

Table 2-98: Difference from Barometric Altitude Discrete Values

DIFFERENCE FROM BAROMETRIC ALTITUDE		
Coding (binary)	Coding (decimal)	Meaning (Geometric (GNSS or INS) Altitude Source data Difference in feet)
000 0010	2	GNSS Altitude Source data Difference = 25 feet
000 0011	3	GNSS Altitude Source data Difference = 50 feet
000 0101	5	GNSS Altitude Source data Difference = 100 feet
000 1010	10	GNSS Altitude Source data Difference = 225 feet
001 0101	21	GNSS Altitude Source data Difference = 500 feet
010 1010	42	GNSS Altitude Source data Difference = 1,025 feet
101 0101	85	GNSS Altitude Source data Difference = 2,100 feet
101 1010	90	GNSS Altitude Source data Difference = 2,225 feet
111 1110	126	GNSS Altitude Source data Difference = 3,125 feet

Additionally verify that for every 25 feet increase in the difference between the two, the DIFFERENCE FROM BAROMETRIC ALTITUDE subfield in subsequent Airborne Velocity Messages of TYPE “19” is incremented by one from the previous value (i.e., that the value of the DIFFERENCE FROM BAROMETRIC ALTITUDE subfield corresponds to the decimal coding values given in the table in the above referenced section).

Verify that the DIFFERENCE FROM BAROMETRIC ALTITUDE subfield in the output message is not incremented until the difference in the input values reaches a number corresponding to an even-integer multiple of 25 feet-with an accuracy of +/- 12.5 feet.

Step 4: Difference from Barometric Altitude Verification - Part 4

Continue to increase the value of the Geometric Altitude Source Data input.

Verify that, for values that are greater than 3,125 feet above the Barometric Altitude, but less than or equal to 3,137.5 feet above the Barometric Altitude, the DIFFERENCE FROM BAROMETRIC ALTITUDE subfield continues to be set to “126” (binary 111 1110).

Continue to increase the value of the Geometric Altitude Source data input.

Verify, for values representing an altitude greater than 3,137.5 feet above the barometric altitude, up to the maximum possible input value, that the transmitter continues to generate Airborne Velocity Messages and that the DIFFERENCE FROM BAROMETRIC ALTITUDE subfield for all such messages is set to “127” (binary 111 1111).

Step 5: Difference from Barometric Altitude Verification - Part 5

Note: *If the nature of the inputs is such that a separate bit or “flag” type field is input to the transmitter to indicate “Up” or “Down,” the following step is not necessary. However, if the transmitter must perform some interpretation of its inputs in order to determine the*