

AERONAUTICAL CHARTING MEETING
Charting Group
Meeting – October 23 - 24, 2019

RECOMMENDATION DOCUMENT

FAA Control #19-02-339

Subject: LAHSO Rejected Landing Procedures

Background/Discussion:

Aeronautical Information Manual (AIM) section 4-3-11. Pilot Responsibilities When Conducting Land and Hold Short Operations (LAHSO) furnishes pilots guidance on LAHSO operations. Paragraph b. Pilot Responsibilities and Basic Procedures, subparagraph 6 provides the following guidance when executing a rejected landing:

6. A pilot who accepts a LAHSO clearance should land and exit the runway at the first convenient taxiway (unless directed otherwise) before reaching the hold short point. Otherwise, the pilot must stop and hold at the hold short point. **If a rejected landing becomes necessary after accepting a LAHSO clearance, the pilot should maintain safe separation from other aircraft or vehicles, and should promptly notify the controller.**

Several U.S. airports have specific Rejected Landing Procedures (RLP) associated with a LAHSO clearance. An example is Boston, MA – Logan (BOS) – See Attachment 1. This AIM paragraph does not mention the existence of published LAHSO rejected landing procedures, nor does it provide the location of these procedures which are only published in the FAA Chart Supplement's Special Notices. While the pilot is ultimately responsible to be familiar with all available information applicable to a flight, it would be helpful if the guidance on LAHSO would point the pilot to the location of these LAHSO rejected landing procedures.

LAHSO is often used at airports where instrument approaches are conducted to intersecting runways. The pilots are made aware of LAHSO over the ATIS broadcast or on initial contact with the tower controller. Information on runways where LAHSO is used, the landing hold short point, and the actual landing distance available to that hold short point on the landing runway is provided in the both the Chart Supplement and the Terminal Procedure Publication (TPP) – See attachment 2. This information is readily available for pre-approach briefing. However, the rejected landing procedure for a LAHSO runway is only available in the Chart Supplement. Pilots flying under IFR will primarily be referencing the TPP document for an arrival into an airport where LAHSO is used, and they will be referencing the LAHSO runway and available landing distance information from this document. No indication is provided in the TPP of the existence of a rejected landing procedure at an airport. Pilots must look, on their own initiative, in the Special Notices section of the Chart Supplement for these procedures. This requires pilots to look in two different documents for essentially the same information except for one important item, the rejected landing procedure.

Recommendations:

FAA Flight Standards needs to update AIM section 4-3-11 to include a discussion of rejected landing procedures on a LAHSO runway, the pilot's responsibility in executing them, and where these procedures are published.

NBAA also recommends that this AIM section be reviewed for consistency with FAA Order 8900.1, Volume 4, Chapter 3, Section 5, paragraph 4-600 that discusses LAHSO. There are several items in this Order's paragraph, for example the discussion on "Required Landing Distance" (subparagraph 13) that are not discussed in the AIM and would be applicable to part 91 pilots not subject to OpSpecs or MSpecs, or a FAA approved training program.

FAA should publish any rejected landing procedures in the LAHSO entry in the FAA Terminal Procedures Publication (TPP) in addition to publishing them in the Chart Supplement, Special Notices.

Comments:

This recommendation affects:

1. FAA Aeronautical Information Publication
2. FAA Terminal Procedures Publication (TPP)

Submitted by: Richard J. Boll II

Organization: National Business Aviation Association

Phone: 316-655-8856

E-mail: richard.boll@sbcglobal.net

Date: 10/2/2019

Attachment #1

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SPECIAL NOTICES

**HARRISBURG INTERNATIONAL AIRPORT (MDT) AND
HARRISBURG CAPITAL CITY AIRPORT (CXV)
CONTROLLER APPLIED VISUAL SEPARATION**

Harrisburg International Tower (MDT) and Harrisburg Capital City Tower (CXV) are authorized to utilize controller applied visual separation between aircraft arriving and departing the adjacent airport. This special procedure may only be used when reported weather conditions are at a minimum of 2,000 ceiling and visibility 4 miles or greater.

FAA/Air Traffic Service/Eastern Service Center/Operations Support Group 1701 Columbia Avenue/College Park, GA 30337/(404) 309-5570

**LAND AND HOLD SHORT OPERATIONS (LAHSO)
REJECTED LANDING PROCEDURES
BOSTON-LOGAN AIRPORT (KBOS), BOSTON MASSACHUSETTS**

Boston-Logan Airport (KBOS) is authorized to allow Land and Hold Short Operations (LAHSO) to take place between an arriving and departing aircraft on certain runway (RWY) pairs. Arrival-Departure LAHSO is authorized at the following locations:

- Arrivals on RWY 15R (short of RWY 9/27) - for aircraft departing on RWY 9.
- Arrivals on RWY 27 (short of RWY 22L/4R) - for aircraft departing on RWY 22L.

A Rejected Landing Procedure (RLP) is required for the two LAHSO operations described above. An RLP is defined as "a published, predetermined heading to be used in the event of a rejected landing. Unless alternate instructions are given by ATIS, pilots are expected to execute the procedure as published and remain clear of clouds."

The associated Rejected Landing Procedure (RLP) for each of the Arrival-Departure LAHSO configurations noted above is as follows:

Arrival-Departure LAHSO Configuration	Rejected Landing Procedure (RLP)
LAHSO on RWY 15R - Short of RWY 9 (when aircraft are departing RWY 9)	TURN RIGHT HEADING 180
LAHSO on RWY 27 - Short of RWY 22L (when aircraft are departing RWY 22L)	TURN RIGHT HEADING 300

It is important to note that at KBOS, the RLPs are only applicable if the intersecting RWY is being utilized by a departing aircraft. The RLPs noted above are not applicable when the intersecting RWY is being utilized by an arriving aircraft.

**LAND AND HOLD SHORT LIGHTS (for LAHSO)
BOSTON-LOGAN AIRPORT, MASSACHUSETTS**

Land and Hold Short lights have been installed on four runways at Boston-Logan Airport (BOS). These in-pavement lighting systems will remain on/off flashing whenever LAHSO is expected to be conducted to that particular runway. Flight crews should also expect to see these lights on/off flashing even when authorized the full length of the runway for landing, or when utilizing that runway for departure.

Land and Hold Short lights have been installed at the following locations:

- Runway 22L (Short of Runway 27/09)
- Runway 4L (Short of Runway 33R/15L)
- Runway 27 (Short of Runway 22L/4R)
- Runway 15R (Short of Runway 09/27)

**LAND AND HOLD SHORT LIGHTS (LAHSO)
BRADLEY INTERNATIONAL AIRPORT, WINDSOR LOCKS, CONNECTICUT**

Land and Hold Short lights have been installed on two runways at Bradley International Airport (BDL).

These in-pavement lighting systems will remain on/off flashing whenever LAHSO is expected to be conducted to that particular runway. Flight crews should also expect to see these lights on/off flashing even when authorized the full length of the runway for landing, or when utilizing that runway for departure.

Land and Hold Short lights have been installed at the following locations:

- Runway 04 (Short of Runway 15/03)
- Runway 33 (Short of Runway 6/24)

CHARLESTON, WEST VIRGINIA

Mine blasting approximately 25 NM south and southeast of Charleston, West Virginia as follows:

- Mine Blasting HVQ VORTAC 110°-25 DME to 400' AGL
- Mine Blasting HVQ VORTAC 189°-25 DME to 300' AGL

CAUTION—FISH SPOTTING ACTIVITY—CHESAPEAKE BAY AND COASTAL WATERS

Caution is advised for extensive fish spotter aircraft activity between May 1 and December 1 upwards from 1,500 feet above the surface over the Chesapeake Bay and adjacent coastal waters. Pilots should be alert for this activity. For further information contact FlightOps@ATC on 1-757-460-1142.

ME 19 AUG 2019 to 10 OCT 2019

Attachment #2

17061

LAND AND HOLD-SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersecting runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

CITY/AIRPORT LDG RWY HOLD-SHORT POINT AVBL LDG DIST

BEDFORD, MA			
LAURENCE G. HANSBOM FIELD (BED)	05	11-29	3,000 feet
	11	05-23	2,650 feet
	29	05-23	3,662 feet
BEVERLY, MA			
BEVERLY RGNL (BVY)	09	15-34	3,450 feet
	16	09-27	4,000 feet
BOSTON, MA			
GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)	04L	15L-33R	5,250 feet
	15R	09-27	6,800 feet
	22L	09-27	6,400 feet
	27	04R-22L	5,650 feet
BRIDGEPORT, CT			
IGOR I. SIKORSKY MEMORIAL (BDR)	06	11-29	3,700 feet
	11	06-24	3,350 feet
BURLINGTON, VT			
BURLINGTON INTL (BTV)	01	15-33	2,600 feet
	15	Twy A	3,600 feet
	33	01-19	2,900 feet
HYANNIS, MA			
BARNSTABLE MUNI-BOARDMAN/ POLANDO FIELD (HYA)	15	06-24	4,150 feet
	24	15-33	4,650 feet
NANTUCKET, MA			
NANTUCKET MEMORIAL (ACK)	06	15-33	4,316 feet
	33	06-24	3,650 feet
NORWOOD, MA			
NORWOOD MEMORIAL (OWD)	35	10-28	3,320 feet
PORTLAND, ME			
PORTLAND INTL JETPORT (PWM)	11	18-36	5,800 feet
	18	11-29	3,100 feet
WINDSOR LOCKS, CT			
BRADLEY INTL (BDL)	06	01-19	6,000 feet
	24	15-33	5,850 feet
	33	06-24	4,650 feet

17061

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MEETING 19-02

Rich Boll, NBAA, [briefed the new topic](#). Rich explained that Aeronautical Information Manual (AIM) paragraph 4.3.11 describes pilot responsibilities when conducting Land and Hold Short Operations (LAHSO). Part of that description is what to do if a Rejected Landing Procedure becomes necessary, however, the AIM does not provide guidance to point the pilot to the location of such procedures. Rich showed an example of a LAHSO Rejected Landing Procedure at Boston-Logan Airport (KBOS) that is published in the Special Notices section of the Chart Supplement. Rich recommended a review of the AIM language for consistency with FAA Order 8900.1 and that it be expanded to include guidance for Rejected Landing Procedures. Rich emphasized that FAR Part 91 (Subpart K), 135 and 121 requires OpSpec approval for LAHSO. For FAR Part 91 operations, the only reference pilots have is the information provided in the AIM, which he believes is inadequate. Additionally, Rich recommended publishing Rejected Landing Procedures in the current LAHSO tables in the Terminal Procedures Publication (TPP) where they would be easily seen by users planning to execute a LAHSO.

Joe Lintzenich, FAA/AFS-410, Contract Support, stated that the Flight Operations Group is planning to look into this issue further. He said that the Order that governs

Rejected Landing Procedures states that they are designed for use by Part 121, Air Carriers. They are not designed for general aviation and perhaps should not be published in the Chart Supplement at all.

Gary Fiske, FAA/AJV-82, Contract Support, stated that LAHSO participants are determined by Air Traffic Control (ATC) for each location, therefore this information does not need to be in the AIM because ATC will assign it based on the category of aircraft. Gary also stated that he does not believe that the publication of a Rejected Landing Procedure in the Chart Supplement or TPP is appropriate. Rich argued that pilots are trained to look at the information ahead of time to determine if they can accept the clearance. There was general audience agreement that pilots need to see the LAHSO information, but not the Rejected Landing Procedures.

Rich suggested the formation of a workgroup to address the concerns discussed. He offered to chair the group.

Jeff Lamphier, FAA/AJV-A240, commented that the publication of LAHSO in the Chart Supplement is currently under review because it is a duplication of the LAHSO table published in the TPP. There was agreement that if it is concluded that Rejected Landing Procedures are only for air carriers, this information can be removed from the Chart Supplement.

LAHSO Workgroup			
Jeff Gingras	Delta Air Lines	404-714-1528	Jeff.gingras@delta.com
Al Michaels	FAA/AFS-410A	703-909-4084	Alan.ctr.michaels.faa.gov
John Blair	FAA/AFS-410A	202-267-8986	John.blair@faa.gov
Jason Hewes	Garmin	913-440-6370	Jason.hewes@garmin.com
Andrew Lewis	Garmin	913-440-5845	Andrew.lewis@garmin.com
Mike Barrett	FAA/AJV-A242	202-267-3089	Michael.barrett@faa.gov

STATUS: OPEN

ACTION: Rich Boll, NBAA, will report on the LAHSO Workgroup discussions.

ACTION: Joe Lintzenich, FAA/AFS-410, Contract Support, will investigate the definition and use of LAHSO and Rejected Landing Procedures and look at the guidance published FAA Order 8900.1 and the AIM to determine if it is sufficient.

MEETING 20-02

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Rich Boll, NBAA, stated that at ACM 19-02, it was determined that LAHSO Rejected Landing Procedures are published for the benefit of Part 121 operators only and are not intended for General Aviation use.

Since the last ACM, all LAHSO Rejected Landing Procedures have been removed from the Special Notices section of the Chart Supplement. He said the remaining LAHSO information in the Chart Supplement is now in agreement with the information published in the Terminal Procedures Publication. Rich said the Flight Operations Branch is reviewing all LAHSO procedures and will determine if any changes are needed in the Aeronautical Information Manual (AIM) guidance. Rich proposed to close this item.

John Blair, FAA/AFS-410, stated that the Flight Operations Branch is still considering updating the AIM and FAA Order 8900.1 to better describe the intended use. He said since action was taken to remove these procedures from the Chart Supplement, he agrees with closing this item.

Valerie Watson, FAA/AJV-A250, asked if there were any objections to closing this item. There were no objections.

STATUS: CLOSED