

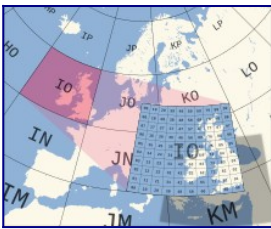
Grid Squares

Maidenhead Locator System

Wikipedia: The **Maidenhead Locator System** (a.k.a. **QTH Locator** and **IARU Locator**) is a [geocode system](#) used by [amateur radio](#) operators to succinctly describe their [geographic coordinates](#), which replaced the deprecated [QRA locator](#), which was limited to European [contacts](#).^[1] Its purpose is to be concise, accurate, and robust in the face of [interference](#) and other adverse transmission conditions. The *Maidenhead Locator System* can describe locations anywhere in the world.

Maidenhead locators are also commonly referred to as *QTH locators*, *grid locators* or *grid squares*, although the "squares" are distorted on any non-[equiangular cartographic projection](#). Use of the terms *QTH locator* and *QRA locator* was initially discouraged, as it caused confusion with the older QRA locator system. The only abbreviation recommended to indicate a Maidenhead reference in Morse code and radio teleprinter transmission was **LOC**, as in **LOC KN28LH**.^[1]

To simplify manual encoding, the base for the first pair of letters—traditionally called a *field*—was chosen to be 18, thus dividing the globe into 18 zones of longitude of 20° each, and 18 zones of latitude 10° each. These zones are encoded with the letters "A" through "R".



Example: N1XP is locator FN43po71

The second pair of numbers, called a *square* and placed after the first pair of letters, uses a base number of 10, and is encoded using the digits "0" to "9". This is where the alternative name "grid squares" comes from. Each of these squares represents 1° of latitude by 2° of longitude. For additional precision, each square can optionally be sub-divided further, into *subsquares*. These are encoded into a second pair of letters, which should be presented in uppercase,^[6] but are sometimes (incorrectly) presented in lowercase as a legacy from the old QRA. The error has unfortunately been incorporated into various software packages, several examples of which can be seen on this page. Again, to make manual calculations from degrees and minutes easier, 24 was chosen as the base number, giving these subsquares dimensions of 2.5' of latitude by 5' of longitude. The letters used are "A" through "X".

To summarise:

- Character pairs encode [longitude](#) first, and then [latitude](#).
- The first pair (a *field*) encodes with base 18 and the letters "A" to "R".
- The second pair (*square*) encodes with base 10 and the digits "0" to "9".
- The third pair (*subsquare*) encodes with base 24 and the letters "A" to "X".
- The fourth pair (*extended square*) encodes with base 10 and the digits "0" to "9".

Use these web sites to find your grid square:

https://www.levinecentral.com/ham/grid_square.php

<https://www.m0ahn.co.uk/interactivelocatormap.html>