



AERODROME METEOROLOGICAL OBSERVATION AND FORECAST STUDY GROUP (AMOFSG)

SEVENTH MEETING

Montréal, 9 to 12 September 2008

Agenda Item 5: Aerodrome observations

CRITERION FOR REPORTING GUSTS IN SPECI

(Presented by C.M. Cheng)

SUMMARY

This paper highlights a problem in reporting gusts in SPECI under the existing criterion in ICAO Annex 3, and presents a proposal to resolve the problem.

1. INTRODUCTION

1.1 The criterion for reporting gusts in SPECI is set out in paragraph 2.3.2 c) in Appendix 3 to Annex 3 — *Meteorological Service for International Air Navigation* (in part):

2.3.2 Recommendation.— SPECI should be issued whenever changes in accordance with the following criteria occur:

...

c) when the variation from the mean surface wind speed (gusts) has increased by 20 km/h (10 kt) or more from that given in the latest report, the mean speed before and/or after the change being 30 km/h (15 kt) or more;

1.2 This criterion makes reference to the gust value given in the latest report. In the event that no gust was reported in the latest METAR (i.e. the gust did not exceed the mean wind speed by 10 kt or more), it is apparent that any increased gusts before the time of the next METAR, however high, would not be reported in a SPECI.

2. DISCUSSION

2.1 Take for example the scenario that at the time of METAR report, the mean wind speed was 20 kt and the gust was 28 kt. Since the gust did not exceed the mean wind speed by 10 kt or more, then based on Annex 3, Appendix 3, paragraph 4.1.5.2 c), the gust was not reported in that METAR. After about 10 minutes, the mean wind speed increased to 25 kt while the gust rose abruptly to 54 kt. Now, the gust increased by 26 kt (i.e. much more than the 10 kt criterion in para. 2.3.2 c) of Appendix 3 to Annex 3) from the gust at the time of the last METAR (i.e. 28 kt). However, since there is no gust value given in the last METAR, the high gust of 54 kt after the last METAR would not be reported in a SPECI, even though the gust has actually increased by more than 10 kt.

2.2 From the point of view of reporting significant changes in meteorological conditions at an aerodrome from those at the time of the latest METAR, the abrupt increase in gust value in the above example (i.e. 26 kt) merits a SPECI. Yet the existing SPECI criterion for gusts does not enable the issuance of a SPECI.

3. CONCLUSION

3.1 To resolve the problem of reporting gusts in SPECI in para. 2.2 above, it is proposed to revise Annex 3, Appendix 3, paragraph 2.3.2 c) as follows:

2.3.2 Recommendation.— SPECI should be issued whenever changes in accordance with the following criteria occur:

...

*c) when the variation from the mean surface wind speed (gusts) has increased by 20 km/h (10 kt) or more from **that at the time of the latest report**, the mean speed before and/or after the change being 30 km/h (15 kt) or more;*

4. ACTION BY THE GROUP

4.1 The AMOFSG is invited to:

- a) note the content of this paper; and
- b) consider the proposed change in para. 3.1 and, if supported by the group, formulate a draft amendment to Annex 3 for incorporation in Amendment 75.

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