AVIATION WEATHER PRODUCTS

Area QNH

Aircraft cruising at or below 10000 feet maintain altitude according to the indication of a pressure-operated altimeter, the sub-scale of which is set to the forecast Area QNH (or the actual QNH of a weather station located within 100 nautical miles of the aircraft).

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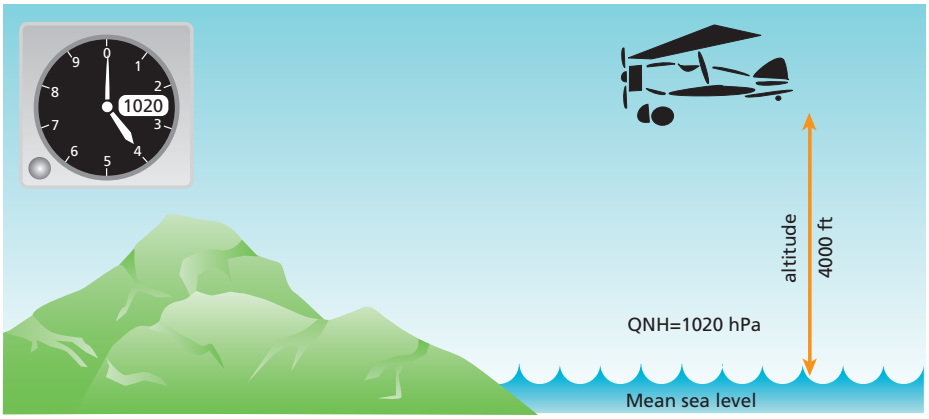
Aircraft cruising at or below 10 000 feet maintain altitude according to the indication of a pressure-operated altimeter, the sub-scale of which is set to the forecast Area QNH (or the actual QNH of a weather station located within 100 nautical miles of the aircraft). An altimeter operates on the principle that pressure decreases with height. It is basically an aneroid barometer calibrated to read heights above a specified pressure datum, in this case QNH.

The acronym QNH is one of the Q(uestion) code names developed, circa 1909, for use in morse code. To concisely ask for atmospheric pressure at mean sea level (MSL), the operator would transmit the letters QNH. This was understood to mean "I have a question. What is the atmospheric pressure at Nil Height", i.e. at mean sea level.

QNH is mean sea level pressure (MSLP) which is derived by reducing the measured pressure at ground level to MSL using the specifications of the International Civil Aviation Organization (ICAO) standard atmosphere. An aircraft's altimeter, when set to an airfield's QNH, will give the airfield's approximate elevation (vertical distance above MSL of a point on the earth's surface) when the aircraft is on the airfield; and will give the aircraft's approximate altitude (vertical distance above MSL) when the aircraft is above the airfield.

In Australia, Area QNH areas are defined airspace for which QNH forecasts are prepared routinely. The areas correspond to the briefing area/QNH area boundaries found on Airservices Australia's Planning Chart Australia (PCA). An altimeter set to Area QNH will be representative to within ±5 hPa of any actual QNH of any location within the defined area.



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Area QNH Examples

AREA QNH 01/04
AREA 20: 1022
AREA 21: SE OF YBTH/YCRG 1019, REST 1022
AREA 22: SE OF YGDA/YCBA/YIVO 1024, REST 1026
AREA 24: 1019

AREA QNH 04/07
AREA 70: 990

AMD AREA QNH 07/10
AREA 30/32: NW of YHAY/YHPN 1001
BETWEEN YHAY/YHPN AND YBOM/YEDE 997
SW OF YWBL/YPID/FLIKI 989
REST 993

Identifier: The identifier is AREA QNH or AMD AREA QNH (for an amendment).

Period of Validity: Area QNH are valid for 3 hours commencing 0100 UTC and each three hours thereafter. Scheduled times of issue are 45 minutes prior to the start of the validity. The validity period of the QNH forecast is given in hours UTC in the format HH/HH, i.e. 01/04, 04/07, 07/10, etc.

Designation of Area: The term Area is followed by the area number.

Area QNH: Area QNH is given in whole hectopascals. Subdivisions may be used.

Subdivisions: A QNH area may be subdivided geographically to satisfy the accuracy standard of ±5 hPa of an actual QNH at any low-level point (below 1,000FT AMSL) within, or on, the boundary of the relevant zone during the validity period of the forecast. It may also be necessary to sub-divide the validity period in order to satisfy the accuracy standard.

National Area QNH chart

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Airservices Australia is the official distributor of aviation forecasts, warnings and observations issued by the Bureau of Meteorology. Airservices' flight briefing services are available at www.airservicesaustralia.com. Telephone contact details for elaborative briefings are contained in Airservices' Aeronautical Information Publication Australia (AIP), which is available online through their website.

Other brochures produced by the Bureau of Meteorology's aviation weather services program can be found at www.bom.gov.au/aviation/knowledge-centre.

A vertical line in the margin indicates a text amendment since last update.