Subject: Depiction of Minimum Crossing Altitudes on Graphic Departure Procedures

Background/Discussion:

Graphic Departure Procedures depict Minimum Crossing Altitudes using two different symbols. One symbol is traditional “X” flag over the fix (see attached GABRE SIX SID, LAX), and the other symbol is the (MCA) designation (see attached ZEPHR THREE RNAV SID, RNO). The (MCA) symbol was recently introduced on Graphic DP’s where there is a need to chart a minimum crossing altitude for obstacle clearance and a minimum crossing altitude for ATC purposes. The ATC crossing altitude is depicted using the symbol (ATC).

The TPP legend discusses the use and meaning of the “X” flag symbol used to depict Minimum Crossing Altitudes (see attached TPP Legend excerpt). However, the TPP Legend does not discuss either the (ATC) or the (MCA) symbols and their application to Minimum Crossing Altitudes on Graphic DP’s. Failure of the TPP Legend to address the charting of (MCA) minimum crossing altitudes and (ATC) minimum crossing altitudes coupled with the continued use of the “X” flag for a Minimum Crossing Altitude may result in confusion over the meaning of the altitude restriction depicted on Graphic DP’s.

Recommendations:

The TPP should considering using one symbol for a Minimum Crossing Altitude charted for obstruction clearance purposes as specified in FAA Order 8260.46C and consistently apply this symbol on all Graphic DP’s. The TPP legend should make a clear distinction between charting symbols used to depict minimum crossing altitudes for obstruction clearance purposes which are mandatory and minimum crossing altitudes charted for air traffic control purposes which are subject to change/amendment by ATC.

Comments: The TPP publication and legend and appropriate user guidance materials, i.e. IFR Chart Users Guide

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Date: April 08, 2008
MEETING 08-01: Mr. Richard Boll, NBAA, submitted the issue stating that the Graphic Departure Procedures depict Minimum Crossing Altitudes using two different symbols. One symbol is traditional "X" flag over the fix (see GABRE SIX SID, at LAX), and the other symbol is the (MCA) designation (see ZEPHR THREE RNAV SID, at RNO). The (MCA) symbol was recently introduced on Graphic DP’s where there is a need to chart a minimum crossing altitude for obstacle clearance and a minimum crossing altitude for ATC purposes. The ATC crossing altitude is depicted using the symbol (ATC).

Mr. Boll also recommended that the TPP should consider using one symbol for a Minimum Crossing Altitude charted for obstruction clearance purposes as specified in FAA Order 8260.46C and consistently apply this symbol on all Graphic DP’s. The TPP legend should make a clear distinction between charting symbols used to depict minimum crossing altitudes for obstruction clearance purposes which are mandatory and minimum crossing altitudes charted for air traffic control purposes which are subject to change/amendment by ATC.

The forum discussed settling on a single meaning for an MCA or two different meanings. If two meanings were determined, then both would need to be addressed in the TPP legend and Chart User’s Guide. NACO requested time to evaluate the issue before making any changes to the legend or the Chart User’s Guide. Ted Thompson, Jeppesen, stated that they just call it what it is and do not use any symbol. The issue should be resolved in the IPG’s ATC/MCA Crossing Altitude subcommittee discussions.

ACTION: Tom Schneider, FAA/AFS-420 to report at next ACF.

MEETING 08-02: Mr. John Moore recapped the issue. Tom Schneider, FAA/AFS420, provided a report on the outcome of the single IPG subcommittee telecom that took place in July 2008. It was decided that all unannotated crossing altitudes would be assumed to be MCAs (for obstacle clearance, navaid reception, etc). When a crossing altitude is specified by Air Traffic, it will be annotated “ATC” and an accompanying “MCA” will always be published. Air Traffic would not be permitted to clear aircraft below the “MCA” altitude. It was agreed by NACO and Jeppesen that the ATC altitude would be the one coded in the databases.

Mr. Schneider reported that Flight Standards has determined that minor changes/clarifications to 8260.46d guidance for the application of MCAs are warranted. Also, additional clarifying guidance for Air Traffic (7110.65) and AIM language is appropriate. Ms. Valerie Watson, FAA/NACO, is responsible for applicable NACO charting specs and the TPP legend. She has written and presented RD 667 to the MPOC for consideration. Mr. Schneider is overseeing related activity and plans to coordinate publication and release. A follow-up telecon of the subcommittee will be arranged, perhaps before year’s end.

ACTION: Tom Schneider, FAA/AFS-420, will convene another meeting and report at next ACF.

MEETING 09-01: The IPG Departure Procedures Working Group completed its review of SID crossing altitudes. One of the outcomes was to depict ATC Minimum Crossing Altitudes with the letters (MCA) after the altitude, where they are designated in addition to obstruction clearance altitudes. Ms. Valerie Watson, FAA/NACO, reported that the RD was waiting for Mr. Dick Powell’s, FAA/NFDC, signature.

ACTION: Ms. Valerie Watson will report at next ACF.

MEETING 09-02: Ms. Valerie Watson, FAA/AeroNav Services, reported that the IACC RD had been approved and has been implemented. She remarked that only a few charts now exist which require the ATC MCA. Some SIDs and STARs are affected. Mr. Tom
Schneider, FAA/AFS-420 said the AIM change had been made. Unannotated crossing altitudes are now assumed to be based on obstacle clearance or navaid reception. Those annotated “ATC” are published for Air Traffic purposes.

CLOSED.