

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

7900.1D

11/13/98

SUBJ: CHANGES TO DOMESTIC/OCEANIC AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC) AND ICAO FLIGHT INFORMATION REGION (FIR) BOUNDARIES

- 1. PURPOSE.** This order outlines the process and steps to be taken by all parties when realigning the boundaries of ARTCC's and/or International Civil Aviation Organization (ICAO) facilities.
- 2. DISTRIBUTION.** This order is distributed to the branch level in Air Traffic in Washington headquarters, to the branch level in regional Air Traffic offices, all ARTCC's, and Regional ICAO Offices.
- 3. CANCELLATION.** Order 7900.1C, Changes to Domestic/Oceanic Air Traffic Control (ARTCC) and ICAO Flight Information Region (FIR) Boundaries, dated July 14, 1986, is canceled.
- 4. EXPLANATION OF CHANGES.** This order updates identification of Washington headquarters organizations as a result of reorganization. Eliminates the need for regions/facilities to forward two copies of the request to Federal Aviation Administration (FAA) headquarters as all requests should be provided to En Route Operations/Procedures, ATO-110, for coordination.
- 5. BACKGROUND.** Improved service, system efficiency, and reduced coordination requirements are the primary reasons for boundary revisions. The frequency of revisions should be minimized and proposed boundary changes should be carefully checked for accuracy and compliance with the provisions of this order to reduce the impact on automation programs, record keeping, and processing workload.
- 6. RESPONSIBILITIES.**
 - a. All ARTCC's shall:
 - (1) Format the proposed boundary change as indicated in paragraph 8.
 - (2) Make every effort to reduce the number of turning points used to define boundaries to reduce the impact on computer storage.
 - (3) Coordinate the proposed change with all other affected facilities.
 - (4) Forward proposed boundary changes to their regional air traffic divisions (ATD) at least 90 days prior to the desired charting date.
 - (5) Maintain a current record of their high and low altitude boundaries. These records shall be kept in graphic form on the appropriate U.S. Government High/Low Altitude En Route or Controller Charts and in narrative form as indicated in paragraph 8. Whenever possible, high and low ARTCC boundaries shall be coincident.

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Initiated By: ATO-100

(6) Check the appropriate National Flight Data Digest (NFDD) to ensure that the boundary change will be published as proposed.

(7) Indicate all airports under the jurisdiction of an ARTCC, *which fall outside of the center's geographical boundary*; i.e., an airport falls outside of the boundary of center ZXY, but ZXY has jurisdiction. *List only those airports affected by the specific boundary change request submitted to the regional ATD.*

Note: Order 7350.6 (Location Identifiers Handbook) indicates the ARTCC having jurisdiction over an airport by listing the ARTCC computer code next to the tie-in facility identifier. This information is intended to assist in the routing of IFR messages. The National Flight Data Center (NFDC, ATA-110) computer automatically changes computer codes for all airports which fall in another ARTCC's area because of a boundary change. However, there are occasions when a boundary change will cause an airport to fall in one center's area while another center has jurisdiction. The NFDC must be notified of those *exceptions* so that they can maintain accurate computer records and make the appropriate revisions to the handbook.

(8) Ensure that any change in ARTCC approach control jurisdiction over an airport is specified in the letter to the regional ATD requesting the boundary change.

Note: The Airport/Facility Directory (AFD) indicates the center having approach control jurisdiction over an airport. ARTCC's will indicate changes in approach control jurisdiction to ensure that NFDC will make the appropriate revisions to the AFD.

(9) Specify the requested boundary change effective date. This date is dependent on the next change date, ensuring enough lead time for facility data systems required adaptation or coordination. Effective dates should be coincident with charting dates.

b. All Regional ATD's shall:

(1) Coordinate the proposed change with all affected regions.

(2) Review the proposed changes for accuracy and compliance with this order.

(3) Forward proposed boundary changes approved by the region to the Air Traffic En Route/Terminal Operations and Procedures Division, ATO-100, at least 75 days prior to the desired charting date. (When proposed boundary changes are predicated on airspace actions that require coordination with the Air Traffic Airspace and Rules Division, ATA-400, an additional two copies shall be sent to ATA-400.)

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(4) Maintain a current narrative record of all domestic or oceanic ARTCC boundaries and all FIR boundaries within their areas of jurisdiction.

(5) Ensure that all proposed boundary change effective dates and any associated airspace action effective dates are the same and coincide with charting dates.

c. En Route, ATO-110, shall:

(1) Review all proposed boundary changes to ensure:

(a) Adequate justification.

(b) Correct format.

(c) That required coordination has been accomplished.

(d) That all associated airspace actions will be accomplished on the proposed boundary change charting date.

(e) That requested boundary change effective dates and associated airspace action effective dates are the same and coincide with a charting date.

(f) Adequate lead time.

(g) Compliance with provisions of this order.

(2) Coordinate (as required) all oceanic and ICAO FIR boundary changes with ICAO and affected ICAO member states.

(3) Coordinate all international boundary changes with the State Department (when required) and with the countries involved.

(4) Submit all approved boundary changes to NFDC, ATA-110, for validation and publication at least 65 days prior to the desired charting date.

d. NFDC, ATA-110, shall:

(1) Validate all approved boundary changes submitted by ATO-110 to ensure accuracy and compatibility with the NFDC computer data base.

(2) Resolve any problems encountered during the validation process by coordinating directly with the appropriate regional ATD.

(3) Notify ATO-110 of any problems encountered during the validation process and the proposed solutions.

(4) Update the computer data base and revise, as necessary, the Location Identifier Handbook, the Airport/Facility Directory, and any other directives or publications for which NFDC is responsible.

(5) Ensure that associated revisions to directives or publications, for which NFDC is responsible, are effective on the boundary revision charting date.

(6) Revise the Location Identifier Handbook (Order 7350.6) to reflect changes in U.S. ARTCC computer codes/Canadian ARTCC identifiers caused by boundary changes effective on charting dates that are not coincident with the 112-day publication cycle of Order 7350.6. This shall be accomplished by including the changes in the 56-day revision cycle of the order.

Note: The Location Identifier Handbook is printed on a 112-day cycle while charting dates are based on a 56-day cycle. Therefore, boundary changes are frequently effective on charting dates other than the publication dates of Order 7350.6. Some of these boundary changes involve changes to U.S. ARTCC computer codes/Canadian ARTCC identifiers. When this occurs, the NFDC will include the changes in the 56-day revisions to Order 7350.6. This will ensure that the appropriate facilities will have an accurate record of the computer codes/Canadian ARTCC identifiers.

(7) Ensure that the approved boundary change is published on the effective date specified by ATO-110.

7. PROCEDURES.

a. Boundary changes may originate at ARTCC's, regions, FAA Headquarters, or Regional ICAO Offices. Proposals originating at FAA headquarters or Regional ICAO Offices shall be forwarded to the appropriate regional ATD for coordination.

b. Proposed boundary changes submitted to ATO-110 shall include the following information:

(1) Justification for the proposed change.

(2) Statement including that coordination has been accomplished with all affected regions and facilities, and that all parties agree to the proposed change.

(3) Description of any related airspace actions and their effective dates.

(4) Changes in ARTCC jurisdiction over airports specified in paragraph 6a(7).

(5) Changes in ARTCC approach control jurisdiction over an airport.

(6) Desired charting date of the proposed change.

(7) Pictorial depiction of the proposed change on an appropriate U.S. Government High or Low Altitude En Route Chart.

(a) Geographical coordinates (latitude/longitude) describing the change shall be clearly indicated on the chart.

(b) Outline the new boundary in a manner that clearly distinguishes it from the current boundary.

(8) A narrative description of the proposed change for EACH ARTCC BOUNDARY BEING CHANGED in the format specified in paragraph 8. (A copy of a current computer readout with ink corrections indicating the change is an acceptable narrative.)

8. FORMAT.

a. Describe boundary narratives in terms of straight lines (whenever possible) between turning points defined by geographic coordinates (degrees, minutes, seconds of latitude/longitude).

b. Start narratives at the first unchanged point on the current boundary preceding the change and proceed in a clockwise direction.

c. End narratives at the first unchanged point on the current boundary following the change.

d. Indicate all changed turning points by inserting a pound symbol (#) in front of the coordinates.

e. When they are not coincident, indicate high and low altitude boundaries in separate narratives.

EXAMPLE OF TWO FACILITIES, HIGH AND LOW ARE *NOT* CONCURRENT:

ARTCC BOUNDARY

EFFECTIVE 5 DECEMBER 1996, THE CLEVELAND (ZOB) ARTCC LOW/HIGH, NEW YORK (ZNY) ARTCC LOW/HIGH AND BOSTON (ZBW) ARTCC LOW/HIGH BOUNDARIES ARE AMENDED TO READ IN PART:

The realignment of the ZOB/ZNY/ZBW boundary is to be defined by the following coordinates:

ZOB HIGH AND LOW:

Beginning on the current boundary at:

	43-04-00N	076-45-50W to
#	42-53-00N	076-40-00W to
#	42-43-40N	076-41-50W to
#	42-36-30N	076-48-10W to
	42-10-30N	077-14-10W thence via current boundary.

ZNY HIGH:

Beginning on the current boundary at:

	42-10-30N	077-14-10W to
#	42-36-30N	076-48-10W to
	42-17-00N	076-01-00W thence via current boundary.

ZNY LOW:

Beginning on the current boundary at:

	42-10-30N	077-14-10W to
#	42-36-30N	076-48-10W to
#	42-43-40N	076-41-50W to
#	42-53-00N	076-40-00W to
	42-56-30N	076-29-00W thence via current boundary.

ZBW HIGH:

Beginning on the current boundary at:

	42-17-00N	076-01-00W to
#	42-36-30N	076-48-10W to
#	42-43-40N	076-41-50W to
#	42-53-00N	076-40-00W to
	43-04-00N	076-45-50W thence via current boundary.

ZBW LOW:

Beginning on the current boundary at:

	42-56-30N	076-29-00W to
#	42-53-00N	076-40-00W to
	43-04-00N	076-45-50W thence via current boundary

The underlying approach control facilities will not experience a boundary change.

EXAMPLE OF THREE FACILITIES, HIGH AND LOW ARE CONCURRENT:***ARTCC BOUNDARY CHANGE***

EFFECTIVE 13 AUGUST 1998, THE OAKLAND (ZOA) ARTCC LOW/HIGH, SALT LAKE (ZLC) ARTCC LOW/HIGH AND LOS ANGELES (ZLA) ARTCC LOW/HIGH BOUNDARIES ARE AMENDED TO READ IN PART:

The realignment of the ZOA/ZLC/ZLA boundary is to be defined by the following coordinates:

ZOA HIGH AND LOW:

Beginning on the current boundary at:

	38-05-00N	117-16-00W to
#	37-53-00N	117-05-41W/common ZOA/ZLC/ZLA/ to
#	37-33-00N	117-05-41W to
#	37-26-30N	117-04-33W to
	37-22-00N	117-00-30W thence via current boundary.

ZLA HIGH AND LOW:

Beginning on the current boundary at:

	37-22-00N	117-00-30W to
#	37-26-30N	117-04-33W to
#	37-33-00N	117-05-41W to
#	37-53-00N	117-05-41W/common ZOA/ZLC/ZLA/ to
	37-53-00N	116-11-00W thence via current boundary.

ZLC HIGH AND LOW:

Beginning on the current boundary at:

	37-53-00N	116-11-00W to
#	37-53-00N	117-05-41W/common ZOA/ZLC/ZLA/ to
#	38-05-00N	117-16-00W thence via current boundary.

Any underlying approach facilities will not experience a boundary change.

9. EXPLANATION OF TERMS AND SYMBOLS.

<u>Term/Symbol</u>	<u>Definition/Use</u>
“Beginning on the current boundary at”	First unchanged point named when describing a <i>partial</i> boundary revision.
“Common”	A point that is common to THREE OR MORE ARTCC/CTA/FIR boundaries.
“To”	Used to show continuity between sets of coordinates.
“/”	Multi-purpose symbol used as a parenthesis, slash, “and” or “or.”
“Thence clockwise/counterclockwise along a nautical miles (NM) arc centered on coordinates to” or “Thence along (state/national/other name) boundary to”	May be used along boundaries that are not straight lines or for unusual descriptions such as international boundaries
“Thence via current boundary”	Used instead of describing turning points that are not changing. Normally used following the last set of coordinates in a <i>partial</i> boundary description.
“To the point of beginning”	Used following the last point of a <i>complete</i> boundary description.



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