

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING

Charting Group
Meeting 07-01 – May 2-3, 2007

RECOMMENDATION DOCUMENT

Subject: Recording, Reporting, and Dissemination of Usable Runway Lengths for Takeoff and Landing

Background/Discussion:

Data for an airport's runway(s) is recorded on the FAA Form 5010 (Airport Master Record). Data from the FAA 5010 is then published in the Airport/Facility Directory (A/FD).

Form 5010 has an entry fields for total pavement length as well as for displaced thresholds. The existence of a displaced threshold inherently limits the length of the runway surface usable for landing and may also limit the distance usable for takeoff. The A/FD lists the runway length and the threshold displacement as recorded on the FAA 5010 Form.

Recently, the FAA has permitted airport operators to use declared distances (ASDA, TORA, TODA and LDA) to obtain required Runway Safety Areas for takeoff and landing. These declared distances are also recorded on the FAA 5010 Form and published in the A/FD.

The use of multiple schemes for reporting usable runway lengths and the inconsistent application of declared distances has resulted in confusion among pilot regarding the actual runway length usable for takeoff and landing. Absent accurate, consistently presented runway data, pilots will be unable to accurately calculate allowable takeoff/landing weights and the benefits of Runway Safety Areas will not be realized.

Further, temporary reductions in runway usable lengths issued by NOTAM are generally reported only as runway length reductions and do not reflect their effects on declared distances for takeoff and landing. The temporary closure of any portion of a runway should include a report on the remaining available declared distances.

Recommendations:

1. The FAA should adopt a consistent methodology for the reporting of usable runway lengths for takeoff and landing. It strongly recommended that declared distances (ASDA, TORA, TODA and LDA) be used uniformly to report all usable runway lengths for takeoff and landing. These terms are already defined in the Aeronautical Information Manual, are used and understood internationally, and are readily applied to the FAR 25 transport aircraft performance regulations as well as operator performance regulations contained in 14 CFR 91.605, FAR 121 Subpart I, and FAR 135 Subpart I.
2. Any runway with less than full pavement length available should report declared distances (ASDA, TORA, TODA, and LDA). Reporting of displaced thresholds should be retained for informational purposes only. Establishment of a displaced threshold or other restriction on usable runway length should require the completion of the declared distance reporting blocks of the FAA 5010 Form. This information should then be published in the A/FD and included on appropriate aeronautical charts.
3. NOTAMS describing temporary changes in runway length should use declared distance formats.

Comments: This recommendation affects AC150/5300-13, FAA Order 7930.2K Notices to Airman, FAA Form 5010 and A/FD.

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Date: April 4, 2007

MEETING 07-01: Mr. Richard Boll, NBAA provided the following briefing. Some airports report a runway distance at a displaced threshold runway. This is done by giving the total runway length and then providing the amount the runway is displaced. In some instances a runway may have a declared distance, which can further shorten the amount of runway available for takeoff and landing. In some cases you'll have an inconsistency, reporting the amount of usable runway length available for takeoff and landing.

The process starts with the airport survey (FAA 5010 form). Survey information recorded on the 5010 form goes into the A/FD. Several examples of inconsistency were shown. In one block of information, a pilot is told what his Landing Distance Available is, and in another block he is given the displaced threshold to subtract that from the total runway length to determine the amount of landing distance available. ALPA's recommendation is that in addition to publishing the displaced threshold distance, anytime you have less than the full runway length useable, the declared distance format be used to report the available runway length for take-off and landing using the terms defined for these.

Ms. Valerie Watson, NFDC, remarked that what the FAA has done in the past is publish a Landing Distance LDG on the Airport Diagram, which was either the published LDA, or the runway distance minus the displaced threshold, whichever was least.

Mr. Moore asks for recommendations on how to move forward on this issue. The ACF may need to establish a sub-group to better address the issue. Do any FAA policies need to be revised in order to provide the source needed? Mr. Terry Page responded that airports report current conditions on the airport and any displaced threshold, although they don't fill out the table (i.e. compute Landing or Take-off distances) (see Charting Declared Distances May 2007). Many airports have no federal funding and little FAA involvement. Airport authorities are responsible for establishing their own declared distances. The correlation between landing beyond threshold distances and declared distances must be carefully evaluated, as they represent different values and must be labeled appropriately.

The FAA needs to establish a special FAA/Industry group to investigate the matter. Representatives of the Airports division would like to have a clear statement of work and the group's objective.

ACTION: Mr. Richard Boll will chair a sub-committee to address this issue and will discuss at next ACF. Participants can be found on the Declared Distance Committee page following these minutes.

MEETING 07-02: *This agenda item also relates to ACF agenda item 06-01-181 Declared Distance Information on Airport Charts (closed in ACF 07-01).*

Mr. Richard Boll reported that the NBAA wants the FAA to provide in NFDD source "declared distance" or available runway length information (landing beyond displaced threshold) anytime the full length of runway is not available, typically when a displaced landing threshold exists.

The correlation between landing beyond threshold distances and declared distances must be carefully evaluated, as they represent different values and must be labeled appropriately.

Airport authorities are responsible for establishing their own declared distances.

The FAA is attempting to meet safety area standards by providing declared distances for airports in increasing numbers (via the NFDD and A/FD publication).

MEETING 08-01: This agenda item also relates to ACF agenda item 06-01-181 Declared Distance Information on Airport Charts (since closed in ACF 07-01).

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Mr. Richard Boll, NBAA, is chairman of the ACF Declared Distances Subcommittee. The agenda item is under the scope of this group. Refer to the subcommittee report provided earlier in these minutes.

Open until resolution, then it will be reported back to the Charting Group.

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Issue will remain open until resolution, then it will be reported back to the Charting Group.

ACTION: Mr. Richard Boll will report at the next ACF.

MEETING 09-01: *Note: This agenda item also relates to ACF agenda item 06-01-181 Declared Distance Information on Airport Charts (since closed in ACF 07-01).*

Mr. Richard Boll, NBAA, is chairman of the ACF Declared Distances Subcommittee. The agenda item is under the scope of this group. Refer to the subcommittee report provided earlier in these minutes.

Issue will remain open until resolution.

ACTION: Mr. Richard Boll will report at the next ACF.

MEETING 09-02: Note: This agenda item also relates to ACF agenda item 06-01-181 Declared Distance Information on Airport Charts (since closed in ACF 07-01).

Mr. Richard Boll, NBAA, is chairman of the ACF Declared Distance Working Group. The agenda item is under the scope of this group.

NBAA's concern about declared distances has been partly addressed by the FAA's actions to improve collection of distances for FAR Part 139 airports. He agreed that once the collection issues for non-Part 139 airports have been satisfied, NBAA would agree to close 07-01-192.

(See – Declared Distance Working Group Update)

ACTION: Mr. Richard Boll will report at the next ACF.

MEETING 10-01: Mr. Richard Boll, NBAA, reported no progress on the issue. See DDWG report.

ACTION: Mr. Richard Boll will report back at the next ACF.

MEETING 10-02: See DDWG report at paragraph V. C).

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MEETING 11-01: See DDWG report at paragraph V. C).

ACTION: Mr. Richard Boll will report back at the next ACF.

MEETING 11-02: See DDWG report at paragraph V. C.

ACTION: Mr. Richard Boll will report back at the next ACF.

MEETING 12-01: See DDWG report at paragraph V. B.

ACTION: Mr. Richard Boll will report back at the next ACF.

MEETING 12-02:

Rich Boll, NBAA, was not in attendance, but submitted the following statement:
With the release of the draft AC, the Declared Distance Work Group (DDWG) reviewed the original ACF CG agenda item for its relevance to the original recommendation in light of nearly five years of experience with the declared distances since the original submission. Following this review, it remained the consensus of the working group that FAA adopt a consistent methodology for reporting usable runway length for takeoff and landing based on declared distances. As result of our meetings, the DDWG submitted a list 24 comments and recommendations regarding AC, including a request that FAA require airports to publish declared distances for each operational direction even when those distances are equal to the physical length of the runway.

On September 28, 2012, FAA published AC [150/5300-13A](#). The released version of this AC stopped short of adopting the DDWG's recommendation intended to address Charting Group Recommendation Document [07-01-192](#). Rather, the AC prescribes airports to report declared distances as follows:

f. Notification. The clearway and stopway lengths, if provided, and declared distances (TORA, TODA, ASDA, and LDA) will be provided by the airport owner for inclusion in the Airport Master Record (FAA Form 5010), A/FD (and in the Aeronautical Information Publication, for international airports) for each operational runway direction. Declared distances must be published for all international airports and Part 139 certificated airports, even when the distances are simply equal to the runway length in both directions. When the threshold is sited for small airplanes, report LDA as "LDA for airplanes of 12,500 lbs (5700 kg) or less maximum certificated takeoff weight."

This notification requirement is in agreement with [CertAlert 09-05](#) released in 2009. For any airport subject to the AC, declared distances will be determined and published in the AFD when they differ from the physical runway length or the runway remaining beyond a displaced threshold as result of the application of runway design criteria or the presence of a stopway or clearway.

The above notification requirements for declared distances supports the decision, based on an ACF CG & DDWG recommendation), to chart a negative "D" symbol on instrument approach charts and the Airport Diagram when an airport's declared distances are published in the FAA Airport Facility Directory. The AIM guidance on declared distances and published in March 2010 remains consistent with AC's application of declared distances.

Since its publication the first week in October, the DDWG has not had an opportunity to review the new AC or to assess its implications regarding the future activities of the working group. The working group will do so at the earliest opportunity with view to identify any additional actions required to address either ACF CG agenda items, or if the working group has exhausted all options at its disposal for addressing these items. The DDWG will make a recommendation at the 13-01 ACF CG meeting.

STATUS: OPEN

ACTION: Rich Boll, NBAA, will report back at next ACF.

MEETING 13-01: Rich Boll, NBAA, was not in attendance, but submitted the following statement:

FAA's Airports Safety & Standards (AAS-100) released a revised & updated "A" edition of AC 150/5300-13, Airport Design. This AC addresses FAA's response to the DDWG's effort to report usable runway lengths for takeoff and landing at US airports using the declared distances format.

While The DDWG recommended the reporting of declared distances for all hard surfaced runways, AAS-100 elected to limit the reporting requirement in the AC to those airports where declared distances are used to meet runway design standards resulting in one or more of the declared distances is less than the runway length. FAA further requires reporting of declared distances for all international airports, as defined by the US Aeronautical Information Publication (AIP), and all part 139 certificated airports (ref: AC 150/5300-13A para. 323f).

The above requirement falls short of the DDWG's stated objective and the recommendation of the ACF-CG agenda item. However, the work accomplished by the DDWG with respect to charting (e.g. the Inverse "D" symbol on FAA instrument approach charts & airport diagrams) and the revised Aeronautical Information Manual guidance on declared distances fully supports guidance for reporting declared distances established in the AC. No additional changes to the AIM or to charting are required.

The first two recommendations of RD 07-01-192 have been addressed to the extent possible. The remaining recommendation of agenda item #192 deals with reporting NOTAMs describing temporary changes to runway length using declared distances. In 2011, AAS-100 released an update to AC 150/5370-2F, Operational Safety on Airports during construction that included increased focus on computing and reporting revised declared distances resulting from temporary, partial runway closures. In addition, the FAA NOTAM Policy Office is currently updating FAA Order 7930.2, Notice to Airman to include reporting changes to usable runway lengths and changes to declared distances. The NOTAM office, through AAS-100, has furnished a draft of these changes to the DDWG. The proposed changes address recommendation #3 in agenda item #192. Anticipated date for this revised Order is August or September 2013.

DDWG determination:

1. Action taken by FAA described in AC 150/5300-13A paragraph 323f addresses recommendations #1 and #2 to the extent practicable. No further DDWG action anticipated on these two recommendations and considers these two recommendations closed.
2. Action requested in recommendation #3 will remain open pending publication of the update to FAA Order 7930.2, which is anticipated third quarter of 2013. Anticipate recommending closure of agenda item #192 concurrent with release of the revised Order.

STATUS: OPEN

ACTION: Rich Boll, NBAA, to report on progress at next ACF.

MEETING ACF 13-02:

See the Declared Distances Work Group Report in paragraph IV, B. and the attached presentation.

STATUS: CLOSED

Minutes from Declared Distances Work Group Report –

Rich Boll, NBAA, reviewed the history of the topic and the associated Recommendation Documents (RDs) 07-01-192 and 09-01-215. Rich [gave a presentation](#) that reviewed all tasks completed since the introduction of the original issues and stated that since the last ACF, the Declared Distances Workgroup (DDWG) met and collectively decided they are satisfied with the actions that have been taken and agree to close both RDs and the briefing topic. The attached presentation also pertains to RD 07-01-192 and 09-01-215.

STATUS: CLOSED