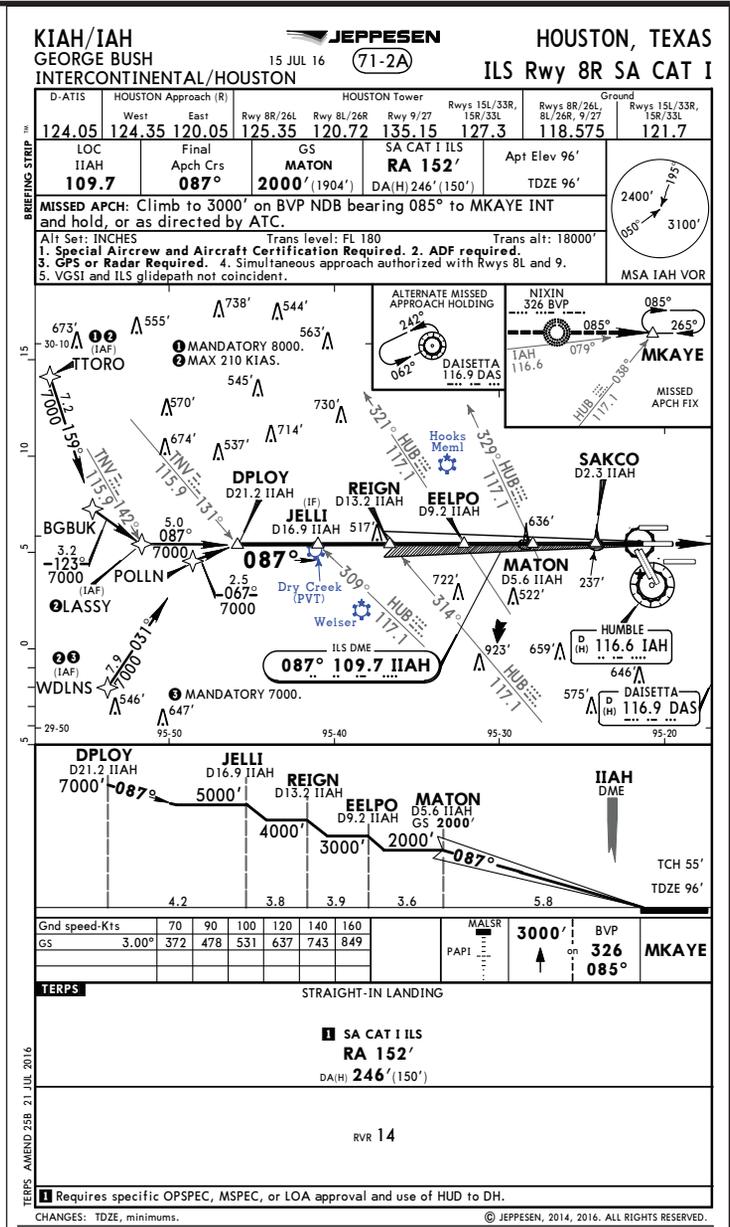


Terminal Checklist 3/18

Answers on page 16

Refer to the 71-2A ILS Rwy 8R SA CAT I for KIAH/IAH (Houston TX) when necessary to answer the following questions:

- The note "TERPS AMEND 25B 21 JUL 2016," on the lower left border of the chart indicates that a change to chart information, such as new radio frequency, has been made during the last chart revision.
 - True
 - False
- What items are required to fly this approach?
 - SA.
 - ADF.
 - RVR.
 - DME.
 - GPS or radar.
- Approval to fly this approach to the SA CAT I minimums is stated in OpSpecs or MSpecs, or by a letter of approval.
 - True
 - False
- Select the true statement(s) regarding the initial approach fixes.
 - A maximum airspeed of 210 KIAS applies to all IAFs.
 - A minimum altitude of 7000 ft MSL applies to WDLNS.
 - A mandatory altitude of 8000 ft MSL applies to TTORO.
 - A mandatory altitude of 7000 ft MSL applies to LASSY and WDLNS.
- Select all that apply. When flying the approach from TTORO
 - Descend from 8000 ft MSL to maintain 7000 ft MSL to DPLOY.
 - Fly a course of 142° to LASSY.
 - Fly a course of 159° to BGBUK.
 - Maintain 7000 ft MSL to JELLI.
- The aircraft must be equipped with a HUD operated in CAT II or CAT III approach mode to fly this approach procedure.
 - True
 - False
- Select the true statement(s) regarding the final approach segment.
 - MATON is 5.6 DME from the runway threshold.
 - The TCH for an SA CAT I approach must not exceed 60 ft.
 - The glideslope angle of 3.0° is required for SA CAT I approaches.
 - The PAPI and the ILS glidepath angles differ by at least 0.3° and/or the TCHs associated with these angles differ by at least 5 ft.
- Required lighting for this approach is the PAPI, MALSR, and HIRL.
 - True
 - False
- Select the true statement(s) regarding the landing minimums.
 - Use of the minimums shown requires the use of a HUD to the DH.
 - The RA minimum of 152 ft is based on the terrain elevation on the final approach course.
 - The RA of 152 ft should be used as the altitude at which to perform a missed approach if the runway environment is not in sight.



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- The DA of 246 MSL must be used as the altitude at which to perform a missed approach if the runway environment is not in sight.
- Select the true statement(s) about the missed approach procedure.
 - The 079° radial from IAH can be used to identify MKAYE intersection.
 - A climb to 3000 ft MSL is required before turning to intercept the bearing of 085° to BVP NDB.
 - The holding fix is an intersection based on the 038° radial from HUB and the 085° bearing from BVP.
 - The alternate missed approach is a mandatory part of the approach procedure when implemented by NOTAM.

Answers to TC 3/18 questions

- 1. b** The amendment note alerts pilots that an update to the chart procedure has been made. The chart dates in the heading section indicate a change to *any* information. If a procedural update has been made, a procedural amendment reference date is located on the lower left border of approach charts, which includes the amendment number and procedure amendment reference date. The “CHANGES” note at the bottom left corner of the chart indicates what changes were made. In this case, the TDZE and minimums.
- 2. a, b, c, e** SA in the approach title and procedural note 1 in the Briefing Strip specify the requirements of SA (special aircrew and aircraft certification required). Procedural note 2 indicates that ADF is required (the missed approach course is based on an NDB). Note 3 states “GPS or Radar Required.” According to AC 120-29A, *Criteria for Approval of Category I and Category II Weather Minima for Approach*, all US Category I operating minimums below 1/2 statute mile (RVR2400) are based on RVR.
- 3. a** Note 1 in the landing minimums section indicates that the SA CAT I minimums require “specific OPSPEC, MSPEC, or LOA approval.”
- 4. a, c** Ballflag note 1 on the plan view indicates that a mandatory altitude of 8000 applies to TTORO. Ballflag note 2 indicates a maximum airspeed of 210 KIAS at TTORO, LASSY, and WDLNS. A mandatory altitude of 7000 ft MSL applies only to WDLNS according to ballflag note 3.
- 5. a, c** According to the plan view, a mandatory altitude of 8000 ft MSL applies at TTORO. Then a minimum altitude of 7000 ft MSL applies to the course of 159° to BGBUK, 123° to LASSY, and 087° to DPLOY. The profile view shows a descent from 7000 ft MSL to 5000 ft MSL from DPLOY to JELLI.
- 6. a** Note 1 in the landing minimums section says “Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.” FAA Order 8400.13D, *Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations*, states that for SA CAT I operations, “the HUD must be operated in the mode used for CAT II or CAT III operations.”
- 7. b, c** MATON is located at D5.6 IIAH and 5.8 nm from the runway threshold as shown in the profile view. According to FAA Order 8400.13D, the commissioned glidepath angle must be 3.0° or require the approval of FAA Flight Standards Service and the TCH, RDH, or ARDH must not exceed 60 ft. Procedural note 2 in the Briefing Strip indicates that the VGSI and ILS glidepath are not coincident. According to FAA Order 8260.19E, coincidental glidepath angles/vertical descent angles are within 0.2° with TCH values within 3 ft.
- 8. b** The landing minimums section does not provide optional minimums if the approach lighting system is out. According to FAA Order 8400.13D, required lighting for an SA CAT I is a SSALR, MALSR, or ALSF-1/ALSF-2, and HIRL. AVGSI (in this case, a PAPI) is not required.
- 9. a, b, c** Note 1 in the landing minimums section indicates that the use of a HUD to the DH is required. The RA height is based on the distance from the landing threshold point (LTP) to the point that the decision altitude (DA) occurs. At this distance, the terrain elevation on the final approach course is subtracted from the DA to calculate the RA. The radar altimeter (RA) minimum should be used to determine the altitude at which to perform the missed approach because the accuracy of the barometric altimeter is much less than that of the radar altimeter. Using a barometric DA that can be off by as much as 75 ft based on the only preflight check required reduces safety margins.
- 10. a, c, d** A plan view inset shows the missed approach holding fix, MKAYE as the intersection of the 038° radial from HUB and the 085° bearing from BVP and the 079° radial from IAH. The missed approach instructions in the Briefing Strip and the missed approach icons indicate a climb to 3000 ft MSL while on the 085° bearing to and from BVP NDB. According to the *A/M 5-4-21*, the alternate missed approach procedure becomes mandatory if it is implemented by NOTAM. ATC may also issue the alternate missed approach when necessary, such as when a primary missed approach navaid fails during the approach.

