



Montreal, 9 to 27 September 2002

Agenda Item 2: Meteorological support for operations at aerodromes and in the terminal area

**THE REPORTING OF CLOUDS AND VISIBILITY AND USE OF
THE TERM CAVOK**

(Presented by the United States)

SUMMARY

The current Standard requires the use of CAVOK when certain conditions exist. This Standard does not meet the requirements of all international aviation users. Additionally, the Recommended Practice of reporting visibility to 10 km (6 m) and clouds to 1 500 m (5 000 ft) do not meet the needs of users in the United States. This paper proposes to review the use of CAVOK and expand reporting of clouds to 7 600 m (25 000 ft) and prevailing visibility to 16 km (10 m).

1. INTRODUCTION

1.1 International aviation is conducted by small and large airplanes alike. Operations are conducted under both visual (VFR) and instrument (IFR) flight rules. Both the flight rules and type of aircraft generate markedly diverse meteorological information requirements.

1.2 Meteorologists preparing aviation weather forecasts require information on clouds above 1 500 m (5 000 ft). This is especially important when criteria are met for the issuance of SIGMETs or AIRMETs for icing. Additionally, pilots of piston and turboprop engine airplanes need information on clouds above the currently recommended levels to avoid both IFR conditions and areas of possible icing.

2. DISCUSSION

2.1 The existing requirement to use CAVOK (Annex 3¹, paragraph 4.13.2) when visibility is 10 km or more and no clouds below 1 500 m (5 000 ft) does not meet the expressed needs of the users in the United States. They require information on clouds to 7 600 m (25 000 ft) and visibility to 16 km (10 m) for a variety of reasons. First and foremost is the need to avoid IFR conditions and hazardous weather in flight. Second is

¹ All references to Annex 3 apply equally to WMO Technical Regulations [C.3.1].

the need for accurate and readily available information to use in preparation of the most advantageous flight profile. Third is the requirement of the aviation meteorologist to produce forecasts and warnings that meet the users needs.

2.2 Therefore, it is proposed that the definition on the use of CAVOK be re-evaluated because it restricts the provision of information vital to both operators and meteorologists.

2.3 Any amendments to Annex 3 on the definition of the use of CAVOK will require changes in the Recommendation in Annex 3, paragraph 4.9.5 including guidance on reporting multiple cloud layers. The current United States practice for reporting cloud layers in a METAR/SPECI code form is up to three layers at automated reporting stations and up to six layers at manual reporting stations.

2.4 In addition to the above, any change in the definition on the use of CAVOK and the increase in the maximum reportable visibility will require changes to Recommendations in Annex 3, paragraph 4.6.

3. CONCLUSION

3.1 The use of CAVOK does not necessarily meet the needs of international users and should be re-evaluated .

4. RECOMMENDATION

4.1 The United States recommends that the Aerodrome Meteorological Observing System (AMOS) Study Group determine the appropriateness of the use of CAVOK with regard to operational requirements from users.

4.2 The United States recommends that the current Recommended Practice in Annex 3 paragraph 4.9.5 that defines clouds below 1 500 m (5 000 ft) are considered to be operationally significant be changed to below 7 600 m (25 000 ft).

5. ACTION BY THE MEETING

5.1 The meeting is invited to act on the recommendation provided in this paper.

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