## Appendix F ASCII Character Set

ASCII is an acronym for American Standard Code for Information Interchange. ASCII is a code in which the numbers from $0-127$ stand for text charcters, including letters of the alphabet, the digits $0-9$, punctuation marks, special characters, and control characters. ASCII is used for representing text inside of the computer and for transmitting text between computers. The Text and XMODEM protocols transfer files that consist only of ASCII characters; such files are also known as Text files.

When submitting data to the WHPO in the -.SUM, —.SEA, —.LVS, or —.CTD files only ASCII characters shown below should be included as these files are designed to be read by FORTRAN programs. The restriction does not apply to the -.DOC file, which can be submitted in any word processing program tabulated in Appendix E.

If submitting text files in ASCII please observe the following conventions to facilitate formatting by the WHPO for printing:

- Do not use a hyphen (-) to separate parts of a compound word.
- Please use a decimal (.) to delineate fractional values rather than a comma (,) and include the leading zero on small numbers, i.e., 0.045 rather than .045 or 0,045 .
- Tables should be tab or comma delimited with no spaces between entries and each row delimited by a carriage return/line feed (CR/LF).
- Experience has shown that tables submitted in ASCII format are particularly susceptible to formatting errors. It is suggested that proof copies of all formatted tables submitted originally in ASCII format be carefully checked.
- Put a CR/LF only between paragraphs in text if possible or, alternatively, include one blank line between paragraphs.


## ASCII character chart

| $\underline{K e y}$ |  | Code (decimal | Code (hex) | Abbreviation | Name |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Control-space | 0 |  | \$00 | NUL | Null |
| Control-a | 1 |  | \$01 | SOH | Start of header |
| Control-b | 2 |  | \$02 | STX | Start of text |
| Control-c | 3 |  | \$03 | ETX | End of text |
| Control-d | 4 |  | \$04 | EOT | End of transmission |
| Control-e | 5 |  | \$05 | ENQ | Enquiry |
| Control-f | 6 |  | \$06 | ACK | Acknowledgment |
| Control-g | 7 |  | \$07 | BELL | Bell |
| Control-h | 8 |  | \$08 | BS | Backspace |
| Control-i | 9 |  | \$09 | HT | Horizontal tab |
| Control-j | 10 | 0 | \$0A | LF | Line feed |
| Control-k | 1 |  | \$0B | VT | Vertical tab |
| Control-1 | 12 | 2 | \$0C | FF | Form feed |
| Control-m | 13 | 3 | \$0D | CR | Carriage return |
| Control-n | 1 | 4 | \$0E | SO | Shift out |
| Control-o | 15 | 5 | \$0F | SI | Shift in |
| Control-p | 16 | 6 | \$10 | DLE | Data link escape |
| Control-q | 1 | 7 | \$11 | DC1 (XON) | Device control 1 |
| Control-r | 18 | 8 | \$12 | DC2 | Device control 2 |
| Control-s | 19 | 9 | \$13 | DC3 (XOFF) | Device control 3 |
| Control-t | 20 |  | \$14 | DC4 | Device control 4 |
| Control-u | 2 |  | \$15 | NAK | Negative acknowledgment |
| Control-v | 2 |  | \$16 | SYN | Synchronization character |
| Control-w | 23 | 3 | \$17 | ETB | End-of-transmission block |
| Control-x | 2 | 4 | \$18 | CAN | Cancel |
| Control-y | 2 |  | \$19 | EM | End of message |
| Control-z | 2 |  | \$1A | SUB | Substitute |
| Control-[ | 27 |  | \$1B | ESC | Escape |
| Control- ${ }^{\text {l }}$ | 28 |  | \$1C | FS | Forms separator |
| Control-] | 29 |  | \$1D | GS | Group separator |
| Control-6 | 30 | 0 | \$1E | RS | Record separator |
| Control-/ | 3 |  | \$1F | US | Unit separator |
| space | 3 | 2 | \$20 |  | Space |
| ! | 3 |  | \$21 |  | Exclamation point |
| " | 3 |  | \$22 |  | Quotation mark |
| \# | 35 |  | \$23 |  | Number sign |
| \$ | 36 |  | \$24 |  | Dollar sign |
| \% | 3 |  | \$25 |  | Percent sign |
| \& | 38 | 8 | \$26 |  | Ampersand |
|  | 39 | 9 | \$27 |  | Apostrophe, right single quotation mark, acute accent |
| ( | 40 |  | \$28 |  | Left parenthesis |
| * | 4 |  | \$29 |  | Right parenthesis |
| * | 4 |  | \$2A |  | Asterisk |
| + | 4 |  | \$2B |  | Plus sign |
|  | 4 |  | \$2C |  | Comma |
| - | 4 |  | \$2D |  | Hyphen, minus sign |
|  | 46 |  | \$2E |  | Period, decimal point (full stop) |
| 1 | 4 |  | \$2F |  | Slant (solidus) |
| 0 | 48 |  | \$30 |  | Digit zero |
| 1 | 4 |  | \$31 |  | Digit one |
| 2 | 50 |  | \$32 |  | Digit two |
| 3 | 5 |  | \$33 |  | Digit three |
| 4 | 5 | 2 | \$34 |  | Digit four |
| 5 | 5 |  | \$35 |  | Digit five |
| 6 | 5 |  | \$36 |  | Digit six |
| 7 | 5 |  | \$37 |  | Digit seven |
| 8 | 5 |  | \$38 |  | Digit eight |
| 9 | 5 | 7 | \$39 |  | Digit nine |



| $\underline{K e y}$ | Code (decimal) Code (hex) |  | Abbreviation | Name |
| :---: | :---: | :---: | :---: | :---: |
| v | 118 | \$76 |  | Lowercase v |
| w | 119 | \$77 |  | Lowercase w |
| x | 120 | \$78 |  | Lowercase x |
| y | 121 | \$79 |  | Lowercase y |
| z | 122 | \$7A |  | Lowercase z |
| \{ | 123 | \$7B |  | Left brace (left curly bracket) |
|  | 124 | \$7C |  | Vertical line |
| \} | 125 | \$7D |  | Right brace |
| $\sim$ | 126 | \$7E |  | Tilde (overline) |
| Delete | 127 | \$7F | DEL | Delete |

