges of their rating.
    c. The controller must contact the ATM or DATM if the Leave of Absence needs to be extended, up to a maximum of 180 days from the date of the original request.
    d. The controller must contact the ATM or DATM upon return and must not resume controlling at ZME until approved by the ATM, DATM or TA.
    e. Senior Staff (ATM, DATM, TA) and the EC automatically forfeit their staff position for any Leave of Absence exceeding 60 days unless otherwise approved by the ATM.

3) **Removal**
    a. Removal from the ZME roster on the ZME website will follow process outlined below:
        i. Removal from the ZME roster on VATUSA
            a. For a transfer, the controller will be automatically removed by VATUSA from the ZME roster on VATUSA. The controller will also be removed from the ZME roster on the ZME website.
            b. For a VATSIM suspension, the controller will remain on the ZME roster on the ZME website for 4 days. If after 4 days the controller remains off the VATUSA roster, the VATSIM suspension will be deemed permanent and the controller will be removed from the ZME roster on the ZME website.
                i. If the controller is reinstated on the ZME roster on VATUSA within the 4 day limit, controller will be reinstated on the ZME roster on the ZME website.
        ii. Inactivity
            a. When the ZME server marks a controller as inactive, the ATM or DATM will confirm this manually. Once confirmed the controller will receive warning email giving 28 days to achieve the activity requirement.

    b. Special circumstances shall be considered on a case-by-case basis. Each case must be communicated to the ATM or DATM.

2. HOME CONTROLLER POSITION SIGNOFFS AND TRAINING

1) In order to control a position (DEL, GND, TWR, APP or CTR) without being monitored by an instructor or mentor, controllers must have a valid sign off for the position that they intend to control.

2) Position sign offs may only be granted by Instructors for all positions.

3) In order for a sign off to be approved, controllers must be proficient in the area they are working given a normal network traffic load.

4) Training to obtain a position sign off will be conducted in accordance with the VATUSA 3120.4A — Division Training Policy.

5) Promotions and Testing will be conducted in accordance with the ZME 3120.4A Training Procedures and Guidelines.

3. ARTCC OPERATING PROCEDURES

1) Position Restrictions and Guidelines
    a. Clearance Delivery (DEL) and Ground (GND)
        i. Control is permitted by any ZME controller or visitor holding the rank of S1 or above and a position signoff for the position to be manned.
    b. Tower (TWR)
        i. Control is permitted by any ZME controller or visitor holding the rank of S1 or above and a position signoff for the position to be manned.
    c. Approach (APP) and Departure (DEP)
        i. Control is permitted by any ZME controller or visitor holding the rank of S3 or above and a position signoff for the position to be manned. The Controller must hold a major endorsement to control at the KMEM TRACON.
    d. Center (CTR)
        i. Control is permitted by any ZME Controller holding the rank of C1 or above.
        ii. Control is permitted by any visitor holding the rank of C1 or above and a position sign off for Memphis Center.

2) Transferring Controllers and Visiting Controllers
    a. Controllers wishing to transfer to the ZME ARTCC are invited to do so through the VATUSA website.
    b. The VATUSA policy for transferring and visiting controllers is included in DP001 VATUSA General Division Policy.

3) TeamSpeak
    a. ZME utilizes a TeamSpeak 3 server for inter-facility coordination as well as for controller training purposes.
    b. Controllers must connect to the TeamSpeak server with their full name as it appears on their VATSIM account.
    c. TeamSpeak server usage is a privilege and any controller may be removed from the server, temporarily or permanently, at the discretion of the ARTCC staff.

4. AIR TRAFFIC CONTROL PROCEDURES

1) Logging in
    a. Prior to connecting to VATSIM and logging in, controllers shall make themselves familiar with all pertinent information relating to the facility they will be manning.
    b. Controllers should not connect with the intention of providing ATC service for less than:
        i. 30 minutes for DEL, GND and TWR positions
        ii. 45 minutes for APP and DEP positions
        iii. 60 minutes for CTR positions
    c. Real world NOTAMs should be implemented reasonably and with common sense but should include only information that is applicable in the VATSIM environment. Real-world operational information that cannot be effectively implemented on VATSIM (e.g. equipment outages) should not be considered.

d. Controllers shall connect using only VATSIM and ZME approved call signs.

2) ATIS

a. Voice ATIS shall be set up in accordance with the VATSIM Global Controller/ATIS Information policy (effective 1 Feb 2015) or any subsequent reissue of this policy.
b. ATIS shall only be provided where real-world ATIS facilities exist, as shown in the ZME Positions Table.
c. In accordance with the VATSIM Code of Conduct, only one ATIS connection may be made by a controller. This must be in addition to the connection to the ZME position, and no more than these two connections may be made at any time.
d. ATIS should be connected wherever possible and practical.

3) Call signs
   a. When logging on at a position, controllers should refer to the ZME Positions Table for approved call signs and frequencies.
   b. Upon taking over a position from another c ontroller, '_1_' should be added in the center of the call sign (e.g. MEM_1_TWR). Should the controller being relieved already have this call sign, the normal call sign from the Positions Table should be used.

4) Voice Channels
   a. With the recent implementation of the Audio For VATSIM (AFV) Project, voice channels are no longer used. Any voice server and voice channel entries in any of the controller radar clients must be deleted.

5) Coordination
   a. Coordination shall take place between two ZME controllers using either the ZME TeamSpeak channels, the controller client Intercom facility or private messaging function.
   b. Coordination shall take place between a ZME controller and a controller in an adjacent ARTCC using either the controller client Intercom facility or private messaging function.
   c. ZME controllers must be aware of how to use all coordination methods prior to controlling a position.

6) Visibility Range and Center
   a. The visibility range set on the radar client at ZME shall be set in accordance with the following. It is recognized that this is less than the permitted maximum in the VATSIM Code of Conduct.
      i. CTR 450nm
      ii. APP/DEP 150nm
      iii. TWR 30nm
      iv. DEL/GND 10nm

      The lower figures used ensure pilots are able to utilize all frequencies in ZME airspace without unforeseen software limitations.
   b. The visibility center for the radar client shall be set in accordance with the following.
      i. For DEL, GND, TWR, APP and DEP frequencies at the center of the primary airport of operations. (e.g. for BNA_APP, center at KBNA)
      ii. For all CTR positions the visibility center must be set to KMEM.
   c. The visibility center must not be altered to a different location at any time.

d. Only one visibility center must be used. There are no positions in ZME airspace requiring a second visibility center.
e. The visibility center must be set by the controller prior to logging onto VATSIM.

7) Logging off
    a. Controllers shall issue a '.break' command at least 10 minutes prior to closing a facility. This allows other controllers to see your intentions of leaving and, if they wish to take over the position, to relieve you.
    b. On closing a position, a voice transmission must be made advising all pilots that the position is closing. A '.close' command must also be issued.
    c. If handing the position over to another controller, all tracked aircraft should be handed off to the relieving controller prior to disconnection.

8) Relieving a Controller
    a. Controllers should use common sense and courtesy when relieving another controller or opening another position under an already manned facility (e.g. opening APP when CTR is online).
    b. The controller being relieved should give a full handover to the new Controller including the following:
        i. Weather
        ii. Adjacent Facility Staffing
        iii. Runways in Use
        iv. ATIS information as required
        v. PIREPs and Trends
        vi. Airspace Restrictions
        vii. Training in Progress

        After this is complete aircraft should be transferred to the receiving Controller.
    c. The new controller shall make a formal final acknowledgment that they have control of the airspace and have no further questions.
    d. The method used for handing over a sector should be either using ZME TeamSpeak or intercom facilities. Voice communication shall always be used for this purpose.

5. MENTOR PROGRAM

1) The Mentor Program is established to involve controllers in the training of ZME students. It allows the student to work with established controllers while gaining experience on the network. In addition, it permits the TA and instructors to be more effective. The mentor program also allows for training to take place when there is no instructor available.

2) In order to be approved as a mentor, a controller must:
    a. Be recommended by the TA or an instructor and be approved by the TA, DATM and ATM.
    b. Be in good standing with ZME and VATUSA with no disciplinary record. Exceptions may be made by ZME Staff.
    c. Adhere to ZME policies and training procedures and use appropriate training materials.
    d. Log each session on the ZME website

3) The TA, DATM or ATM may remove a controller from the Mentor Program at any time.

4) Mentors must be available to provide 2 sessions per month. A session may be in the TeamSpeak classroom and/or OJT.

5) Mentors must help to develop the capabilities of ZME students.

6) Mentors will help with the assessment of a student's abilities and will make recommendations for promotions to the Instructors.

7) Any ad hoc training provided by a ZME controller other than a duly appointed Mentor or instructor will not count as official training towards the student's training requirements. Such activity will be at the student's own risk.

6. CONTROLLER POSITION DUTIES AND RESPONSIBILITIES

1) Clearance Delivery (DEL)
    a. DEL is responsible for issuing valid IFR clearances for all departing IFR aircraft. DEL should advise pilots of any expected delays, significant weather or other pertinent information not contained on any ATIS.
    b. Clearances should be in accordance with any Letters of Agreement (LOA) applicable to the facility.
    c. DEL shall not track aircraft.
    d. DEL shall ensure that a proper initial altitude is issued according to the departure procedure used.
    e. DEL shall generate a flight plan for VFR aircraft where a pilot has not filed a flight plan.
    f. DEL shall issue a discrete squawk code for VFR departures from Class B and Class C airports.

2) Ground Control (GND)
    a. GND is responsible for the movement of all traffic on the ground at the airport, except for the active runways and non-movement areas.
    b. GND shall maintain communication with TWR to receive current runway information.
    c. GND shall ensure that IFR aircraft have received an IFR clearance.
    d. GND shall not track aircraft.
    e. GND shall issue taxi clearances using taxiway designations. Progressive taxi instructions shall be issued upon the request of a pilot or to pilots unfamiliar with the airport.
    f. GND shall advise TWR of any aircraft who have been instructed to "Monitor Tower".
    g. GND shall taxi GA aircraft to a FBO or other suitable parking area and other air carriers to the proper location.

3) Tower Control (TWR)
    a. TWR is responsible for all movement and activities on all active runways and the area immediately surrounding the airport, usually 5nm radius and up to 2,500ft above ground level.
    b. TWR is responsible for clearing aircraft for takeoff and landing and ensuring runway separation.
    c. Aircraft must be handed to departure as soon as an aircraft becomes airborne. d. TWR shall maintain communication with GND, APP and DEP.
    d. TWR shall issue an initial heading to departing IFR aircraft. This may be replaced by a RNAV fix where appropriate.
    e. TWR shall maintain the airport voice ATIS and inform DEL, GND, APP and DEP of any changes.
    f. TWR shall determine the active runway(s) and inform GND, APP and DEP of any changes.

4) Departure (DEP)
    a. Departure is responsible for separating and sequencing all departing aircraft through an appropriate departure gate.
    b. APP and DEP are often combined but at other times DEP may share the same airspace as APP. Constant communication must therefore be maintained with APP.
    c. Departing aircraft must be kept away from the path of arriving aircraft.
    d. DEP shall maintain communication with TWR, APP and CTR.
    e. Upon initial contact, DEP shall identify an aircraft and advise the pilot of radar contact. The aircraft shall be climbed to the agreed or coordinated intermediate altitude before handing off the aircraft to CTR.
    f. DEP shall vector an aircraft to join a SID if one was filed and/or issued. Aircraft not expecting a SID shall be vectored through an appropriate departure gate.
    g. DEP shall ensure aircraft are on course or on a heading to join the planned course prior to handing off the aircraft to CTR. If an aircraft is on a radar heading when handed off to CTR, DEP shall instruct the pilot on report the heading to CTR on transfer of communications.
    h. DEP shall ensure that hand offs are initiated to CTR no less than 10nm or 1 minute from the airspace boundary and no less than 1000ft below the intermediate altitude where traffic permits.

5) Approach (APP)
    a. APP is responsible for separating and sequencing all arriving aircraft safely and efficiently.
    b. APP shall ensure that any arriving aircraft will not conflict with any departing aircraft.
    c. APP controls any arriving aircraft remaining in the traffic pattern outside of that airspace delegated to TWR and sequences them with other arrivals.
    d. APP shall maintain communication with TWR, DEP and CTR.
    e. Upon initial contact, APP shall issue an altimeter setting to a pilot, together with the approach to be expected. Other pertinent information must be added if not included within the ATIS message.
    f. A pilot not reporting receipt of the correct ATIS message, where available, must be instructed by APP to obtain the current ATIS.
    g. APP shall identify aircraft prior to issuing any executive instruction.
    h. APP shall insert runway and approach information into the scratchpad portion of the flight plan.
    i. APP shall ensure that communication is transferred to TWR in a timely manner.

6) Center Control (CTR)
    a. CTR is responsible for all other ZME airspace and the provision of air traffic control within that airspace.
    b. CTR communicates with all enroute aircraft and performs the duties of APP/DEP when no relevant Controller is online.
    c. CTR should routinely provide a top-down service to all towered airports in ZME airspace, however may elect not to provide TWR services at Class D airports should traffic levels prohibit this.
    d. CTR shall maintain communication with APP, DEP and adjacent ARTCCs.
    e. Upon initial contact where an aircraft is below FL180 CTR shall issue a pilot with the current altimeter setting of a nearby station.
    f. Upon initial contact from a departing aircraft, CTR shall climb the aircraft to FL230 or the cruising altitude, whichever is less. If the aircraft has filed a

cruising altitude higher than FL230, CTR shall climb the aircraft to that altitude prior to it reaching FL230.

g. CTR shall ensure that all IFR aircraft are squawking a valid and discrete code.
h. CTR shall ensure that VFR aircraft remain clear of class A airspace.
i. CTR shall ensure that all aircraft are at a proper altitude from their direction of flight.
j. CTR shall ensure that all IFR aircraft have a valid IFR flight plan.
k. CTR shall ensure that hand offs are initiated to the receiving facility no less than 10nm or 1 minute from the airspace boundary, unless more stringent conditions are included within a LOA.
l. CTR shall ensure that altitude crossing restrictions stated in a LOA are complied with.
m. CTR shall disseminate pertinent weather information to all aircraft. This information shall include, but is not restricted to
    i. Center Weather Advisories (CWAs)
    ii. SIGMETs
    iii. Convective SIGMETs

7) Top-down Coverage
    a. Any controller is responsible for providing lower tiered position services when those positions are vacant, in accordance with VATSIM and VATUSA procedures and policies.

7. EVENTS

1) An organized ZME event shall be advertised on the ZME website.
2) Controllers wishing to control during an event shall sign up for event positions on the ZME website.
3) Controllers signing up for an event position must be certified to control at that position.
4) Final position assignments for events are at the sole discretion of the CIC for the event. Consideration for position assignments will include:
    a. Controller's past online activity
    b. Controller's rank
    c. Controller's experience and ability to control in high workload situations
5) Controllers signing up for an event are expected to remain available for the entire event unless prior agreement with the CIC has been obtained.
6) The event CIC may assign, reassign or remove any controller from a position as they see necessary. Controllers may also be cycled into and out of positions during events.
7) Any ZME position being manned during an event must be approved by the CIC, even if not directly related to the event.

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