

OBS 1 - 2005

Procedures for Observing, Reporting and Recording Special Temperature Observations (SPECIs) due to Significant Temperature Changes

1. Purpose

In accordance with ICAO Annex 3, Appendix 3, Section 2.3, designated sites are required to issue special (SPECI) reports when temperature changes occur which are of concern to aviation operations.

These temperature changes include:

- a) A significant temperature **increase** at higher temperatures which may affect thrust settings for take-off.
- b) A **decrease** in temperature to, or below, 2°C. The temperature of 2°C has been identified as conducive for icing to occur on airport surfaces, including runways, taxi-ways and aprons.

This circular is provided as an addendum to MANOBS 7th Edition Amendment 15, Paragraph 10.3.4 and 10.3.5.

NOTE

For the purposes of this circular, the terms "temperature" and "reported value" mean the rounded value of the corrected dry bulb temperature as it would appear on the METAR or SPECI report.

2. Temperature Criteria for Making Special Observations (SPECI)

Temperature:

- a) The temperature **increases** by 5°C or more from the previous reported value and the previous reported value was 20°C or higher.
- b) The temperature **decreases** to a reported value of 2°C or lower.

3. Observer Duties

Effective 0000Z, June 15th, 2005, the observer shall:

- a) monitor air temperature values between observations for significant changes;
- b) identify a requirement for the SPECI as per the requirements listed above;
- c) record and transmit a SPECI observation; and
- d) continue to monitor for significant changes which meet SPECI criteria.

4. Weather Record Entries

The SPECI observation is recorded on the "Surface Weather Record" (Form 63-2322) in accordance with MANOBS, with an additional entry in Column 34 for the dry bulb.

5. METAR Information

The *recorded* values (in tenths) will be encoded appropriately with *reported* values appearing as a whole number in the SPECI reports.

6. Affected Stations

Application of the temperature criteria for taking SPECI is required at the "National Airports System" airports as identified by NAV CANADA in Appendix A.

7. Examples

Temperature increase

Example 1:

METAR CYYZ 151300Z 24012G20KT 15SM SCT040 **21**/12 A2995

At 1343Z the observer notes the temperature is **26.3**°C.

A SPECI is required:

SPECI CYYZ 151343Z 24013G19KT 15SM SCT040 **26**

Example 2:

METAR CYYZ 152000Z 20013G20KT 15SM SCT050 **27**/13 A2995

At 2043Z the observer notes the temperature is **31.7**°C.

A SPECI is required:

SPECI CYYZ 151343Z 21016G24KT 15SM SCT040 32

Example 3:

METAR CYYZ 151800Z 20015G25KT 15SM SCT060 18/04 A2980

At 1343Z the observer notes the temperature is 24.5°C.

A SPECI is not required because the previously reported value was less than 20°C.

Temperature decrease

Example 1:

METAR CYYZ 030800Z 34002KT 15SM FEW020 03/M05 A3005

At 0838Z the observer notes the temperature is 2.2°C.

A SPECI is required:

SPECI CYYZ 030838Z 35003KT 15SM FEW020 02

Example 2:

METAR CYYZ 040600Z 33005KT 15SM FEW200 04/M06 A3005

At 0655Z the observer notes the temperature is 2.6°C.

A SPECI is not required because the rounded temperature is the reported value of 3°C not 2°C.

Example 3:

METAR CYYZ 071000Z 09004KT 15SM BKN020 01/M05 A2995

At 1045Z the temperature as indicated by the RTD system is 2.5°C.

A SPECI is not required because the temperature is increasing.

Appendix A

Airport Name

Calgary Intl, AB
Edmonton Intl, AB
Gander Intl, NF
Moncton/Greater Moncton Intl , NB
Montréal/Pierre Elliott Trudeau Intl, QC
Montréal Intl (Mirabel), QC
Ottawa/Macdonald-Cartier Intl, ON
St. John's Intl, NF
Toronto/Lester B. Pearson Intl, ON
Vancouver, BC
Victoria Intl, BC
Halifax Intl, NS
London, ON
Québec/Jean Lesage Intl, QC
Whitehorse Intl, YK
Winnipeg Intl, MB
Yellowknife , NT
Charlottetown, PE
Fredericton, NB
Prince George, BC
Regina Intl, SK
Saint John, NB
Saskatoon/John G. Diefenbaker Intl, SK
Thunder Bay, ON