

# Character set and text formatting rules

The Digital NOTAM concept includes the automatic generation of the ICAO text NOTAM from the digital encoding. As explained in the [General Principles](#), the use of both upper and lower case characters is allowed in Digital NOTAM encoding. However, as long as the NOTAM message (which can be generated automatically from the digital NOTAM coding) need then to be transmitted on AFTN networks, certain limitations need to be imposed on the character set. While lower case text can be easily converted into upper case, special characters and language specific characters are more difficult for automatic conversions. Taking into consideration both the Annex 10 to the ICAO Convention (section 4.1.2.1) and the need for lower case (as explained in [the sub-sections](#)) the following characters are allowed in NOTAM text messages:

- Letters: ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz  
Note: in order to improve the readability of Digital NOTAM, the use of lowercase characters is also allowed in the encoding; they shall be converted into uppercase for NOTAM text generation.
- Figures: 1 2 3 4 5 6 7 8 9 0
- Other signs:(hyphen)
  - - (hyphen)
  - ? (question mark)
  - : (colon)
  - ( (open bracket)
  - ) (close bracket)
  - . (full stop, period, or decimal point)
  - , (comma)
  - ' (apostrophe)
  - = (double hyphen or equal sign)
  - / (oblique)
  - + (plus sign)
  - < (carriage return)
  - (line feed)
  - (space)

Restrictions on the character set are already embedded in the AIXM schema for elements such as names, identifiers, etc. For AIXM elements of type annotation, instructions, etc. that are allowed by the AIXM Schema to use any Unicode character it is important that Digital NOTAM applications limit the character set that can be used to the one mentioned above.

In addition, the specific text formatting rules for Digital NOTAM are provided in a dedicated [sub-section](#).