

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 09-02 - October 28-29, 2009

RECOMMENDATION DOCUMENT

FAA Control # 09-02-226

Subject: Mandatory Altitude Note on Teterboro ILS Rwy 6

Background/Discussion : As FMS technology has evolved, and as the terminal airspace within the New York terminal area (JFK, TEB, EWR, LGA) has grown in complexity, conflicts have emerged on some approaches and arrivals that are not well addressed on some of the instrument approach plates.

There is a history of pilot violations on the ILS 6 to Teterboro that reflects this situation. Aircraft on vectors to the ILS final are required to be at 2000 ft MSL for obstacle clearance at VINGS intersection (12.5 miles on the LOC course), before passing VINGS. Approach Control often clears vectored aircraft for the ILS with the instruction "Cleared ILS Runway 6 at Teterboro, maintain 2000 ft until established on final..." or words to that effect. In almost every other ILS approach across US airspace, pilots will maintain 2000 ft, activate the approach mode of the FMS, and complete the ILS by intercepting the glide path at 2000 ft, and then descending to minimums.

At Teterboro that action constitutes a violation of the approach requirements for ILS 6 TEB. Due to traffic above the DANDY intersection at 2500 ft MSL, pilots must descend to 1500 ft MSL after VINGS and execute the ILS from that altitude. The mandatory altitude depiction of 1500 ft with a line over and line under is not a sufficient warning to pilots of the problems on this approach. A history of many years of violations handled by the Teterboro FSDO supports the need to improve how this mandatory altitude is presented.

Recommendations: Recommend that a warning note be added to the ILS 6 TEB profile section as shown on the accompanying approach plates. I have included the Jeppesen plate for Teterboro for comparison, and the ILS 25L LAX NACO chart to illustrate a similar NACO note used on that chart.

Recommend further that a special team, made up of NACO reps, Flt Stds personnel, aviation oriented human factors experts, AWO participation, Terps reps, and other needed experts determined by the NACO group, to study making a major change to protocols for designing approach plate content, and formatting, to improve handling the rapidly changing NAS requirements.

Recent examples of approach plate problems that suggest this is a significant need include, but is not limited to the following:

- Evolving PBN charting problems
- Listing speed restrictions on approach segments
- Listing VGSI vs. approach descent angle variances
- Conflicts on LPV-LNAV/VNAV-RNAV approaches with "Fly Visual" segments
- The need for better glide slope service area depictions
- The preponderance of notes accumulating on more complicated approach plates

Instituting of RF legs on procedures

Comments: The growing number of hours in the day with saturated ATC IFR traffic is providing more and more complicated distractions for cockpit flight crews, and increasingly more complicated approach plates are contributing to the confusion. A major effort to improve charts and plates would provide some relief in the increasingly complex IFR environment.

Submitted by: Bruce McGray
Organization: FAA / AFS-410
Phone: (202) 385-4539 / 4529
FAX: (202) 385-4653
E-mail: bruce.mcgray@faa.gov
Date: October 26, 2009

MEETING 09-02: The general consensus of the group is that this is not a charting problem. It's an issue of airspace utilization and procedure design. Dr. Divya Chandra, US DOT Volpe, stated that her team has reviewed the circumstances from a human factors perspective and that the situation at TEB represents a "trap" because the crossing altitudes and GS intercept situation at TEB is "not intuitive". She does not believe that chart changes in the profile view or the addition of an added note will fix the problem - "charts are not the fundamental problem." Mr. Brad Rush, FAA/AeroNav Services, noted that they would re-evaluate the ILS Rwy 6 approach procedure with the intent to redesign the procedure and relocate the IAF fix to improve the MIN ALT and GS INCPT issues. The re-evaluation will also consider the local circumstances involving overhead traffic clearance and obstacle clearance requirements.

It was also noted that several of Mr. McGray's other general recommendation issues are already within the scope of the FAA PARC Charting Committee. It was suggested that Mr. McGray contact Mr. Pedro Rivas, ALPA, to communicate his general concerns and establish an information exchange between the two.

Mr. Hal Becker, AOPA, mentioned that there's a Northeast Region Airspace Working Group that might be an appropriate forum to ensure the TEB issue is included in that group's activity.

There was some talk among FAA representatives about the possibility of having Flight Standards and others within the FAA establish a group to collect and address potential "local procedure/airspace problems" across the NAS.

ACTION: Mr. Bruce McGray will coordinate within the FAA to establish an internal FAA group to evaluate these kinds of problem procedures.

ACTION: Mr. Brad Rush will coordinate within AeroNav Services to have the TEB procedure re-evaluated as mentioned above.

MEETING 10-01: Mr. Bruce McGray, FAA/AFS-410, noted that the idea of putting a mandatory note is not going to happen. Jeppesen has been placing a mandatory altitude note on their chart and it has not made a difference in the violation rate.

Mr. Brad Rush, FAA/AeroNav, said he talked to NY TRACON about changing the TEB approach to his recommendation, they did not agree to the change. Mr. Rush noted that there is an airspace redesign which should be implemented by May 2011 and at that time this issue may be resolved.

ACTION: Mr. Bruce McGray will provide a status update at the next AFC.

MEETING 10-02: Mr. John Moore, FAA/AJV-3B, summarized the issue.

Mr. John Blair, FAA/AFS-410, agreed that charting is not the solution and that a redesign of the airspace would help alleviate the problem.

Mr. Brad Rush, FAA/AJV-3B, commented that ATC is now clearing traffic coming off Newark to cross DANDY at 3000 vice the old 2500, and when they issue a clearance for the ILS to 6 at Teterboro, they restate to cross Dandy "AT 1500". Hopefully this fix will help diminish any further deviations and declines have been seen since the procedure and phraseology have changed.

Mr. Richard Boll, NBAA, noted that there has been a significant effort to increase pilot awareness through the local Teterboro Users Group.

STATUS: CLOSED