

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 17-02 – October 25 - 26, 2017

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 17-02-314

Subject: Charting of ILS Classification System for Category I ILS Approaches

Background/Discussion: Air Carriers approved for OpSpecs C061, Flight Control Guidance Systems for Automatic Landing Operations Other Than Categories II and III, are authorized to conduct automatic landing operations to any ILS facility. If an automatic approach and landing is conducted using an ILS whose classification does not meet CAT II or III performance criteria, the possibility exists for the autocoordinated approach to be unsatisfactory. This could lead to unstable approaches, missed approaches, or runway excursions. This information is not currently displayed on the approach chart where it is readily available to pilots when they are conducting an approach. The information is located in the Airport Facilities Directory, however most pilots could not tell you what each code means in terms of equipment and what to expect from an autoland approach.

Recommendations:

The ACF should chart ILS Classifications found in FAA Order 6750.24E for all Category I ILS approaches. This would allow flight crews to anticipate ILS performance characteristics when conducting automatic approach and landing operations under OpSpecs C061, increasing the overall safety of those approaches

We recommend that the ILS equipment category be included on the approach charts in easy to understand format that would allow pilots to understand the quality of the signal being used. This would allow flight crews to anticipate ILS performance characteristics when conducting automatic approach and landing operations under OpSpecs C061, increasing the overall safety of those approaches.

Furthermore, we recommend adding guidance to the AIM that will educate pilots on the different categories of ILS equipment and the level of service associated with each category. This information should also include a discussion of Automatic Landing Operations on different ILS equipment and the expectation of the results that a pilot could anticipate with each equipment type.

Comments:

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Date: 3/22/2107

MEETING 17-02

Michael Stromberg, UPS, and Chris Zimmerman, UPS, [briefed the issue](#). Michael described a problem that has been encountered by pilots under Part 121 operations when attempting to fly autoland procedures on ILS approaches. In order to be able to evaluate if autoland procedures can be used, the flight crews need to know and understand the ILS classification code for the facility. Currently, ILS classification codes are only published in the Chart Supplement airport entries. There is also some explanatory language in the Chart Supplement front matter pages. Michael emphasized that pilots do not have access to such information in-flight. He recommends that ILS classification codes be included on Instrument Approach Charts.

Michael added that currently there is nothing in the AIM that informs pilots about autoland procedures or ILS classification codes. He suggested that language be added and he showed the audience his suggested AIM changes ([Slides #9 and #10](#)).

Rich Boll, NBAA, acknowledged Michael's points, however he pointed out that UPS uses tailored charts and perhaps that is the best way to communicate this type of information to the flight crews. He asked of what use the ILS classification codes on the chart would be to pilots who cannot use autoland. He stated that this would be adding information to the charts that is not for general use.

Ted Thompson, Jeppesen, said that this is the first request he has heard for the depiction of this information. In terms of charting, he said that it could either be shown as an equipment note or it could be included as part of the NAVAID box. He emphasized that pilots are always asking for the charts to be less cluttered and this would be adding something to the chart which has limited applicability. He also pointed out that he doesn't know if Jeppesen currently captures ILS classification codes in their database.

John Johnson, FAA/AJV-5332, commented that ILS classification codes are part of the NASR subscriber file. He suggested that the data can be obtained online via eNASR, downloaded as a text field file and then imported into a spreadsheet.

Consensus of the audience was that this information should not be placed on the charts. It was agreed that language should be added to the AIM and the Instrument Procedure Handbook (IPH).

STATUS: OPEN

ACTION: Michael Stromberg, UPS, will coordinate with John Blair, FAA/AFS-410, and Rich Boll, NBAA, on the publication of explanatory text for the AIM and IPH.

ACTION: Valerie Watson, FAA/AJV-553, will track the publication of AIM changes in order to make corresponding updates to the chart supplement explanatory text if necessary.

ACTION: Scott Jerdan, FAA/AJV-533, will work toward a NASR update to add the full set of classification codes that includes the letter designation (E is currently included as a remark) to the ILS Category dropdown.

MEETING 18-01

Valerie Watson, FAA/AJV-553, reviewed the issue. Michael Stromberg, UPS, showed the audience [proposed Aeronautical Information Manual \(AIM\) language](#) that would provide pilots more information on the specifics of ILS Facility Performance Classification Codes. Michael stated that such information was missing and not easily obtainable by pilots and that he believes the AIM is the best vehicle for providing such information.

John Blair, FAA/AFS-410, said that he does not believe that this type of technical information belongs in the AIM. He said that this information would be for a very narrow audience and that it should be in the airlines OpSpecs. He said that he will take it back to his management but he doesn't expect that they will approve it.

Lev Prichard, American Airlines, disagreed. He said that the AIM is the go-to source for pilots and flight instructors, that most do not know of or know how to access the technical documents John refers to. He voiced that he supports publication of the proposed language in the AIM.

There was a lot of discussion both for and against publishing this guidance in the AIM. Based on the large support in the room for having the guidance placed in the AIM, Valerie asked John to take it back to his management for consideration. John agreed to do so.

STATUS: OPEN

ACTION: John Blair, FAA/AFS-410, to present the suggested guidance to AFS-410 management for inclusion in the AIM.

MEETING 18-02

Valerie Watson, FAA/AJV-553, reviewed the issue. Valerie asked if action had been taken by AFS-410 to publish the ILS Category Code explanatory language (suggested by Michael Stromberg and Chris Zimmerman at the last meeting) in the Aeronautical Information Manual (AIM). Doug Dixon, FAA/AFS-410, responded that his management does not support the effort to publish this guidance in the AIM. His office maintains that this information would be useful for only a very narrow audience and that it should be in the airlines OpSpecs. He stressed that the information is available in other places for those pilots that need it and reiterated that it is far too narrowly useful language for AIM inclusion.

John Blair, FAA/AFS-410, said that there is a new Advisory Circular, AC 121-118, that provides operators with information on ILS Facility Performance Classification Codes. Rich Boll, NBAA asked if the suggested AIM guidance could be published in the Instrument Procedures Handbook (IPH) instead. John said they prefer to only publish the information in the AC and not in the AIM or the IPH. Michael Stromberg, UPS, asked if they could add the explanatory language and the diagram with the foot distances that he had requested adding to the AIM to the AC. Doug said he would take that back for consideration.

STATUS: OPEN

ACTION: Doug Dixon, FAA/AFS-410, to investigate adding the suggested Aeronautical Information Manual (AIM) guidance to Advisory Circular 121-18.

MEETING 19-01

Valerie Watson, FAA/AJV-A250, reviewed the issue. Doug Dixon, FAA/AFS-410, reported his office is not opposed to adding the suggested ILS facility performance classification codes language to Advisory Circular 121-118, however there is a new effort underway to examine Category I Autoland that may affect the current guidance. He stated that Flight Standards has placed this effort on hold until the larger task is accomplished. Doug said he will continue to track this item and report at the next meeting.

STATUS: OPEN

ACTION: Doug Dixon, FAA/AFS-410, will report on the outcome of the CAT I Autoland effort as it pertains to this proposal.

MEETING 19-02

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Valerie Watson, FAA/AJV-250, briefed that at the last ACM, the request to add ILS facility performance classification code explanatory language to Advisory Circular (AC) 121-118 had been placed on hold as Doug Dixon, FAA/AFS-410, explained that Flight Standards was in the process of re-examining autoland issues.

Joe Lintzenich, FAA/AFS-410, Contract Support, reported that there is a currently study underway involving ICAO and the FAA regarding glideslope multipath. Until that study is completed, his office cannot move forward on this issue. Joe stated he was hopeful the study will be completed in early 2020, at which time his office can reassess this request.

Christopher Gottwald, UPS & IPA, reiterated the original request to have ILS facility performance classification codes language added to the Aeronautical Information Manual (AIM). He stated that until guidance is published for pilots, Category I Autoland operations should be stopped. Joe stated that the Flight Operations Group has already decided that they will not publish new guidance in the AIM, but that they have agreed to look into expanded guidance AC 121-118. He also referred Christopher to the ILS Components List that is published on the Aeronautical Information Services website (URL: https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/reports/). Joe said he would take Christopher's concerns regarding the continued use of Category I Autoland back for consideration. Christopher emphasized that the risk needs to be communicated to pilots.

STATUS: OPEN

ACTION: Joe Lintzenich, FAA/AFS-410, Contract Support, will take the concerns raised regarding the safety of continued use of Category I Autoland back to the Flight Operations Group for discussion

ACTION: Joe Lintzenich, FAA/AFS-410, Contract Support, will report on the outcome of the Multipath ILS Glideslope Study and how it pertains to the effort to publish Category I Autoland guidance in AC 121-118.

MEETING 20-02

Samer Massarueh, FAA/AJV-A221, reviewed the issue. At ACM 19-02, Joe Lintzenich, FAA/AFS-410, Contract Support, reported that a Multipath ILS Glideslope Study was underway and until the study is complete, his office could not move forward with the effort to publish Category I Autoland guidance in AC 121-118. Doug Dixon, FAA/AFS-410, reported that this study is still ongoing. He said the expected results may drive changes to the AC, as well as potential changes to the Operation Specification C061 and the Aeronautical Information Manual (AIM). He said the changes would not be specific to ILS classification code, but the broader subject of Cat I Autoland. He said that his office also plans to publish a Safety Alert for Operators (SAFO) after the study is complete. He added that he does not expect any impact on charting.

Valerie Watson, FAA/AJV-A250, said that this item will remain open pending the results of the study and subsequent updates to the pilot guidance and the publication of the SAFO.

STATUS: OPEN

ACTION: Doug Dixon, FAA/AFS-410, will report on the outcome of the Multipath ILS Glideslope Study and how it pertains to the effort to publish Category I Autoland guidance in AC 121-118. He will also report on potential updates to Operation Specification C061 and the Aeronautical Information Manual (AIM) as well as the publication of a Safety Alert for Operators (SAFO).

MEETING 21-01

Samer Massarueh, FAA/AJV-A223, reviewed the issue. Mike Melssen, FAA/AFS-410, provided an update. He said the Flight Operations Branch is still in the process of evaluating the publication of Category I Autoland guidance in AC 121-118. He said they are also still considering the publication of a Safety Alert for Operators (SAFO). Mike recommended closing this issue. Valerie Watson, FAA/AJV-A250, said that this item will remain open pending the publication of guidance in AC 121-118.

STATUS: OPEN

ACTION: Mike Melssen, FAA/AFS-410, will report on the effort to publish Category I Autoland guidance in AC 121-118. He will also report on the publication of a Safety Alert for Operators (SAFO).

MEETING 21-02

Samer Massarueh, FAA/AJV-A223, reviewed the issue. Joe Lintzenich, FAA/AFS-410, reiterated this is a complicated issue and reported it is still under discussion within the Flight Operations Branch. He reminded the group the FAA publishes an [ILS Procedures & Components List](#) that contains a full list of ILS procedures and related components.

Matt Harmon, FAA/AFS-410, reported that Mike Melssen, FAA/AFS-410, is still working on adding Category I Autoland guidance to AC 120-118. He said they are also still considering the publication of a Safety Alert for Operators (SAFO).

Rich Boll, NBAA, asked if the information that is included in the [ILS Procedures & Components List](#) can be added to the Aeronautical Information Manual (AIM). Valerie said the link is on the AJV-A website, but adding a reference in the AIM was beyond her authority. Matt said there is also a link to the spreadsheet on the Flight Operations Group section of the FAA website. He believes a change request was opened to add the link to the AIM, but will confirm.

STATUS: OPEN

ACTION: Mike Melssen, FAA/AFS-410, will report on the effort to publish Category I Autoland guidance in AC 120-118. He will also report on the publication of a Safety Alert for Operators (SAFO) and the addition of a link in the AIM to the [ILS Procedures & Components List](#).

MEETING 22-01

Mike Melssen, FAA/AFS-410, reported that his office is working on a rewrite of the Aeronautical Information Manual (AIM) Chapter 1-1-9, which discusses Instrument Landing System (ILS) operations. The main focus is on critical area protection to ensure it is in line with FAA Order 7110.65. He said they are looking at adding a link to the [ILS Procedures & Components List](#) in the AIM during the rewrite. He also reported that a Safety Alert for Operators ([SAFO 21004](#)), was published for Air Traffic Control (ATC) notification and pilot awareness when conducting an ILS Autoland Procedure. He said Flight Standards was considering doing a Safety Risk Management Panel about multipath issues, but it is undetermined yet if that will move forward. Flight Standards will consider adding language to Advisory Circular (AC) 120-118, but that will not happen until after the AIM update.

Mike Stromberg, UPS/IPA, said he still believes his original request to add the information about ILS Classifications Codes that is currently published in the Chart Supplement legend into the AIM would be helpful. Mike Melssen said his office can take another look at the recommendation. Valerie Watson, FAA/AJV-A250, said if AFS determines that the guidance can't be published in the AIM, it may still need to be added to the AC.

STATUS: OPEN

ACTION: Mike Melssen, FAA/AFS-410, will report on the effort to publish Category I Autoland guidance in AC 120-118.

ACTION: Mike Melssen, FAA/AFS-410, will report on the rewrite of AIM Chapter 1-1-9 and the addition of a link to the [ILS Procedures & Components List](#).

ACTION: Mike Melssen, FAA/AFS-410, and Flight Standards will reconsider the original proposal to add the information about ILS Classifications Codes that is currently published in the Chart Supplement legend into the AIM.

MEETING 22-02

Mike Melssen, FAA/AFS-410, reported that his office is still considering whether to add language to the Aeronautical Information Manual (AIM) since it would only affect a small fraction of users. They are also still considering adding language to Advisory Circular (AC) 120-118. He explained that the information is already included in the Chart Supplement. Any changes are pending the Safety Risk Management Panel (SRMP) assessment regarding multipath issues. Once complete, they will then evaluate where the guidance will be published.

Valerie Watson, FAA/AJV-A250, said it is understood that the AIM guidance would only be for a fraction of users, but the ACM audience had agreed that they would like the guidance to be published.

STATUS: OPEN

ACTION: Mike Melssen, FAA/AFS-410, will report on the effort to publish Category I Autoland guidance in AC 120-118.

ACTION: Mike Melssen, FAA/AFS-410, will report on the rewrite of AIM Chapter 1-1-9 and the addition of a link to the [ILS Procedures & Components List](#).

ACTION: Mike Melssen, FAA/AFS-410, and Flight Standards will reconsider the original proposal to add the information about ILS Classifications Codes that is currently published in the Chart Supplement legend into the AIM.

MEETING 23-01

Mike Melssen, FAA/AFS-410, reported that Doug Dixon, FAA/AFS-410, is updating the Aeronautical Information Manual (AIM) focused on critical area protection. He said his office is still considering adding language to a future update to Advisory Circular (AC) [120-118](#). Mike reported that since the AIM update is forthcoming and the Safety Alert for Operators ([SAFO 21004](#)) was published for Air Traffic Control (ATC) notification and pilot awareness when conducting an ILS Autoland Procedure about this topic, Flight Standards would like to close the issue.

Mike Stromberg, UPS IPA, was one of the original proponents of this issue and he agreed with closing it. There were no other objections raised.

STATUS: CLOSED