INTRODUCTION

The data bulletins "Ionospheric Data" collect the summary monthly data from the worldwide network of observatory ionospheric vertical sounding stations as reported to World Data Center A, Upper Atmosphere Geophysics, Boulder, Colorado, U.S.A. These data describe the "climatology" of the ionosphere as measured by ionosondes. The bulletins are issued each month and include the most current data available and also older data where publication has been delayed. An index is provided for each issue and a cumulative index extending back over many years is published yearly in the December issue. Mrs. Gladys Waggoner compiles these data for publication.

A review of the vertical sounding technique for observing properties of the ionosphere is given in IGY Annals, Vol. III, Part I (Pergamon, 1957). Specifics about the scaling of ionograms, including symbols, conventions and terminology may be found in the "URSI Handbook of Ionogram Interpretation and Reduction," edited by W. R. Piggott and K. Rawer (Elsevier, 1961), which supersedes earlier documents on international standards; a revised edition is in preparation and will be published by WDC-A.

The data tables give the monthly median and other statistics for each hour of the day for the principal characteristics derived from ionograms. The units used in the data tables for the various characteristics are as given in Table 1. The symbols are as specified in Piggott and Rawer.

Table 1

Key to Data Tables

MED = median, CNT = Count (number of values available for median),
UQ = Upper quartile, LQ = Lower quartile

Qualifying symbol is placed at upper left of numerical value of characteristic, Descriptive symbol at upper right.

Computer Code	Characteristic	Unit
00	foF2 -- Critical frequency of F2 layer	0.1 MHz
03	M(3000)F2 -- Maximum Usable Frequency (MUF) factor for 3000 km path via F2 layer	0.01
05	hpF2 -- Height of maximum electron density assuming a parabolic layer	km
10	foF1 -- Critical frequency of F1 layer	0.01 MHz
13	M(3000)F1 -- MUF factor for F1 layer	0.01
16	h'F -- Minimum virtual height of F or F1 layer	km
20	foE -- Critical frequency of E layer	0.01 MHz
24	h'E -- Minimum virtual height of E layer	km
30	foEs -- Maximum frequency of ordinary wave sporadic-E echoes	0.1 MHz
32	fbEs -- Blanketing frequency of sporadic E	0.1 MHz
34	h'Es -- Minimum virtual height of echo trace that provided foEs	km

Key to Graphs

M(3000)F2, foF2, foE ——— ; foF1 ······· ; foEs -------