

ALTITUDE CORRECTION

To be used according to national regulations

Pressure Altimeter Errors

International Standard Atmosphere (ISA) is used as a basis for the altitude corrections below. ISA temperature at sea level is +15 degrees Celsius, decreasing 2 degrees per 1000 feet above sea level. When actual temperature is lower than ISA, the aircraft will be lower than indicated in its pressure altimeter. Under such circumstances, a compensation should be added to altitudes flown during the approach procedure. The altimeter error is approximately 0.4% of aircraft height above reference datum (AD) per degree C below ISA. When AD temperature is 0 degrees or colder, values in the Altitude Correction Chart should be added to:

- a. All procedure altitudes below Transition Level (TL), and ATC assigned IFR altitudes, if not already compensated.
- b. Minimum Sector Altitudes (MSA) and Emergency Safe Altitudes.

Pilots must advise ATC when temperature correction is applied, and state amount of correction or new altitude to be flown.

Altitude Correction Chart

A / D TEMP C	HEIGHT ABOVE THE ALTIMETER SOURCE (FEET)												
	200	300	400	500	600	700	800	900	1000	1500	2000	2500	
0°	20	20	30	30	40	40	50	50	60	90	120	140	
-10°	20	30	40	50	60	70	80	90	100	150	200	240	
-20°	30	50	60	70	90	100	120	130	140	210	280	350	
-30°	40	60	80	100	120	130	150	170	190	280	380	470	
-40°	50	80	100	120	150	170	190	220	240	360	480	600	
-50°	60	90	120	150	180	210	240	270	300	450	590	740	
	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000		
0°	170	200	230	260	280	310	340	370	400	430	460		
-10°	290	340	390	440	490	540	590	640	690	740	790		
-20°	420	500	570	640	710	780	850	930	1000	1070	1150		
-30°	570	660	760	850	950	1050	1140	1240	1340	1440	1540		
-40°	720	840	970	1090	1210	1330	1460	1580	1710	1830	1960		
-50°	890	1040	1190	1340	1500	1650	1800	1960	2110	2270	2420		

VALUES TO BE ADDED TO PUBLISHED ALTITUDES

Note: The table is calculated for sea level AD. Values are conservative when applied at higher AD. Values are calculated with reference to ICAO Doc 8168-OPS/611 Vol 1, Part 3 Section 1 Chapter 4, and rounded up to nearest 10 ft.

Example: SID TACAN LAVNA A (RWY 10) BARDUFOSS (ENDU), AD ELEV 252 ft, AD temperature -30° C. Using interpolation from the altitude correction chart, temperature corrected altitudes should be as follows.

	Published ALT	HAA	*Correction	**Indicated ALT
11 DME	5500	5248	1000	6500
7000 ft limit	7000	6748	1300	8300
MSA	6700	6448	1240	8000

* Rounded up to next 20ft. ** Altitude to be flown. Rounded up to next higher 100ft increment, except DA/MDA.

Wind Induced Altimeter Errors

Strong winds moving over mountain crests and ridges causes local drops in static pressure (known as the Bernoulli effect), which may induce pressure altimeter errors (altimeter showing higher than actual altitude). As these errors will vary greatly with aircraft position relative to terrain, it is not possible to make an exact calculation, but the pilot in command will be responsible for evaluating whether a correction would be necessary.