AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 16-01 – April 27 - 28, 2016

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 16-01-302

Subject: Cold Temperature Restricted Airport SIAP Segment Depiction

Background/Discussion:

ACF IPG RD 92-02-110, Cold Station Altimeter Settings, was closed at ACF 15-02 following the implementation of the Cold Temperature Restricted Airport (CTRA) procedure. Following the receipt of feedback from general aviation pilots, it is clear there are issues as to the accessibility of information and difficulties as to how the information is presented.

A. Each segment of an Instrument Approach Procedure (IAP) that requires temperature correction at a CTRA airport is identified in the Notices to Airmen Publication (NTAP). A snowflake icon is depicted in the notes box of the IAP together with the temperature at which correction is required; however, the applicable segment is not provided.

   Not providing the segment on the IAP plate along with the applicable temperature deprives the pilot of easy access to the information. The Cold Temperature Error Table is provided in the front matter of the Terminal Procedures Publication (TPP) so many pilots, once they learn the procedure, would prefer to not have to reference the NTAP for operational information as it could all be in the TPP. Consolidating the information would be beneficial for the pilots who use the procedure more often such as in Alaska.

B. The temperature is currently provided on the IAP plate in Fahrenheit and Celsius. Pilots using the Cold Temperature Error Table must only use Celsius for determining new altitudes to fly. Temperature is reported to pilots primarily in Celsius and those temperatures not provided in Celsius can easily be converted. To avoid mistakes and reduce chart clutter, it would be beneficial to remove the depiction of Fahrenheit on the IAP plate.

Recommendations:

Consolidate all applicable information to the IAP plate and group the segment requiring correction with the applicable temperature (Celsius only). The initial, final, and missed approach segment would be identified by the first letter, such as F for the final segment.

Below is an example for Quinhagak, AK (PAQH) which requires correction for all three segments but at different temperatures. The first box shows how it is currently depicted and the box below shows what AOPA is recommending.

Figure 1 - Current Depiction

QUINHAGAK, ALASKA

T
A NA
W
-16°C/3°F

Procedure NA at night.
Baro-VNAV NA. DME/DME RNP-0.3 NA.
Use Platinum altimeter setting.

Figure 2 - AOPA Proposal

T
A NA
W
-16°C(IF)/-32°C(M)

Procedure NA at night.
Baro-VNAV NA. DME/DME RNP-0.3 NA.
Use Platinum altimeter setting.

Comments:

The Cold Temperature Restricted Airports section in the front matter of the TPP and the NTAP/AIM entry would need to be updated to explain the new method of depicting segments.

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Rune Duke, AOPA, reviewed the history of Cold Weather Temperature information appearing on the IAPs and current cold weather correction practices. He stated that AOPA has received a great deal of negative feedback with regard to usability of the current process. Pilots are finding issues with the accessibility of the information because they have to utilize multiple sources to get all the information they need. For complete information, pilots must consult the Notices to Airmen Publication (NTAP) for changes, which is a document not normally referenced by pilots and not easily accessible.

Rune stated that AOPA recommends the FAA provide all temperatures and applicable segments in a single location on the approach chart. Providing all of the information on the IAP chart would give the pilots easy, one stop access to the information. Since the Cold Temperature Error Table is provided in the TPP, pilots would no longer have to go to the NTAP for additional information. He also recommended that Fahrenheit temperatures be removed from the IAP since Celsius is the only temperature pilots use in calculating cold weather altitude correction. Further, AOPA recommends that the Cold Temperature Restricted Airport note be sourced on the applicable 8260-series Form procedure source rather than in the NTAP and via National Flight Data Digest (NFDD). The FAA could then issue a P-NOTAM for changes to Cold Temperature notes until charts could be updated.

Catherine Graham, FAA/AFS-470, commented that she had discussed the proposed recommendation within FAA/AFS-470, and was in support of adding the segment temperatures and for the removal of Fahrenheit. She stated that the other items AOPA is recommending would have to be taken back to AFS-470 for further discussion.

Ted Thompson, Jeppesen, voiced that his organization has also received numerous complaints regarding the publication of cold temperature information. Pilots want all the segment information on the chart so they do not need to consult a second resource. Ted also echoed his support for removal of Fahrenheit and believes that it could/should be removed from all temperature chart notes. Tom Schneider, FAA/AFS-420, will look into the removal of Fahrenheit from ALL 8260 chart notes that currently cite both Celsius and Fahrenheit.

There was some discussion about whether pilots are using the information in the NTAP and applying the temperature adjustments correctly. Gary McMullin, Southwest Airlines, voiced that there is a lot of confusion regarding the interpretation and application of the language in the NTAP and suggested the matter be reassessed by the PARC NAV Workgroup. Rune expressed concern about delaying at least the actions of segment publication on the charts. It is possible that the PARC could take years to reach a solution and pilots have current problems applying cold temperature correction that need immediate attention. Valerie Watson, FAA/AJV-553, agreed that due to clear ACF consensus to add the segments and remove Fahrenheit temperatures, those recommendations should be pursued as soon as possible. She agreed with Rune that the FAA should not delay those steps while the PARC addresses potential revision to NTAP and AIM language. She committed to drafting a specification change to support procedure segment references in the notes and to delete references to Fahrenheit, but stressed that the specific text of the notes would continue to exactly reflect the NASR Airport Remark. If the notes on the charts are to be revised, Valerie clarified that AFS-470 is required to submit those changes to NFDC for publication via memo and hold to the pre-coordinated maximum of 175 procedures affected per 56-day ARINC cycle. Catherine will relay that message to her management.

Discussion then shifted to Rune's recommendation to document the cold temperature notes on the procedure source documents (i.e., FAA 8260-series Forms) rather than publish them via NFDD airport remark. Tom Schneider, FAA/AFS-420, stated that placing this information on the 8260-series Form was discussed at length years ago in the Instrument Procedures Group portion of the ACF (of which he is the Chair) and it was rejected. At that time, it was decided that sourcing the cold temperature notes on the 8260-series Forms would be too cost- and labor-prohibitive due to the procedure amendment requirement for every addition/deletion/change to the notes. Ted Thompson stated that he would prefer the note sourced on the 8260-series Form for clarity, for tracking purposes and because this is the only note on an instrument procedure NOT sourced on the 8260-series Form. AOPA, NBAA, and Jeppesen all voiced that they would rather see the note on the 8260-series Form.

Tony Lawson, FAA/AJV-5441, stated that he does not believe the cold temperature notes should be on the 8260-series Form because this is not a TERPS issue and the 8260-series Form is primarily a TERPS record. He believes the adjustment is an aircraft equipment issue and stated that currently AJV-5 chart automation and databases do not support the data. Rune repeated the importance of making the note a procedural item so that a procedure NOTAM would be issued if/when there is a change. He stressed that pilots check NOTAMs, but they do not check the NTAP or read the NFDD, if they even know they exist. It was also pointed out that cold temperature adjustment adherence is now mandatory, not merely a recommendation or suggestion, and this regulatory aspect may lend justification for it being on the regulatory procedure source document rather than published along with other non-regulatory data in the

NFDD. Tony and Jill Olson, FAA/AJV-553, will investigate the feasibility of adding the cold temperature notes to the 8260-series Forms.

STATUS: OPEN

ACTION: Tom Schneider, FAA/AFS-420, to update FAA Order 8260.19 to remove references to Fahrenheit from procedure notes citing temperature (other than cold temperature notes which are NOT currently documented in Order 8260.19).

ACTION: Valerie Watson, FAA/AJV-553, to work with AFS-470 to draft an IACC Requirement Document for the addition of segment specifics and for the removal of Fahrenheit.

ACTION: Gary McMullin, Southwest Airlines, to report back on discussions within the PARC NAV Workgroup regarding possible changes to the NTAP language.

ACTION: Tony Lawson, FAA/AJV-5441, and Jill Olson, FAA/AJV-553, will investigate the feasibility of sourcing the Cold Temperature note on the 8260-series Form.

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Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie stated that since the last ACF, an IACC Requirement Document (RD 768) was drafted to add segment specifics and to remove Fahrenheit from the cold temperature chart notes. The RD was put on hold because AFS-470 has revised their decision to publish segment specifics on IAP chart notes.

Kel Christianson, FAA/AFS-470, provided an update on the work done by his office since the last ACF. Kel said that beginning next month, Fahrenheit values will be removed from the cold temperature notes on the charts and from the Notice to Airmen Publication (NTAP) entries. Kel also said that a decision had been made within AFS-470 and with coordination from user groups, that segment specific temperatures will not be published on the chart. An additional method for making temperature corrections has been approved that allows pilots to use a single temperature correction for all segments beginning at the Initial Approach Fix (IAF); this is the temperature that will be included in the briefing strip notes on charts. He said segment specific temperature entries will remain in the NTAP, but it is no longer a requirement to go to this secondary publication for more information since the single temperature correction from the IAF has been approved for use. New explanatory language has been added to the NTAP.

Rich Boll, NBAA, asked if the segments published in the NTAP will be removed. Kel said that, for the time being, both methods will be available for pilots to make cold temperature corrections. If at some point in the future, the single temperature method becomes the standard, Flight Standards will consider removing the segment temperatures from the NTAP and moving all cold temperature language to the Aeronautical Information Manual (AIM).

Valerie asked the audience if they were in support of the proposed changes. Rune Duke, AOPA, stated that AOPA supports the solution. He stated that AOPA would also like to see all cold temperature references removed from the NTAP, and have the single temperature correction method explained in the AIM. Valerie asked why this information isn't in the AIM now, regardless of the two methods. Kel said his office was waiting to be sure the method works and that users are satisfied before publishing the guidance in the AIM.

Valerie asked Kel about the expected frequency of updates. Will AFS-470 require an update to the chart note even if there only a 1 degree change? Kel stated that there may be some changes published in January that could be as small as 1 degree, however as the list becomes more finely tuned, there will be fewer changes over time.

Valerie stated that based on the changes briefed by Kel, she would revise the IACC RD to remove the segment specifics and to update the explanatory text in the TPP Legend. Valerie confirmed that the original maximum of 175 chart changes per cycle will continue to be followed. Kel agreed.

Tom Schneider, FAA/AFS-420, confirmed that, as agreed to at the last ACF, he has made changes to Draft FAA Order 8260.19H to remove references to Fahrenheit from all procedure notes citing temperature.

Discussion then shifted to the sourcing of the cold temperature note on the 8260-series Form rather than via the National Flight Data Digest (NFDD) airport remark. Jill Olson, FAA/AJV-553, and Tony Lawson, FAA/AJV-542, reported that this change would require modification to FAA Order 8260.19 and would require a significant amount of cost and effort to be accomplished. They also reiterated that they do not see this as a TERPS issue and the 8260-series Form is primarily a TERPS record.

Rich Boll, NBAA, stated that he thinks the note should be part of the procedure source and the assessment should be part of the procedure analysis. The assessment should be approach-specific and needs to be looked at every two years. It may be determined as part of that analysis that the correction may not apply to all approaches at an airport. Tom pointed out that if the note is sourced on the 8260, it will take a lot longer to get changes published than if it is done via NFDD. Rich responded that, eventually, that won't matter as much because the temperatures won't change as frequently.

Mike Cramer, MITRE, suggested that the cold temperature analysis could be done as part of the bi-annual review process which would have the added advantage of using the actual required obstacle clearance values in the analysis. He supported Rich's comment that the correction may not be necessary for all procedures at a given airport and if the analysis were by procedure, they could be assessed individually.

Rune restated the importance of making the note a procedural item so that a procedure NOTAM would be issued if/when there is a change. He stressed that pilots check NOTAMs, but they do not check the NTAP or read the NFDD.

Valerie suggested that Tony share the points made at the ACF with AJV-5 management and look again at the feasibility of sourcing the cold temperature note on the 8260-series Form.

STATUS: OPEN

ACTION: Valerie Watson, FAA/AJV-553, will revise the IACC Requirement Document to remove the segment specifics and to update the explanatory text in the TPP Legend.

ACTION: John Bordy, FAA/AFS-420, to report on the status of the new guidance to be published in FAA Order 8260.19H to remove references to Fahrenheit from procedure notes citing temperature (other than cold temperature notes which are not currently documented in FAA Order 8260.19).

ACTION: Tony Lawson, FAA/AJV-542, to discuss with AJV-5 management the feasibility of sourcing the Cold Temperature note on the 8260-series Form.