

ATPAC UPDATE

AREA OF CONCERN 116-1

7/14/04

SAFETY: No

SUBJECT: Revision to FAAO 7110.65 and the AIM

DISCUSSION:

REFERENCES: FAAO 7110.65, paragraph 4-2-5b: NOTE; AIM, Sections 4-4-9g and 5-2-6-e-7.

The possibility of a misunderstanding between pilots and controllers during the issuance of an ATC clearance has been identified during discussions on the application of “Climb Via” in the RNP/RNAV Phraseology Work Group meetings and should be corrected.

Specifically, in accordance with the references stated above, the use of the term “maintain” when used in conjunction with the initial ATC clearance issued prior to departure *could* be understood to be an amended clearance and have the possible affect of canceling altitude restrictions contained on the DPs issued in the same initial clearance. In considering this issue it is important to remember the following:

- The definition of “maintain” as contained in the P/C Glossary has not changed.
- The application and sequence of the term “maintain,” and the omission of previously issued altitude restrictions (including those on published DPs) is the key to understanding the procedure.

Each of the above references refers to a “**restating**” of the previously issued altitude to “maintain,” and the omission of any restrictions contained in a DP that would have applied. When the term “maintain” is used in the initial ATC clearance, *it is not a restatement*, but instead is one of the items included in the basic departure clearance data as contained in FAAO 7110.65, paragraphs 4-3-2 and 4-3-3, and paragraph 4-4-3 of the AIM.

While ALPA believes the possibility of a misunderstanding of the currently accepted procedure is small, ALPA realizes the task of ATPAC is to eliminate any such possibility to the extent possible. Therefore, ALPA recommends the following changes to both the AIM and FAAO 7110.65:

SUGGESTED ATPAC ACTION:

1. Revise FAAO 7110.65, Paragraph 4-2-5-b: NOTE: to read as follows: (New material is in bold and italics.)

The term “Maintain,” when used in issuing an altitude assignment as an item in the initial ATC clearance delivered to an aircraft prior to departure, does not constitute an amended clearance that cancels altitude restrictions issued by ATC or contained on any DP issued as an integral part of the same clearance. The depicted or assigned altitudes apply. However, in subsequent transmissions, restating a previously issued altitude to maintain is an amended clearance. If altitude to “maintain” is changed or restated, whether prior to departure or while airborne, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including DP/FMSP/STAR altitude restrictions if any.

2. Revise AIM Paragraph 4-4-9g to read as follows: (New material is in bold and italics.)

The guiding principle is that the last ATC clearance has precedence over the previous ATC clearance. When the route or altitude in a previously issued clearance is amended, the controller will restate applicable altitude restrictions. *The term “Maintain,” when used in issuing an altitude assignment as an item in the initial ATC clearance delivered to an aircraft prior to departure, does not constitute an amended clearance that cancels altitude restrictions issued by ATC or contained on any DP issued as an integral part of the same clearance. The depicted or assigned altitudes apply. However, in subsequent transmissions, restating a previously issued altitude to maintain is an amended clearance.* If an altitude to “maintain” is changed or restated, whether prior to departure or while airborne, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including DP/FMSP/STAR altitude restrictions if any.

3. Revise AIM Paragraph 5-2-6-e-7 as follows: (New material is in bold and italics)

If, *after the initial ATC clearance has been delivered and acknowledged*, an altitude to “maintain” is restated, whether prior to departure or while airborne, previously issued altitude restrictions are cancelled, including any DP altitude restrictions that applied.”

Appropriate cross-references should be annotated for each of these changes.

SUGGESTED ATPAC ACTION: That ATPAC review this item and recommend changes to FAAO 7110.65 and the AIM.

116—Committee expressed differing views on how clearance should be issued. Question – Does maintain cancel restrictions? This may be systemic and more than just an AIM change.

Committee requested to get RNAV and international offices views on the subject. Discussion will be held at October meeting.

117—Briefing from Bruce Tarbert, RNAV and Don Porter, CSSI. “Climb Via” is a new phraseology procedure being developed by the PCCP workgroup. Comply with Restrictions will be done away with when this is developed. Simulations will be done in

the December/January timeframe. It was suggested that the workgroup bring in international to work on the issue together. This would decrease exceptions.

118—The following information was provided by the RNP Office:

BACKGROUND: As a result of ATPAC's AOC 116-1, and the Committee's recommendation, the RNP Program Office (ATO-R/RNP) tasked the Pilot/Controller Procedures and Phraseology (P/CPP) working group to discuss this issue at its October meeting. The P/CPP was established to address RNAV and RNP implementation issues, and is made up of air traffic, aviation, and union subject matter experts. The P/CPP reviews, assesses and proposes changes to ATC procedures and phraseology and is tasked by the RNP Program Office with incorporating those changes into FAA Order 7110.65, the AIM and AIP.

DISCUSSION: After lengthy discussion the P/CPP came to the following conclusions: if used as prescribed, the phrase "maintain" is clear and unambiguous; that this is an ATC training issue; and to create another "situational" (on the ground vs. in the air) definition for the use of "maintain" would create further confusion.

RECOMMENDATION: ATO-R/RNP concurs with the P/CPP and makes the following recommendations:

1. In the near term, develop a Mandatory Briefing Item (MBI) for ATC facilities that discusses this issue and gives the necessary guidance to correct the problem.
2. Include this issue, complete with a description of the problem and the correct applications and uses for the maintain phraseology, in the next RNAV and RNP Computer Based Instruction (CBI) that is currently under development and due to be completed in March. Distribution to facilities is planned in the June/July timeframe.
3. Make any necessary changes to the appropriate sections of the FAAO 7110.65, the AIM and the AIP to add clarity and emphasis where needed.

Discussion by the committee brought out these points:

- Confusion is on the pilot's part not the controller.
- TB would not address this issue.
- Need to go to the POI's, training schools, etc. to help

Update requested in April to see the definitions.

119—Update provided by Bruce Tarbert and Don Porter of the RNP office.

Issue "Maintain" initial clearance. Because it has different meanings in different circumstances a training issue has arisen. An ATB article has been drafted and a CBI that addresses the issues is under review. Handbook changes will be look at if necessary.

In initial clearance it is not possible to clear above SID altitudes without canceling prior SID altitudes. Altitude is a legal part of the clearance and has to be included. System Operations is looking at this issue.

120—The RNAV office was unable to provide an update for the Anchorage meeting. Updated status will be provided in October.

121—Update provided by Don Porter of the RNAV Office. There are several issues with “maintain” in SIDs and STARs. It is a problem for both pilots and controllers. A better definition may need to be looked at by Don’s group. One solution is to insert waypoint to define altitude. (Ex. “Descend via Baxter1, after Laady maintain 080.”) Meaning should be the same in the air as on the ground. Training issues are forthcoming.

122—“Descend via” has been in the book for a year and not all know about it. Lots of ASRS reports on the confusion. “Maintain” also causing confusion, including while aircraft are descending. Issue – With a restriction on SIDs/STARs does “maintain” cancel restriction? Yes. The above issues need to be given to Don’s group. Training is a must. There needs to be a basis understanding. Also, suggest an ATB on phraseology. Issue of ICAO harmonization also needs to be addressed.

123 – The RNAV office representative was unable to attend this meeting and will be invited to meeting 124.

124 – Per Bruce Tarbert, RNAV/RNP Office, Don Porter is working on the draft DCP.

125 – A DCP will be developed and put into process by Dave Madison, ATO-T, who will also coordinate with Flight Standards.

126 – Dave Madison was unable to attend and report on this AOC.

127 – This item was not discussed due to time constraints.

128 – ATPAC recommendations were submitted and discussed. Ben Grimes advised a change to the PCG has been issued. A DCP has been issued by ATO-T with ATPAC recommendations.

129 – Joe McCarthy was brought up to speed on this issue and will report on progress at 130.

RECOMMENDATION: In the near term, develop a Mandatory Briefing Item (MBI) for ATC facilities that discusses this issue and gives the necessary guidance to correct the problem.

- 1. Include this issue, complete with a description of the problem and the correct applications and uses for the maintain phraseology, in the next RNAV and RNP Computer Based Instruction (CBI) that is currently under**

development and due to be completed in March. Distribution to facilities is planned in the June/July timeframe.

- 2. Make any necessary changes to the appropriate sections of the FAAO 7110.65, the AIM and the AIP to add clarity and emphasis where needed.**

CURRENT STATUS: DEFERRED

RECOMMENDATION 2: AOC 116-1 discussed in-depth the issues involving the application of the term “Maintain”. However, a review of the AOC revealed that an important additional item should be added to the suggested ATPAC action in that AOC. That is, the addition of a third application of the term “maintain” in the Pilot/Controller Glossary. This is necessary because the current definition does not address the issue of the term’s meaning when applied in amended clearances, and that is a source of the existing problem.

For reference: Maintain is currently defined in the Pilot/Controller Glossary as:

- a. *Concerning altitude /flight level, the term means to remain at the altitude/flight level specified. The phrase “climb and” or “descend and” normally precedes “maintain” and the altitude assignment; e.g., “descend and maintain 5,000.”*
- b. *Concerning other ATC instructions, the term is used in its literal sense; e.g., maintain VFR”*

The following is proposed as a revision to the above definition of “maintain” as it now exists. The new material is in italics:

- a. Concerning altitude /flight level, the term means to remain at the altitude/flight level specified. The phrase “climb and” or “descend and” normally precedes “maintain” and the altitude assignment; e.g., “descend and maintain 5,000.”
- b. Concerning the use of the term in amended clearances prior to or after departure. If altitude to “maintain” is changed or restated in the amended clearance, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including FMSP/STAR altitude restrictions if any.***
- c. Concerning other ATC instructions, the term is used in its literal sense; e.g., maintain VFR”

130 – Joe will discuss with ATO-T and report at 131.

131 – Scott Casoni advised the referenced paragraphs do not exist. Discussion was that a recommendation from ATPAC remains to obtain clarification of terms regarding “maintain.” Kerry Rose will contact the RNAV office in order to connect with the PARC’s phraseology group so as to establish a connection with the groups, charters, and processes.

IOU: ATO-R