U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

ORDER
JO 7110.311C

Effective Date:
October 15, 2014

SUBJ: Procedural Guidance for FAA Order JO 7110.65 following En Route Automation Modernization (ERAM) Implementation

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1. Purpose of This Order. This order provides air traffic procedural guidance to FAA Order JO 7110.65, Air Traffic Control related to the waterfall implementation and use of En Route Automation Modernization (ERAM).

2. Audience. This order is intended for all air traffic personnel at facilities that use ERAM for operational air traffic control services.

3. Where Can I Find This Order? The order is available on the MYFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices/ and on the air traffic publications Web site at http://www.faa.gov/air_traffic/publications.

4. Requirements. Whenever ERAM is used operationally for air traffic control services, the applicable provisions of FAA Order JO 7110.65, Air Traffic Control, are superseded by the corresponding provisions contained in Appendix A of this order.

5. Explanation of Policy Changes. This change to JO 7110.311B adds the guidance for use of the Local Interim Altitude function in ERAM. Additionally, changes were made to clarify controller responsibilities when making changes to the Full Data Block.

6. Action. Air Traffic Managers shall ensure that the provisions of this order are briefed to Operations Managers, Front-Line Managers, Controllers-in-Charge and Air Traffic Controllers prior to the first use of ERAM for operational air traffic control services.

7. Distribution. This order is distributed to Air Traffic Organization (ATO) En Route Safety and Operations Support, Mike Monroney Aeronautical Center, En Route and Oceanic Operations Service Areas, and all air route traffic control centers (ARTCCs), except Anchorage ARTCC.

8. Background. During the transition period from HOST to ERAM, the provisions of this order will apply only during those times that a facility is using ERAM for operational air traffic control services. For those facilities that have not yet transitioned to ERAM, or for those ERAM facilities that for any reason, are not using ERAM operationally for air traffic control services, the existing provisions of FAA Order JO 7110.65 must apply. When all Host facilities have transitioned permanently to ERAM, the provisions of this order must be incorporated into a future change to FAA Order JO 7110.65.

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9. Safety Management System. A Safety Risk Management Decision Memorandum (SRMDM) was completed for the requirement to revalidate the Mode C on February 8, 2012. A Safety Risk Management Document (SRMD) for Change Request (CR) 817, System Issues Group (SIG) 1161, Controlling Interim Altitude Distribution was signed on April 9, 2012.



Heather Hemdal
Director, Air Traffic Procedures
Air Traffic Organization

Explanation of Changes

Direct questions through appropriate facility/service center office staff to the Office of Primary Interest (OPI)

5-4-11 EN ROUTE FOURTH LINE DATA BLOCK USAGE

a. Changed to mandate display of the fourth line of the En Route full data block.

l. Adds a reminder that the information contained in the fourth line must not be modified outside of the controller's area of jurisdiction without proper coordination.

5-5-4. MINIMA

i. This subparagraph was relettered.

5-14-3. COMPUTER ENTRY OF ASSIGNED ALTITUDE

Title. Renamed: 5-14-3. COMPUTER ENTRY OF FLIGHT PLAN INFORMATION

The changes in this paragraph introduce guidance for the use of the Local Interim Altitude, and reminders that Altitude and Flight Plan Route Data must not be modified outside of the controller's area of jurisdiction without proper coordination.

11-1-2. DUTIES AND RESPONSIBILITIES

Renumbered 3a to a3 for consistency.

APPENDIX A. ERAM Changes to FAA Order JO 7110.65

HOST	ERAM
1-2-6. ABBREVIATIONS	1-2-6. ABBREVIATIONS
As used in this manual, the following abbreviations have the meanings indicated. (See TBL 1-2-1.)	As used in this manual, the following abbreviations have the meanings indicated. (See TBL 1-2-1.)
New	**ELDB….Enhanced Limited Data Block**
New	**EDST. .. .En Route Decision Support Tools**
New	**ERAM …En Route Automation Modernization**
New	**FDB…….Full Data Block**

No further changes to paragraph

HOST	ERAM
2-2-11. FORWARDING AMENDED AND UTM DATA	2-2-11. FORWARDING AMENDED AND UTM DATA
Title thru d	No Change
New	**e. EN ROUTE. When a controller receives a UTM notification to an FDIO only facility, they shall effect manual coordination for the flight plan data. In addition, the controller shall verify the flight plan data to the receiving facility within three minutes of the transfer of control point estimate.**
New	**Note: FDIO only facilities are facilities with FDIO but without ARTS or STARS.**

No further changes to paragraph

HOST	ERAM
2-6-2. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)	2-6-2. HAZARDOUS INFLIGHT WEATHER ADVISORY SERVICE (HIWAS)
Title thru c	No Change
New	**d. *EN ROUTE*. ERAM. Controllers shall electronically acknowledge hazardous weather information messages after appropriate action has been taken.**
New	***NOTE-*** ***EN ROUTE. While hazardous weather information is commonly distributed via the SIGMET View, it is possible to receive the information via the GI View.***

2-10-1. EN ROUTE SECTOR TEAM POSITION RESPONSIBILITIES	2-10-1. EN ROUTE SECTOR TEAM POSITION RESPONSIBILITIES
Title thru c1(f)	No Change
(g) Scan radar display. Correlate with flight progress strip information or User Request Evaluation Tool (URET) data, as applicable.	(g) Scan radar display. Correlate with flight progress strip information URET**/EDST** data, as applicable.
c1(h)	No Change
(i) Ensure strip marking and/or URET entries are completed on instructions or clearances you issue or receive.	(i) Ensure strip marking and/or **electronic flight data** entries are completed on instructions or clearances you issue or receive.
c1(j) thru c1(k)	No Change
New	**(l) At ERAM facilities, ensure the situation display accurately reflects the status of all SAAs that impact their area of control responsibility.**
2. *Radar Associate Position:*	2. *Radar Associate Position:*
(a)	No Change
(b) At URET facilities, use URET information to plan, organize, and expedite the flow of traffic.	(b) **Where available**, use URET**/EDST** to plan, organize, and expedite the flow of traffic.
c2(c) thru c2(h)	No Change
(i) Scan flight progress strips and/or URET data. Correlate with radar data.	(i) Scan flight progress strips and/or URET**/EDST** data. Correlate with radar data.
(j) Manage flight progress strips and/or URET flight data.	**(j)** Manage flight progress strips and/or **electronic** flight data.
c2(k)	No Change
(l) As appropriate, ensure strip marking and/or URET entries are completed on instructions issued or received, and record instructions issued or received by the radar position when aware of them.	(l) As appropriate, ensure strip marking and/or URET**/EDST** data entries are completed on instructions issued or received, and record instructions issued or received by the radar position when aware of them.
c2(m)	No Change
(n) Where authorized, perform URET data entries to keep the activation status of designated URET Airspace Configuration Elements current.	(n) Where authorized, perform URET**/EDST** data entries to keep the activation status of designated Airspace Configuration Elements current.
New	**(o) At ERAM facilities, scan the radar associate display for electronically distributed information, evaluate the information, and take action as appropriate.**
c3(a) thru c3(d)	No Change

4. *Radar Flight Data:* c4(a) thru c4(c) (d) Ensure flight data processing equipment is operational, except for URET capabilities.	4. *Radar Flight Data:* No Change (d) Ensure flight data processing equipment is operational, except for **URET/EDST** capabilities.

No further changes to paragraph

HOST	**ERAM**
4-5-3. EXCEPTIONS a. For traffic conditions, take this action only if one of the following conditions exists: 1. Aircraft remain within a facility's area and prior approval is obtained from other affected positions or sectors or the operations are covered in a Facility Directive. 2. Aircraft will proceed beyond the facility's area and specific operations and procedures permitting random altitude assignment are covered in a letter of agreement between the appropriate facilities. ***NOTE-*** *Those en route facilities using host software that provides capability for passing interim altitude shall include the specific operations and procedures for use of this procedure in a letter of agreement between the appropriate facilities.*	4-5-3. EXCEPTIONS a. For traffic conditions, take this action only if one of the following conditions exists: 1. Aircraft remain within a facility's area and prior approval is obtained from other affected positions or sectors or the operations are covered in a Facility Directive. 2. Aircraft will proceed beyond the facility's area and specific operations and procedures permitting random altitude assignment are covered in a letter of agreement between the appropriate facilities. Delete

No further changes to paragraph

HOST	**ERAM**
4-6-3. DELAYS a. Advise your supervisor or flow controller as soon as possible when you delay or expect to delay aircraft. New	4-6-3. DELAYS a. Advise your supervisor or flow controller as soon as possible when you delay or expect to delay aircraft. ***REFERENCE-*** ***FAAO7110.65, Para 5-14-9, ERAM Computer Entry of Hold Information***

No further changes to paragraph

HOST	**ERAM**
5-1-6. SERVICE LIMITATIONS a. When radar mapping is not available, limit radar services to: a1 thru a3	5-1-6. SERVICE LIMITATIONS a. When radar mapping is not available, limit radar services to: No Change

b. *EN ROUTE.* When the position symbol associated with the full data block falls more than one history behind the actual aircraft target or there is no target symbol displayed, the Mode C information in the full data block shall not be used for the purpose of determining separation.	b. *EN ROUTE.* When the position symbol associated with the data block falls more than one history behind the actual aircraft target or there is no target symbol displayed, the Mode C information in the data block shall not be used for the purpose of determining separation.

No further changes to paragraph

HOST	**ERAM**
5-2-2. DISCRETE ENVIRONMENT	5-2-2. DISCRETE ENVIRONMENT
a. Issue discrete beacon codes assigned by the computer. Computer-assigned codes may be modified as required.	a. Issue discrete beacon codes assigned by the computer. Computer-assigned codes may be modified as required.
a1 thru a2	No Change
NOTE- *1. This will provide the adjacent facility advance information on the aircraft and will cause autoacquisition of the aircraft prior to handoff.* *2. When an IFR aircraft, or a VFR aircraft that has been assigned a beacon code by the host computer and whose flight plan will terminate in another facility's area, cancels ATC service or does not activate the flight plan, send a remove strips (RS) message on that aircraft via host keyboard, the FDIO keyboard, or call via service F.*	No Change *2. When an IFR aircraft, or a VFR aircraft that has been assigned a beacon code by the **ARTCC** computer and whose flight plan will terminate in another facility's area, cancels ATC service or does not activate the flight plan, **ensure that appropriate action is taken to** remove strips (RS message) on that aircraft.*

No further changes to paragraph

HOST	**ERAM**
5-2-17. **VALIDATION OF MODE C READOUT**	5-2-17. **VALIDATION OF MODE C READOUT**
Ensure that Mode C altitude readouts are valid after accepting an interfacility handoff, initial track start, track start from coast/suspend tabular list, missing, or unreasonable Mode C readouts. For TPX-42 and equivalent systems ensure that altitude readout is valid immediately after identification. (TCDD-/BANS-equipped tower cabs are not required to validate Mode C readouts after receiving interfacility handoffs from TRACONs according to the procedures in para 5-4-3, Methods, subpara a4.)	**ERAM:** Ensure that Mode C altitude readouts are valid after accepting an interfacility handoff, initial track start, track start from coast/suspend tabular list, missing, or unreasonable Mode C readouts. **When an X is displayed adjacent to the Mode C, the Mode C altitude readout is not valid. The Mode C altitude readout must be validated after the X is no longer displayed in the data block.** For TPX-42 and equivalent systems ensure that altitude readout is valid immediately after identification. (TCDD-/BANS-equipped tower cabs are not required to validate Mode C readouts after receiving interfacility handoffs from TRACONs according to the procedures in para[1]5-4-3, Methods, subpara a4.)

No further changes to paragraph

HOST	**ERAM**
5-3-3. BEACON IDENTIFICATION METHODS	5-3-3. BEACON IDENTIFICATION METHODS
Title thru c	No Change
d. *EN ROUTE.* During narrowband operations, an aircraft may be considered identified when the full data block is automatically associated with the beacon target symbol of an aircraft that is squawking a discrete code assigned by the computer.	d. *EN ROUTE.* **An** aircraft may be considered identified when the full data block is automatically associated with the beacon target symbol of an aircraft that is squawking a discrete code assigned by the computer.
New	**Note: Paired LDBs in ERAM do not display a beacon code.**

No further changes to paragraph

HOST	**ERAM**
5-3-8. TARGET MARKERS	5-3-8. TARGET MARKERS
EN ROUTE	*EN ROUTE*
Retain data blocks that are associated with the appropriate target symbol in order to maintain continuous identity of aircraft. Retain the data block until the aircraft has exited the sector or delegated airspace, and all potential conflicts have been resolved; including an aircraft that is a point out. The data block shall display flight identification and altitude information, as a minimum. The displayed altitude may be assigned, interim, or reported.	No Change
New	***ERAM:*** **When you have separation responsibility for an aircraft and a paired track exists, display a full data block (FDB).**

No further changes to paragraph

HOST	**ERAM**
5-4-3. METHODS	5-4-3. METHODS
a1 thru a2	No Change
3. Use automation capabilities.	No Change
NOTE- *EN ROUTE. Interfacility handoff capabilities are available that can be manually initiated and accepted when operating on the backup RDP while FDP is available. The backup RDP by itself does not have the capabilities for interfacility handoffs. Therefore, handoffs between facilities must be made via landline voice communications when operating with the backup RDP only.*	***NOTE-*** *EN ROUTE.* ***ERAM:*** *Interfacility handoff capabilities are available* ***for Host facilities*** *that can be manually initiated and accepted when operating on the backup RDP while FDP is available. The* ***Host*** *backup RDP by itself does not have the capabilities for interfacility handoffs. Therefore, handoffs* ***to Host*** *facilities must be made via landline voice communications when* ***that Host facility is*** *operating with*

a4 thru b2	*the backup RDP only.* No Change
3. The assigned altitude, appropriate restrictions, and information that the aircraft is climbing or descending, if applicable, except when inter/intrafacility directives ensure that the altitude information will be known by the receiving controller.	3. The assigned altitude, appropriate restrictions, and information that the aircraft is climbing or descending, if applicable, except when inter/intrafacility directives ensure that the altitude information will be known by the receiving controller.
NOTE- 1. *When physically pointing to the target, you do not have to state the aircraft position.* 2. *Those en route facilities using host software that provides capability for passing interim altitude shall include the specific operations and procedures for use of this procedure in a LOA between the appropriate facilities.*	***NOTE-*** *When physically pointing to the target, you do not have to state the aircraft position.* Delete

No further changes to paragraph

HOST	**ERAM**
5-4-6. RECEIVING CONTROLLER HANDOFF	5-4-6. RECEIVING CONTROLLER HANDOFF
Title thru c	No Change
d. Before you issue control instructions directly to an aircraft that is within another controller's area of jurisdiction that will change that aircraft's heading, route, speed, altitude, or beacon code, ensure that coordination has been accomplished with each of the controllers listed below whose area of jurisdiction is affected by those instructions unless otherwise specified by a LOA or a facility directive:	No Change
NOTE- *Those en route facilities using host software that provides capability for passing interim altitude shall include the specific operations and procedures for use of this procedure in a LOA between the appropriate facilities.*	Delete
d1 thru f	No Change
OLD	NEW
a thru f	No Change
g. Initiate verbal coordination prior to accepting control of a track when "CST," "NAT," "NT," "NONE," "NB," "NX," "OLD," "OL," "AMB," "AM," or "TU" is displayed in the data block.	g. **Take the identified action prior to accepting control of a track when the following indicators are displayed in the data block:**
1. When an automated interfacility handoff action is initiated and "AMB" or "AM" is displayed in the full data block, advise the other facility that a	1. **"AMB" and "AM": advise the other facility that a disparity exists between the position declared by their computer and that declared by your CARTS/PIDP/STARS system.**

disparity exists between the position declared by their computer and that declared by your CARTS/PIDP/STARS system.	
2. When an automated interfacility handoff action is initiated and "NAT," "NT," or "TU" is displayed in the full data block, advise the other facility if a disparity exists between the position declared by their computer and the actual target position.	2. **"NAT", "NT," or "TU": advise the other facility if a disparity exists between the position declared by their computer and the actual target position.**
New	**3. "DATA", "CST", "NONE", "NX", "OLD", or "OL": initiate verbal coordination.**
New	**h. ERAM: Notify the FLM when a MISM is displayed in the data block.**
h. Advise the transferring controller, prior to accepting the transfer of radar identification, that you will delay the climb or the descent of an aircraft through the vertical limits of the transferring controller's area of jurisdiction, unless otherwise specified in a LOA or a facility directive.	**i**. Advise the transferring controller, prior to accepting the transfer of radar identification, that you will delay the climb or the descent of an aircraft through the vertical limits of the transferring controller's area of jurisdiction, unless otherwise specified in a LOA or a facility directive.
NOTE- *Those en route facilities using HOST software that provides capability for passing interim altitude shall include the specific operations and procedures for use of this procedure in a LOA between the appropriate facilities.*	Delete
i. If you decide, *after* accepting the transfer of radar identification, to delay the aircraft's climb or descent through the vertical limits of the transferring controller's area of jurisdiction, advise the transferring controller of that decision as soon as possible. *You* now have the responsibility to ensure that the necessary coordination is accomplished with any intervening controller(s) whose area of jurisdiction is affected by that delay, unless otherwise specified in a LOA or a facility directive.	**j**. If you decide, *after* accepting the transfer of radar identification, to delay the aircraft's climb or descent through the vertical limits of the transferring controller's area of jurisdiction, advise the transferring controller of that decision as soon as possible. *You* now have the responsibility to ensure that the necessary coordination is accomplished with any intervening controller(s) whose area of jurisdiction is affected by that delay, unless otherwise specified in a LOA or a facility directive.
NOTE- *Those en route facilities using HOST software that provides capability for passing interim altitude shall include the specific operations and procedures for use of this procedure in a LOA between the appropriate facilities.*	Delete

No further changes to paragraph

HOST	ERAM
5-4-11 EN ROUTE FOURTH LINE DATA BLOCK USAGE	5-4-11 EN ROUTE FOURTH LINE DATA BLOCK USAGE
a. The en route fourth line data block must be used to forward only the specified control information listed below. Any additional control information must be forwarded via other communication methods. En route fourth line data block free text area may be used by individual sector teams for recording any additional information the team deems appropriate for managing the sector, but must be removed prior to initiation of identification transfer.	**a. The fourth line of the en route data block must be displayed**. En route fourth line data block free text area may be used by individual sector teams for recording any additional information the team deems appropriate for managing the sector, but must be removed prior to initiation of identification transfer.
Add	***REFERENCE−*** ***FAAO JO 7110.65, Para 5−4−8, Automated Information Transfer (AIT).*** ***FAAO JO 7110.65, Para 5−4−9, Interfacility Automated Information Transfer.***
a. reference thru k. example	No Change
l. The acceptance of a handoff by the receiving controller must constitute receipt of the information contained within the en route fourth line data block. It is the responsibility of the receiving controller to advise the transferring controller if any information is not understood, or needs to be revised.	**l.** The acceptance of a handoff by the receiving controller must constitute receipt of the information contained within the en route fourth line data block. **This information must not be modified outside of the controller's area of jurisdiction unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.** It is the responsibility of the receiving controller to advise the transferring controller if any information is not understood, or needs to be revised.

No further changes to paragraph

HOST	ERAM
5-5-4. MINIMA	5-5-4. MINIMA
Title thru h	No Change
New	**i. ERAM:**
New	**1. At or above FL 600-** ***10 miles***
New	**2. Below FL 600-** ***5 miles.***
New	**3. Below FL 180 where all the following conditions are met –** ***3 miles:***
New	**(a) Significant operational advantages can be obtained.**
New	**(b) Within 40 miles of the preferred sensor,**

	and within the 3 NM separation area.
New	**(c) The preferred sensor is providing reliable beacon targets.**
New	**(d) Facility directives specifically define the 3 NM separation area.**
New	**(e) The 3 NM separation area is displayable on the video map.**
New	**(f) Involved aircraft are displayed using the 3 NM target symbol.**
New	***Reference-*** ***FAAO JO 7210.3, Para 8-2-1, Three Mile Airspace Operations*** ***FAAO JO 7210.3, Para 11-8-15, Single Site Coverage ATTS Operations***

No further changes to paragraph

HOST	**ERAM**
5-5-9. SEPARATION FROM OBSTRUCTIONS	5-5-9. SEPARATION FROM OBSTRUCTIONS
a. Except in En Route Stage A/DARC or Stage A/EDARC, separate aircraft from obstructions depicted on the radar display by the following minima:	a. ***TERMINAL***. **S**eparate aircraft from obstructions depicted on the radar display by the following minima:
a1 thru a2	No Change
b. Except in En Route Stage A/DARC or Stage A/EDARC, vertical separation of aircraft above an obstruction depicted on the radar display may be discontinued after the aircraft has passed it.	b. ***TERMINAL.*** **V**ertical separation of aircraft above an obstruction depicted on the radar display may be discontinued after the aircraft has passed it.
c. Stage A/DARC or Stage A/EDARC, apply the radar separation minima specified in para 5-5-4, Minima, subpara b1.	c. ***EN ROUTE.*** **A**pply the radar separation minima specified in para 5-5-4, Minima, subpara b1.

No further changes to paragraph

HOST	**ERAM**
5-5-10. ADJACENT AIRSPACE	5-5-10. ADJACENT AIRSPACE
a. If coordination between the controllers concerned has not been effected, separate radar-controlled aircraft from the boundary of adjacent airspace in which radar separation is also being used by the following minima:	No Change
a1 thru a2	No Change
3. En route Stage A/DARC or Stage A/EDARC	3. ***EN ROUTE:***
a3(a) thru a3(b)	No Change
b. Separate radar-controlled aircraft from the	No Change

boundary of airspace in which nonradar separation is being used by the following minima:	
b1 thru b2	No Change
3. En route Stage A/DARC or Stage A/EDARC:	3. ***EN ROUTE***

No further changes to paragraph

HOST	**ERAM**
5-5-11. EDGE OF SCOPE	5-5-11. EDGE OF SCOPE
Title thru b	No Change
c. En route Stage A/DARC or Stage A/EDARC:	c. ***EN ROUTE:***

No further changes to paragraph

HOST	**ERAM**
5-6-2. METHODS	5-6-2. METHODS
a thru g	No Change
h. During stage A operation, update the route of flight in the computer unless an operational advantage is gained and coordination is accomplished.	h. **When flight data processing is available**, update the route of flight in the computer unless an operational advantage is gained and coordination is accomplished.

No further changes to paragraph

HOST	**ERAM**
5-14-3. COMPUTER ENTRY OF ASSIGNED ALTITUDE	5−14−3. COMPUTER ENTRY OF **FLIGHT PLAN INFORMATION**
The data block must always reflect the current status of the aircraft unless otherwise specified in a facility directive. Whenever an aircraft is cleared to maintain an altitude different from that in the flight plan database, enter into the computer one of the following:	Delete
Note thru Reference	Delete
Add	**a. Altitude**
Add	**1. The altitude field(s) of the data block must always reflect the current status of the aircraft unless otherwise specified in an appropriate facility directive.**
Add	**NOTE-** **As it applies to altitude, the current status of the aircraft, for the transferring controller, indicates the clearance given by air traffic control, directly to and read back by an aircraft. This ensures the**

	aircraft has received the clearance and is expected to comply with the instructions. The current status of the aircraft, for the receiving controller, indicates the specific verbally coordinated altitude, if that differs from the altitude coordinated by automated means.
Add	**2. Assigned and Interim altitude information must not be modified outside of the controller's area of jurisdiction unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.**
Add	**3. Whenever an aircraft is cleared to maintain an altitude different from that in the flight plan database, enter into the computer one of the following:**
a. The new assigned altitude if the aircraft will (climb or descend to and) maintain the new altitude, or **b.** An interim altitude if the aircraft will (climb or descend to and) maintain the new altitude for a short period of time and subsequently be recleared to the altitude in the flight plan database or a new altitude or a new interim altitude.	**(a).** The new assigned altitude if the aircraft will (climb or descend to and) maintain the new altitude, or **(b).** An interim altitude if the aircraft will (climb or descend to and) maintain the new altitude for a short period of time and subsequently be recleared to the altitude in the flight plan database or a new altitude or a new interim altitude. or **(c). A Local Interim Altitude (LIA), entered by the transferring controller when the assigned altitude differs from the coordinated altitude unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.**
Add	Delete
NOTE– *Use of the interim altitude function will ensure that the data block reflects the actual status of the aircraft and eliminate superfluous altitude updates.*	
Add	***NOTE-*** ***A facility directive may be published, in accordance with JO 7210.3, paragraph 8-2-7, Waiver to Interim Altitude Procedures, deleting the interim altitude computer entry requirements of subpara 3(b).***
Add	**b. Flight Plan Route Data**
Add	**This information must not be modified outside of the controller's area of jurisdiction unless verbally coordinated or specified in a Letter of Agreement or Facility Directive.**

No further changes to paragraph

HOST	ERAM
5-14-5. SELECTED ALTITUDE LIMITS	5-14-5. SELECTED ALTITUDE LIMITS
Title thru a	No Change
b. 2,200 feet above the highest and below the lowest flight level of the sector where 2,000 feet vertical separation is applicable.	No Change
NOTE- *1. The data block, for purposes of this paragraph, must contain the beacon code and Mode C altitude at a minimum.* *2. Exception to these requirements may be authorized for specific altitudes in certain ARTCC sectors if defined in appropriate facility directives and approved by the En Route and Oceanic Operations Area Director.*	***NOTE-*** *1. The data block, for purposes of this paragraph, must contain the Mode C altitude* ***and call sign or beacon code*** *at a minimum.* No Change

No further changes to paragraph

HOST	ERAM
5-14-7. COAST TRACKS	5-14-7. COAST **AND FROZEN** TRACKS
Do not use coast tracks in the application of either radar or nonradar separation criteria.	**Do not use information in data blocks displaying "CST" or "FRZN"** in the application of either radar or non-radar separation.

No further changes to paragraph

HOST	ERAM
5-14-8. CONTROLLER INITIATED COAST TRACKS	5-14-8. CONTROLLER INITIATED COAST TRACKS
Title thru a	No Change
b. Prior to initiating a coast track, ensure the following:	b. Prior to initiating a coast track, ensure **that a departure message or progress report corresponding with the aircraft's current position is entered into the computer.**
1. A departure message or progress report corresponding with the aircraft's current position is entered into the computer.	Delete
2. The track being started is within the Posted Time Update Interval (PTUI) of the aircraft's Computer-estimated position and the Flight Plan Track Position Difference (FTPD) distance of the aircraft's flight plan route.	Delete
NOTE- *FTPD is an automation parameter, normally set to 15 miles, that is compared with the tracked target's*	Delete

perpendicular distance from the stored flight plan route. If the track is within the parameter miles, it is eligible for "FLAT tracking." PTUI is an automation parameter, normally set to 3 minutes, that is compared against the difference between the calculated time of arrival and the actual time of arrival over a fix. If the difference is greater than PTUI, the flight plan's stored data will be revised and fix-time update messages will be generated.	

No further changes to paragraph

HOST	**ERAM**
New Paragraph	**5-14-9. ERAM COMPUTER ENTRY OF HOLD INFORMATION**
New	**a. When an aircraft is issued holding instructions, the delay is ATC initiated, and the EFC is other than "no delay expected":**
New	**1. Enter a hold message.**
New	**2. Maintain a paired track.**
New	**3. Enter an EFC time via a hold message, the Hold Data Menu, or the Hold View.**
New	**4. Enter non-published holding instructions via a hold message or the Hold Data Menu.**
New	***NOTE-*** ***The ERAM hold message allows automatic calculation and reporting of aggregate delays.***
New	**b. Unless otherwise specified in a facility directive, verbally coordinate non-published holding instructions when handing off an aircraft in hold status to another ERAM sector.**
New	**c. An EFC time entered into the Hold Data Menu, Hold View, or the hold message constitutes coordination of the EFC between ERAM sectors.**
New	***REFERENCE-*** ***FAAO JO 7210.3, Para 8-2-9, ERAM Hold Information Facility Directive Requirements***

No further changes to paragraph

HOST	**ERAM**
New Paragraph	**5-14-10. ERAM VISUAL INDICATOR OF SPECIAL ACTIVITY AIRSPACE (SAA) STATUS**
New	**Sector controllers shall ensure the situation display**

New	**accurately reflects the status of all SAAs that impact their area of control responsibility. When "SAA DOWN" is displayed in the Outage View, manually create visual indicators on the situation display to reflect changes to airspace status.** ***NOTE-*** ***The "SAA DOWN" message in the Outage View means that SAA status is no longer being updated. The status of each SAA at the time of the failure, whether "on" or "off", will continue to be displayed. Status changes will not be automatically updated on the display until the outage is resolved.***

No further changes to paragraph

HOST	**ERAM**
10-2-5. EMERGENCY SITUATIONS	10-2-5. EMERGENCY SITUATIONS
Title thru e	No Change
NOTE- *EN ROUTE. During Stage A operation, Code 7700 causes EMRG to blink in field E of the data block.*	***NOTE-*** *EN ROUTE. **ERAM:** Code 7700 causes **an emergency indicator** to blink in the data block.*

No further changes to paragraph

HOST	**ERAM**
11-1-2. DUTIES AND RESPONSIBILITIES	11-1-2. DUTIES AND RESPONSIBILITIES
a. Supervisory Traffic Management Coordinator-in-Charge (STMCIC) shall:	a. Supervisory Traffic Management Coordinator-in-Charge (STMCIC) shall:
a1 thru 3a	a1 thru **a3**
4. Where authorized, perform URET data entries to keep the activation status of designated URET Airspace Configuration Elements current.	4. Where authorized, perform **URET/EDST** data entries to keep the activation status of designated Airspace Configuration Elements current.
5. Perform assigned actions in the event of a URET outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.	5. Perform assigned actions in the event of **an** outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.
a6	No Change
b. OS shall:	b. OS shall:
b1 thru b4	No Change
5. Where authorized, perform URET data entries to keep the activation status of designated URET Airspace Configuration Elements current.	5. Where authorized, perform data entries to keep the activation status of designated **URET/EDST** Airspace Configuration Elements current.
6. Perform assigned actions in the event of a	6. Perform assigned actions in the event of **an**

URET outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.	outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.
b7	No Change
c. ATCSs shall:	c. ATCSs shall:
c1 thru c3	No Change
4. Where authorized, perform URET data entries to keep the activation status of designated URET Airspace Configuration Elements current.	4. Where authorized, perform data entries to keep the activation status of designated **URET/EDST** Airspace Configuration Elements current.
5. Perform assigned actions in the event of a URET outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.	5. Perform assigned actions in the event of **an** outage or degradation, in accordance with the requirements of FAA Order 7210.3, Facility Operation and Administration, and as designated by facility directive.

No further changes to paragraph

HOST	**ERAM**
CHAPTER 13. DECISION SUPPORT TOOLS	No Change
Section 1. User Request Evaluation Tool (URET)	Section 1. User Request Evaluation Tool (URET) **En Route Decision Support Tools (EDST)**

No further changes to paragraph

HOST	**ERAM**
13-1-1. DESCRIPTION	13-1-1. DESCRIPTION
URET is an en route decision support tool that is used by the sector team in performing its strategic planning responsibilities. URET uses flight plan data, forecast winds, aircraft performance characteristics, and track data to derive expected aircraft trajectories, and to predict conflicts between aircraft and between aircraft and special use or designated airspace. It also provides trial planning and enhanced flight data management capabilities.	URET**/EDST** is an en route decision support tool that is used by the sector team in performing its strategic planning responsibilities. URET**/EDST** uses flight plan data, forecast winds, aircraft performance characteristics, and track data to derive expected aircraft trajectories, and to predict conflicts between aircraft and between aircraft and special use or designated airspace. It also provides trial planning and enhanced flight data management capabilities. **Under ERAM the URET/EDST capabilities constitute the initial En Route decision support tools.**

No further changes to paragraph

HOST	**ERAM**
13-1-2. CONFLICT DETECTION AND RESOLUTION	13-1-2. CONFLICT DETECTION AND RESOLUTION
a. Actively scan URET information for predicted aircraft-to-aircraft and aircraft-to-airspace alerts.	a. Actively scan URET**/EDST** information for predicted aircraft-to-aircraft and aircraft-to-airspace

	alerts.
b. When a URET alert is displayed, evaluate the alert and take appropriate action as early as practical, in accordance with duty priorities.	b. When a **conflict probe** alert is displayed, evaluate the alert and take appropriate action as early as practical, in accordance with duty priorities.
c. Prioritize the evaluation and resolution of URET alerts to ensure the safe, expeditious, and efficient flow of air traffic.	c. Prioritize the evaluation and resolution of **conflict probe** alerts to ensure the safe, expeditious, and efficient flow of air traffic.
NOTE- *URET alerts are based on radar separation standards. Caution should be used when situations include nonstandard formations.*	***NOTE-*** ***Conflict probe** alerts are based on **standard** radar separation. **Conflict probe does not account for instances in which greater separation may be needed (e.g., non-standard formations, A380) or where reduced separation is permitted (e.g., 3mile airspace).***
d. When a URET alert is displayed and when sector priorities permit, give consideration to the following in determining a solution:	d. When a **conflict probe** alert is displayed and when sector priorities permit, give consideration to the following in determining a solution:
d1 thru d2	No Change
e. When the URET Stop Probe feature is activated for an aircraft, Conflict Probe for that aircraft shall be restarted before transfer of control, unless otherwise coordinated.	e. When the Stop Probe feature is activated for an aircraft, **c**onflict **p**robe for that aircraft shall be restarted before transfer of control, unless otherwise coordinated.
NOTE- *The requirement in paragraph 13-1-2e does not apply to aircraft entering a non-URET facility.*	***NOTE-*** *The requirement in paragraph 13-1-2e does not apply to aircraft entering a non-URET/**EDST** facility.*

No further changes to paragraph

HOST	**ERAM**
13-1-3. TRIAL PLANNING	13-1-3. TRIAL PLANNING
a. When URET is operational at the sector and when sector priorities permit, use the trial plan capability to evaluate:	a. When URET/**EDST** is operational at the sector and when sector priorities permit, use the trial plan capability to evaluate:

No further changes to paragraph

HOST	**ERAM**
13-1-4. URET-BASED CLEARANCES	13-1-4. **CONFLICT PROBE**-BASED CLEARANCES
When the results of a trial plan based upon a user request indicate the absence of alerts, every effort should be made to grant the user request, unless the change is likely to adversely affect operations at another sector.	No Change

No further changes to paragraph

HOST	ERAM
13-1-5. THE AIRCRAFT LIST (ACL), DEPARTURE LIST (DL), AND FLIGHT DATA MANAGEMENT	13-1-5. THE AIRCRAFT LIST (ACL), DEPARTURE LIST (DL), AND FLIGHT DATA MANAGEMENT
a	No Change
b. Actively scan URET to identify automated notifications that require sector team action.	b. Actively scan URET/**EDST** to identify automated notifications that require sector team action.
c thru e	No Change
f. When URET is operational, sector teams shall post flight progress strips for any non-radar flights.	f. **S**ector teams shall post flight progress strips for any non-radar flights.
g. When URET is operational, a flight progress strip shall be posted for any flight plan not contained in the Host Computer System.	g. **A** flight progress strip shall be posted for any flight plan not contained in the **EAS**.
h. When URET is operational, sector teams shall post any flight progress strip(s) that are deemed necessary for safe or efficient operations. The sector team shall comply with all applicable facility directives to maintain posted flight progress strips.	h. **S**ector teams shall post any flight progress strip(s) that are deemed necessary for safe or efficient operations. The sector team shall comply with all applicable facility directives to maintain posted flight progress strips.
i. The URET Drop Track Delete option shall be used in accordance with facility directives.	i. The Drop Track Delete option shall be used in accordance with facility directives.

No further changes to paragraph

HOST	ERAM
13-1-6. MANUAL COORDINATION AND THE URET COORDINATION MENU	13-1-6. MANUAL COORDINATION AND THE COORDINATION MENU
a. Where automated coordination with a facility is not available (e.g., an international facility, a VFR tower), use the URET Coordination Menu or a flight progress strip to annotate manual coordination status, in accordance with facility directives.	a. Where automated coordination with a facility is not available (e.g., an international facility, a VFR tower), use the Coordination Menu or a flight progress strip to annotate manual coordination status, in accordance with facility directives.
b. When the URET Coordination Menu is used and the flight plan is subsequently changed, remove the yellow coding from the Coordination Indicator after any appropriate action has been taken.	b. When the Coordination Menu is used and the flight plan is subsequently changed, remove the yellow coding from the Coordination Indicator after any appropriate action has been taken.

No further changes to paragraph

HOST	ERAM
13-1-7. HOLDING	13-1-7. HOLDING
For flights in hold, use URET Hold Annotations, Hold Data Menu, Hold View, a flight progress strip, or a facility approved worksheet to annotate holding instructions, in accordance with facility directives.	For flights in hold, use **the ERAM Hold Data Menu/Hold View, the URET/EDST Hold Annotations Menu,** a flight progress strip, or a facility approved worksheet, to annotate holding instructions, in accordance with facility directives.

No further changes to paragraph

HOST	ERAM
13-1-8. RECORDING OF CONTROL DATA	13-1-8. RECORDING OF CONTROL DATA
a thru b	No Change
c. When the URET Free Text Area is used to enter control information, authorized abbreviations shall be used. You may use:	c. When the **ACL or DL** Free Text Area is used to enter control information, authorized abbreviations shall be used. You may use:
c1 thru c2	No Change
3. The URET equivalents for control information symbols authorized in TBL 13-1-3.	3. The URET**/EDST** equivalents for control information symbols authorized in TBL 13-1-3.
c4 thru c5	No Change
d. When the URET Free Text Area is used to enter control information, the Free Text Area shall remain open and visible. When no longer relevant, the information entered into the Free Text Area shall be updated or deleted.	d. When the **ACL or DL** Free Text Area is used to enter control information, the Free Text Area shall remain open and visible. When no longer relevant, the information entered into the Free Text Area shall be updated or deleted.

No further changes to paragraph

HOST	ERAM
13-1-9. ACKNOWLEDGEMENT OF AUTOMATED NOTIFICATION	13-1-9. ACKNOWLEDGEMENT OF AUTOMATED NOTIFICATION
a. The URET Inappropriate Altitude for Direction of Flight (IAFDOF) feature shall be used in the automatic mode (i.e., IAFDOF Manual shall remain deselected) unless otherwise authorized in a facility directive.	a. The **URET/EDST** Inappropriate Altitude for Direction of Flight (IAFDOF) feature shall be used in the automatic mode (i.e., IAFDOF Manual shall remain deselected) unless otherwise authorized in a facility directive.

No further changes to paragraph

HOST	ERAM
13-1-10. CURRENCY OF TRAJECTORY INFORMATION	13-1-10. CURRENCY OF TRAJECTORY INFORMATION
Title thru a	No Change
b. An exception to the requirement to enter or	No Change

update interim altitudes may be authorized for certain ARTCC sectors if explicitly defined in an appropriate facility directive.

NOTE-
URET accuracy in assigning alert notification is dependent upon entry/update of a flight's interim altitude.

NOTE-
Conflict probe *accuracy in assigning alert notification is dependent upon entry/update of a flight's interim altitude.*

No further changes to paragraph

HOST

13-1-11. DELAY REPORTING

a. Adhere to all applicable delay reporting directives while URET is operational.

b. Delay information shall be recorded. Delay information may be automatically recorded via use of the URET Hold Annotations Menu, or manually on flight progress strips or facility-approved worksheets, in accordance with the facility-defined standard.

c. When using URET to automatically record delay information, the URET hold annotations shall be deleted when the aircraft is cleared from holding.

NOTE-
Delay information cannot be accurately recorded unless URET annotations are deleted when the aircraft is cleared from holding.

ERAM

13-1-11. DELAY REPORTING

a. Adhere to all applicable delay reporting directives.

b. Delay information shall be recorded. Delay information may be automatically recorded via use of the **URET/EDST** Hold Annotations Menu**, ERAM Hold Data Menu, ERAM Hold View,** or manually on flight progress strips or facility-approved worksheets, in accordance with the facility-defined standard.

c. When using **the Hold Annotation Menu** to automatically record delay information, the hold annotations shall be deleted when the aircraft is cleared from holding.

NOTE-
When using URET/EDST hold annotations, d*elay information cannot be accurately recorded unless* ***the*** *annotations are deleted when the aircraft is cleared from holding.* ***When using the ERAM Hold Data Menu or Hold View, delays are automatically recorded when the aircraft is cleared out of hold.***

No further changes to paragraph

HOST

13-1-12. OVERDUE AIRCRAFT

Upon receipt of the URET overdue aircraft notification take appropriate actions set forth in Chapter 10, Section 3, Overdue aircraft.

NOTE-
URET overdue aircraft notification is based on radar track data. Updating an aircraft's route of fight will remove the overdue aircraft notification.

ERAM

13-1-12. OVERDUE AIRCRAFT

Upon receipt of the overdue aircraft notification take appropriate actions set forth in Chapter 10, Section 3, Overdue aircraft.

NOTE-
*URET/****EDST*** *overdue aircraft notification is based on radar track data. Updating an aircraft's route of fight will remove the overdue aircraft notification.*

No further changes to paragraph

HOST	ERAM
13-1-14. FORECAST WINDS In the event that current forecast wind data are not available, continue use of with appropriate recognition that alert and trajectory data may be affected.	13-1-14. FORECAST WINDS In the event that current forecast wind data are not available, continue use of **conflict probe and trial planning** with appropriate recognition that alert and trajectory data may be affected.

No further changes to paragraph

HOST	ERAM
13-1-15. INTERFACILITY CONNECTIVITY In the event of a loss of connectivity to a neighboring URET system, continue use of URET with appropriate recognition that alert data may be affected.	13-1-15. INTERFACILITY CONNECTIVITY In the event of a loss of connectivity to **an adjacent** URET **or ERAM facility**, continue use of URET**/EDST** with appropriate recognition that alert data may be affected.

No further changes to paragraph

HOST	ERAM
13-1-16. PRIMARY RDP/FDP OUTAGES In the event of a primary RDP/FDP outage, electronic flight data may be used to support situational awareness while the facility transitions to the backup RDP capabilities or non radar procedures. ***NOTE-*** *Without primary system input, URET data cannot be updated and becomes stale.*	13-1-16. **SURVEILLANCE AND FLIGHT DATA** OUTAGES In the event of a **surveillance or flight data** outage, electronic flight data may be used to support situational awareness while the facility transitions to **alternate automation** capabilities or non radar procedures. Delete

No further changes to paragraph

HOST	ERAM
13-1-17. URET AIRSPACE CONFIGURATION ELEMENTS a. URET Airspace Configuration Elements are: a1 thru a2 3. URET adapted restrictions. b. Where assigned as a sector responsibility by facility directive, the sector team shall update URET Airspace Configuration Elements to reflect current status. New	13-1-17. AIRSPACE CONFIGURATION ELEMENTS a. Airspace Configuration Elements are: No Change 3. **A**dapted restrictions. b. Where assigned as a sector responsibility by facility directive, the sector team shall update Airspace Configuration Elements to reflect current status. ***NOTE-*** ***Unless otherwise covered in an LOA or facility directive,***

	activating or scheduling the SAA in the Airspace Status View does NOT constitute coordination for activation of airspace.
c. For Airspace Configuration Elements designated as a sector responsibility, notify the operational supervisor when the status of an Airspace Configuration Element has been modified in URET.	c. For Airspace Configuration Elements designated as a sector responsibility, notify the operational supervisor when the status of an Airspace Configuration Element has been modified.

No further changes to paragraph

HOST	**ERAM**
Index	Index
[References are to page numbers]	[References are to page numbers]
Conflict Alert (Host), 5-14-1	Conflict Alert (Host/**ERAM**), 5-14-1
Mode C Intruder Alert (Host), 5-14-1	Mode C Intruder Alert (Host/**ERAM**), 5-14-1