



**Federal Aviation
Administration**

Initial En Route Qualification Training

**Instructor
Lesson 08
Letters of Agreement (LOAs)**

Course 50148001

LESSON PLAN DATA SHEET

COURSE NAME: INITIAL EN ROUTE QUALIFICATION TRAINING
COURSE NUMBER: 50148001

LESSON TITLE: LETTERS OF AGREEMENT (LOAS)

DURATION: 3+30 HOURS

DATE REVISED: 2022-02
VERSION: V.2022-02

REFERENCE(S): NONE


HANDOUT(S): NONE

**EXERCISE(S)/
ACTIVITY(S):** NONE

**END-OF-LESSON
TEST:** YES (*REFER TO ELT08.PDF*)

**PERFORMANCE
TEST:** NONE

MATERIALS: NONE

 **NOTE:** As you prepare for this lesson, recall and be prepared to talk about examples and personal experiences that illustrate or explain the teaching points in the lesson.

DISCLAIMER

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INTRODUCTION


**Gain
Attention**




Initial En Route Qualification Training

Lesson 08 Letters of Agreement (LOAs)

V.2022-02
Presented by
FAA Academy
Air Traffic Division



Federal Aviation
Administration



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Letters of Agreement (LOAs) are written procedures between facilities used to safely expedite the movement of aircraft. They may specify procedures for arrivals and departures, route and altitude assignments, forwarding flight plan and control information, and holding instructions. Knowing how to correctly utilize these procedures will enable you to correctly implement the requirements of any given LOA.

Continued on next page

INTRODUCTION *(Continued)*

Opening Scenario



LETTERS OF AGREEMENT (LOAs)



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Letters of Agreement (LOAs) are instrumental in reducing the need to coordinate routine procedures as well as in delegating specific responsibilities. Having a thorough knowledge of all applicable LOAs will **not only** reduce your workload, but also reduce the potential for errors.

☞ **NOTE:** Refer students to the Aero Center Letters of Agreement provided in the appendix of this lesson.

☞ **NOTE:** Radar procedures portions of MLU, JAN, ZHU, and ZFW LOAs are covered later in the radar transition lesson. Do **not** cover radar portions of those LOAs in this lesson.

Purpose

In this lesson, you will cover procedures contained in Letters of Agreement affecting Aero Center airspace.

Continued on next page

INTRODUCTION *(Continued)*


Lesson Objectives



LESSON OBJECTIVES

- On an End-of-Lesson Test, you will identify the purpose and procedures of selected Aero Center Letters of Agreement (LOAs).

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 **NOTE:** Teach from graphic.

AERO ARTCC AND GREENWOOD ATCT LOA

Purpose

- ⊙ This agreement between Aero ARTCC (ARTCC) and Greenwood ATC Tower (ATCT):
 - Establishes procedures for control and coordination of IFR/SVFR movements in the Greenwood-LeFlore Class D Surface Area.
 - Is supplementary to the procedures contained FAA Order JO 7110.65.
-

Scope

- ⊙ This agreement outlines procedures for operations at Greenwood, MS (KGWO) and is supplemental to applicable FAA Orders.
-

Responsibilities

- ⊙ ARTCC **must** provide approach and departure control services for the Greenwood Airport.
 - ⊙ ATCT:
 - **Must** advise ARTCC of:
 - Runway-in-use
 - Change of runway-in-use
 - Advise prior to the change.
 - Facility status
 - All significant weather changes
 - Is authorized to provide visual separation within the Greenwood-LeFlore, Mississippi, Class D Surface Area between an IFR arrival and departure(s).
 - Provided other separation, as specified by ARTCC, is assured before and after the application of visual separation.
-

AERO ARTCC AND GREENWOOD ATCT LOA

(Continued)

Procedures

☉ Arrivals

- When Flight Data Input/Output (FDIO) is operational, arrival information need **not** be forwarded unless the sequence of aircraft changes and/or the aircraft is issued an approach to a runway other than the tower specified runway-in-use.
- When FDIO is **not** operational, ARTCC **must** forward arrival information, including specific approach issued, **prior** to clearance permitting flight in Class D Surface Area.
- When a controller receives a UTM notification to an FDIO only facility, they must effect manual coordination for the flight plan data. In addition, the controller must verify the flight plan data to the receiving facility within three minutes of the transfer of control point estimate.

NOTE: This procedure will not be simulated in the present training program.

- ATCT is authorized to clear aircraft for a visual approach, weather permitting, provided prior coordination is effected with ARTCC before clearance is issued.
- Transfer of communications **must** be accomplished:
 - Prior to the time an aircraft reaches the final approach fix inbound, or
 - If executing a visual approach, 5 miles from the airport or prior to entering the surface area, unless otherwise coordinated
- ATCT **must** inform ARTCC immediately of aircraft executing an unscheduled missed approach.

☉ Departures

- ATCT **must**:
 - Request a release from ARTCC, specifying the destination airport, in the order aircraft will depart.
 - Issue clearances utilizing data received on the FDIO.
 - Aircraft may be cleared “As Filed” unless ARTCC has issued alternate routing instructions or “FRC” (Full Route Clearance) is noted in remarks.
 - Advise aircraft to expect requested altitude 10 minutes after departure when ARTCC releases aircraft to an interim altitude.

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AERO ARTCC AND GREENWOOD ATCT LOA

(Continued)

Procedures (Cont'd)

- Advise ARTCC if the aircraft will **not** depart within 3 minutes of the time ARTCC issues the release.
 - This is **not** a clearance void time and should **not** be considered so for separation.
 - Advise IFR departures to contact ARTCC on 125.0/325.0 as appropriate.
 - ARTCC
 - When FDIO is **not** available, ARTCC assumes responsibility for issuing full departure clearances.
 - When issuing a release, ARTCC **must** assign an altitude to maintain and any alternate routing or other instructions as necessary.
 - ⊙ Special VFR operations
 - For aircraft with a functioning two-way radio, ATCT is authorized to conduct Special VFR operations within the Greenwood, Mississippi, Class D Surface Area at or below 2,700 feet MSL upon approval by ARTCC.
-

AERO ARTCC AND GREENWOOD ATCT LOA

(Continued)

Knowledge Check



KNOWLEDGE CHECK

❖ **QUESTION:** At Greenwood ATCT, arrival information need **not** be forwarded while FDIO is operational unless the sequence of aircraft changes and/or the _____.

- A. arrival time differs by more than 3 minutes
- B. aircraft is issued an approach other than the tower specified
- C. verbal coordination has not yet been accomplished

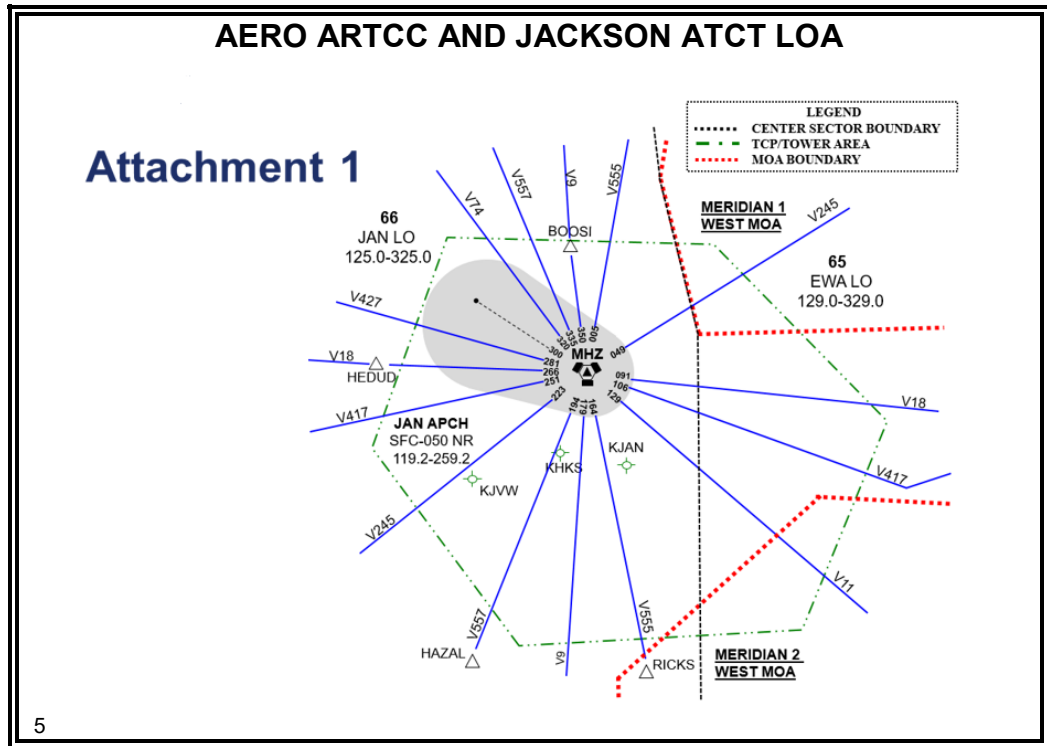
4

☞ **NOTE:** Click once to show answer.

ANSWER: B

AERO ARTCC AND JACKSON ATCT LOA

Aero ARTCC and Jackson ATCT LOA Attachment 1



Purpose

- ⊙ This agreement between Aero ARTCC and Jackson ATCT:
 - Delegates authority and responsibility for approach control service in the airspace depicted in Aero ARTCC and Jackson ATCT LOA Attachment 1.
 - Outlines interfacility procedures supplemental to FAA Order JO 7110.65, Air Traffic Control.

Scope and Responsibilities

- ⊙ Aero Center (ARTCC) delegates to Jackson ATC Tower (ATCT) the authority and responsibility for control of IFR arrival, departure, and en route aircraft within the Jackson terminal area depicted in Attachment 1.

AERO ARTCC AND JACKSON ATCT LOA *(Continued)*

General Procedures

- ⦿ Each facility **must** keep the other advised of the operational status of any component of automated equipment that will affect the use of these procedures.
- ⦿ Deviation from the procedures established in this agreement may be made **only** after coordination, which completely defines responsibility in each individual case.

Nonradar Procedures

- ⦿ When ATCT RADAR is out of service and the Center Radar ARTS Presentation (CENRAP) is **not** available, Aero ARTCC, after coordination, **must** assume responsibility for control of air traffic at and above 6,000 feet in the terminal area.
- ⦿ Arrivals
 - ARTCC must clear arrivals to airports in JAN APCH airspace as follows:
 - Sector 66 (JAN LOW) to MHZ VORTAC cleared to the lowest ARTCC altitude available.
 - Sector 65 (EWA LOW) to RAKIN on V11 or to BAETT on V18 cleared to the lowest ARTCC altitude available.
 - Arrivals **must** enter the ATCT lateral boundary established on an airway.
 - ARTCC **must** protect the holding pattern airspace until ATCT advises that the arrival is tower control.
 - ATCT has control at the TCP for descent **only** until aircraft established in ATCT airspace.
 - The transfer of communication point **must** be the common boundary as depicted in Aero ARTCC and Jackson ATCT LOA Attachment 1.
 - ATCT **must not** transition arriving aircraft beyond the clearance limit until at or below 5,000 feet.
 - Forward destination airport when other than KJAN.

👉 **NOTE:** *The protected airspace of an arrival extends from the transfer control point to the holding pattern. Approach may descend the aircraft but **not** change their route in an ARTCC airspace.*

Continued on next page

AERO ARTCC AND JACKSON ATCT LOA *(Continued)*

Nonradar Procedures (Cont'd)

⊙ Departures

- ATCT **must** clear departing aircraft in accordance with route/altitude obtained from the ARTCC.
- ARTCC **must** be responsible for separating departing aircraft from arriving aircraft still in their area of responsibility.
- ATCT **must** ensure that departures are cleared direct MHZ VORTAC and then via the ARTCC cleared route with a restriction to cross MHZ VORTAC at or below 5,000 feet.
- ATCT **must** separate departures on different airways.
- ARTCC **must** specify to ATCT the rule to be used to separate departures entering ARTCC airspace on the same airway.

⊙ Overflights

- Overflights **must not** be allowed to enter ATCT airspace during nonradar operations.
-

AERO ARTCC AND JACKSON ATCT LOA *(Continued)*

Knowledge Check



KNOWLEDGE CHECK

❖ **QUESTION:** During nonradar procedures, JAN ATCT shall **not** transition arriving aircraft beyond the clearance limit until _____.

- A. at or below 5,000 feet
- B. communication has been established
- C. reaching 6,000 feet

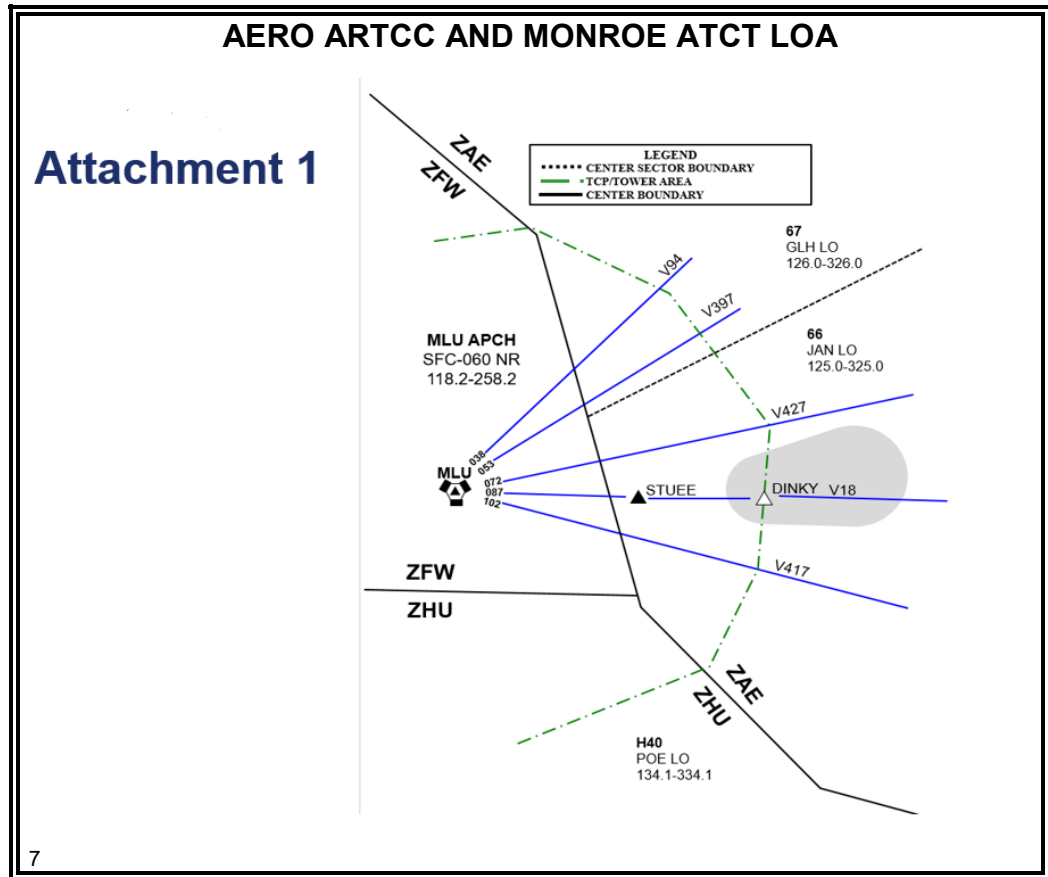
6

☞ **NOTE:** Click once to show answer.

ANSWER: A

AERO ARTCC AND MONROE ATCT LOA

Aero ARTCC and Monroe ATCT LOA Attachment 1



Purpose

- ⊙ This agreement between Aero ARTCC and Monroe ATCT:
 - Delegates authority and responsibility for approach control services in the airspace depicted in Aero ARTCC and Monroe ATCT LOA Attachment 1.
 - Outlines interfacility procedures.

Scope and Responsibilities

- ⊙ Aero Center (ARTCC) delegates to Monroe ATC Tower (ATCT) authority and responsibility for control of IFR aircraft operations within the terminal area depicted in Aero ARTCC and Monroe ATCT LOA Attachment 1.

AERO ARTCC AND MONROE ATCT LOA *(Continued)*

Nonradar Procedures

- ⊙ During nonradar operations, ATCT vertical limits **must** be at and below 6,000 feet.

NOTE: The Dinky intersection is only for Nonradar use.

⊙ Arrivals

- The Transfer of Control Point (TCP) **must** be the common lateral boundaries (31NM from MLU or DINKY intersection on V18).
- The Expect Further Clearance (EFC) time given to the pilot is 5 minutes after the TCP time.
- Communications Change must be transferred 49 NE MLU for DME equipped aircraft and 5 minutes before the DINKY intersection estimate for non-DME aircraft
- ARTCC **must** clear arrivals to hold on the airway at the TCP cleared to the lowest available ARTCC altitude.
- As depicted in Aero ARTCC and Monroe ATCT LOA Attachment 1, DINKY intersection on V18 shall be used as the clearance limit and holding fix.
- ATCT **must** transition arrivals into terminal airspace prior to 17NM arc east of MLU VORTAC.

⊙ Departures

- ARTCC **must** issue, and approach **must** relay, clearances to all IFR departures.
- ARTCC **must** issue Expect Departure Clearance (EDC) Times if unable to issue departure clearance when requested.
- ARTCC **must** separate departures from arrivals still within ARTCC jurisdiction.
- ARTCC **must** specify to ATCT the rule to be used to separate departures entering ARTCC airspace on the same airway.
- ATCT **must not** clear aircraft above 6,000 feet until established on the ARTCC-assigned route and clear of ZFW airspace.
- ATCT **must** separate aircraft on different airways.

⊙ Overflights

- Overflights are not permitted during non-radar operations.
-

AERO ARTCC AND FORT WORTH ARTCC LOA

Purpose

- ⊙ This agreement between Aero ARTCC (ZAE) and Fort Worth ARTCC (ZFW) covers coordination procedures and is supplementary to the procedures in FAA Order JO 7110.65.
 - Deviations from the procedures established in this agreement may be made **only** after verbal coordination is accomplished which completely defines responsibility in each case.
-

Scope

- ⊙ This agreement outlines procedures for use between the centers involved and is supplemental to applicable FAA Orders.
-

General Procedures

- ⊙ Either ARTCC may, after obtaining approval from the other, clear an aircraft to operate at an Inappropriate Altitude/Flight Level for Direction of Flight (IAFDOF) as specified in FAA Order JO 7110.65.
-

Nonradar Procedures

- ⊙ During nonradar operations, both ARTCCs **must** clear aircraft via radials of NAVAIDs or established airways.
 - ⊙ The common ARTCC boundaries **must** be considered Transfer of Control and Communication Points.
 - ⊙ During periods of manual data transfer between facilities, coordination **must** be effected with the receiving ARTCC:
 - Before departure of an aircraft when the departure point is less than 15 minutes flying time from the ARTCC boundary.
 - Before change of an aircraft's route and/or altitude when the aircraft is less than 15 minutes flying time from the ARTCC boundary.
-

AERO ARTCC AND HOUSTON ARTCC LOA

- Purpose**
- ⊙ This agreement between Aero Center (ZAE) and Houston ARTCC (ZHU) covers coordination procedures and is supplementary to the procedures in FAA Order JO 7110.65.
 - Deviations from procedures established by this agreement may be made **only** after verbal coordination, which completely defines responsibility in each case.
-

- Scope**
- ⊙ This agreement outlines procedures for use between the centers involved and is supplemental to applicable FAA Orders.
-

- General Procedures**
- ⊙ Either ARTCC, after obtaining approval from the other, may clear an aircraft to operate at an Inappropriate Altitude/Flight Level for Direction of Flight (IAFDOF) as specified in FAA Order JO 7110.65.
 - ⊙ Aircraft on V9, V555, V557, and J35 or between the following fix pairs, SQS/MCB, MHZ/MCB, HAZAL/MCB, or RICKS/MCB, **must** be assigned the pre coordinated altitudes as follows:
 - Northbound - **ODD** cardinal altitudes/flight levels
 - Southbound - **EVEN** cardinal altitudes/flight levels
-

- Nonradar Procedures**
- ⊙ During nonradar operations, both ARTCCs **must** clear aircraft via radials of NAVAIDs or established airways.
 - ⊙ The common ARTCC boundaries **must** be considered Transfer of Control and Communication Points.
 - ⊙ During periods of nonautomated data transfer between facilities, coordination **must** be effected with the receiving ARTCC:
 - Before departure of an aircraft when the departure point is less than 15 minutes flying time from the ARTCC boundary.
 - Before change of an aircraft's route and/or altitude when the aircraft is less than 15 minutes flying time from the ARTCC boundary.
-

IN CONCLUSION

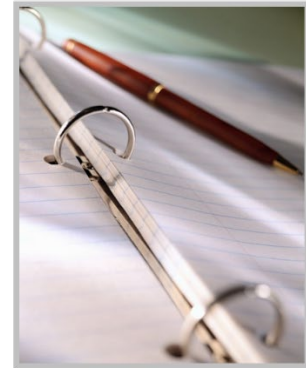
Lesson Review



LESSON REVIEW

The following LOAs were covered in this lesson:

- Aero ARTCC and Greenwood ATCT
- Aero ARTCC and Jackson ATCT
- Aero ARTCC and Monroe ATCT
- Aero ARTCC and Fort Worth ARTCC
- Aero ARTCC and Houston ARTCC



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 **NOTE:** Teach from graphic. Review and elaborate briefly on the topics covered in this lesson.

End-of-Lesson Test



END-OF-LESSON TEST

Letters of Agreement



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APPENDIX A: AERO CENTER LETTERS OF AGREEMENT (LOAS)

This appendix contains the following Letters of Agreement:

- Aero ARTCC and Greenwood ATCT LOA
 - Aero ARTCC and Jackson ATCT LOA
 - Aero ARTCC and Monroe ATCT LOA
 - Aero ARTCC and Ft. Worth ARTCC LOA
 - Aero ARTCC and Houston ARTCC LOA
 - Aero ARTCC and 14th FTW LOA
 - Aero ARTCC, JAN ATCT, TRAWING ONE, and Meridian RATCF LOA
-

AERO ARTCC AND GREENWOOD ATCT LETTER OF AGREEMENT

EFFECTIVE: June 28, 2021

SUBJECT: INTERFACILITY COORDINATION

1. **PURPOSE:** This agreement between Aero ARTCC (ARTCC) and Greenwood ATC Tower (ATCT) establishes procedures for control and coordination of IFR/SVFR movements in the Greenwood-LeFlore Class D Surface Area and is supplementary to the procedures contained in FAA Order JO 7110.65.
2. **SCOPE:** This agreement outlines procedures for operations at Greenwood, MS (KGWO) and is supplemental to applicable FAA Orders.
3. **RESPONSIBILITIES:**
 - a. ARTCC must provide approach and departure control services for the Greenwood Airport.
 - b. ATCT:
 - (1) Must advise ARTCC of the runway-in-use, change of runway-in-use prior to the change, facility status, and all significant weather changes.
 - (2) Is authorized to provide visual separation within the Greenwood-LeFlore, Mississippi, Class D Surface Area between an IFR arrival and departure(s) provided other separation, as specified by ARTCC, is assured before and after the application of visual separation.
4. **PROCEDURES:**
 - a. ARRIVALS:
 - (1) When FDIO is operational, arrival information need not be forwarded unless the sequence of aircraft changes and/or the aircraft is issued an approach to a runway other than the tower specified runway-in-use.
 - (2) When FDIO is not operational, ARTCC must forward arrival information, including specific approach issued, prior to clearance permitting flight in Class D Surface Area.
 - (3) When a controller receives a UTM notification to an FDIO only facility, they must effect manual coordination for the flight plan data. In addition, the controller must verify the flight plan data to the receiving facility within three minutes of the transfer of control point estimate. (This procedure will not be simulated in the present training program)
 - (4) ATCT is authorized to clear aircraft for a visual approach, weather permitting, provided prior coordination is effected with ARTCC before clearance is issued.

AERO ARTCC AND GREENWOOD ATCT LETTER OF AGREEMENT

- (5) Transfer of communications must be accomplished prior to the time an aircraft reaches the final approach fix inbound or, if executing a visual approach, 5 miles from the airport or prior to entering the surface area, unless otherwise coordinated.
- (6) ATCT must inform ARTCC immediately of aircraft executing an unscheduled missed approach.

b. DEPARTURES:

(1) ATCT must:

- a) Request a release from ARTCC, specifying the destination airport, in the order aircraft will depart.
- b) Issue clearances utilizing data received on the FDIO. Aircraft may be cleared "As Filed" unless ARTCC has issued alternate routing instructions or "FRC" (Full Route Clearance) is noted in remarks.
- c) Advise aircraft to expect requested altitude 10 minutes after departure when ARTCC releases aircraft to an interim altitude.
- d) Advise ARTCC if the aircraft will not depart within three minutes of the time ARTCC issues the release. (NOTE: This is NOT a clearance void time and should not be considered so for separation.)
- e) Advise IFR departures to contact ARTCC on 125.0/325.0 as appropriate.

(2) ARTCC:

- a) When FDIO is not available, ARTCC assumes responsibility for issuing full departure clearances.
- b) When issuing a release, ARTCC must assign an altitude to maintain and any alternate routing or other instructions as necessary.

c. SPECIAL VFR OPERATIONS:

For aircraft with a functioning two-way radio, ATCT is authorized to conduct Special VFR operations within the Greenwood, Mississippi, Class D Surface Area at or below 2,700 feet MSL upon approval by ARTCC.

Harlan Drewry

Harlan Drewry
Air Traffic Manager
Aero ARTCC

Donna Martin

Donna Martin
Air Traffic Manager
Greenwood ATCT

AERO ARTCC AND JACKSON ATCT LETTER OF AGREEMENT

EFFECTIVE: June 28, 2021

SUBJECT: APPROACH CONTROL SERVICE

1. **PURPOSE:** This agreement between Aero ARTCC and Jackson ATCT delegates authority and responsibility for approach control service in the airspace depicted in Attachment 1 and outlines interfacility procedures supplemental to FAA Order JO 7110.65, Air Traffic Control.
2. **SCOPE AND RESPONSIBILITIES:** Aero Center (ARTCC) delegates to Jackson ATC Tower (ATCT) the authority and responsibility for control of IFR arrival, departure, and en route aircraft within the Jackson terminal area depicted in Attachment 1.
3. **PROCEDURES:**
 - a. **GENERAL:**
 - (1) Each facility must keep the other advised of the operational status of any component of automated equipment that will affect the use of these procedures.
 - (2) Deviation from the procedures established in this agreement may be made only after coordination, which completely defines responsibility in each individual case.
 - b. **RADAR:** During radar operations, ATCT vertical limits must be at and below 10,000 feet. The ARTCC and ATCT must transition arrivals, departures, and overflights as follows:
 - (1) **ARRIVALS:**
 - a) ARTCC must clear all arrivals to the destination airport via routings which ensure aircraft and aircraft's route transition within the confines of the Arrival Transition Areas (ATAs) as depicted in Aero ARTCC and Jackson ATCT LOA Attachment 1.
 - b) ARTCC must clear turbojet arrivals, operating at or above 11,000 feet to the destination airport, to cross the ATCT lateral boundary at 11,000 feet and 250 knots. Propeller-driven aircraft must cross the lateral boundary at 7,000 feet.
 - c) Turbojets operating at and below 10,000 feet require individual coordination.
 - d) ARTCC must transfer control of all arrivals for descent, speed reduction, and turns direct to the airport, after a radar handoff and communications transfer have been completed.

AERO ARTCC AND JACKSON ATCT LETTER OF AGREEMENT

- e) When notified that holding is required, ARTCC must clear subsequent arrivals to the appropriate holding fix depicted in Attachment 1. ATCT must not transition holding aircraft beyond the arrival holding fix above 10,000 feet.

(2) DEPARTURES:

- a) ATCT must clear all departures via routings which ensure aircraft transition within the confines of the Departure Transition Areas (DTAs) as depicted in Aero ARTCC and Jackson ATCT LOA Attachment 2.
- b) ATCT must clear aircraft requesting 11,000 feet or above to maintain 10,000 feet and to expect the requested altitude 10 minutes after departure.
- c) ATCT must clear aircraft requesting 10,000 feet or below to the requested altitude.
- d) ATCT must provide a minimum of 5-NM separation, constant or increasing, between departures and/or en route aircraft entering ARTCC airspace at the same altitude.
- e) Transfer of Control Point (TCP) must be the ARTCC/ATCT boundary.

(3) OVERFLIGHTS: Overflights must be cleared via the route/altitude printed on the strip or as coordinated. IAFDOF coordination is not required.

- a) ARTCC will clear and route aircraft at 8,000 to FL180 on routes that are clear of Meridian 1 and 2 West when either is active.

(4) OTHER:

- a) When an aircraft that will cross the boundary in a climb or descent, ARTCC must:
 - Initiate the handoff and then APREQ the climb/descent if the aircraft's final altitude is at or below 10,000 feet.
 - Effect a point out, if required, before the aircraft transitions approach airspace.

c. NONRADAR:

- (1) When radar is out of service and CENRAP is not available, Aero ARTCC, after coordination, must assume responsibility for control of air traffic at and above 6,000 feet in the terminal area.

(2) ARRIVALS:

AERO ARTCC AND JACKSON ATCT LETTER OF AGREEMENT

- a) ARTCC must clear Jackson Terminal arrivals as follows:
 - i. Sector 66 (JAN LOW) to MHZ VORTAC cleared to the lowest ARTCC altitude available.
 - ii. Sector 65 (EWA LOW) to RAKIN on V11 or to Baett on V18 cleared to the lowest ARTCC altitude available.
 - b) Arrivals must enter the ATCT lateral boundary established on an airway. ARTCC must protect the holding pattern airspace until ATCT advises that the arrival is tower control. ATCT has control at the TCP for descent only until aircraft established in ATCT airspace.
 - c) The transfer of communication point must be the common boundary as depicted in Attachment 1 and 2.
 - d) ATCT must not transition arriving aircraft beyond the clearance limit until at or below 5,000 feet.
 - e) Forward destination airport when other than KJAN.
- (3) DEPARTURES:
- a) ATCT must clear departing aircraft in accordance with route/altitude obtained from the ARTCC.
 - b) ARTCC must be responsible for separating departing aircraft from arriving aircraft still in their area of responsibility.
 - c) ATCT must ensure that departures are cleared direct MHZ VORTAC and then via the ARTCC cleared route with a restriction to cross MHZ VORTAC at or below 5,000 feet.
 - d) ATCT must separate departures on different airways.
 - e) ARTCC must specify to ATCT the rule to be used to separate departures entering ARTCC airspace on the same airway.
- (4) OVERFLIGHTS: Overflights must not be allowed to enter ATCT airspace during nonradar operations.

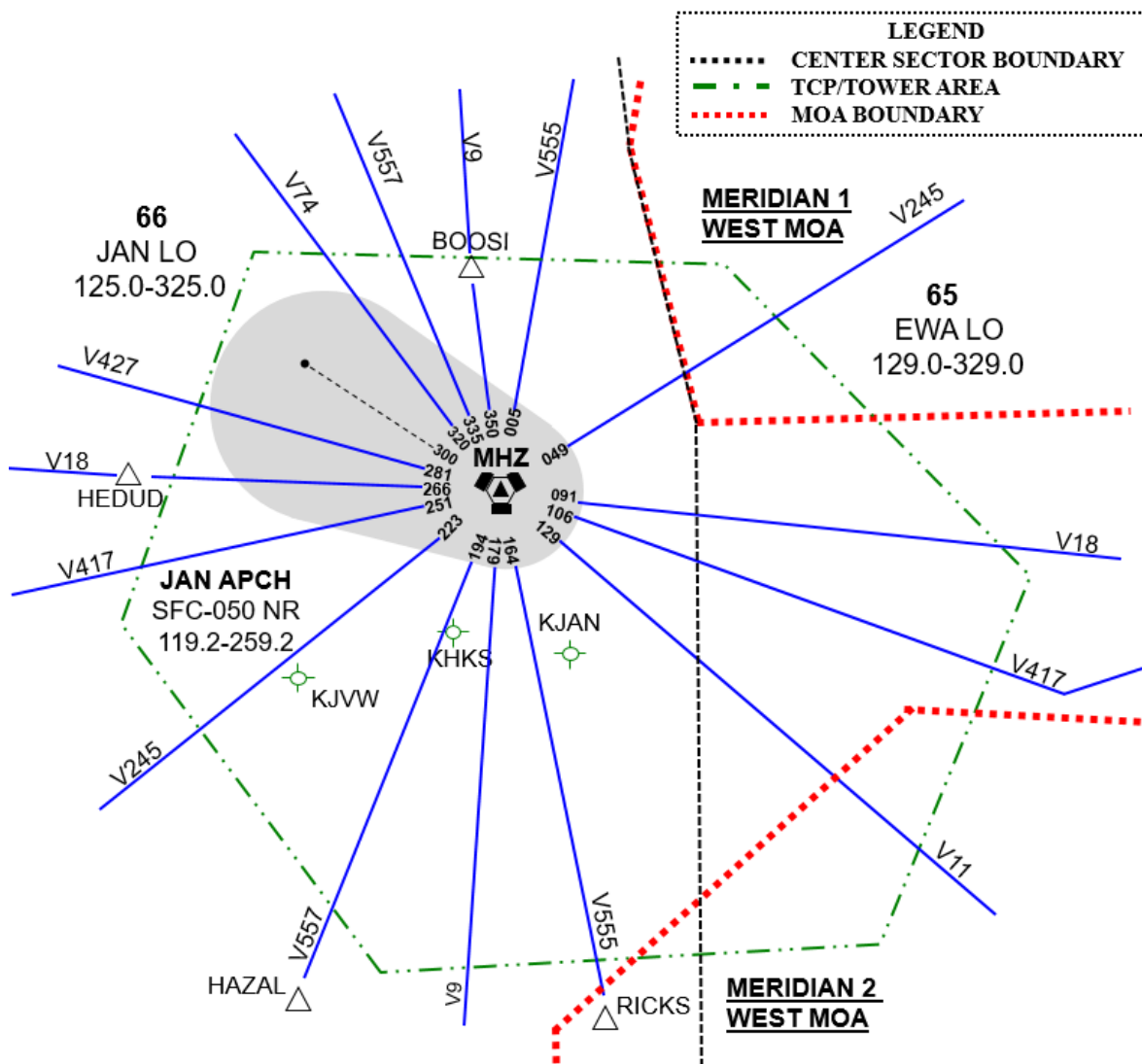
Harlan Drewry

Harlan Drewry
Air Traffic Manager
Aero ARTCC

Lisa Rounsavel

Lisa Rounsavel
Air Traffic Manager
Jackson ATCT

ATTACHMENT 1



AERO ARTCC AND MONROE ATCT LETTER OF AGREEMENT

EFFECTIVE: June 28, 2021

SUBJECT: APPROACH CONTROL SERVICE

1. **PURPOSE:** This agreement between Aero ARTCC and Monroe ATCT delegates authority and responsibility for approach control service in the airspace depicted in Attachment 1, and it outlines interfacility procedures.
2. **SCOPE AND RESPONSIBILITIES:** Aero Center (ARTCC) delegates to Monroe ATC Tower (ATCT) authority and responsibility for control of IFR aircraft operations within the terminal area depicted in Attachment 1.
3. **PROCEDURES:**
 - a. **RADAR:** During radar operations, ATCT vertical limits must be at and below 12,000 feet.
 - (1) **ARRIVALS:**
 - a) ARTCC must clear all arrivals to the destination airport via routings which ensure aircraft and aircrafts route transition within the confines of the Arrival Transition Areas (ATAs) as depicted in Aero ARTCC and Monroe ATCT LOA Attachment 1 and must assign the appropriate altitude as listed below:
 - i. Turbojets must cross 31 miles east of MLU VORTAC at 13,000 feet. Turbojets operating below 13,000 feet require individual coordination.
 - ii. All other arrivals must cross 31 miles east of MLU VORTAC at 7,000 feet.
 - b) ARTCC must transfer control for turns, speed adjustments, and descent of all arriving aircraft after a radar handoff and transfer of communications have been accomplished.
 - c) ATCT must not reverse, hold, or climb an arrival without ARTCC approval.
 - d) ATCT must transition arrivals into terminal airspace prior to adjacent ARTCC (ZFW) boundary.

If they fail to do so, ATCT is responsible for point out coordination with ZFW.

AERO ARTCC AND MONROE ATCT LETTER OF AGREEMENT

- e) When notified that holding is required:
 - i. ARTCC must clear all subsequent arrivals to the STUEE intersection at or above 13,000 feet to hold northeast on V18.
 - ii. If this is required, ARTCC is responsible for point out coordination with ZFW.
 - iii. Individual coordination with ATCT is required for aircraft at or below 12,000 feet.

(2) DEPARTURES:

- a) ATCT must clear all departures via routings which ensure aircraft transition within the confines of the Departure Transition Areas (DTAs) as depicted in Aero ARTCC and Monroe ATCT LOA Attachment 2.
- b) ATCT must clear aircraft requesting 13,000 feet or above to maintain 12,000 feet and expect further clearance to the requested altitude 10 minutes after departure.
- c) ATCT must clear aircraft requesting 12,000 feet or below to the requested altitude.

(3) OVERFLIGHTS: Overflights must be cleared via the route/altitude printed on the strip or as coordinated.

AERO ARTCC AND MONROE ATCT LETTER OF AGREEMENT

(4) OTHER:

- a) When an aircraft that will cross the boundary in a climb or descent, ARTCC must:
 - Initiate the handoff and then APREQ the climb/descent for aircraft if their final altitude is at or below 12,000 feet.
 - Effect a point out, if required, before the aircraft transitions approach airspace.
- b. NONRADAR: During nonradar operations, ATCT vertical limits must be at and below 6,000 feet.

NOTE: The Dinky intersection is only for Nonradar use.

(1) ARRIVALS:

- a) Transfer of Control Point (TCP) must be the common lateral boundaries (31NM from MLU or DINKY intersection on V18).
- b) The Expect Further Clearance (EFC) time given to the pilot is 5 minutes after the TCP time.
- c) Communications Change must be transferred 49 NE MLU for DME equipped aircraft and 5 minutes before the DINKY intersection estimate for non-DME aircraft.
- d) ARTCC must clear arrivals to hold on the airway at the TCP cleared to the lowest available ARTCC altitude.
- e) As depicted in Attachment 1, DINKY intersection on V18 may be used as the clearance limit and holding fix.
- f) ATCT must transition arrivals into terminal airspace prior to 17NM arc east of MLU VORTAC.

AERO ARTCC AND MONROE ATCT LETTER OF AGREEMENT

(2) DEPARTURES:

- a) ARTCC must issue, and approach must relay, clearances to all IFR departures.
- b) ARTCC must issue Expect Departure Clearance Times (EDCTs) if unable to issue departure clearance when requested.
- c) ARTCC must separate departures from arrivals still within ARTCC jurisdiction.
- d) ARTCC must specify the type of separation to be utilized on aircraft cleared on the same route.
- e) ATCT must not clear aircraft above 6,000 feet until established on the ARTCC-assigned route and clear of ZFW airspace.
- f) ATCT must separate aircraft on different airways.

(3) OVERFLIGHTS – During non-radar operations, overflights are not permitted through MLU Approach.

Harlan Drewry

Harlan Drewry
Air Traffic Manager
Aero ARTCC

Kendra Herlig

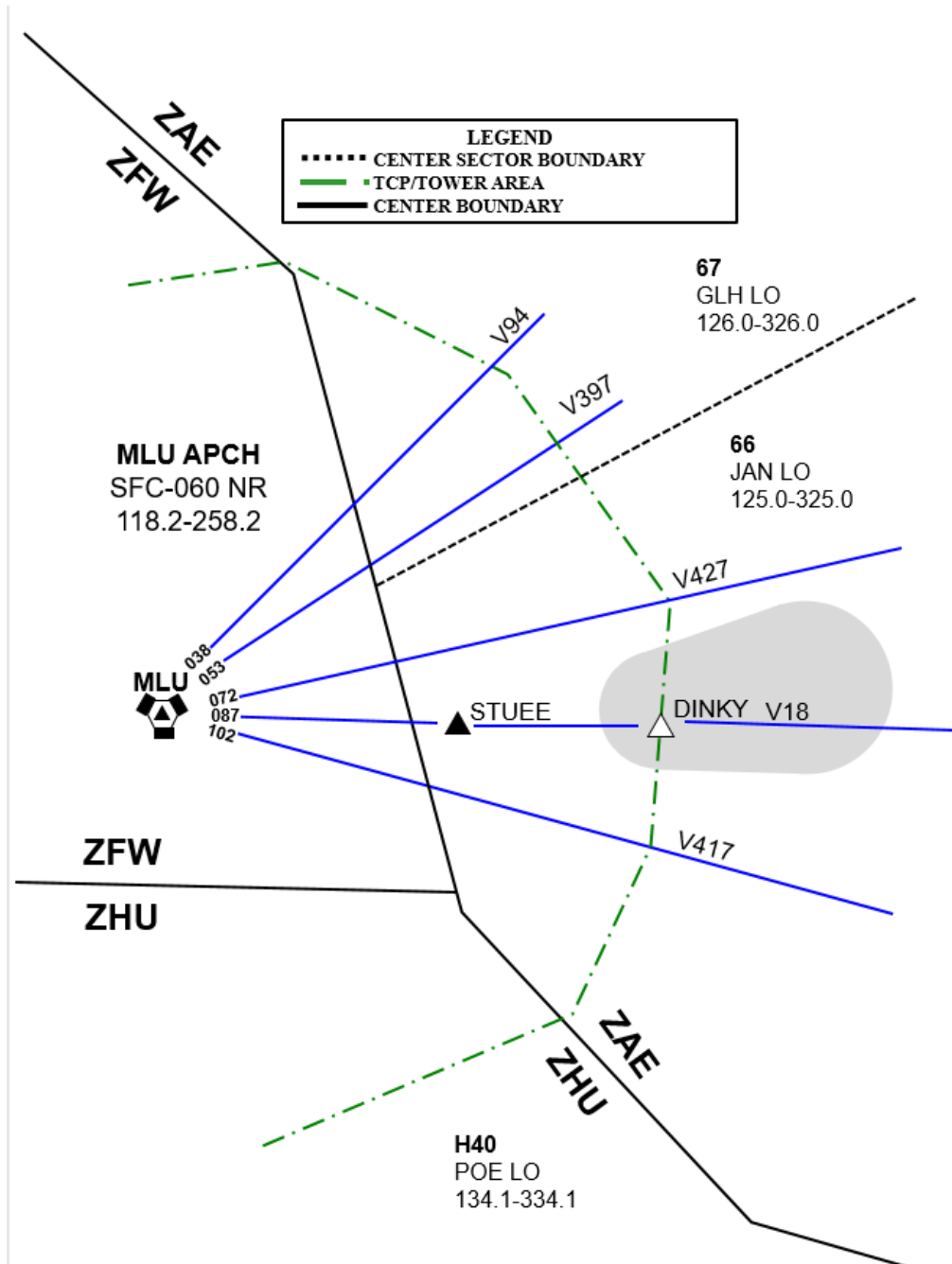
Kendra Herlig
Air Traffic Manager
Monroe ATCT

AERO ARTCC AND MONROE ATCT LETTER OF AGREEMENT

ATTACHMENT 1

SUBJECT: APPROACH CONTROL SERVICE

EFFECTIVE: June 28, 2021



AERO ARTCC AND FORT WORTH ARTCC LETTER OF AGREEMENT

EFFECTIVE: June 28, 2021

SUBJECT: INTERCENTER COORDINATION PROCEDURES

1. **PURPOSE:** This agreement between Aero ARTCC (ZAE) and Fort Worth ARTCC (ZFW) covers coordination procedures and is supplementary to the procedures in FAA Order JO 7110.65. Deviations from the procedures established in this agreement may be made only after verbal coordination is accomplished which completely defines responsibility in each case.
2. **SCOPE:** This agreement outlines procedures for use between the centers involved and is supplemental to applicable FAA Orders.
3. **PROCEDURES:**
 - a. **GENERAL:**
 - (1) Either ARTCC may, after obtaining approval from the other, clear an aircraft to operate at an Inappropriate Altitude/Flight Level for Direction of Flight (IAFDOF) as specified in FAA Order JO 7110.65.
 - b. **RADAR:**
 - (1) During periods of automated data transfer between facilities, coordination must be effected with the receiving ARTCC before departure of an aircraft when the departure point is less than 5 minutes flying time from the ARTCC boundary.
 - (2) Interim Altitude procedures:
 - a) Interim altitude is authorized between facilities
 - b) Use of interim altitude must be considered valid coordination.
 - (3) Transponder codes may be changed without coordination upon initial contact, provided both facilities are operating under ERAM.
 - (4) The transferring ARTCC must initiate coordination for a lower altitude with the appropriate low altitude sector in the receiving ARTCC for all aircraft at and above FL240 proposing to land at airports within 75 nautical miles (NM) of the ARTCC boundary. Additionally, the transferring ARTCC must ensure that point outs are made to all affected sectors.
 - (5) Interfacility and intrafacility Automated Information Transfer (AIT) must be in accordance with FAA Order JO 7110.65, paragraphs 5-4-8 through 5-4-10.
 - (6) The time requirement of JO 7110.65 para 2-2-6a may be reduced from 15 minutes to 5 minutes when using automated systems.

AERO ARTCC AND FORT WORTH ARTCC LETTER OF AGREEMENT

c. NONRADAR:

- (1) During nonradar operations, both ARTCCs must clear aircraft via radials of NAVAIDs or established airways.
- (2) The common ARTCC boundaries must be considered Transfer of Control and Communication Points.
- (3) During periods of manual data transfer between facilities, coordination must be effected with the receiving ARTCC:
 - a) Before departure of an aircraft when the departure point is less than 15 minutes flying time from the ARTCC boundary
 - b) Before change of an aircraft's route and/or altitude when the aircraft is less than 15 minutes flying time from the ARTCC boundary

Harlan Drewry

Harlan Drewry
Air Traffic Manager
Aero ARTCC

Matt Fowler

Matt Fowler
Air Traffic Manager
Fort Worth ARTCC

AERO ARTCC AND HOUSTON ARTCC LETTER OF AGREEMENT

SUBJECT: INTERCENTER COORDINATION PROCEDURES EFF. June 28, 2021

1. **PURPOSE:** This agreement between Aero Center (ZAE) and Houston ARTCC (ZHU) covers coordination procedures and is supplementary to the procedures in FAA Order JO 7110.65. Deviations from procedures established by this agreement may be made only after verbal coordination, which completely defines responsibility in each case.
2. **SCOPE:** This agreement outlines procedures for use between the centers involved and is supplemental to applicable FAA Orders.
3. **PROCEDURES:**
 - a. **GENERAL:**
 - (1) Either ARTCC, after obtaining approval from the other, may clear an aircraft to operate at an Inappropriate Altitude/Flight Level for Direction of Flight (IAFDOF) as specified in FAA Order JO 7110.65.
 - (2) Aircraft on V9, V555, V557, and J35 or between the following fix pairs, SQS/MCB, MHZ/MCB, HAZAL/MCB, or RICKS/MCB must be assigned the precoordinated altitudes as follows:
 - a) NORTHBOUND - ODD cardinal altitudes/flight levels
 - b) SOUTHBOUND - EVEN cardinal altitudes/flight levels
 - b. **RADAR:**
 - (1) When EAS FDP equipment is being used to effect coordination, coordinate with the receiving center before departure of an aircraft when the departure point is less than 5 minutes flying time from the ARTCC boundary.
 - (2) The transferring controller must take the following action when exercising control of aircraft landing at the airports listed below: (APREQ of IAFDOF and/or descent is not required)
 - a) Houston ARTCC must ensure that all aircraft west of J31 landing at Vicksburg Airport (KVKS) or in the Jackson terminal area cross the center boundary at or below FL230 descending to 11,000 feet. However, prop/turboprop aircraft landing in the Jackson terminal area from the PCU-LO sector must be issued descent clearance to 7,000 feet.
 - b) Aero ARTCC must ensure that all aircraft above 13,000 feet and west of J35 landing at Alexandria International Airport (KAEX) or Esler Regional Airport (KESF) cross the center boundary at or below FL230 descending to 13,000 feet.

AERO ARTCC AND HOUSTON ARTCC LETTER OF AGREEMENT

- c) Aero ARTCC must ensure that all aircraft above 6,000 feet and west of the ZAE sector 66/65 common boundary landing at KHEZ or KMCB cross the ZAE/ZHU center boundary at or below 12,000 feet descending to 6000 feet unless otherwise coordinated.
 - (3) In order to facilitate approaches at KHEZ, ZHU (POE-LO) may request to be temporarily delegated on an as-needed basis only, the segment of airspace north of HEZ belonging to ZAE (JAN-LO) as depicted on attachment 1, and commonly referred to as the "HEZ shelf." POE-LO and JAN-LO must coordinate the altitude limits of the delegated airspace.
 - (4) Transponder codes may be changed without coordination upon initial contact, provided both facilities are operating under ERAM.
 - (5) Interim Altitude procedures:
 - a) Interim altitude is authorized between facilities
 - b) Use of interim altitude must be considered valid coordination.
 - (6) Interfacility and intrafacility Automated Information Transfer (AIT) must be in accordance with FAA Order JO 7110.65, paragraphs 5-4-8 through 5-4-10.
 - (7) The time requirement of JO 7110.65 para 2-2-6a may be reduced from 15 minutes to 5 minutes when using automated systems.
- c. NONRADAR PROCEDURES:
- (1) During nonradar operations, both ARTCCs must clear aircraft via radials of NAVAIDs or established airways.
 - (2) The common ARTCC boundaries must be considered Transfer of Control and Communication Points.
 - (3) During periods of nonautomated data transfer between facilities, coordination must be effected with the receiving ARTCC:
 - a) Before departure of an aircraft when the departure point is less than 15 minutes flying time from the ARTCC boundary
 - b) Before change of an aircraft's route and/or altitude when the aircraft is less than 15 minutes flying time from the ARTCC boundary

Harlan Drewry

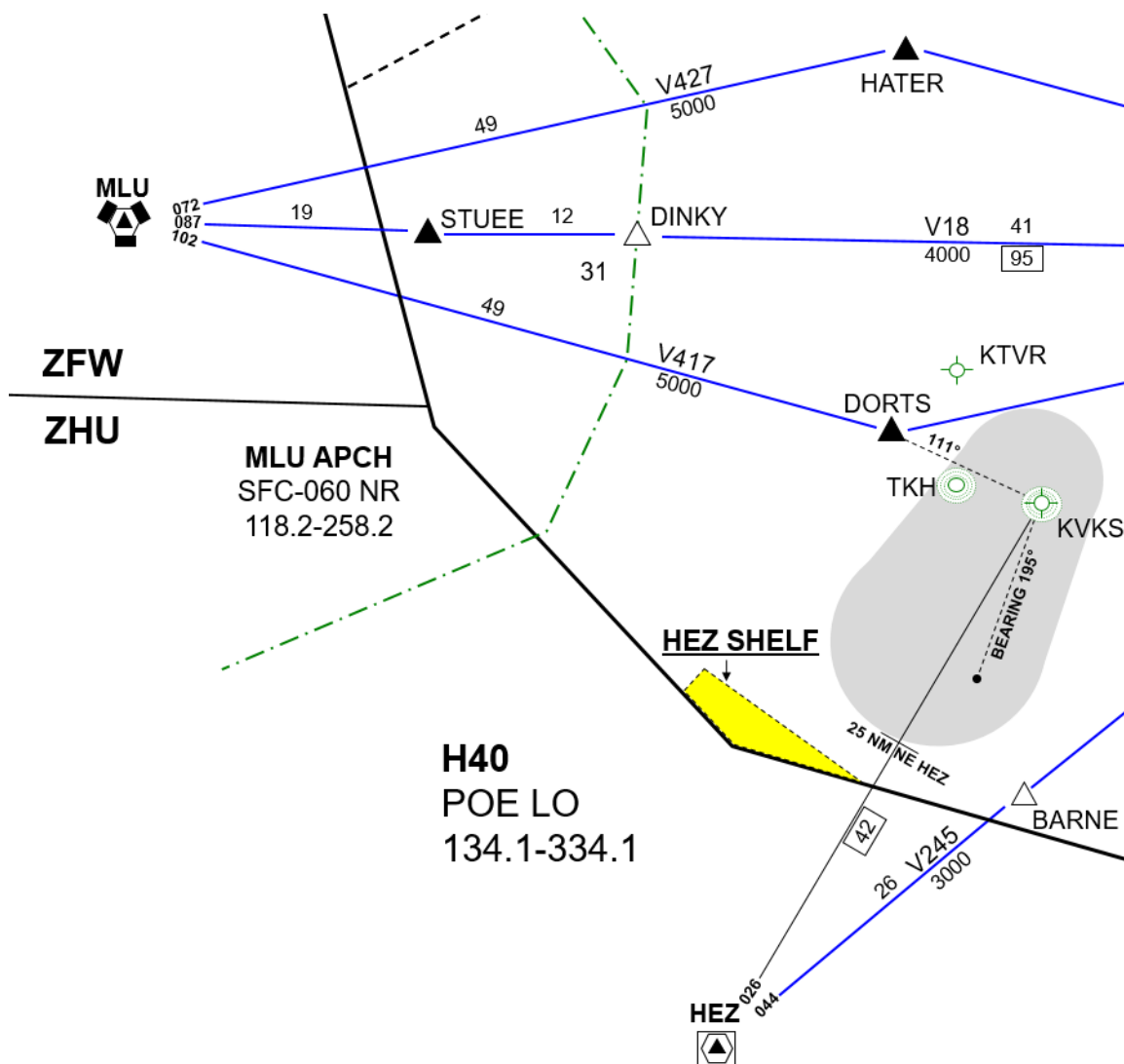
Harlan Drewry
Air Traffic Manager
Aero ARTCC

Mary Corso

Mary Corso
Air Traffic Manager
Houston ARTCC

AERO ARTCC AND HOUSTON ARTCC LETTER OF AGREEMENT

ATTACHMENT 1



AERO ARTCC, JAN ATCT, TRAWING ONE, AND MERIDIAN RATCF LETTER OF AGREEMENT

EFFECTIVE: June 28, 2021

SUBJECT: MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA

1. **PURPOSE:** This agreement establishes responsibilities and prescribes procedures between the following facilities for the use of Meridian 1 and 2 West MOAs:

Aero Center (ARTCC) – the controlling agency

Jackson, Mississippi Air Traffic Control Tower (ATCT)

Training Air Wing One (TRAWING ONE) – the scheduling/using agency

Meridian Radar Air Traffic Control Facility (RATCF)
2. **CANCELLATION:** Aero Center, JAN ATCT, TRAWING ONE, and Meridian RATCF Letter of Agreement dated June 27, 2011, Subject: Meridian 1 and 2 West MOAs is canceled.
3. **SCOPE:** This agreement is applicable to all users of **MERIDIAN 1 WEST MOA** and **MERIDIAN 2 WEST MOA**.
4. **AREA: MERIDIAN 1 WEST MOA** includes airspace as defined in Attachment 1 from the 8000 feet MSL up to but not including FL180.
5. **RESPONSIBILITIES:**
 - a. TRAWING ONE must be responsible for scheduling.
 - b. RATCF must be responsible for airspace coordination.
 - c. TRAWING ONE must ensure that all users comply with the operational procedures as stated in this Letter of Agreement.
 - d. ARTCC and ATCT must ensure that non-participating aircraft under their control remain clear of Meridian 1 and 2 West MOAs protected airspace.
6. **PROCEDURES:**
 - a. **MERIDIAN 1 WEST MOA** and **MERIDIAN 2 WEST MOA** are established to contain hazardous and/or classified activities that normally involve fixed wing aircraft and helicopter operations.

AERO ARTCC, JAN ATCT, TRAWING ONE, AND MERIDIAN RATCF LETTER OF AGREEMENT

- b. All aircraft requesting to enter MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA will receive entry clearance from ARTCC EWA LO sector (65) at 8,000 MSL .
- c. Requests for recovery must be made to ARTCC EWA LO Sector (65) on 329.0
- d. All aircraft exiting the MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA will be cleared direct NMM and assigned an altitude from ARTCC prior to exiting. ARTCC clearance is valid only upon exit from the areas.
- e. Military Authority Assumes Responsibility for Separation of Aircraft (MARSA) for all aircraft within MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA.
- f. All aircraft operating in the area must use the JAN altimeter setting, which ARTCC must furnish to aircraft prior to their entry into either area.
- g. The using agency must return the use of MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA to the controlling agency when not in use for the purpose designated for periods of two hours or more .
- h. During the time when the subject airspace is released to the controlling agency, the FAA may clear IFR traffic and authorize VFR traffic into MERIDIAN 1 WEST MOA and MERIDIAN 2 WEST MOA .
- i. The controlling agency must, with 30 minutes notice, return the use of Meridian 1 and/or 2 West MOAs to the using agency.
- j. RATCF is designated as liaison station for relaying of information concerning the release of the areas between the controlling agency and the using agency. This responsibility must be assumed by the Navy McCain ATC Tower when the RATCF is closed and the tower is open.

6. NOTIFICATION:

- a. TRAWING ONE must furnish the ARTCC Military Liaison by noon local time each Friday, a realistic activity schedule in UTC time, covering Sunday through Saturday of the following week.
- b. ARTCC must execute appropriate NOTAM actions required by activation/de-activation of the subject areas.

**AERO ARTCC, JAN ATCT, TRAWING ONE, AND MERIDIAN RATCF
LETTER OF AGREEMENT**

7. **MISCELLANEOUS:** Deviation from procedures established by this agreement may be made only after verbal coordination, which completely defines responsibility in each individual case.

Harlan Drewry

Harlan Drewry
Air Traffic Manager
Aero ARTCC

Mike Metcalf

Mike Metcalf
Commander
Training Air Wing One
Meridian, MS, NAS

Fran Bujak

Fran Bujak
Air Traffic Manager
Meridian, MS, RATCF

Lisa Rounsavel

Lisa Rounsavel
Air Traffic Manager
Jackson, MS, ATCT

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