

12 July 2012

Dear Sir/Madam

Comment Response Document (CRD) for the Public Consultation on Cold Temperature Corrections to Minimum Sector Altitudes (MSAs) and ATC Surveillance Altitude (ATCMA) Chart Altitudes

Consultation period 3 February 2012 to 27 April 2012

The CAA would like to thank all those organisations that took the time to respond to the public consultation on the above subject.

The CRD contains comments received from 8 Airlines, 1 Air Navigation Service Provider (ANSP) and 2 others. A considerable amount of information was received with much detail on what is a very complicated subject. Against each comment received there is a CAA response to the issue/question raised. The CRD is available on the CAA website at www.caa.co.uk/consultations.

Due to the nature of the subject and the comments received the CAA will further investigate the subject and how best, if at all, to deal with it. There were a number of themes from the comments received:

- Most respondents agreed that if a new procedure was to be implemented then Air Traffic Control (ATC) should be responsible for calculating any changes to the MSAs.
- A large number of respondents commented on the necessity to develop a European-wide procedure ensuring commonality across States, and avoiding multiple and possibly confusing procedures.
- There was agreement that there should be an 'education package' developed for both Air Traffic Controllers (ATCOs) and Aircrew on the subject and its potential hazard, even though it might be remote.
- Further investigation was required into the meteorological forecasts and actual temperature profiles through the atmosphere to ensure, as far as practicable, accurate reporting.

Next Steps:

- Further discussion internally between the CAA's Safety Regulation Group (SRG) and the Directorate of Airspace Policy (DAP) will be required.
- Additional investigation of a possible European initiative to handle this subject.
- Further discussions with industry will be required.

Note: During the initial consultation there was an incorrect statement made regarding the procedure used by Skyguide in Switzerland to cater for cold temperature corrections.

The CAA now has the correct information on the Swiss procedures and will incorporate this into future discussions. A formal apology has been sent to Skyguide.

The correct information contained in the Swiss AIP is as follows:

Published Procedures and Routes in the Swiss AIP

As it is normally the pilot's responsibility to correct for any cold temperature effect, all levels published in the Swiss AIP are according to ISA conditions and therefore do not cater for cold temperature correction, except for the ATC Surveillance Minimum Altitude Charts (ATCSMA).

ATC Surveillance Minimum Altitude Chart (ATCSMA)

When providing radar vectoring or issuing a direct-to clearance, the ATCO is responsible for providing the cold temperature correction, in order to maintain a safe flight operation. The altitudes (AMSL) provided to the Skyguide ATCO's on the radar map (Minimum Vectoring Altitude – MVA) and published in the ASMAC, incorporate an additional vertical buffer which takes account of the barometric error of the aircraft altimeter due to cold temperature. This buffer protects for extreme temperatures to a 99.7% assurance level. These altitudes are based on the temperature at the local airport, which we also use as the source QNH. For each area, two charts are calculated based on different temperature ranges. i.e. One chart is displayed/published for temperatures in the range -6°C and above, and a second chart for temperatures in the range -20°C to -7°C.

Above the Transition Altitude, flight levels are corrected taking into account the temperature and the QNH difference from ISA standard. MeteoSwiss provides real time correction, which in turn is then used by the ATCO (by adding +10 or +20 to the normal MVA)

Yours Faithfully,

Andrew Badham
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