

TBL 7-2-3
ICAO Cold Temperature Error Table
Height Above Airport in Feet

	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000	
Reported Temp °C	+10	10	10	10	10	20	20	20	20	20	30	40	60	80	90
	0	20	20	30	30	40	40	50	50	60	90	120	170	230	280
	-10	20	30	40	50	60	70	80	90	100	150	200	290	390	490
	-20	30	50	60	70	90	100	120	130	140	210	280	420	570	710
	-30	40	60	80	100	120	140	150	170	190	280	380	570	760	950
	-40	50	80	100	120	150	170	190	220	240	360	480	720	970	1210
	-50	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500

EXAMPLE-

Temperature -10 degrees Celsius, and the aircraft altitude is 1,000 feet above the airport elevation. The chart shows that the reported current altimeter setting may place the aircraft as much as 100 feet below the altitude indicated by the altimeter.

7-2-4. High Barometric Pressure

a. Cold, dry air masses may produce barometric pressures in excess of 31.00 inches of Mercury, and many altimeters do not have an accurate means of being adjusted for settings of these levels. When the altimeter cannot be set to the higher pressure setting, the aircraft actual altitude will be higher than the altimeter indicates.

REFERENCE-

AIM, Paragraph 7-2-3, Altimeter Errors.

b. When the barometric pressure exceeds 31.00 inches, air traffic controllers will issue the actual altimeter setting, and:

1. En Route/Arrivals. Advise pilots to remain set on 31.00 inches until reaching the final approach segment.

2. Departures. Advise pilots to set 31.00 inches prior to reaching any mandatory/crossing altitude or 1,500 feet, whichever is lower.

c. The altimeter error caused by the high pressure will be in the opposite direction to the error caused by the cold temperature.

7-2-5. Low Barometric Pressure

When abnormally low barometric pressure conditions occur (below 28.00), flight operations by aircraft unable to set the actual altimeter setting are not recommended.

NOTE-

The true altitude of the aircraft is lower than the indicated altitude if the pilot is unable to set the actual altimeter setting.