Report UAG-91

WORLD DATA CENTERS
for
Solar-Terrestrial Physics

WDC-A Boulder
WDC-B2 Moscow
WDC-C1 Chilton
WDC-C2 Tokyo

COMBINED CATALOG OF IONOSPHERE VERTICAL SOUNDINGS DATA

December 1984

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National Academy of Sciences
2101 Constitution Avenue, NW
Washington, D.C. 20418 USA

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METEOROLOGY (and Nuclear Radiation)
World Data Center A: Meteorology
National Climatic Data Center
NOAA, E/CC
Federal Building
Asheville, North Carolina 28801 USA
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U.S. Naval Observatory
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WDC-A Boulder
WDC-B2 Moscow

WDC-C1 Chilton
WDC-C2 Tokyo

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U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
National Geophysical Data Center
Boulder, Colorado

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PREFACE

World Data Centers conduct international exchange of geophysical observations in accordance with the principles set forth by the International Council of Scientific Unions (ICSU). They were established in 1957 by the International Geophysical Year Committee (CSAGI) as part of the fundamental international planning for the IGY program to collect data from the numerous and widespread IGY observational programs and to make such data readily accessible to interested scientists and scholars for an indefinite period of time. WDC-A was established in the U.S.A.; WDC-B, in the U.S.S.R.; and WDC-C, in Western Europe, Australia, and Japan. This new system for exchanging geophysical data was found to be very effective, and the operations of the World Data Centers were extended by ICSU on a continuing basis to other international programs; the WDC's were under the supervision of the Comite International de Geophysique (CIG) for the period 1960 to 1967 and since then have been supervised by the ICSU Panel on World Data Centers. In each country, the WDC's are variously supported by different sponsoring agencies. Some are directly funded and others are operated as adjuncts to national data centers or research institutions.

The current plans for continued international exchange of geophysical data through the World Data Centers are set forth in the "Fourth Consolidated Guide to International Data Exchange through the World Data Centres", and are currently under revision.

Functions and Responsibilities of WDC's

The World Data Centers collect data and publications for the following: Glaciology; Meteorology; Oceanography; Rockets and Satellites; Solar-Terrestrial Physics (Solar and Interplanetary Phenomena, Ionospheric Phenomena, Flare Associated Events, Geomagnetic Phenomena, Aurora, Cosmic Rays, Airglow); Solid-Earth Geophysics (Seismology, Tsunamis, Marine Geology and Geophysics, Gravimetry, Earth Tides, Recent Movements of the Earth's Crust, Rotation of the Earth, Magnetic Measurements, Paleomagnetism and Archeomagnetism, Volcanology, Geothermics). In planning for the various scientific programs, decisions on data exchange were made by the scientific community through the international scientific unions and committees. In each discipline the specialists themselves determined the nature and form of data exchange, based on their needs as reasearch workers. Thus the type and amount of data in the WDC's differ from discipline to discipline.

The objectives of establishing several World Data Centers for collecting observational data were: (1) to ensure against loss of data by the catastrophic destruction of a single center, (2) to meet the geographical convenience of, and provide easy communication for, workers in different parts of the world. Each WDC is responsible for: (1) endeavoring to collect a complete set of data in the field or discipline for which it is responsible; (2) safekeeping of the incoming data; (3) correct copying and reproduction of data, maintaining adequate standards of clarity and durability; (4) supplying copies to other WDC's of data not received directly; (5) preparation of catalogs of all data in its charge; and (6) making data in the WDC's available to the scientific community. The WDC's conduct their operation at no expense to ICSU or to the ICSU family of unions and committees. The addresses for the WDC's are listed on page 1 of Section 1.

I. INTRODUCTION

This catalog is a first attempt to consolidate the inventories of the four World Data Centers which hold ionospheric vertical soundings data. Many inconsistancies resulting from the compilation of information from various sources have been resolved. Anyone detecting errors is encouraged to notify the editors so that future catalogs are more accurate. This catalog covers the discipline Ionosphere Vertical Soundings, summarizes all data held at World Data Centers, at the addresses listed below, and all vertical sounding stations known to have operated.

Each World Data Center strives to provide the best data possible. However, most data in the archives is contributed by non-WDC agencies; therefore, the WDC's cannot be held responsible for the condition, quality, and completeness of data under its management. Every effort will be made to provide the user with data from the cooperative-ionosonde network.

The information in this catalog is stored on computer files at WDC-A, Boulder. Updates from the World Data Centers, in the form of magnetic tapes, are incorporated into the catalog as they arrive. Contact WDC-A, Boulder for information on accessing this data remotely.

The information given here for WDC-C1, Chilton is identical with the vertical sounding section of WDC-C1 Catalogue No. 27 (published December 1983). This listed all vertical incidence data received at Chilton from the time of International Geophysical Year (1957/58) to December 1982. More up-to-date information is given in Catalogue No. 28 (published March 1984) and in the WDC-C1 on-line catalogue (see below). The Pre-IGY held at WDC-C1 is listed in the "Catalogue of pre-IGY ionospheric data held at WDC-C1", published June 1982.

The WDC-C1 catalogue of vertical incidence data is held in an interactive database which can be accessed via the UK Joint Academic computer Network (JANET). This network, in turn, can be accessed via the various international packet-switched networks (e.g. TELENET) or via the international telephone network using CCITT standard modems. For futher information please contact WDC-C1 at the address shown below.

This catalog is designed for the user and provides the kind of detail normally needed. However, if more details are required than are given in this publication, one should contact any of the World Data Centers at the address listed below for further information.

In section II are listings, sorted several ways for the convenience of the users, of all ionosphere vertical sounding stations known to have existed regardless of whether a station is open, closed, or the data held in the World Data Center system. Section III is a map showing the location of these stations. Section IV gives a description of the data types and formats with an explanation of the symbols in the catalog. Section V is the catalog of ionosphere vertical soundings data held in the WDC system. In section VI the Regular World Days are listed. The user will find the RWD listing useful as these are the times of most intense observation and exchange for all STP disciplines.

These ionospheric data are available to users without restriction, but some World Data Centers must recover their cost of data preparation, reproduction, and postage. Inquiries and requests for data or additional information can be sent to any of the World Data Centers with addresses shown below.

World Data Center - A for STP
National Environmental Satellite,
Data, and Information Service
NOAA, NGDC, E/GC2
325 Broadway
Boulder, Colorado 80303
U.S.A.

World Data Center B2
Molodezhnaya 3
Moscow 117 296
U.S.S.R.

World Data Centre C1 for STP
Rutherford Appleton Laboratory
Chilton, Didcot
Oxfordshire OX11 OQX
United Kingdom

World Data Center C2
Radio Research Laboratories
Ministry of Posts &
Telecommunications
2-1 Nukui-kitamachi 4-chome
Koganei-shi, Tokyo 184, Japan

Although data copies are available by mail, working visits to the Data Centers are strongly encouraged. Such visits enable the user to seek advice from WDC staff, browse through the archives, and to have access to all the facilities of the Centers. Calculators, copying machines, microfilm readers and reader-printers are available; it is usually possible to minimize copying costs. Special arrangements may be made for the use of computers and other equipment. Arrangements for visits should be made in advance with the appropriate WDC.

We wish to acknowledge the support, input, and advice of the staffs of each of the World Data Centers. Roxie Sands, Doris Stansell, and George Talarski were primarily responsible for the WDC-A catalog updates; Alan Shapley provided technical advice; Joe Allen and Bill Winkler proof-read the manuscripts.

The ability to exchange information between data centers was enhanced through the use of a computerized communications network. Carl Abston, WDC-A; Yuri Tyupkin, WDC-B; the Soviet National Center for Automated Data Exchange (Institute for Automated Syustems, Moscow); and Mike Hapgood, WDC-C1 were instrumental in establishing this system.

II. LIST OF STATIONS

Five separate tables listing the ionosphere stations are presented to help the user find needed information. The first three are the basic lists giving all stations known to have existed, unlike the main catalog (section V) which gives only the data held in the WDC system. The last two tables are specialized-use tables believed to be helpful in some investigations.

Table 1. presents, in alphabetical order, the station name; station code; geographic north or south (+ or -) latitude; geographic east or west (+ or -) longitude; geographic co-latitude and geographic east longitude; and geomagnetic dipole latitude and longitude.

Table 2. presents station information sorted by geographic co-latitude.

Table 3. presents station information sorted by geomagnetic dipole co-latitude.

Table 4. presents station divided into regions then sorted by geographic co-latitude within the regions. The regions selected are 330-30 deg. E, 30-95 deg. E, 95-195 deg. E and 195-330 deg. E.

Table 5. presents a geographical latitude sort of all ionosphere stations known to have existed both by primary name and most used alternate names. Station information is repeated for each name that a station has had. Often the users and the WDCs are confused by different names for the same station (Kennington, Medows, Beltsville, Belvoir, Fort Belvoir, and Sterling have been used for Washington), names of nearby stations (Boulder, Erie and Platteville) and names that describe the general area approximately (Boston). [It should be noted that orginally the three letter station code was established so as to inform users of the approximate geographical coordinates of ionosphere stations. Refer to UAG-23 for details.] This table should enable the user to quickly locate most ionosphere stations.

TABLE 1. ALPHABETICAL LISTING BY STATION NAME

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ABERYSTWYTH	AB	52.43	-4.07	37.57	355.93	55.61	81.41
ACCRA	AG	5.63	-.17	84.37	359.83	9.34	71.65
ADAK	AD651	51.90	-176.60	38.10	183.40	47.55	-118.61
AHMEDABAD	AH223	23.00	72.60	67.00	72.60	13.82	145.23
AKITA	AK539	39.73	140.13	50.27	140.13	29.78	-153.24
ALERT	ALJ82	82.50	-62.60	7.50	297.40	85.98	165.34
ALMA ATA	AA343	43.25	76.92	46.75	76.92	33.47	151.88
AMDERMA		69.46	61.41	20.54	61.41	60.73	147.67
ANCHORAGE	AN761	61.20	-149.90	28.80	210.10	61.22	-100.27
ARCTICA (NP-01)	XA483	82.00	.00	8.00	.00	78.57	138.58
ARCTICA (NP-02)	XC687	86.00	.00	4.00	.00	79.34	159.19
ARCTICA (NP-06)	XG	82.30	9.50	7.70	9.50	77.50	142.43
ARCTICA (NP-07)	XH	86.30	-63.40	3.70	296.60	82.34	176.61
ARCTICA (NP-08)	XI	80.00	165.00	10.00	165.00	71.14	-153.76
ARCTICA (NP-10)	XJ	78.00	165.00	12.00	165.00	69.38	-150.92
ARCTICA (NP-11)	XK	79.00	165.00	11.00	165.00	70.27	-152.28
ARCTICA (NP-12)		79.00	-173.00	11.00	187.00	72.62	-141.42
ARCTICA (NP-13)	XL	81.00	165.00	9.00	165.00	72.00	-155.37
ARCTICA (NP-16)	XM676	78.00	176.50	12.00	176.50	70.58	-144.88
ARCTICA (NP-19)	XP	78.00	150.00	12.00	150.00	68.13	-158.79
ARECIBO	ARJ19	18.50	-66.80	71.50	293.20	29.80	3.95
ARGENTINE IS.	AIJ6N	-65.25	-64.27	155.25	295.73	-53.98	4.37
ARKHANGELSK	AZ163	64.40	40.50	25.60	40.50	58.65	129.12
ASHKHABAD	AS237	37.90	58.30	52.10	58.30	30.36	134.47
ATHENS	AT138	38.00	23.60	52.00	23.60	36.36	102.54
AUCKLAND	AU63P	-37.00	175.00	127.00	175.00	-40.95	-105.96
BAD VOESLAU		48.00	16.00	42.00	16.00	47.47	98.92
BADDOW	01061	51.70	.50	38.30	.50	54.03	85.63
BAGNEUX	55039	48.80	2.30	41.20	2.30	50.91	85.97
BAGUIO	BF416	16.40	120.60	73.60	120.60	5.28	-169.40
BAIE ST PAUL	PLJ48	47.30	-70.50	42.70	289.50	58.62	-.12
BAKER LAKE	BL964	64.30	-96.00	25.70	264.00	73.81	-42.19
BANDOENG	0240Q	6.90	107.60	83.10	107.60	-4.41	178.02
BANGKOK	BK314	13.80	100.60	76.20	100.60	2.61	171.26
BANGUI	BI104	4.60	18.60	85.40	18.60	4.70	89.93
BARBADOS	BSJ13	13.10	-59.60	76.90	300.40	24.21	11.55
BARROW	BW771	71.20	-156.80	18.80	203.20	68.78	-117.29
BATAVIA	03439	39.40	-84.10	50.60	275.90	50.33	-16.65
BATON ROUGE	04930	30.50	-91.20	59.50	268.80	40.98	-23.90
BAUDOUIN	BB17!	-70.40	23.20	160.40	23.20	-68.11	63.87
BEDFORD		42.00	-71.00	48.00	289.00	53.32	-.73
BEIJING		40.00	116.30	50.00	116.30	28.75	-174.14
BEKESCSABA	BH147	46.67	21.17	43.33	21.17	45.20	103.24
BELGRANO	GEA7Q	-77.97	-38.80	167.97	321.20	-67.54	16.62
BEOGRAD	BE145	44.80	20.50	45.20	20.50	43.53	101.89
BEVERIDGE		-37.29	144.59	127.29	144.59	-46.22	-138.74
BILLERICA	BOJ43	42.60	-71.30	47.40	288.70	53.92	-1.11
BLUMENAU		-26.90	-48.90	116.90	311.10	-16.31	19.92
BOGOTA	BGJ05	4.50	-74.20	85.50	285.80	15.79	-3.93
BOMBAY	BM219	19.00	72.80	71.00	72.80	9.82	144.92
BOSTON	56J43	42.40	-71.20	47.60	288.80	53.72	-.99
BOULDER	BC840	40.03	-105.30	49.97	254.70	48.93	-41.82
BRAZZAVILLE	LZ	4.00	15.00	86.00	15.00	4.82	86.28
BRETIGNY	GN	49.00	-2.00	41.00	358.00	51.94	81.74
BRIBIE IS.		-27.30	153.00	117.30	153.00	-35.20	-131.64
BRISBANE	BR52P	-27.53	152.92	117.53	152.92	-35.44	-131.68
BUDAPEST	BU147	47.00	19.00	43.00	19.00	45.93	101.33
BUENOS AIRES	BAJ3M	-34.50	-58.50	124.50	301.50	-23.40	10.68
BUNIA	BN102	1.50	30.20	88.50	30.20	-.60	100.70
BURGHEAD	06063	57.70	-3.70	32.30	356.30	60.49	85.20

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
BYRD STATION	BD88!	-80.00	-120.00	170.00	240.00	-70.66	-23.53
CACHOEIRA PAULISTA		-22.70	-45.02	112.70	314.98	-12.40	23.89
CAIRO	05130	30.00	31.20	60.00	31.20	27.13	107.60
CALCUTTA	CU322	23.00	88.60	67.00	88.60	12.38	160.27
CAMBRIDGE		52.00	.00	38.00	.00	54.41	85.30
CAMPBELL IS.	CI65K	-52.60	169.10	142.60	169.10	-57.08	-105.61
CANBERRA	CB53N	-35.32	149.00	125.32	149.00	-43.68	-134.25
CANTON		23.00	113.00	67.00	113.00	11.70	-176.79
CAPE HALLETT	HT67K	-72.30	170.20	162.30	170.20	-74.45	-81.27
CAPE JONES		55.00	-80.00	35.00	280.00	66.10	-13.64
CAPE KENNEDY	CC929	28.40	-80.70	61.60	279.30	39.51	-11.75
CAPE PARRY	CF870	70.17	-125.60	19.83	234.40	73.82	-88.92
CAPE SCHMIDT	CE669	68.80	179.50	21.20	179.50	62.85	-131.91
CAPE YORK	0751J	-11.00	142.40	101.00	142.40	-20.43	-145.42
CAPE ZEVGARI	CV135	34.58	32.95	55.42	32.95	31.28	110.40
CAPETOWN	CT13M	-34.10	18.30	124.10	18.30	-33.10	81.19
CASABLANCA	CA033	33.60	-7.60	56.40	352.40	38.12	70.35
CASEY	CW460	-66.28	110.53	156.28	110.53	-77.60	-178.24
CHANGCHUN		43.83	125.27	46.17	125.27	32.87	-166.58
CHICLAYO	CY90P	-6.80	-79.80	96.80	280.20	4.37	-9.35
CHIMBOTE	CM90R	-9.10	-78.60	99.10	281.40	2.11	-8.09
CHITA	CX452	52.00	113.50	38.00	113.50	40.70	-176.83
CHONGQING		29.50	106.42	60.50	106.42	18.20	177.10
CHRISTCHURCH	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
CHRISTMAS IS.	08701	1.90	-157.30	88.10	202.70	2.47	-87.32
CHUNGKING	09429	29.40	106.30	60.60	106.30	18.10	176.98
CHURCHILL	CH958	58.80	-94.20	31.20	265.80	68.71	-35.14
CLYDE RIVER	CRJ70	70.50	-68.60	19.50	291.40	81.81	4.24
COCOA	10928	28.20	-80.60	61.80	279.40	39.32	-11.63
COCOS IS.	CS31K	-12.20	96.80	102.20	96.80	-23.22	166.38
COLLEGE	C0764	64.93	-148.00	25.07	212.00	64.96	-102.07
COLLM		51.00	13.00	39.00	13.00	50.91	97.45
COLOGNE		51.00	7.00	39.00	7.00	52.09	91.68
COLOMBO	11306	6.90	79.87	83.10	79.87	-2.95	150.47
CONCEPCION	CPJ30	-36.78	-73.12	126.78	286.88	-25.47	-2.40
CUBA	CD923	23.00	-82.00	67.00	278.00	34.06	-12.90
DAIRAN	12439	39.00	121.60	51.00	121.60	27.90	-169.46
DAKAR	DKA14	14.76	-17.42	75.24	342.58	21.35	56.00
DAPANGO	TG011	10.80	7.00	79.20	7.00	13.05	79.76
DARMSTADT		54.00	9.00	36.00	9.00	54.54	95.23
DARWIN	DW41K	-12.45	130.95	102.45	130.95	-22.95	-157.28
DE BILT	DT053	52.10	5.18	37.90	5.18	53.49	90.48
DECEPCION	DEJ6L	-63.00	-60.70	153.00	299.30	-51.80	7.11
DELHI	DH328	28.60	77.20	61.40	77.20	18.90	150.19
DIKSON	DI373	73.50	80.40	16.50	80.40	63.06	162.20
DJIBOUTI	DJ111	11.50	42.80	78.50	42.80	6.87	114.89
DOMONT	13062	49.00	2.30	41.00	2.30	51.11	86.07
DOURBES	DB049	50.10	4.60	39.90	4.60	51.70	88.88
DURBAN		-29.80	31.00	119.80	31.00	-31.40	94.76
DUSHANBE	DS238	38.50	68.80	51.50	68.80	29.61	143.98
EAST GRAND FORKS	GF	49.00	-97.00	41.00	263.00	58.78	-34.51
EBRO	EB040	40.82	.49	49.18	.49	43.60	80.90
EDINBURGH	ED	56.00	-3.00	34.00	357.00	58.77	84.70
EGLIN AFB	EG930	30.30	-86.70	59.70	273.30	41.10	-18.75
EIGHTS	EI97N	-75.00	-77.10	165.00	282.90	-63.72	-3.91
EILSON AFB		65.00	-147.00	25.00	213.00	65.22	-101.25
EL ARENOSILLO	EA036	37.10	-6.75	52.90	353.25	41.37	72.26
ELIZABETHVILLE	EZ11J	-11.60	27.50	101.60	27.50	-12.92	95.46
ELLSWORTH	ELA7P	-77.72	-41.20	167.72	318.80	-67.17	15.52
ERIE	ER842	40.01	-105.30	49.99	254.70	48.91	-41.81

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ERROL		44.79	-71.13	45.21	288.87	56.11	-.92
EUREKA	EU980	80.00	-85.90	10.00	274.10	86.86	-122.21
EYREWELL	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
FAREWELL		62.00	-154.00	28.00	206.00	61.17	-104.65
FIJI	1461Q	-18.00	178.20	108.00	178.20	-21.78	-107.51
FLETCHERS ICE	XC982	75.90	-124.30	14.10	235.70	78.29	-104.14
FORT ARCHAMBAULT	FA109	9.20	18.35	80.80	18.35	9.26	90.61
FORT BELVOIR	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
FORT CHIMO	FCJ58	58.10	-68.40	31.90	291.60	69.41	3.02
FORT MONMOUTH	FMJ40	40.40	-74.10	49.60	285.90	51.69	-4.53
FORT MYERS		27.00	-82.00	63.00	278.00	38.06	-13.14
FORT NORMAN	FN864	64.90	-125.50	25.10	234.50	69.33	-80.17
FORT YUKON		67.00	-145.00	23.00	215.00	67.37	-101.83
FORTALEZA	FZAOM	-3.75	-38.95	93.75	321.05	5.91	31.57
FRASERBURGH	15065	57.60	-2.10	32.40	357.90	60.09	86.73
FREIBURG	FR048	48.10	7.60	41.90	7.60	49.21	90.88
FRIEDLAND		53.00	16.00	37.00	16.00	52.23	101.28
FROBISHER BAY	FBJ63	63.80	-68.60	26.20	291.40	75.11	3.11
FUJI SHIP		.00	.00	90.00	.00	3.77	70.76
FUKAURA	16541	40.60	139.90	49.40	139.90	30.63	-153.56
GARCHY	GY042	47.28	3.07	42.72	3.07	49.31	86.05
GENOVA	GV044	44.60	9.00	45.40	9.00	45.58	90.78
GIBILMANNA	GM037	37.59	14.01	52.41	14.01	37.83	93.21
GODHAVN	GOJ69	69.26	-53.51	20.74	306.49	79.58	34.70
GOOSE BAY	GSJ53	53.32	-60.36	36.68	299.64	64.40	13.96
GORKY	GK156	56.15	44.28	33.85	44.28	50.23	127.70
GRAHAMSTOWN	GR13L	-33.32	26.50	123.32	26.50	-33.94	89.36
GRAND BAHAMA	GB926	26.60	-78.20	63.40	281.80	37.80	-8.82
GRAZ	GZ146	47.10	15.50	42.90	15.50	46.70	98.06
GREAT WHALE		55.00	-78.00	35.00	282.00	66.18	-10.81
GUAM	17513	13.50	144.87	76.50	144.87	4.19	-145.73
GUANGZHOU		23.13	113.35	66.87	113.35	11.83	-176.47
HAIFA	HA132	32.82	34.98	57.18	34.98	29.19	111.86
HAINAN IS	18419	18.30	109.30	71.70	109.30	6.98	179.72
HALLEY BAY	HBA7N	-75.52	-26.63	165.52	333.37	-66.06	25.23
HANKOW	19432	30.70	114.30	59.30	114.30	19.41	-175.71
HANOVER	HNJ44	43.70	-72.20	46.30	287.80	55.01	-2.26
HERMANUS	HR13M	-34.42	19.23	124.42	19.23	-33.59	81.99
HIGHGATE SPGS.		45.01	-73.09	44.99	286.91	56.31	-3.42
HIRAISO	20536	36.40	140.60	53.60	140.60	26.52	-152.39
HIRATSUKA	21533	35.30	139.30	54.70	139.30	25.31	-153.42
HOBART	HO54K	-42.92	147.32	132.92	147.32	-51.39	-134.10
HOLLANDIA	HL50K	-2.50	140.80	92.50	140.80	-12.15	-148.03
HONG KONG	HK423	22.33	114.20	67.67	114.20	11.04	-175.66
HUANCAYO	HU91K	-12.00	-75.30	102.00	284.70	-.72	-4.78
HUNTSVILLE	HV934	34.44	-86.35	55.56	273.65	45.25	-18.77
HYDERABAD	HY317	17.35	78.47	72.65	78.47	7.59	150.15
IBADAN	IB007	7.40	3.90	82.60	3.90	10.31	76.02
ILO	ILJ1P	-17.40	-71.20	107.40	288.80	-6.08	-.76
INVERNESS	IN056	57.40	-4.20	32.60	355.80	60.31	84.47
IRKUTSK	IR352	52.50	104.00	37.50	104.00	41.22	175.48
ISTANBUL	IS141	41.13	29.03	48.87	29.03	38.37	108.61
JAMAICA	JA918	18.00	-76.80	72.00	283.20	29.24	-6.97
JICAMARCA	JI91J	-11.95	-76.86	101.95	283.14	-.70	-6.31
JODRELL BANK		53.00	-2.00	37.00	358.00	55.75	83.84
JOHANNESBURG	JO120	-26.10	28.10	116.10	28.10	-27.22	92.83
JULIACA	JUJ1N	-15.50	-70.20	105.50	289.80	-4.18	.20
JULIUSRUH	JR055	54.63	13.38	35.37	13.38	54.28	99.73
JYVASKYLA		62.00	23.00	28.00	23.00	59.35	113.18
KALININGRAD	KL154	54.70	20.62	35.30	20.62	52.96	106.43

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
KAMCHATKO		53.02	158.65	36.98	158.65	44.91	-140.09
KAMINOGE	22532	35.60	139.60	54.40	139.60	25.63	-153.19
KANO	KN	12.00	9.00	78.00	9.00	13.84	81.98
KARAGANDA	KR250	49.82	73.08	40.18	73.08	40.34	149.76
KASHIMA	KX	36.00	141.00	54.00	141.00	26.16	-151.98
KAUAI	KW	22.00	-160.00	68.00	200.00	21.63	-94.13
KENORA	KE948	50.00	-94.00	40.00	266.00	60.09	-31.05
KERGUELEN	KG24R	-49.35	70.24	139.35	70.24	-57.44	129.87
KERMADEC	KC62R	-29.20	-177.90	119.20	182.10	-32.00	-100.98
KEVO		70.00	26.00	20.00	26.00	66.05	123.14
KHABAROVSK	KB548	48.50	135.10	41.50	135.10	38.10	-158.74
KHARKOV		49.00	37.00	41.00	37.00	44.55	118.55
KHARTOUM	23115	15.55	32.58	74.45	32.58	12.73	105.76
KHEYSA IS.	BT280	80.60	58.00	9.40	58.00	71.34	156.42
KIEV	KV151	50.50	30.50	39.50	30.50	47.14	113.34
KING SALMON		58.00	-157.00	32.00	203.00	56.90	-104.37
KINGSTON		18.00	-76.90	72.00	283.10	29.24	-7.08
KINSHASA BINZA	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
KIRUNA	KI167	67.84	20.42	22.16	20.42	65.10	116.39
KJELLER	OS059	60.00	11.10	30.00	11.10	59.73	101.17
KNOB LAKE		55.00	-67.00	35.00	293.00	66.29	4.87
KOCHEL	24064	47.70	11.40	42.30	11.40	48.08	94.39
KODAIKANAL	KO310	10.20	77.50	79.80	77.50	.57	148.47
KODIAK	KD758	57.78	-152.40	32.22	207.60	57.58	-100.01
KOKUBUNJI	25535	35.71	139.48	54.29	139.48	25.73	-153.31
KOLBERG BERLIN		52.00	14.00	38.00	14.00	51.67	98.89
KOOTWIJK		55.00	6.00	35.00	6.00	56.06	92.94
KOUROU	KF	22.00	13.00	68.00	13.00	22.84	88.08
KUHLUNGSBORN		54.10	11.80	35.90	11.80	54.08	97.94
KUMASI		7.00	2.00	83.00	2.00	10.28	74.06
KWAJALEIN	26609	9.05	167.20	80.95	167.20	2.89	-123.39
KYOTO	KY535	35.10	135.50	54.90	135.50	24.79	-156.81
LA PAZ	LPJ10	-16.50	-68.10	106.50	291.90	-5.19	2.22
LA POSTA		33.00	-117.00	57.00	243.00	40.33	-53.05
LA QUIACA	LQJ2K	-22.10	-65.60	112.10	294.40	-10.82	4.54
LANCASTER		53.00	-2.00	37.00	358.00	55.75	83.84
LANCHOW	27336	36.10	103.80	53.90	103.80	24.83	174.85
LANNION	LN047	48.75	-3.45	41.25	356.55	51.99	80.14
LAUDER	LR	-45.00	170.00	135.00	170.00	-49.63	-108.32
LEICESTER		52.00	-1.00	38.00	359.00	54.61	84.29
LEIDSCHENDAM		52.00	4.00	38.00	4.00	53.63	89.27
LENINGRAD	LD160	59.95	30.70	30.05	30.70	56.08	118.30
LEOPOLDVILLE	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
LEYTE	28411	11.00	125.00	79.00	125.00	.08	-164.88
LIMA	LM	-12.00	-77.00	102.00	283.00	-.75	-6.45
LINDAU	LI050	51.65	10.10	38.35	10.10	52.10	95.01
LISBOA		39.00	-9.00	51.00	351.00	43.64	70.54
LITTLE AMERICA	LA77Q	-78.20	-162.20	168.20	197.80	-73.96	-47.72
LONGYEARBYEN	LG178	78.20	15.70	11.80	15.70	74.27	131.19
LOPARSKAYA	LS168	68.00	33.00	22.00	33.00	63.14	126.25
LOSHAN	29329	29.50	103.70	60.50	103.70	18.23	174.60
LULEA	LU165	65.60	22.10	24.40	22.10	62.80	115.46
LWIRO	LW10K	-2.30	28.80	92.30	28.80	-4.06	98.59
LYCKSELE	LY164	64.62	18.67	25.38	18.67	62.53	111.71
MACAU	MC422	22.20	113.60	67.80	113.60	10.91	-176.22
MACQUARIE IS	MQ55M	-54.50	159.00	144.50	159.00	-60.74	-115.54
MADRAS	MD313	13.10	80.30	76.90	80.30	3.18	151.50
MAGADAN		60.00	151.00	30.00	151.00	50.86	-148.41
MAKASSAR	304ON	.00	119.50	90.00	119.50	-11.15	-169.90
MANCHULI		50.00	117.00	40.00	117.00	38.76	-173.90

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
MANIB		14.39	120.59	75.61	120.59	3.27	-169.33
MANILA	MN414	14.70	121.10	75.30	121.10	3.60	-168.85
MANZHOULI		49.58	117.45	40.42	117.45	38.35	-173.51
MARION IS	MR140	-46.87	37.85	136.87	37.85	-49.26	95.87
MAUI	MA720	20.83	-156.47	69.17	203.53	21.18	-90.42
MAWSON	MW26P	-67.60	62.88	157.60	62.88	-73.31	105.08
MAYNARD	MYJ43	42.43	-71.45	47.57	288.55	53.75	-1.30
MEANOOK	ME855	54.60	-113.30	35.40	246.70	61.95	-56.99
MEGURO	31534	35.60	139.70	54.40	139.70	25.64	-153.10
MERIDA	MVJ08	8.51	-71.13	81.49	288.87	19.83	-.76
MEXICO CITY	MX919	19.26	-99.42	70.74	260.58	29.04	-31.58
MIEDZESYN	MZ152	52.20	21.20	37.80	21.20	50.48	105.68
MILLSTONE HILL	MHJ45	42.61	-71.49	47.39	288.51	53.93	-1.35
MINNEAPOLIS		45.00	-93.00	45.00	267.00	55.24	-28.45
MIRNY	MI360	-66.50	93.00	156.50	93.00	-76.96	149.68
MOOSONEE		51.00	-81.00	39.00	279.00	62.06	-14.29
MOSCOW	MO155	55.50	39.30	34.50	39.30	50.41	123.21
MUNDARING	MU43K	-31.98	116.22	121.98	116.22	-43.21	-172.28
MURMANSK	MM168	69.00	33.00	21.00	33.00	64.04	127.22
NAIROBI	NR10J	-1.28	36.83	91.28	36.83	-4.59	106.68
NANKING	32432	32.10	119.00	57.90	119.00	20.92	-171.47
NARSSARSSUAQ	NQJ61	61.17	-45.41	28.83	314.59	70.87	38.46
NATAL	NLAON	-5.70	-35.20	95.70	324.80	3.57	35.09
NEUSTRELITZ		53.00	13.00	37.00	13.00	52.81	98.47
NHA TRANG	33412	12.25	109.20	77.75	109.20	.93	179.62
NORFOLK IS	NI63!	-29.03	167.97	119.03	167.97	-34.46	-115.44
NORILSK	NO369	69.40	88.10	20.60	88.10	58.60	165.68
NORWAY STATION		-71.00	-61.00	161.00	299.00	-59.78	6.07
NOVOKAZALINSK	NK246	45.76	62.12	44.24	62.12	37.58	139.55
NOVOSIBIRSK	NS355	54.60	83.20	35.40	83.20	44.22	158.94
NURMIJARVI	NU159	60.50	24.60	29.50	24.60	57.67	113.47
OKINAWA	OK426	26.28	127.81	63.72	127.81	15.48	-163.09
ORRORAL	OL	36.00	149.00	54.00	149.00	26.98	-144.81
OTTAWA	OT945	45.10	-76.15	44.90	283.85	56.35	-7.32
OUAGADOUGOU	OU012	12.37	-1.53	77.63	358.47	16.21	71.60
OULU		65.00	26.00	25.00	26.00	61.57	118.09
OVEJUVO		-16.00	-69.00	106.00	291.00	-4.68	1.36
PALAU IS	34407	7.30	134.50	82.70	134.50	-2.98	-155.27
PALMYRA	35705	5.38	-162.18	84.62	197.82	4.93	-92.79
PANAMA	PN909	9.40	-79.90	80.60	280.10	20.56	-10.00
PARAMARIBO	PMJ06	5.80	-55.20	84.20	304.80	16.71	15.81
PARAMUSHIRO	36550	50.10	155.30	39.90	155.30	41.63	-142.10
PARIS-SACLAY	SC047	48.10	2.30	41.90	2.30	50.25	85.65
PATRICK AFB		28.20	-80.60	61.80	279.40	39.32	-11.63
PAXSON		63.00	-146.00	27.00	214.00	63.62	-98.30
PEIPING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
PEKING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
PENANG	38305	5.50	100.40	84.50	100.40	-5.68	170.81
PENN ST. UNIVERSITY		41.00	-78.00	49.00	282.00	52.20	-9.36
PESHAWAR	39234	34.00	71.50	56.00	71.50	24.85	145.69
PETROPAVLOVSK		53.02	158.65	36.98	158.65	44.91	-140.09
PITCAIRN IS	4082N	-25.00	-130.00	115.00	230.00	-18.93	-55.72
PLATTEVILLE	PV842	40.01	-105.30	49.99	254.70	48.91	-41.81
PODKAMENNAYA	TZ362	61.60	90.00	28.40	90.00	50.77	165.40
POINT ARGUELLO	PA836	35.60	-120.60	54.40	239.40	42.30	-57.61
POITIERS	PT046	46.57	.35	43.43	.35	49.16	83.01
POPAYAN	PP902	2.45	-76.62	87.55	283.38	13.70	-6.39
PORT LOCKROY	PCJ6M	-64.80	-63.50	154.80	296.50	-53.54	4.94
PORT MORESBY	PY50R	-9.40	147.10	99.40	147.10	-18.29	-140.75
PORT STANLEY	PSJ5J	-51.70	-57.80	141.70	302.20	-40.60	10.27

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
PORTAGE LA PRAIRIE	41950	49.90	-98.30	40.10	261.70	59.52	-36.44
PRETORIA	PE	-26.00	28.00	116.00	28.00	-27.11	92.76
PRINCE ALBERT	PB	53.00	-106.00	37.00	254.00	61.54	-47.31
PRINCE RUPERT	42854	54.30	-130.30	35.70	229.70	58.62	-75.81
PROVIDENIYA	PD664	64.40	-173.40	25.60	186.60	59.91	-122.89
PRUHONICE	PQ052	50.00	14.60	40.00	14.60	49.65	98.49
PUERTO RICO	PRJ18	18.50	-67.20	71.50	292.80	29.80	3.51
PULLMAN		47.00	-117.00	43.00	243.00	54.01	-57.47
QUETTA	QT230	30.20	67.00	59.80	67.00	21.61	141.01
QUITO	QO	-1.00	-79.00	91.00	281.00	10.19	-8.73
RABAT	RT034	33.90	-6.10	56.10	353.90	38.14	71.98
RAMFJORDMOEN		69.58	19.22	20.42	19.22	66.83	117.52
RANGOON	43316	16.80	96.50	73.20	96.50	5.76	167.41
RAO		57.00	12.00	33.00	12.00	56.77	99.89
RAROTONGA	RA72J	-21.20	-159.80	111.20	200.20	-20.65	-85.05
RESOLUTE BAY	RB974	74.70	-94.90	15.30	265.10	83.18	-67.13
REUNION	LR22J	-21.07	55.32	111.07	55.32	-27.35	121.48
REYKJAVIK	RKA64	64.10	-21.80	25.90	338.20	69.84	71.98
ROME	RO041	41.90	12.52	48.10	12.52	42.29	93.20
ROSMAN	RM	35.00	-83.00	55.00	277.00	46.00	-14.89
ROSTOV	RV149	47.20	39.68	42.80	39.68	42.35	120.30
ROVANIEMI		66.00	26.00	24.00	26.00	62.48	118.98
SACHS HARBOR	SH872	72.00	-125.15	18.00	234.85	75.37	-92.67
SALEKHARD	SD266	66.50	66.50	23.50	66.50	57.36	149.67
SALISBURY/AUST	SR53M	-34.70	138.60	124.70	138.60	-44.37	-146.10
SALISBURY/RHODE	SY11P	-17.80	31.00	107.80	31.00	-19.68	97.61
SAN CARLO CANAVESE		45.01	7.64	44.99	7.64	46.24	89.61
SAN JOSE	BZJ2L	-22.70	-35.20	112.70	324.80	-13.32	33.14
SAN JUAN	SNJ3J	-31.55	-68.50	121.55	291.50	-20.24	1.73
SAN SALVADOR	SSJ24	24.10	-74.50	65.90	285.50	35.39	-4.58
SAN-YA		18.00	109.00	72.00	109.00	6.68	179.44
SANAE	QM07!	-70.31	-2.41	160.31	357.59	-63.95	45.35
SANTIAGO	NT	-33.00	-71.00	123.00	289.00	-21.68	-.53
SANYA		-18.30	109.30	108.30	109.30	-29.62	179.68
SAO PAULO	SPJ2L	-23.50	-46.50	113.50	313.50	-13.09	22.43
SARDINIA	ES	39.00	9.00	51.00	9.00	40.17	88.76
SASKATOON		52.10	-106.60	37.90	253.40	60.58	-47.60
SCHWARZENBURG	SZ045	46.60	6.70	43.40	6.70	47.95	89.34
SCOTT BASE	SB67Q	-77.80	166.76	167.80	166.76	-78.78	-65.88
SDR STROMFJORD		67.00	-50.95	23.00	309.05	77.14	35.79
SEATTLE	SE847	47.75	-122.42	42.25	237.58	53.81	-63.82
SEOUL	SU437	37.23	126.57	52.77	126.57	26.34	-164.96
SHEFFIELD		53.00	-1.00	37.00	359.00	55.55	84.85
SHIBATA	44537	37.90	139.30	52.10	139.30	27.89	-153.74
SHIKUKA	45549	49.30	143.00	40.70	143.00	39.53	-152.25
SIMFEROPOL	SF144	44.80	34.10	45.20	34.10	41.00	114.47
SINGAPORE	SI301	1.30	103.80	88.70	103.80	-9.96	174.12
SLOUGH	SL051	51.48	-.57	38.52	359.43	54.03	84.44
SLUTSK	4615I	59.70	30.50	30.30	30.50	55.88	117.97
SNAINTON	47050	54.20	.00	35.80	.00	56.49	86.56
SODANKYLA	SO166	67.40	26.60	22.60	26.60	63.64	120.78
SOFIA	SQ143	42.70	23.40	47.30	23.40	40.95	103.87
SONDERSTROM		67.00	-50.95	23.00	309.05	77.14	35.79
SOUTH ATLANTIC	FS	-52.00	-58.00	142.00	302.00	-40.89	10.08
SOUTH GEORGIA	SGA5M	-54.27	-36.50	144.27	323.50	-44.50	27.18
SOUTH POLE	P009!	-90.00	.00	180.00	.00	-78.68	.00
SOUTH UIST		57.37	-7.33	32.63	352.67	60.89	81.24
SOYA SHIP	XD	-60.00	.00	150.00	.00	-54.71	54.63
ST JOHNS	SJJ47	47.60	-52.70	42.40	307.30	58.23	22.93
ST KILDA	KA	-38.00	139.00	128.00	139.00	-47.60	-144.98

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ST PETER-ORDING		36.00	9.30	54.00	9.30	37.21	88.11
STANFORD	ST837	37.40	-122.20	52.60	237.80	43.79	-59.85
SVERDLOVSK	SV256	56.43	58.57	33.57	58.57	48.48	139.57
SWAN RIVER	48952	52.10	-101.20	37.90	258.80	61.32	-40.94
SWANSEA		52.00	-4.00	38.00	356.00	55.19	81.24
SYDNEY	CN53L	-34.05	150.67	124.05	150.67	-42.19	-132.71
SYOWA BASE	SW16R	-69.00	39.35	159.00	39.35	-69.92	79.18
SYRACUSE		-69.00	40.00	159.00	40.00	-70.04	79.75
TAHITI	TT71P	-17.73	-149.32	107.73	210.68	-15.23	-75.63
TAIPEI	TP424	24.91	121.24	65.09	121.24	13.81	-169.13
TALARA	TA90M	-4.60	-81.30	94.60	278.70	6.52	-10.93
TAMANRASSET	TN022	22.80	5.53	67.20	5.53	25.08	80.88
TANANARIVE	IV21Q	-18.80	47.50	108.80	47.50	-23.76	113.93
TANGERANG		-6.17	106.63	96.17	106.63	-17.47	176.91
TASHKENT	TQ241	41.33	69.62	48.67	69.62	32.32	145.19
TBILISI	TB142	41.70	44.80	48.30	44.80	36.15	123.22
TEHRAN	TE236	35.70	51.40	54.30	51.40	29.22	127.75
TEMARA		33.60	-7.60	56.40	352.40	38.12	70.35
TENERIFE		28.00	-17.00	62.00	343.00	34.31	59.12
TERRE ADELIE	DU560	-66.66	140.02	156.66	140.02	-75.32	-127.64
THE PAS	49954	54.00	-101.00	36.00	259.00	63.20	-41.56
THULE (QANAQ)	THJ77	77.50	-69.20	12.50	290.80	88.79	12.54
THULE (TUTO)	THJ76	76.40	-68.70	13.60	291.30	87.69	10.03
THUMBA	TC309	8.60	76.90	81.40	76.90	-.96	147.72
TIKSI BAY	TX471	71.60	128.90	18.40	128.90	60.69	-167.69
TIRUCHIRAPALLI	TI311	10.80	78.70	79.20	78.70	1.05	149.71
TOGO	TG011	10.80	.40	79.20	.40	14.31	73.22
TOMSK	TK356	56.50	84.90	33.50	84.90	45.99	160.62
TORINO		45.02	7.64	44.98	7.64	46.25	89.61
TORRECHIRUCCA		42.00	12.00	48.00	12.00	42.48	92.73
TORTOSA	EB040	40.82	.49	49.18	.49	43.60	80.90
TOWNSVILLE	TV51R	-19.63	146.85	109.63	146.85	-28.46	-139.56
TOYOHARA	50546	46.90	142.80	43.10	142.80	37.14	-152.00
TRELEW	TWJ4L	-43.20	-65.30	133.20	294.70	-31.92	4.39
TRINIDAD	51J10	10.75	-61.57	79.25	298.43	21.93	9.37
TRIVANDRUM	TM308	8.50	77.00	81.50	77.00	-1.07	147.81
TROMSO	TR169	69.70	19.00	20.30	19.00	66.98	117.50
TSITSIHAR	52447	47.30	123.90	42.70	123.90	36.27	-168.00
TSUMEB	TS11R	-19.20	17.70	109.20	17.70	-18.44	84.25
TUCUMAN	TUJ20	-26.90	-65.40	116.90	294.60	-15.62	4.64
TURIN		45.00	8.00	45.00	8.00	46.16	89.96
ULASKA	UL	65.00	-148.00	25.00	212.00	65.03	-102.15
UNALASKA		54.00	-167.00	36.00	193.00	51.26	-111.07
UPPSALA	UP158	59.80	17.60	30.20	17.60	58.31	106.88
USHUAIA	UAJ5M	-54.80	-68.30	144.80	291.70	-43.49	1.68
VAL D'OR		48.00	-78.00	42.00	282.00	59.19	-9.94
VANDENBERG AFB		34.73	-120.57	55.27	239.43	41.45	-57.34
VANIMO	VA50L	-2.70	141.30	92.70	141.30	-12.30	-147.50
VICTORIA	VI848	48.40	-123.40	41.60	236.60	54.26	-65.19
VICTORIA BEACH	53951	50.80	-96.08	39.20	263.92	60.66	-33.96
VOSTOK	VO47P	-78.40	106.90	168.40	106.90	-89.40	116.33
WAKKANAI	WK545	45.39	141.69	44.61	141.69	35.54	-152.70
WALLOPS IS	WP937	37.94	-75.47	52.06	284.53	49.21	-6.11
WALTAIR		18.00	83.00	72.00	83.00	7.82	154.55
WASHINGTON	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
WATHEROO	WT43!	-30.30	115.90	120.30	115.90	-41.54	-172.72
WELLINGTON		-41.23	175.00	131.23	175.00	-45.05	-104.55
WHITE SANDS	WS832	32.30	-106.50	57.70	253.50	41.15	-41.39
WILDWOOD		60.56	-151.25	29.44	208.75	60.38	-100.99
WILKES	WL460	-66.28	110.53	156.28	110.53	-77.60	-178.24

ALPHABETICAL LISTING BY STATION NAME
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
WINKFIELD	WK	51.00	-1.00	39.00	359.00	53.66	83.75
WINNIPEG	WI949	49.80	-94.40	40.20	265.60	59.85	-31.50
WOOMERA	WO53J	-31.80	136.30	121.80	136.30	-41.74	-149.21
WUCHANG	54430	30.60	114.40	59.40	114.40	19.32	-175.61
WUHAN	WU430	30.60	114.33	59.40	114.33	19.32	-175.68
YAKUTSK	YA462	62.00	129.60	28.00	129.60	51.19	-165.15
YAMAGAWA	YG431	31.20	130.61	58.80	130.61	20.56	-160.87
YELLOWKNIFE	YE862	62.40	-114.40	27.60	245.60	69.13	-64.59
YUZHNO SAKHALINSK	SA547	47.00	143.00	43.00	143.00	37.26	-151.85
ZARYA SHIP	XF	.00	.00	90.00	.00	3.77	70.76
ZHIGANSK		66.70	123.30	23.30	123.30	55.60	-170.45

TABLE 2. LISTING BY GEOGRAPHIC LATITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ARCTICA (NP-07)	XH	86.30	-63.40	3.70	296.60	82.34	176.61
ARCTICA (NP-02)	XC687	86.00	.00	4.00	.00	79.34	159.19
ALERT	ALJ82	82.50	-62.60	7.50	297.40	85.98	165.34
ARCTICA (NP-06)	XG	82.30	9.50	7.70	9.50	77.50	142.43
ARCTICA (NP-01)	XA483	82.00	.00	8.00	.00	78.57	138.58
ARCTICA (NP-13)	XL	81.00	165.00	9.00	165.00	72.00	-155.37
KHEYSA IS.	BT280	80.60	58.00	9.40	58.00	71.34	156.42
ARCTICA (NP-08)	XI	80.00	165.00	10.00	165.00	71.14	-153.76
EUREKA	EU980	80.00	-85.90	10.00	274.10	86.86	-122.21
ARCTICA (NP-11)	XK	79.00	165.00	11.00	165.00	70.27	-152.28
ARCTICA (NP-12)		79.00	-173.00	11.00	187.00	72.62	-141.42
LONGYEARBYEN	LG178	78.20	15.70	11.80	15.70	74.27	131.19
ARCTICA (NP-19)	XP	78.00	150.00	12.00	150.00	68.13	-158.79
ARCTICA (NP-10)	XJ	78.00	165.00	12.00	165.00	69.38	-150.92
ARCTICA (NP-16)	XM676	78.00	176.50	12.00	176.50	70.58	-144.88
THULE (QANAQ)	THJ77	77.50	-69.20	12.50	290.80	88.79	12.54
THULE (TUTO)	THJ76	76.40	-68.70	13.60	291.30	87.69	10.03
FLETCHERS ICE	XC982	75.90	-124.30	14.10	235.70	78.29	-104.14
RESOLUTE BAY	RB974	74.70	-94.90	15.30	265.10	83.18	-67.13
DIKSON	DI373	73.50	80.40	16.50	80.40	63.06	162.20
SACHS HARBOR	SH872	72.00	-125.15	18.00	234.85	75.37	-92.67
TIKSI BAY	TX471	71.60	128.90	18.40	128.90	60.69	-167.69
BARROW	BW771	71.20	-156.80	18.80	203.20	68.78	-117.29
CLYDE RIVER	CRJ70	70.50	-68.60	19.50	291.40	81.81	4.24
CAPE PARRY	CF870	70.17	-125.60	19.83	234.40	73.82	-88.92
KEVO		70.00	26.00	20.00	26.00	66.05	123.14
TROMSO	TR169	69.70	19.00	20.30	19.00	66.98	117.50
RAMFJORDMOEN		69.58	19.22	20.42	19.22	66.83	117.52
AMDERMA		69.46	61.41	20.54	61.41	60.73	147.67
NORILSK	NO369	69.40	88.10	20.60	88.10	58.60	165.68
GODHAVN	GOJ69	69.26	-53.51	20.74	306.49	79.58	34.70
MURMANSK	MM168	69.00	33.00	21.00	33.00	64.04	127.22
CAPE SCHMIDT	CE669	68.80	179.50	21.20	179.50	62.85	-131.91
LOPARSKAYA	LS168	68.00	33.00	22.00	33.00	63.14	126.25
KIRUNA	KI167	67.84	20.42	22.16	20.42	65.10	116.39
SODANKYLA	SO166	67.40	26.60	22.60	26.60	63.64	120.78
FORT YUKON		67.00	-145.00	23.00	215.00	67.37	-101.83
SDR STROMFJORD		67.00	-50.95	23.00	309.05	77.14	35.79
SONDERSTROM		67.00	-50.95	23.00	309.05	77.14	35.79
ZHIGANSK		66.70	123.30	23.30	123.30	55.60	-170.45
SALEKHARD	SD266	66.50	66.50	23.50	66.50	57.36	149.67
ROVANIEMI		66.00	26.00	24.00	26.00	62.48	118.98
LULEA	LU165	65.60	22.10	24.40	22.10	62.80	115.46
OULU		65.00	26.00	25.00	26.00	61.57	118.09
ULASKA	UL	65.00	-148.00	25.00	212.00	65.03	-102.15
EILSON AFB		65.00	-147.00	25.00	213.00	65.22	-101.25
COLLEGE	CO764	64.93	-148.00	25.07	212.00	64.96	-102.07
FORT NORMAN	FN864	64.90	-125.50	25.10	234.50	69.33	-80.17
LYCKSELE	LY164	64.62	18.67	25.38	18.67	62.53	111.71
ARKHANGELSK	AZ163	64.40	40.50	25.60	40.50	58.65	129.12
PROVIDENIYA	PD664	64.40	-173.40	25.60	186.60	59.91	-122.89
BAKER LAKE	BL964	64.30	-96.00	25.70	264.00	73.81	-42.19
REYKJAVIK	RKA64	64.10	-21.80	25.90	338.20	69.84	71.98
FROBISHER BAY	FBJ63	63.80	-68.60	26.20	291.40	75.11	3.11
PAXSON		63.00	-146.00	27.00	214.00	63.62	-98.30
YELLOWKNIFE	YE862	62.40	-114.40	27.60	245.60	69.13	-64.59
JYVASKYLA		62.00	23.00	28.00	23.00	59.35	113.18
YAKUTSK	YA462	62.00	129.60	28.00	129.60	51.19	-165.15
FAREWELL		62.00	-154.00	28.00	206.00	61.17	-104.65

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
PODKAMENNAYA	TZ362	61.60	90.00	28.40	90.00	50.77	165.40
ANCHORAGE	AN761	61.20	-149.90	28.80	210.10	61.22	-100.27
NARSSARSSUAQ	NQJ61	61.17	-45.41	28.83	314.59	70.87	38.46
WILDWOOD		60.56	-151.25	29.44	208.75	60.38	-100.99
NURMIJARVI	NU159	60.50	24.60	29.50	24.60	57.67	113.47
KJELLER	OS059	60.00	11.10	30.00	11.10	59.73	101.17
MAGADAN		60.00	151.00	30.00	151.00	50.86	-148.41
LENINGRAD	LD160	59.95	30.70	30.05	30.70	56.08	118.30
UPPSALA	UP158	59.80	17.60	30.20	17.60	58.31	106.88
SLUTSK	4615I	59.70	30.50	30.30	30.50	55.88	117.97
CHURCHILL	CH958	58.80	-94.20	31.20	265.80	68.71	-35.14
FORT CHIMO	FCJ58	58.10	-68.40	31.90	291.60	69.41	3.02
KING SALMON		58.00	-157.00	32.00	203.00	56.90	-104.37
KODIAK	KD758	57.78	-152.40	32.22	207.60	57.58	-100.01
BURGHEAD	06063	57.70	-3.70	32.30	356.30	60.49	85.20
FRASERBURGH	15065	57.60	-2.10	32.40	357.90	60.09	86.73
INVERNESS	IN056	57.40	-4.20	32.60	355.80	60.31	84.47
SOUTH UIST		57.37	-7.33	32.63	352.67	60.89	81.24
RAO		57.00	12.00	33.00	12.00	56.77	99.89
TOMSK	TK356	56.50	84.90	33.50	84.90	45.99	160.62
SVERDLOVSK	SV256	56.43	58.57	33.57	58.57	48.48	139.57
GORKY	GK156	56.15	44.28	33.85	44.28	50.23	127.70
EDINBURGH	ED	56.00	-3.00	34.00	357.00	58.77	84.70
MOSCOW	MO155	55.50	39.30	34.50	39.30	50.41	123.21
KOOTWIJK		55.00	6.00	35.00	6.00	56.06	92.94
CAPE JONES		55.00	-80.00	35.00	280.00	66.10	-13.64
GREAT WHALE		55.00	-78.00	35.00	282.00	66.18	-10.81
KNOB LAKE		55.00	-67.00	35.00	293.00	66.29	4.87
KALININGRAD	KL154	54.70	20.62	35.30	20.62	52.96	106.43
JULIUSRUH	JR055	54.63	13.38	35.37	13.38	54.28	99.73
NOVOSIBIRSK	NS355	54.60	83.20	35.40	83.20	44.22	158.94
MEANOOK	ME855	54.60	-113.30	35.40	246.70	61.95	-56.99
PRINCE RUPERT	42854	54.30	-130.30	35.70	229.70	58.62	-75.81
SNAINTON	47050	54.20	.00	35.80	.00	56.49	86.56
KUHLUNGSBORN		54.10	11.80	35.90	11.80	54.08	97.94
DARMSTADT		54.00	9.00	36.00	9.00	54.54	95.23
UNALASKA		54.00	-167.00	36.00	193.00	51.26	-111.07
THE PAS	49954	54.00	-101.00	36.00	259.00	63.20	-41.56
GOOSE BAY	GSJ53	53.32	-60.36	36.68	299.64	64.40	13.96
KAMCHATKO		53.02	158.65	36.98	158.65	44.91	-140.09
PETROPAVLOVSK		53.02	158.65	36.98	158.65	44.91	-140.09
NEUSTRELITZ		53.00	13.00	37.00	13.00	52.81	98.47
FRIEDLAND		53.00	16.00	37.00	16.00	52.23	101.28
PRINCE ALBERT	PB	53.00	-106.00	37.00	254.00	61.54	-47.31
JODRELL BANK		53.00	-2.00	37.00	358.00	55.75	83.84
LANCASTER		53.00	-2.00	37.00	358.00	55.75	83.84
SHEFFIELD		53.00	-1.00	37.00	359.00	55.55	84.85
IRKUTSK	IR352	52.50	104.00	37.50	104.00	41.22	175.48
ABERYSTWYTH	AB	52.43	-4.07	37.57	355.93	55.61	81.41
MIEDZESYN	MZ152	52.20	21.20	37.80	21.20	50.48	105.68
DE BILT	DT053	52.10	5.18	37.90	5.18	53.49	90.48
SASKATOON		52.10	-106.60	37.90	253.40	60.58	-47.60
SWAN RIVER	48952	52.10	-101.20	37.90	258.80	61.32	-40.94
CAMBRIDGE		52.00	.00	38.00	.00	54.41	85.30
LEIDSCHENDAM		52.00	4.00	38.00	4.00	53.63	89.27
KOLBERG BERLIN		52.00	14.00	38.00	14.00	51.67	98.89
CHITA	CX452	52.00	113.50	38.00	113.50	40.70	-176.83
SWANSEA		52.00	-4.00	38.00	356.00	55.19	81.24
LEICESTER		52.00	-1.00	38.00	359.00	54.61	84.29
ADAK	AD651	51.90	-176.60	38.10	183.40	47.55	-118.61

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
BADDOW	01061	51.70	.50	38.30	.50	54.03	85.63
LINDAU	LI050	51.65	10.10	38.35	10.10	52.10	95.01
SLOUGH	SL051	51.48	-.57	38.52	359.43	54.03	84.44
COLOGNE		51.00	7.00	39.00	7.00	52.09	91.68
COLLM		51.00	13.00	39.00	13.00	50.91	97.45
MOOSONEE		51.00	-81.00	39.00	279.00	62.06	-14.29
WINKFIELD	WK	51.00	-1.00	39.00	359.00	53.66	83.75
VICTORIA BEACH	53951	50.80	-96.08	39.20	263.92	60.66	-33.96
KIEV	KV151	50.50	30.50	39.50	30.50	47.14	113.34
DOURBES	DB049	50.10	4.60	39.90	4.60	51.70	88.88
PARAMUSHIRO	36550	50.10	155.30	39.90	155.30	41.63	-142.10
PRUHONICE	PQ052	50.00	14.60	40.00	14.60	49.65	98.49
MANCHULI		50.00	117.00	40.00	117.00	38.76	-173.90
KENORA	KE948	50.00	-94.00	40.00	266.00	60.09	-31.05
PORTAGE LA PRAIRIE	41950	49.90	-98.30	40.10	261.70	59.52	-36.44
KARAGANDA	KR250	49.82	73.08	40.18	73.08	40.34	149.76
WINNIPEG	WI949	49.80	-94.40	40.20	265.60	59.85	-31.50
MANZHOULI		49.58	117.45	40.42	117.45	38.35	-173.51
SHIKUKA	45549	49.30	143.00	40.70	143.00	39.53	-152.25
DOMONT	13062	49.00	2.30	41.00	2.30	51.11	86.07
KHARKOV		49.00	37.00	41.00	37.00	44.55	118.55
EAST GRAND FORKS	GF	49.00	-97.00	41.00	263.00	58.78	-34.51
BRETIGNY	GN	49.00	-2.00	41.00	358.00	51.94	81.74
BAGNEUX	55039	48.80	2.30	41.20	2.30	50.91	85.97
LANNION	LN047	48.75	-3.45	41.25	356.55	51.99	80.14
KHABAROVSK	KB548	48.50	135.10	41.50	135.10	38.10	-158.74
VICTORIA	VI848	48.40	-123.40	41.60	236.60	54.26	-65.19
PARIS-SACLAY	SC047	48.10	2.30	41.90	2.30	50.25	85.65
FREIBURG	FR048	48.10	7.60	41.90	7.60	49.21	90.88
BAD VOESLAU		48.00	16.00	42.00	16.00	47.47	98.92
VAL D'OR		48.00	-78.00	42.00	282.00	59.19	-9.94
SEATTLE	SE847	47.75	-122.42	42.25	237.58	53.81	-63.82
KOCHEL	24064	47.70	11.40	42.30	11.40	48.08	94.39
ST JOHNS	SJJ47	47.60	-52.70	42.40	307.30	58.23	22.93
TSITSIHAR	52447	47.30	123.90	42.70	123.90	36.27	-168.00
BAIE ST PAUL	PLJ48	47.30	-70.50	42.70	289.50	58.62	-.12
GARCHY	GY042	47.28	3.07	42.72	3.07	49.31	86.05
ROSTOV	RV149	47.20	39.68	42.80	39.68	42.35	120.30
GRAZ	GZ146	47.10	15.50	42.90	15.50	46.70	98.06
BUDAPEST	BU147	47.00	19.00	43.00	19.00	45.93	101.33
YUZHNO SAKHALINSK	SA547	47.00	143.00	43.00	143.00	37.26	-151.85
PULLMAN		47.00	-117.00	43.00	243.00	54.01	-57.47
TOYOHARA	50546	46.90	142.80	43.10	142.80	37.14	-152.00
BEKESCSABA	BH147	46.67	21.17	43.33	21.17	45.20	103.24
SCHWARZENBURG	SZ045	46.60	6.70	43.40	6.70	47.95	89.34
POITIERS	PT046	46.57	.35	43.43	.35	49.16	83.01
NOVOKAZALINSK	NK246	45.76	62.12	44.24	62.12	37.58	139.55
WAKKANAI	WK545	45.39	141.69	44.61	141.69	35.54	-152.70
OTTAWA	OT945	45.10	-76.15	44.90	283.85	56.35	-7.32
TORINO		45.02	7.64	44.98	7.64	46.25	89.61
SAN CARLO CANAVESE		45.01	7.64	44.99	7.64	46.24	89.61
HIGHGATE SPGS.		45.01	-73.09	44.99	286.91	56.31	-3.42
TURIN		45.00	8.00	45.00	8.00	46.16	89.96
MINNEAPOLIS		45.00	-93.00	45.00	267.00	55.24	-28.45
BEOGRAD	BE145	44.80	20.50	45.20	20.50	43.53	101.89
SIMFEROPOL	SF144	44.80	34.10	45.20	34.10	41.00	114.47
ERROL		44.79	-71.13	45.21	288.87	56.11	-.92
GENOVA	GV044	44.60	9.00	45.40	9.00	45.58	90.78
CHANGCHUN		43.83	125.27	46.17	125.27	32.87	-166.58
HANOVER	HNJ44	43.70	-72.20	46.30	287.80	55.01	-2.26

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ALMA ATA	AA343	43.25	76.92	46.75	76.92	33.47	151.88
SOFIA	SQ143	42.70	23.40	47.30	23.40	40.95	103.87
MILLSTONE HILL	MHJ45	42.61	-71.49	47.39	288.51	53.93	-1.35
BILLERICA	BOJ43	42.60	-71.30	47.40	288.70	53.92	-1.11
MAYNARD	MYJ43	42.43	-71.45	47.57	288.55	53.75	-1.30
BOSTON	56J43	42.40	-71.20	47.60	288.80	53.72	-.99
TORRECHIRUCCA		42.00	12.00	48.00	12.00	42.48	92.73
BEDFORD		42.00	-71.00	48.00	289.00	53.32	-.73
ROME	RO041	41.90	12.52	48.10	12.52	42.29	93.20
TBILISI	TB142	41.70	44.80	48.30	44.80	36.15	123.22
TASHKENT	TQ241	41.33	69.62	48.67	69.62	32.32	145.19
ISTANBUL	IS141	41.13	29.03	48.87	29.03	38.37	108.61
PENN ST. UNIVERSITY		41.00	-78.00	49.00	282.00	52.20	-9.36
EBRO	EB040	40.82	.49	49.18	.49	43.60	80.90
TORTOSA	EB040	40.82	.49	49.18	.49	43.60	80.90
FUKAURA	16541	40.60	139.90	49.40	139.90	30.63	-153.56
FORT MONMOUTH	FMJ40	40.40	-74.10	49.60	285.90	51.69	-4.53
BOULDER	BC840	40.03	-105.30	49.97	254.70	48.93	-41.82
ERIE	ER842	40.01	-105.30	49.99	254.70	48.91	-41.81
PLATTEVILLE	PV842	40.01	-105.30	49.99	254.70	48.91	-41.81
BEIJING		40.00	116.30	50.00	116.30	28.75	-174.14
PEIPING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
PEKING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
AKITA	AK539	39.73	140.13	50.27	140.13	29.78	-153.24
BATAVIA	03439	39.40	-84.10	50.60	275.90	50.33	-16.65
SARDINIA	ES	39.00	9.00	51.00	9.00	40.17	88.76
DAIRAN	12439	39.00	121.60	51.00	121.60	27.90	-169.46
LISBOA		39.00	-9.00	51.00	351.00	43.64	70.54
FORT BELVOIR	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
WASHINGTON	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
DUSHANBE	DS238	38.50	68.80	51.50	68.80	29.61	143.98
ATHENS	AT138	38.00	23.60	52.00	23.60	36.36	102.54
WALLOPS IS	WP937	37.94	-75.47	52.06	284.53	49.21	-6.11
ASHKHABAD	AS237	37.90	58.30	52.10	58.30	30.36	134.47
SHIBATA	44537	37.90	139.30	52.10	139.30	27.89	-153.74
GIBILMANNA	GM037	37.59	14.01	52.41	14.01	37.83	93.21
STANFORD	ST837	37.40	-122.20	52.60	237.80	43.79	-59.85
SEOUL	SU437	37.23	126.57	52.77	126.57	26.34	-164.96
EL ARENOSILLO	EA036	37.10	-6.75	52.90	353.25	41.37	72.26
HIRAISO	20536	36.40	140.60	53.60	140.60	26.52	-152.39
LANCHOW	27336	36.10	103.80	53.90	103.80	24.83	174.85
ST PETER-ORDING		36.00	9.30	54.00	9.30	37.21	88.11
KASHIMA	KX	36.00	141.00	54.00	141.00	26.16	-151.98
ORRORAL	OL	36.00	149.00	54.00	149.00	26.98	-144.81
KOKUBUNJI	25535	35.71	139.48	54.29	139.48	25.73	-153.31
TEHRAN	TE236	35.70	51.40	54.30	51.40	29.22	127.75
KAMINOGE	22532	35.60	139.60	54.40	139.60	25.63	-153.19
MEGURO	31534	35.60	139.70	54.40	139.70	25.64	-153.10
POINT ARGUELLO	PA836	35.60	-120.60	54.40	239.40	42.30	-57.61
HIRATSUKA	21533	35.30	139.30	54.70	139.30	25.31	-153.42
KYOTO	KY535	35.10	135.50	54.90	135.50	24.79	-156.81
ROSMAN	RM	35.00	-83.00	55.00	277.00	46.00	-14.89
VANDENBERG AFB		34.73	-120.57	55.27	239.43	41.45	-57.34
CAPE ZEVGARI	CV135	34.58	32.95	55.42	32.95	31.28	110.40
HUNTSVILLE	HV934	34.44	-86.35	55.56	273.65	45.25	-18.77
PESHAWAR	39234	34.00	71.50	56.00	71.50	24.85	145.69
RABAT	RT034	33.90	-6.10	56.10	353.90	38.14	71.98
CASABLANCA	CA033	33.60	-7.60	56.40	352.40	38.12	70.35
TEMARA		33.60	-7.60	56.40	352.40	38.12	70.35
LA POSTA		33.00	-117.00	57.00	243.00	40.33	-53.05

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
HAIFA	HA132	32.82	34.98	57.18	34.98	29.19	111.86
WHITE SANDS	WS832	32.30	-106.50	57.70	253.50	41.15	-41.39
NANKING	32432	32.10	119.00	57.90	119.00	20.92	-171.47
YAMAGAWA	YG431	31.20	130.61	58.80	130.61	20.56	-160.87
HANKOW	19432	30.70	114.30	59.30	114.30	19.41	-175.71
WUHAN	WU430	30.60	114.33	59.40	114.33	19.32	-175.68
WUCHANG	54430	30.60	114.40	59.40	114.40	19.32	-175.61
BATON ROUGE	04930	30.50	-91.20	59.50	268.80	40.98	-23.90
EGLIN AFB	EG930	30.30	-86.70	59.70	273.30	41.10	-18.75
QUETTA	QT230	30.20	67.00	59.80	67.00	21.61	141.01
CAIRO	05130	30.00	31.20	60.00	31.20	27.13	107.60
LOSHAN	29329	29.50	103.70	60.50	103.70	18.23	174.60
CHONGQING		29.50	106.42	60.50	106.42	18.20	177.10
CHUNGKING	09429	29.40	106.30	60.60	106.30	18.10	176.98
DELHI	DH328	28.60	77.20	61.40	77.20	18.90	150.19
CAPE KENNEDY	CC929	28.40	-80.70	61.60	279.30	39.51	-11.75
COCOA	10928	28.20	-80.60	61.80	279.40	39.32	-11.63
PATRICK AFB		28.20	-80.60	61.80	279.40	39.32	-11.63
TENERIFE		28.00	-17.00	62.00	343.00	34.31	59.12
FORT MYERS		27.00	-82.00	63.00	278.00	38.06	-13.14
GRAND BAHAMA	GB926	26.60	-78.20	63.40	281.80	37.80	-8.82
OKINAWA	OK426	26.28	127.81	63.72	127.81	15.48	-163.09
TAIPEI	TP424	24.91	121.24	65.09	121.24	13.81	-169.13
SAN SALVADOR	SSJ24	24.10	-74.50	65.90	285.50	35.39	-4.58
GUANGZHOU		23.13	113.35	66.87	113.35	11.83	-176.47
AHMEDABAD	AH223	23.00	72.60	67.00	72.60	13.82	145.23
CALCUTTA	CU322	23.00	88.60	67.00	88.60	12.38	160.27
CANTON		23.00	113.00	67.00	113.00	11.70	-176.79
CUBA	CD923	23.00	-82.00	67.00	278.00	34.06	-12.90
TAMANRASSET	TN022	22.80	5.53	67.20	5.53	25.08	80.88
HONG KONG	HK423	22.33	114.20	67.67	114.20	11.04	-175.66
MACAU	MC422	22.20	113.60	67.80	113.60	10.91	-176.22
KOUROU	KF	22.00	13.00	68.00	13.00	22.84	88.08
KAUAI	KW	22.00	-160.00	68.00	200.00	21.63	-94.13
MAUI	MA720	20.83	-156.47	69.17	203.53	21.18	-90.42
MEXICO CITY	MX919	19.26	-99.42	70.74	260.58	29.04	-31.58
BOMBAY	BM219	19.00	72.80	71.00	72.80	9.82	144.92
PUERTO RICO	PRJ18	18.50	-67.20	71.50	292.80	29.80	3.51
ARECIBO	ARJ19	18.50	-66.80	71.50	293.20	29.80	3.95
HAINAN IS	18419	18.30	109.30	71.70	109.30	6.98	179.72
WALTAIR		18.00	83.00	72.00	83.00	7.82	154.55
SAN-YA		18.00	109.00	72.00	109.00	6.68	179.44
KINGSTON		18.00	-76.90	72.00	283.10	29.24	-7.08
JAMAICA	JA918	18.00	-76.80	72.00	283.20	29.24	-6.97
HYDERABAD	HY317	17.35	78.47	72.65	78.47	7.59	150.15
RANGOON	43316	16.80	96.50	73.20	96.50	5.76	167.41
BAGUIO	BF416	16.40	120.60	73.60	120.60	5.28	-169.40
KHARTOUM	23115	15.55	32.58	74.45	32.58	12.73	105.76
DAKAR	DKA14	14.76	-17.42	75.24	342.58	21.35	56.00
MANILA	MN414	14.70	121.10	75.30	121.10	3.60	-168.85
MANIB		14.39	120.59	75.61	120.59	3.27	-169.33
BANGKOK	BK314	13.80	100.60	76.20	100.60	2.61	171.26
GUAM	17513	13.50	144.87	76.50	144.87	4.19	-145.73
MADRAS	MD313	13.10	80.30	76.90	80.30	3.18	151.50
BARBADOS	BSJ13	13.10	-59.60	76.90	300.40	24.21	11.55
OUAGADOUGOU	OU012	12.37	-1.53	77.63	358.47	16.21	71.60
NHA TRANG	33412	12.25	109.20	77.75	109.20	.93	179.62
KANO	KN	12.00	9.00	78.00	9.00	13.84	81.98
DJIBOUTI	DJ111	11.50	42.80	78.50	42.80	6.87	114.89
LEYTE	28411	11.00	125.00	79.00	125.00	.08	-164.88

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
TOGO	TG011	10.80	.40	79.20	.40	14.31	73.22
DAPANGO	TG011	10.80	7.00	79.20	7.00	13.05	79.76
TIRUCHIRAPALLI	TI311	10.80	78.70	79.20	78.70	1.05	149.71
TRINIDAD	51J10	10.75	-61.57	79.25	298.43	21.93	9.37
KODAIKANAL	KO310	10.20	77.50	79.80	77.50	.57	148.47
PANAMA	PN909	9.40	-79.90	80.60	280.10	20.56	-10.00
FORT ARCHAMBAULT	FA109	9.20	18.35	80.80	18.35	9.26	90.61
KWAJALEIN	26609	9.05	167.20	80.95	167.20	2.89	-123.39
THUMBA	TC309	8.60	76.90	81.40	76.90	-.96	147.72
MERIDA	MVJ08	8.51	-71.13	81.49	288.87	19.83	-.76
TRIVANDRUM	TM308	8.50	77.00	81.50	77.00	-1.07	147.81
IBADAN	IB007	7.40	3.90	82.60	3.90	10.31	76.02
PALAU IS	34407	7.30	134.50	82.70	134.50	-2.98	-155.27
KUMASI		7.00	2.00	83.00	2.00	10.28	74.06
COLOMBO	11306	6.90	79.87	83.10	79.87	-2.95	150.47
BANDOENG	0240Q	6.90	107.60	83.10	107.60	-4.41	178.02
PARAMARIBO	PMJ06	5.80	-55.20	84.20	304.80	16.71	15.81
ACCRA	AG	5.63	-.17	84.37	359.83	9.34	71.65
PENANG	38305	5.50	100.40	84.50	100.40	-5.68	170.81
PALMYRA	35705	5.38	-162.18	84.62	197.82	4.93	-92.79
BANGUI	BI104	4.60	18.60	85.40	18.60	4.70	89.93
BOGOTA	BGJ05	4.50	-74.20	85.50	285.80	15.79	-3.93
BRAZZAVILLE	LZ	4.00	15.00	86.00	15.00	4.82	86.28
POPAYAN	PP902	2.45	-76.62	87.55	283.38	13.70	-6.39
CHRISTMAS IS.	08701	1.90	-157.30	88.10	202.70	2.47	-87.32
BUNIA	BN102	1.50	30.20	88.50	30.20	-.60	100.70
SINGAPORE	SI301	1.30	103.80	88.70	103.80	-9.96	174.12
FUJI SHIP		.00	.00	90.00	.00	3.77	70.76
ZARYA SHIP	XF	.00	.00	90.00	.00	3.77	70.76
MAKASSAR	3040N	.00	119.50	90.00	119.50	-11.15	-169.90
QUITO	QO	-1.00	-79.00	91.00	281.00	10.19	-8.73
NAIROBI	NR10J	-1.28	36.83	91.28	36.83	-4.59	106.68
LWIRO	LW10K	-2.30	28.80	92.30	28.80	-4.06	98.59
HOLLANDIA	HL50K	-2.50	140.80	92.50	140.80	-12.15	-148.03
VANIMO	VA50L	-2.70	141.30	92.70	141.30	-12.30	-147.50
FORTALEZA	FZA0M	-3.75	-38.95	93.75	321.05	5.91	31.57
KINSHASA BINZA	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
LEOPOLDVILLE	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
TALARA	TA90M	-4.60	-81.30	94.60	278.70	6.52	-10.93
NATAL	NLA0N	-5.70	-35.20	95.70	324.80	3.57	35.09
TANGERANG		-6.17	106.63	96.17	106.63	-17.47	176.91
CHICLAYO	CY90P	-6.80	-79.80	96.80	280.20	4.37	-9.35
CHIMBOTE	CM90R	-9.10	-78.60	99.10	281.40	2.11	-8.09
PORT MORESBY	PY50R	-9.40	147.10	99.40	147.10	-18.29	-140.75
CAPE YORK	0751J	-11.00	142.40	101.00	142.40	-20.43	-145.42
ELIZABETHVILLE	EZ11J	-11.60	27.50	101.60	27.50	-12.92	95.46
JICAMARCA	JI91J	-11.95	-76.86	101.95	283.14	-.70	-6.31
LIMA	LM	-12.00	-77.00	102.00	283.00	-.75	-6.45
HUANCAYO	HU91K	-12.00	-75.30	102.00	284.70	-.72	-4.78
COCOS IS.	CS31K	-12.20	96.80	102.20	96.80	-23.22	166.38
DARWIN	DW41K	-12.45	130.95	102.45	130.95	-22.95	-157.28
JULIACA	JUJ1N	-15.50	-70.20	105.50	289.80	-4.18	.20
OVEJUVO		-16.00	-69.00	106.00	291.00	-4.68	1.36
LA PAZ	LPJ10	-16.50	-68.10	106.50	291.90	-5.19	2.22
ILO	ILJ1P	-17.40	-71.20	107.40	288.80	-6.08	-.76
TAHITI	TT71P	-17.73	-149.32	107.73	210.68	-15.23	-75.63
SALISBURY/RHODE	SY11P	-17.80	31.00	107.80	31.00	-19.68	97.61
FIJI	1461Q	-18.00	178.20	108.00	178.20	-21.78	-107.51
SANYA		-18.30	109.30	108.30	109.30	-29.62	179.68
TANANARIVE	IV21Q	-18.80	47.50	108.80	47.50	-23.76	113.93

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
TSUMEB	TS11R	-19.20	17.70	109.20	17.70	-18.44	84.25
TOWNSVILLE	TV51R	-19.63	146.85	109.63	146.85	-28.46	-139.56
REUNION	LR22J	-21.07	55.32	111.07	55.32	-27.35	121.48
RAROTONGA	RA72J	-21.20	-159.80	111.20	200.20	-20.65	-85.05
LA QUIACA	LQJ2K	-22.10	-65.60	112.10	294.40	-10.82	4.54
CACHOEIRA PAULISTA		-22.70	-45.02	112.70	314.98	-12.40	23.89
SAN JOSE	BZJ2L	-22.70	-35.20	112.70	324.80	-13.32	33.14
SAO PAULO	SPJ2L	-23.50	-46.50	113.50	313.50	-13.09	22.43
PITCAIRN IS	4082N	-25.00	-130.00	115.00	230.00	-18.93	-55.72
PRETORIA	PE	-26.00	28.00	116.00	28.00	-27.11	92.76
JOHANNESBURG	JO12O	-26.10	28.10	116.10	28.10	-27.22	92.83
TUCUMAN	TUJ2O	-26.90	-65.40	116.90	294.60	-15.62	4.64
BLUMENAU		-26.90	-48.90	116.90	311.10	-16.31	19.92
BRIBIE IS.		-27.30	153.00	117.30	153.00	-35.20	-131.64
BRISBANE	BR52P	-27.53	152.92	117.53	152.92	-35.44	-131.68
NORFOLK IS	NI63!	-29.03	167.97	119.03	167.97	-34.46	-115.44
KERMADEC	KC62R	-29.20	-177.90	119.20	182.10	-32.00	-100.98
DURBAN		-29.80	31.00	119.80	31.00	-31.40	94.76
WATHEROO	WT43!	-30.30	115.90	120.30	115.90	-41.54	-172.72
SAN JUAN	SNJ3J	-31.55	-68.50	121.55	291.50	-20.24	1.73
WOOMERA	WO53J	-31.80	136.30	121.80	136.30	-41.74	-149.21
MUNDARING	MU43K	-31.98	116.22	121.98	116.22	-43.21	-172.28
SANTIAGO	NT	-33.00	-71.00	123.00	289.00	-21.68	-.53
GRAHAMSTOWN	GR13L	-33.32	26.50	123.32	26.50	-33.94	89.36
SYDNEY	CN53L	-34.05	150.67	124.05	150.67	-42.19	-132.71
CAPETOWN	CT13M	-34.10	18.30	124.10	18.30	-33.10	81.19
HERMANUS	HR13M	-34.42	19.23	124.42	19.23	-33.59	81.99
BUENOS AIRES	BAJ3M	-34.50	-58.50	124.50	301.50	-23.40	10.68
SALISBURY/AUST	SR53M	-34.70	138.60	124.70	138.60	-44.37	-146.10
CANBERRA	CB53N	-35.32	149.00	125.32	149.00	-43.68	-134.25
CONCEPCION	CPJ3O	-36.78	-73.12	126.78	286.88	-25.47	-2.40
AUCKLAND	AU63P	-37.00	175.00	127.00	175.00	-40.95	-105.96
BEVERIDGE		-37.29	144.59	127.29	144.59	-46.22	-138.74
ST KILDA	KA	-38.00	139.00	128.00	139.00	-47.60	-144.98
WELLINGTON		-41.23	175.00	131.23	175.00	-45.05	-104.55
HOBART	HO54K	-42.92	147.32	132.92	147.32	-51.39	-134.10
TRELEW	TWJ4L	-43.20	-65.30	133.20	294.70	-31.92	4.39
CHRISTCHURCH	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
EYREWELL	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
LAUDER	LR	-45.00	170.00	135.00	170.00	-49.63	-108.32
MARION IS	MR14O	-46.87	37.85	136.87	37.85	-49.26	95.87
KERGUELEN	KG24R	-49.35	70.24	139.35	70.24	-57.44	129.87
PORT STANLEY	PSJ5J	-51.70	-57.80	141.70	302.20	-40.60	10.27
SOUTH ATLANTIC	FS	-52.00	-58.00	142.00	302.00	-40.89	10.08
CAMPBELL IS.	CI65K	-52.60	169.10	142.60	169.10	-57.08	-105.61
SOUTH GEORGIA	SGA5M	-54.27	-36.50	144.27	323.50	-44.50	27.18
MACQUARIE IS	MQ55M	-54.50	159.00	144.50	159.00	-60.74	-115.54
USHUAIA	UAJ5M	-54.80	-68.30	144.80	291.70	-43.49	1.68
SOYA SHIP	XD	-60.00	.00	150.00	.00	-54.71	54.63
DECEPCION	DEJ6L	-63.00	-60.70	153.00	299.30	-51.80	7.11
PORT LOCKROY	PCJ6M	-64.80	-63.50	154.80	296.50	-53.54	4.94
ARGENTINE IS.	AIJ6N	-65.25	-64.27	155.25	295.73	-53.98	4.37
CASEY	CW46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
WILKES	WL46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
MIRNY	MI36O	-66.50	93.00	156.50	93.00	-76.96	149.68
TERRE ADELIE	DU56O	-66.66	140.02	156.66	140.02	-75.32	-127.64
MAWSON	MW26P	-67.60	62.88	157.60	62.88	-73.31	105.08
SYOWA BASE	SW16R	-69.00	39.35	159.00	39.35	-69.92	79.18
SYRACUSE		-69.00	40.00	159.00	40.00	-70.04	79.75
SANAE	QMO7!	-70.31	-2.41	160.31	357.59	-63.95	45.35

LISTING BY GEOGRAPHIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
BAUDOUIN	BB17!	-70.40	23.20	160.40	23.20	-68.11	63.87
NORWAY STATION		-71.00	-61.00	161.00	299.00	-59.78	6.07
CAPE HALLETT	HT67K	-72.30	170.20	162.30	170.20	-74.45	-81.27
EIGHTS	EI97N	-75.00	-77.10	165.00	282.90	-63.72	-3.91
HALLEY BAY	HBA7N	-75.52	-26.63	165.52	333.37	-66.06	25.23
ELLSWORTH	ELA7P	-77.72	-41.20	167.72	318.80	-67.17	15.52
SCOTT BASE	SB67Q	-77.80	166.76	167.80	166.76	-78.78	-65.88
BELGRANO	GEA7Q	-77.97	-38.80	167.97	321.20	-67.54	16.62
LITTLE AMERICA	LA77Q	-78.20	-162.20	168.20	197.80	-73.96	-47.72
VOSTOK	VO47P	-78.40	106.90	168.40	106.90	-89.40	116.33
BYRD STATION	BD88!	-80.00	-120.00	170.00	240.00	-70.66	-23.53
SOUTH POLE	PO09!	-90.00	.00	180.00	.00	-78.68	.00

TABLE 3. LISTING BY DIPOLE GEOMAGNETIC LATITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
THULE (QANAQ)	THJ77	77.50	-69.20	12.50	290.80	88.79	12.54
THULE (TUTO)	THJ76	76.40	-68.70	13.60	291.30	87.69	10.03
EUREKA	EU980	80.00	-85.90	10.00	274.10	86.86	-122.21
ALERT	ALJ82	82.50	-62.60	7.50	297.40	85.98	165.34
RESOLUTE BAY	RB974	74.70	-94.90	15.30	265.10	83.18	-67.13
ARCTICA (NP-07)	XH	86.30	-63.40	3.70	296.60	82.34	176.61
CLYDE RIVER	CRJ70	70.50	-68.60	19.50	291.40	81.81	4.24
GODHAVN	GOJ69	69.26	-53.51	20.74	306.49	79.58	34.70
ARCTICA (NP-02)	XC687	86.00	.00	4.00	.00	79.34	159.19
ARCTICA (NP-01)	XA483	82.00	.00	8.00	.00	78.57	138.58
FLETCHERS ICE	XC982	75.90	-124.30	14.10	235.70	78.29	-104.14
ARCTICA (NP-06)	XG	82.30	9.50	7.70	9.50	77.50	142.43
SDR STROMFJORD		67.00	-50.95	23.00	309.05	77.14	35.79
SONDERSTROM		67.00	-50.95	23.00	309.05	77.14	35.79
SACHS HARBOR	SH872	72.00	-125.15	18.00	234.85	75.37	-92.67
FROBISHER BAY	FBJ63	63.80	-68.60	26.20	291.40	75.11	3.11
LONGYEARBYEN	LG178	78.20	15.70	11.80	15.70	74.27	131.19
CAPE PARRY	CF870	70.17	-125.60	19.83	234.40	73.82	-88.92
BAKER LAKE	BL964	64.30	-96.00	25.70	264.00	73.81	-42.19
ARCTICA (NP-12)		79.00	-173.00	11.00	187.00	72.62	-141.42
ARCTICA (NP-13)	XL	81.00	165.00	9.00	165.00	72.00	-155.37
KHEYSA IS.	BT280	80.60	58.00	9.40	58.00	71.34	156.42
ARCTICA (NP-08)	XI	80.00	165.00	10.00	165.00	71.14	-153.76
NARSSARSSUAQ	NQJ61	61.17	-45.41	28.83	314.59	70.87	38.46
ARCTICA (NP-16)	XM676	78.00	176.50	12.00	176.50	70.58	-144.88
ARCTICA (NP-11)	XK	79.00	165.00	11.00	165.00	70.27	-152.28
REYKJAVIK	RKA64	64.10	-21.80	25.90	338.20	69.84	71.98
FORT CHIMO	FCJ58	58.10	-68.40	31.90	291.60	69.41	3.02
ARCTICA (NP-10)	XJ	78.00	165.00	12.00	165.00	69.38	-150.92
FORT NORMAN	FN864	64.90	-125.50	25.10	234.50	69.33	-80.17
YELLOWKNIFE	YE862	62.40	-114.40	27.60	245.60	69.13	-64.59
BARROW	BW771	71.20	-156.80	18.80	203.20	68.78	-117.29
CHURCHILL	CH958	58.80	-94.20	31.20	265.80	68.71	-35.14
ARCTICA (NP-19)	XP	78.00	150.00	12.00	150.00	68.13	-158.79
FORT YUKON		67.00	-145.00	23.00	215.00	67.37	-101.83
TROMSO	TR169	69.70	19.00	20.30	19.00	66.98	117.50
RAMFJORDMOEN		69.58	19.22	20.42	19.22	66.83	117.52
KNOB LAKE		55.00	-67.00	35.00	293.00	66.29	4.87
GREAT WHALE		55.00	-78.00	35.00	282.00	66.18	-10.81
CAPE JONES		55.00	-80.00	35.00	280.00	66.10	-13.64
KEVO		70.00	26.00	20.00	26.00	66.05	123.14
EILSON AFB		65.00	-147.00	25.00	213.00	65.22	-101.25
KIRUNA	KI167	67.84	20.42	22.16	20.42	65.10	116.39
ULASKA	UL	65.00	-148.00	25.00	212.00	65.03	-102.15
COLLEGE	CO764	64.93	-148.00	25.07	212.00	64.96	-102.07
GOOSE BAY	GSJ53	53.32	-60.36	36.68	299.64	64.40	13.96
MURMANSK	MM168	69.00	33.00	21.00	33.00	64.04	127.22
SODANKYLA	SO166	67.40	26.60	22.60	26.60	63.64	120.78
PAXSON		63.00	-146.00	27.00	214.00	63.62	-98.30
THE PAS	49954	54.00	-101.00	36.00	259.00	63.20	-41.56
LOPARSKAYA	LS168	68.00	33.00	22.00	33.00	63.14	126.25
DIKSON	DI373	73.50	80.40	16.50	80.40	63.06	162.20
CAPE SCHMIDT	CE669	68.80	179.50	21.20	179.50	62.85	-131.91
LULEA	LU165	65.60	22.10	24.40	22.10	62.80	115.46
LYCKSELE	LY164	64.62	18.67	25.38	18.67	62.53	111.71
ROVANIEMI		66.00	26.00	24.00	26.00	62.48	118.98
MOOSONEE		51.00	-81.00	39.00	279.00	62.06	-14.29
MEANOOK	ME855	54.60	-113.30	35.40	246.70	61.95	-56.99
OULU		65.00	26.00	25.00	26.00	61.57	118.09

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
PRINCE ALBERT	PB	53.00	-106.00	37.00	254.00	61.54	-47.31
SWAN RIVER	48952	52.10	-101.20	37.90	258.80	61.32	-40.94
ANCHORAGE	AN761	61.20	-149.90	28.80	210.10	61.22	-100.27
FAREWELL		62.00	-154.00	28.00	206.00	61.17	-104.65
SOUTH UIST		57.37	-7.33	32.63	352.67	60.89	81.24
AMDERMA		69.46	61.41	20.54	61.41	60.73	147.67
TIKSI BAY	TX471	71.60	128.90	18.40	128.90	60.69	-167.69
VICTORIA BEACH	53951	50.80	-96.08	39.20	263.92	60.66	-33.96
SASKATOON		52.10	-106.60	37.90	253.40	60.58	-47.60
BURGHEAD	06063	57.70	-3.70	32.30	356.30	60.49	85.20
WILDWOOD		60.56	-151.25	29.44	208.75	60.38	-100.99
INVERNESS	IN056	57.40	-4.20	32.60	355.80	60.31	84.47
FRASERBURGH	15065	57.60	-2.10	32.40	357.90	60.09	86.73
KENORA	KE948	50.00	-94.00	40.00	266.00	60.09	-31.05
PROVIDENIYA	PD664	64.40	-173.40	25.60	186.60	59.91	-122.89
WINNIPEG	WI949	49.80	-94.40	40.20	265.60	59.85	-31.50
KJELLER	OS059	60.00	11.10	30.00	11.10	59.73	101.17
PORTAGE LA PRAIRIE	41950	49.90	-98.30	40.10	261.70	59.52	-36.44
JYVASKYLA		62.00	23.00	28.00	23.00	59.35	113.18
VAL D'OR		48.00	-78.00	42.00	282.00	59.19	-9.94
EAST GRAND FORKS	GF	49.00	-97.00	41.00	263.00	58.78	-34.51
EDINBURGH	ED	56.00	-3.00	34.00	357.00	58.77	84.70
ARKHANGELSK	AZ163	64.40	40.50	25.60	40.50	58.65	129.12
PRINCE RUPERT	42854	54.30	-130.30	35.70	229.70	58.62	-75.81
BAIE ST PAUL	PLJ48	47.30	-70.50	42.70	289.50	58.62	-.12
NORILSK	NO369	69.40	88.10	20.60	88.10	58.60	165.68
UPPSALA	UP158	59.80	17.60	30.20	17.60	58.31	106.88
ST JOHNS	SJJ47	47.60	-52.70	42.40	307.30	58.23	22.93
NURMIJARVI	NU159	60.50	24.60	29.50	24.60	57.67	113.47
KODIAK	KD758	57.78	-152.40	32.22	207.60	57.58	-100.01
SALEKHARD	SD266	66.50	66.50	23.50	66.50	57.36	149.67
KING SALMON		58.00	-157.00	32.00	203.00	56.90	-104.37
RAO		57.00	12.00	33.00	12.00	56.77	99.89
SNAINTON	47050	54.20	.00	35.80	.00	56.49	86.56
OTTAWA	OT945	45.10	-76.15	44.90	283.85	56.35	-7.32
HIGHGATE SPGS.		45.01	-73.09	44.99	286.91	56.31	-3.42
ERROL		44.79	-71.13	45.21	288.87	56.11	-.92
LENINGRAD	LD160	59.95	30.70	30.05	30.70	56.08	118.30
KOOTWIJK		55.00	6.00	35.00	6.00	56.06	92.94
SLUTSK	46151	59.70	30.50	30.30	30.50	55.88	117.97
JODRELL BANK		53.00	-2.00	37.00	358.00	55.75	83.84
LANCASTER		53.00	-2.00	37.00	358.00	55.75	83.84
ABERYSTWYTH	AB	52.43	-4.07	37.57	355.93	55.61	81.41
ZHIGANSK		66.70	123.30	23.30	123.30	55.60	-170.45
SHEFFIELD		53.00	-1.00	37.00	359.00	55.55	84.85
MINNEAPOLIS		45.00	-93.00	45.00	267.00	55.24	-28.45
SWANSEA		52.00	-4.00	38.00	356.00	55.19	81.24
HANOVER	HNJ44	43.70	-72.20	46.30	287.80	55.01	-2.26
LEICESTER		52.00	-1.00	38.00	359.00	54.61	84.29
DARMSTADT		54.00	9.00	36.00	9.00	54.54	95.23
CAMBRIDGE		52.00	.00	38.00	.00	54.41	85.30
JULIUSRUH	JR055	54.63	13.38	35.37	13.38	54.28	99.73
VICTORIA	VI848	48.40	-123.40	41.60	236.60	54.26	-65.19
KUHLUNGSBORN		54.10	11.80	35.90	11.80	54.08	97.94
SLOUGH	SL051	51.48	-.57	38.52	359.43	54.03	84.44
BADDOW	01061	51.70	.50	38.30	.50	54.03	85.63
PULLMAN		47.00	-117.00	43.00	243.00	54.01	-57.47
MILLSTONE HILL	MHJ45	42.61	-71.49	47.39	288.51	53.93	-1.35
BILLERICA	BOJ43	42.60	-71.30	47.40	288.70	53.92	-1.11
SEATTLE	SE847	47.75	-122.42	42.25	237.58	53.81	-63.82

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
MAYNARD	MYJ43	42.43	-71.45	47.57	288.55	53.75	-1.30
BOSTON	56J43	42.40	-71.20	47.60	288.80	53.72	-.99
WINKFIELD	WK	51.00	-1.00	39.00	359.00	53.66	83.75
LEIDSCHENDAM		52.00	4.00	38.00	4.00	53.63	89.27
DE BILT	DT053	52.10	5.18	37.90	5.18	53.49	90.48
BEDFORD		42.00	-71.00	48.00	289.00	53.32	-.73
KALININGRAD	KL154	54.70	20.62	35.30	20.62	52.96	106.43
NEUSTRELITZ		53.00	13.00	37.00	13.00	52.81	98.47
FRIEDLAND		53.00	16.00	37.00	16.00	52.23	101.28
PENN ST. UNIVERSITY		41.00	-78.00	49.00	282.00	52.20	-9.36
LINDAU	LI050	51.65	10.10	38.35	10.10	52.10	95.01
COLOGNE		51.00	7.00	39.00	7.00	52.09	91.68
LANNION	LN047	48.75	-3.45	41.25	356.55	51.99	80.14
BRETIGNY	GN	49.00	-2.00	41.00	358.00	51.94	81.74
DOURBES	DB049	50.10	4.60	39.90	4.60	51.70	88.88
FORT MONMOUTH	FMJ40	40.40	-74.10	49.60	285.90	51.69	-4.53
KOLBERG BERLIN		52.00	14.00	38.00	14.00	51.67	98.89
UNALASKA		54.00	-167.00	36.00	193.00	51.26	-111.07
YAKUTSK	YA462	62.00	129.60	28.00	129.60	51.19	-165.15
DOMONT	13062	49.00	2.30	41.00	2.30	51.11	86.07
BAGNEUX	55039	48.80	2.30	41.20	2.30	50.91	85.97
COLLM		51.00	13.00	39.00	13.00	50.91	97.45
MAGADAN		60.00	151.00	30.00	151.00	50.86	-148.41
PODKAMENNAYA	TZ362	61.60	90.00	28.40	90.00	50.77	165.40
MIEDZESYN	MZ152	52.20	21.20	37.80	21.20	50.48	105.68
MOSCOW	MO155	55.50	39.30	34.50	39.30	50.41	123.21
BATAVIA	O3439	39.40	-84.10	50.60	275.90	50.33	-16.65
PARIS-SACLAY	SC047	48.10	2.30	41.90	2.30	50.25	85.65
GORKY	GK156	56.15	44.28	33.85	44.28	50.23	127.70
FORT BELVOIR	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
WASHINGTON	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
PRUHONICE	PQ052	50.00	14.60	40.00	14.60	49.65	98.49
GARCHY	GY042	47.28	3.07	42.72	3.07	49.31	86.05
FREIBURG	FR048	48.10	7.60	41.90	7.60	49.21	90.88
WALLOPS IS	WP937	37.94	-75.47	52.06	284.53	49.21	-6.11
POITIERS	PT046	46.57	.35	43.43	.35	49.16	83.01
BOULDER	BC840	40.03	-105.30	49.97	254.70	48.93	-41.82
ERIE	ER842	40.01	-105.30	49.99	254.70	48.91	-41.81
PLATTEVILLE	PV842	40.01	-105.30	49.99	254.70	48.91	-41.81
SVERDLOVSK	SV256	56.43	58.57	33.57	58.57	48.48	139.57
KOCHEL	24064	47.70	11.40	42.30	11.40	48.08	94.39
SCHWARZENBURG	SZ045	46.60	6.70	43.40	6.70	47.95	89.34
ADAK	AD651	51.90	-176.60	38.10	183.40	47.55	-118.61
BAD VOESLAU		48.00	16.00	42.00	16.00	47.47	98.92
KIEV	KV151	50.50	30.50	39.50	30.50	47.14	113.34
GRAZ	GZ146	47.10	15.50	42.90	15.50	46.70	98.06
TORINO		45.02	7.64	44.98	7.64	46.25	89.61
SAN CARLO CANAVESE		45.01	7.64	44.99	7.64	46.24	89.61
TURIN		45.00	8.00	45.00	8.00	46.16	89.96
ROSMAN	RM	35.00	-83.00	55.00	277.00	46.00	-14.89
TOMSK	TK356	56.50	84.90	33.50	84.90	45.99	160.62
BUDAPEST	BU147	47.00	19.00	43.00	19.00	45.93	101.33
GENOVA	GV044	44.60	9.00	45.40	9.00	45.58	90.78
HUNTSVILLE	HV934	34.44	-86.35	55.56	273.65	45.25	-18.77
BEKESCSABA	BH147	46.67	21.17	43.33	21.17	45.20	103.24
KAMCHATKO		53.02	158.65	36.98	158.65	44.91	-140.09
PETROPAVLOVSK		53.02	158.65	36.98	158.65	44.91	-140.09
KHARKOV		49.00	37.00	41.00	37.00	44.55	118.55
NOVOSIBIRSK	NS355	54.60	83.20	35.40	83.20	44.22	158.94
STANFORD	ST837	37.40	-122.20	52.60	237.80	43.79	-59.85

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
LISBOA		39.00	-9.00	51.00	351.00	43.64	70.54
EBRO	EB040	40.82	.49	49.18	.49	43.60	80.90
TORTOSA	EB040	40.82	.49	49.18	.49	43.60	80.90
BEOGRAD	BE145	44.80	20.50	45.20	20.50	43.53	101.89
TORRECHIRUCCA		42.00	12.00	48.00	12.00	42.48	92.73
ROSTOV	RV149	47.20	39.68	42.80	39.68	42.35	120.30
POINT ARGUELLO	PA836	35.60	-120.60	54.40	239.40	42.30	-57.61
ROME	RO041	41.90	12.52	48.10	12.52	42.29	93.20
PARAMUSHIRO	36550	50.10	155.30	39.90	155.30	41.63	-142.10
VANDENBERG AFB		34.73	-120.57	55.27	239.43	41.45	-57.34
EL ARENOSILLO	EA036	37.10	-6.75	52.90	353.25	41.37	72.26
IRKUTSK	IR352	52.50	104.00	37.50	104.00	41.22	175.48
WHITE SANDS	WS832	32.30	-106.50	57.70	253.50	41.15	-41.39
EGLIN AFB	EG930	30.30	-86.70	59.70	273.30	41.10	-18.75
SIMFEROPOL	SF144	44.80	34.10	45.20	34.10	41.00	114.47
BATON ROUGE	04930	30.50	-91.20	59.50	268.80	40.98	-23.90
SOFIA	SQ143	42.70	23.40	47.30	23.40	40.95	103.87
CHITA	CX452	52.00	113.50	38.00	113.50	40.70	-176.83
KARAGANDA	KR250	49.82	73.08	40.18	73.08	40.34	149.76
LA POSTA		33.00	-117.00	57.00	243.00	40.33	-53.05
SARDINIA	ES	39.00	9.00	51.00	9.00	40.17	88.76
SHIKUKA	45549	49.30	143.00	40.70	143.00	39.53	-152.25
CAPE KENNEDY	CC929	28.40	-80.70	61.60	279.30	39.51	-11.75
COCOA	10928	28.20	-80.60	61.80	279.40	39.32	-11.63
PATRICK AFB		28.20	-80.60	61.80	279.40	39.32	-11.63
MANCHULI		50.00	117.00	40.00	117.00	38.76	-173.90
ISTANBUL	IS141	41.13	29.03	48.87	29.03	38.37	108.61
MANZHOULI		49.58	117.45	40.42	117.45	38.35	-173.51
RABAT	RT034	33.90	-6.10	56.10	353.90	38.14	71.98
CASABLANCA	CA033	33.60	-7.60	56.40	352.40	38.12	70.35
TEMARA		33.60	-7.60	56.40	352.40	38.12	70.35
KHABAROVSK	KB548	48.50	135.10	41.50	135.10	38.10	-158.74
FORT MYERS		27.00	-82.00	63.00	278.00	38.06	-13.14
GIBILMANNA	GM037	37.59	14.01	52.41	14.01	37.83	93.21
GRAND BAHAMA	GB926	26.60	-78.20	63.40	281.80	37.80	-8.82
NOVOKAZALINSK	NK246	45.76	62.12	44.24	62.12	37.58	139.55
YUZHNO SAKHALINSK	SA547	47.00	143.00	43.00	143.00	37.26	-151.85
ST PETER-ORDING		36.00	9.30	54.00	9.30	37.21	88.11
TOYOHARA	50546	46.90	142.80	43.10	142.80	37.14	-152.00
ATHENS	AT138	38.00	23.60	52.00	23.60	36.36	102.54
TSITSIHAR	52447	47.30	123.90	42.70	123.90	36.27	-168.00
TBILISI	TB142	41.70	44.80	48.30	44.80	36.15	123.22
WAKKANAI	WK545	45.39	141.69	44.61	141.69	35.54	-152.70
SAN SALVADOR	SSJ24	24.10	-74.50	65.90	285.50	35.39	-4.58
TENERIFE		28.00	-17.00	62.00	343.00	34.31	59.12
CUBA	CD923	23.00	-82.00	67.00	278.00	34.06	-12.90
ALMA ATA	AA343	43.25	76.92	46.75	76.92	33.47	151.88
CHANGCHUN		43.83	125.27	46.17	125.27	32.87	-166.58
TASHKENT	TQ241	41.33	69.62	48.67	69.62	32.32	145.19
CAPE ZEVGARI	CV135	34.58	32.95	55.42	32.95	31.28	110.40
FUKAURA	16541	40.60	139.90	49.40	139.90	30.63	-153.56
ASHKHABAD	AS237	37.90	58.30	52.10	58.30	30.36	134.47
PUERTO RICO	PRJ18	18.50	-67.20	71.50	292.80	29.80	3.51
ARECIBO	ARJ19	18.50	-66.80	71.50	293.20	29.80	3.95
AKITA	AK539	39.73	140.13	50.27	140.13	29.78	-153.24
DUSHANBE	DS238	38.50	68.80	51.50	68.80	29.61	143.98
KINGSTON		18.00	-76.90	72.00	283.10	29.24	-7.08
JAMAICA	JA918	18.00	-76.80	72.00	283.20	29.24	-6.97
TEHRAN	TE236	35.70	51.40	54.30	51.40	29.22	127.75
HAIFA	HA132	32.82	34.98	57.18	34.98	29.19	111.86

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
MEXICO CITY	MX919	19.26	-99.42	70.74	260.58	29.04	-31.58
BEIJING		40.00	116.30	50.00	116.30	28.75	-174.14
PEIPING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
PEKING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
DAIRAN	12439	39.00	121.60	51.00	121.60	27.90	-169.46
SHIBATA	44537	37.90	139.30	52.10	139.30	27.89	-153.74
CAIRO	05130	30.00	31.20	60.00	31.20	27.13	107.60
ORRORAL	OL	36.00	149.00	54.00	149.00	26.98	-144.81
HIRAISO	20536	36.40	140.60	53.60	140.60	26.52	-152.39
SEOUL	SU437	37.23	126.57	52.77	126.57	26.34	-164.96
KASHIMA	KX	36.00	141.00	54.00	141.00	26.16	-151.98
KOKUBUNJI	25535	35.71	139.48	54.29	139.48	25.73	-153.31
MEGURO	31534	35.60	139.70	54.40	139.70	25.64	-153.10
KAMINOGE	22532	35.60	139.60	54.40	139.60	25.63	-153.19
HIRATSUKA	21533	35.30	139.30	54.70	139.30	25.31	-153.42
TAMANRASSET	TN022	22.80	5.53	67.20	5.53	25.08	80.88
PESHAWAR	39234	34.00	71.50	56.00	71.50	24.85	145.69
LANCHOW	27336	36.10	103.80	53.90	103.80	24.83	174.85
KYOTO	KY535	35.10	135.50	54.90	135.50	24.79	-156.81
BARBADOS	BSJ13	13.10	-59.60	76.90	300.40	24.21	11.55
KOUROU	KF	22.00	13.00	68.00	13.00	22.84	88.08
TRINIDAD	51J10	10.75	-61.57	79.25	298.43	21.93	9.37
KAUAI	KW	22.00	-160.00	68.00	200.00	21.63	-94.13
QUETTA	QT230	30.20	67.00	59.80	67.00	21.61	141.01
DAKAR	DKA14	14.76	-17.42	75.24	342.58	21.35	56.00
MAUI	MA720	20.83	-156.47	69.17	203.53	21.18	-90.42
NANKING	32432	32.10	119.00	57.90	119.00	20.92	-171.47
YAMAGAWA	YG431	31.20	130.61	58.80	130.61	20.56	-160.87
PANAMA	PN909	9.40	-79.90	80.60	280.10	20.56	-10.00
MERIDA	MVJ08	8.51	-71.13	81.49	288.87	19.83	-.76
HANKOW	19432	30.70	114.30	59.30	114.30	19.41	-175.71
WUHAN	WU430	30.60	114.33	59.40	114.33	19.32	-175.68
WUCHANG	54430	30.60	114.40	59.40	114.40	19.32	-175.61
DELHI	DH328	28.60	77.20	61.40	77.20	18.90	150.19
LOSHAN	29329	29.50	103.70	60.50	103.70	18.23	174.60
CHONGQING		29.50	106.42	60.50	106.42	18.20	177.10
CHUNGKING	09429	29.40	106.30	60.60	106.30	18.10	176.98
PARAMARIBO	PMJ06	5.80	-55.20	84.20	304.80	16.71	15.81
OUAGADOUGOU	OU012	12.37	-1.53	77.63	358.47	16.21	71.60
BOGOTA	BGJ05	4.50	-74.20	85.50	285.80	15.79	-3.93
OKINAWA	OK426	26.28	127.81	63.72	127.81	15.48	-163.09
TOGO	TG011	10.80	.40	79.20	.40	14.31	73.22
KANO	KN	12.00	9.00	78.00	9.00	13.84	81.98
AHMEDABAD	AH223	23.00	72.60	67.00	72.60	13.82	145.23
TAIPEI	TP424	24.91	121.24	65.09	121.24	13.81	-169.13
POPAYAN	PP902	2.45	-76.62	87.55	283.38	13.70	-6.39
DAPANGO	TG011	10.80	7.00	79.20	7.00	13.05	79.76
KHARTOUM	23115	15.55	32.58	74.45	32.58	12.73	105.76
CALCUTTA	CU322	23.00	88.60	67.00	88.60	12.38	160.27
GUANGZHOU		23.13	113.35	66.87	113.35	11.83	-176.47
CANTON		23.00	113.00	67.00	113.00	11.70	-176.79
HONG KONG	HK423	22.33	114.20	67.67	114.20	11.04	-175.66
MACAU	MC422	22.20	113.60	67.80	113.60	10.91	-176.22
IBADAN	IB007	7.40	3.90	82.60	3.90	10.31	76.02
KUMASI		7.00	2.00	83.00	2.00	10.28	74.06
QUITO	QO	-1.00	-79.00	91.00	281.00	10.19	-8.73
BOMBAY	BM219	19.00	72.80	71.00	72.80	9.82	144.92
ACCRA	AG	5.63	-.17	84.37	359.83	9.34	71.65
FORT ARCHAMBAULT	FA109	9.20	18.35	80.80	18.35	9.26	90.61
WALTAIR		18.00	83.00	72.00	83.00	7.82	154.55

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
HYDERABAD	HY317	17.35	78.47	72.65	78.47	7.59	150.15
HAINAN IS	18419	18.30	109.30	71.70	109.30	6.98	179.72
DJIBOUTI	DJ111	11.50	42.80	78.50	42.80	6.87	114.89
SAN-YA		18.00	109.00	72.00	109.00	6.68	179.44
TALARA	TA90M	-4.60	-81.30	94.60	278.70	6.52	-10.93
FORTALEZA	FZA0M	-3.75	-38.95	93.75	321.05	5.91	31.57
RANGOON	43316	16.80	96.50	73.20	96.50	5.76	167.41
BAGUIO	BF416	16.40	120.60	73.60	120.60	5.28	-169.40
PALMYRA	35705	5.38	-162.18	84.62	197.82	4.93	-92.79
BRAZZAVILLE	LZ	4.00	15.00	86.00	15.00	4.82	86.28
BANGUI	BI104	4.60	18.60	85.40	18.60	4.70	89.93
CHICLAYO	CY90P	-6.80	-79.80	96.80	280.20	4.37	-9.35
GUAM	17513	13.50	144.87	76.50	144.87	4.19	-145.73
FUJI SHIP		.00	.00	90.00	.00	3.77	70.76
ZARYA SHIP	XF	.00	.00	90.00	.00	3.77	70.76
MANILA	MN414	14.70	121.10	75.30	121.10	3.60	-168.85
NATAL	NLA0N	-5.70	-35.20	95.70	324.80	3.57	35.09
MANIB		14.39	120.59	75.61	120.59	3.27	-169.33
MADRAS	MD313	13.10	80.30	76.90	80.30	3.18	151.50
KWAJALEIN	26609	9.05	167.20	80.95	167.20	2.89	-123.39
BANGKOK	BK314	13.80	100.60	76.20	100.60	2.61	171.26
CHRISTMAS IS.	08701	1.90	-157.30	88.10	202.70	2.47	-87.32
CHIMBOTE	CM90R	-9.10	-78.60	99.10	281.40	2.11	-8.09
TIRUCHIRAPALLI	TI311	10.80	78.70	79.20	78.70	1.05	149.71
NHA TRANG	33412	12.25	109.20	77.75	109.20	.93	179.62
KODAIKANAL	KO310	10.20	77.50	79.80	77.50	.57	148.47
LEYTE	28411	11.00	125.00	79.00	125.00	.08	-164.88
BUNIA	BN102	1.50	30.20	88.50	30.20	-.60	100.70
JICAMARCA	JI91J	-11.95	-76.86	101.95	283.14	-.70	-6.31
HUANCAYO	HU91K	-12.00	-75.30	102.00	284.70	-.72	-4.78
LIMA	LM	-12.00	-77.00	102.00	283.00	-.75	-6.45
THUMBA	TC309	8.60	76.90	81.40	76.90	-.96	147.72
TRIVANDRUM	TM308	8.50	77.00	81.50	77.00	-1.07	147.81
COLOMBO	11306	6.90	79.87	83.10	79.87	-2.95	150.47
PALAU IS	34407	7.30	134.50	82.70	134.50	-2.98	-155.27
KINSHASA BINZA	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
LEOPOLDVILLE	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
LWIRO	LW10K	-2.30	28.80	92.30	28.80	-4.06	98.59
JULIACA	JUJ1N	-15.50	-70.20	105.50	289.80	-4.18	.20
BANDOENG	O240Q	6.90	107.60	83.10	107.60	-4.41	178.02
NAIROBI	NR10J	-1.28	36.83	91.28	36.83	-4.59	106.68
OVEJUVO		-16.00	-69.00	106.00	291.00	-4.68	1.36
LA PAZ	LPJ10	-16.50	-68.10	106.50	291.90	-5.19	2.22
PENANG	38305	5.50	100.40	84.50	100.40	-5.68	170.81
ILO	ILJ1P	-17.40	-71.20	107.40	288.80	-6.08	-.76
SINGAPORE	SI301	1.30	103.80	88.70	103.80	-9.96	174.12
LA QUIACA	LQJ2K	-22.10	-65.60	112.10	294.40	-10.82	4.54
MAKASSAR	3040N	.00	119.50	90.00	119.50	-11.15	-169.90
HOLLANDIA	HL50K	-2.50	140.80	92.50	140.80	-12.15	-148.03
VANIMO	VA50L	-2.70	141.30	92.70	141.30	-12.30	-147.50
CACHOEIRA PAULISTA		-22.70	-45.02	112.70	314.98	-12.40	23.89
ELIZABETHVILLE	EZ11J	-11.60	27.50	101.60	27.50	-12.92	95.46
SAO PAULO	SPJ2L	-23.50	-46.50	113.50	313.50	-13.09	22.43
SAN JOSE	BZJ2L	-22.70	-35.20	112.70	324.80	-13.32	33.14
TAHITI	TT71P	-17.73	-149.32	107.73	210.68	-15.23	-75.63
TUCUMAN	TUJ20	-26.90	-65.40	116.90	294.60	-15.62	4.64
BLUMENAU		-26.90	-48.90	116.90	311.10	-16.31	19.92
TANGERANG		-6.17	106.63	96.17	106.63	-17.47	176.91
PORT MORESBY	PY50R	-9.40	147.10	99.40	147.10	-18.29	-140.75
TSUMEB	TS11R	-19.20	17.70	109.20	17.70	-18.44	84.25

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
PITCAIRN IS	4082N	-25.00	-130.00	115.00	230.00	-18.93	-55.72
SALISBURY/RHODE	SY11P	-17.80	31.00	107.80	31.00	-19.68	97.61
SAN JUAN	SNJ3J	-31.55	-68.50	121.55	291.50	-20.24	1.73
CAPE YORK	0751J	-11.00	142.40	101.00	142.40	-20.43	-145.42
RAROTONGA	RA72J	-21.20	-159.80	111.20	200.20	-20.65	-85.05
SANTIAGO	NT	-33.00	-71.00	123.00	289.00	-21.68	-.53
FIJI	1461Q	-18.00	178.20	108.00	178.20	-21.78	-107.51
DARWIN	DW41K	-12.45	130.95	102.45	130.95	-22.95	-157.28
COCOS IS.	CS31K	-12.20	96.80	102.20	96.80	-23.22	166.38
BUENOS AIRES	BAJ3M	-34.50	-58.50	124.50	301.50	-23.40	10.68
TANANARIVE	IV21Q	-18.80	47.50	108.80	47.50	-23.76	113.93
CONCEPCION	CPJ30	-36.78	-73.12	126.78	286.88	-25.47	-2.40
PRETORIA	PE	-26.00	28.00	116.00	28.00	-27.11	92.76
JOHANNESBURG	J012O	-26.10	28.10	116.10	28.10	-27.22	92.83
REUNION	LR22J	-21.07	55.32	111.07	55.32	-27.35	121.48
TOWNSVILLE	TV51R	-19.63	146.85	109.63	146.85	-28.46	-139.56
SANYA		-18.30	109.30	108.30	109.30	-29.62	179.68
DURBAN		-29.80	31.00	119.80	31.00	-31.40	94.76
TRELEW	TWJ4L	-43.20	-65.30	133.20	294.70	-31.92	4.39
KERMADEC	KC62R	-29.20	-177.90	119.20	182.10	-32.00	-100.98
CAPETOWN	CT13M	-34.10	18.30	124.10	18.30	-33.10	81.19
HERMANUS	HR13M	-34.42	19.23	124.42	19.23	-33.59	81.99
GRAHAMSTOWN	GR13L	-33.32	26.50	123.32	26.50	-33.94	89.36
NORFOLK IS	NI63!	-29.03	167.97	119.03	167.97	-34.46	-115.44
BRIBIE IS.		-27.30	153.00	117.30	153.00	-35.20	-131.64
BRISBANE	BR52P	-27.53	152.92	117.53	152.92	-35.44	-131.68
PORT STANLEY	PSJ5J	-51.70	-57.80	141.70	302.20	-40.60	10.27
SOUTH ATLANTIC	FS	-52.00	-58.00	142.00	302.00	-40.89	10.08
AUCKLAND	AU63P	-37.00	175.00	127.00	175.00	-40.95	-105.96
WATHEROO	WT43!	-30.30	115.90	120.30	115.90	-41.54	-172.72
WOOMERA	WO53J	-31.80	136.30	121.80	136.30	-41.74	-149.21
SYDNEY	CN53L	-34.05	150.67	124.05	150.67	-42.19	-132.71
MUNDARING	MU43K	-31.98	116.22	121.98	116.22	-43.21	-172.28
USHUAIA	UAJ5M	-54.80	-68.30	144.80	291.70	-43.49	1.68
CANBERRA	CB53N	-35.32	149.00	125.32	149.00	-43.68	-134.25
SALISBURY/AUST	SR53M	-34.70	138.60	124.70	138.60	-44.37	-146.10
SOUTH GEORGIA	SGA5M	-54.27	-36.50	144.27	323.50	-44.50	27.18
WELLINGTON		-41.23	175.00	131.23	175.00	-45.05	-104.55
BEVERIDGE		-37.29	144.59	127.29	144.59	-46.22	-138.74
ST KILDA	KA	-38.00	139.00	128.00	139.00	-47.60	-144.98
CHRISTCHURCH	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
EYREWELL	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
MARION IS	MR14O	-46.87	37.85	136.87	37.85	-49.26	95.87
LAUDER	LR	-45.00	170.00	135.00	170.00	-49.63	-108.32
HOBART	HO54K	-42.92	147.32	132.92	147.32	-51.39	-134.10
DECEPCION	DEJ6L	-63.00	-60.70	153.00	299.30	-51.80	7.11
PORT LOCKROY	PCJ6M	-64.80	-63.50	154.80	296.50	-53.54	4.94
ARGENTINE IS.	AIJ6N	-65.25	-64.27	155.25	295.73	-53.98	4.37
SOYA SHIP	XD	-60.00	.00	150.00	.00	-54.71	54.63
CAMPBELL IS.	CI65K	-52.60	169.10	142.60	169.10	-57.08	-105.61
KERGUELEN	KG24R	-49.35	70.24	139.35	70.24	-57.44	129.87
NORWAY STATION		-71.00	-61.00	161.00	299.00	-59.78	6.07
MACQUARIE IS	MQ55M	-54.50	159.00	144.50	159.00	-60.74	-115.54
EIGHTS	EI97N	-75.00	-77.10	165.00	282.90	-63.72	-3.91
SANAE	QMO7!	-70.31	-2.41	160.31	357.59	-63.95	45.35
HALLEY BAY	HBA7N	-75.52	-26.63	165.52	333.37	-66.06	25.23
ELLSWORTH	ELA7P	-77.72	-41.20	167.72	318.80	-67.17	15.52
BELGRANO	GEA7Q	-77.97	-38.80	167.97	321.20	-67.54	16.62
BAUDOUIN	BB17!	-70.40	23.20	160.40	23.20	-68.11	63.87
SYOWA BASE	SW16R	-69.00	39.35	159.00	39.35	-69.92	79.18

LISTING BY DIPOLE GEOMAGNETIC LATITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
SYRACUSE		-69.00	40.00	159.00	40.00	-70.04	79.75
BYRD STATION	BD88!	-80.00	-120.00	170.00	240.00	-70.66	-23.53
MAWSON	MW26P	-67.60	62.88	157.60	62.88	-73.31	105.08
LITTLE AMERICA	LA77Q	-78.20	-162.20	168.20	197.80	-73.96	-47.72
CAPE HALLETT	HT67K	-72.30	170.20	162.30	170.20	-74.45	-81.27
TERRE ADELIE	DU56O	-66.66	140.02	156.66	140.02	-75.32	-127.64
MIRNY	MI36O	-66.50	93.00	156.50	93.00	-76.96	149.68
CASEY	CW46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
WILKES	WL46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
SOUTH POLE	P009!	-90.00	.00	180.00	.00	-78.68	.00
SCOTT BASE	SB67Q	-77.80	166.76	167.80	166.76	-78.78	-65.88
VOSTOK	VO47P	-78.40	106.90	168.40	106.90	-89.40	116.33

TABLE 4. REGION 330° - 30° E. LONGITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ARCTICA (NP-02)	XC687	86.00	.00	4.00	.00	79.34	159.19
ARCTICA (NP-06)	XG	82.30	9.50	7.70	9.50	77.50	142.43
ARCTICA (NP-01)	XA483	82.00	.00	8.00	.00	78.57	138.58
LONGYEARBYEN	LG178	78.20	15.70	11.80	15.70	74.27	131.19
KEVO		70.00	26.00	20.00	26.00	66.05	123.14
TROMSO	TR169	69.70	19.00	20.30	19.00	66.98	117.50
RAMFJORDMOEN		69.58	19.22	20.42	19.22	66.83	117.52
KIRUNA	KI167	67.84	20.42	22.16	20.42	65.10	116.39
SODANKYLA	SO166	67.40	26.60	22.60	26.60	63.64	120.78
ROVANIEMI		66.00	26.00	24.00	26.00	62.48	118.98
LULEA	LU165	65.60	22.10	24.40	22.10	62.80	115.46
OULU		65.00	26.00	25.00	26.00	61.57	118.09
LYCKSELE	LY164	64.62	18.67	25.38	18.67	62.53	111.71
REYKJAVIK	RKA64	64.10	-21.80	25.90	338.20	69.84	71.98
JYVASKYLA		62.00	23.00	28.00	23.00	59.35	113.18
NURMIJARVI	NU159	60.50	24.60	29.50	24.60	57.67	113.47
KJELLER	OS059	60.00	11.10	30.00	11.10	59.73	101.17
UPPSALA	UP158	59.80	17.60	30.20	17.60	58.31	106.88
BURGHEAD	06063	57.70	-3.70	32.30	356.30	60.49	85.20
FRASERBURGH	15065	57.60	-2.10	32.40	357.90	60.09	86.73
INVERNESS	IN056	57.40	-4.20	32.60	355.80	60.31	84.47
SOUTH UIST		57.37	-7.33	32.63	352.67	60.89	81.24
RAO		57.00	12.00	33.00	12.00	56.77	99.89
EDINBURGH	ED	56.00	-3.00	34.00	357.00	58.77	84.70
KOOTWIJK		55.00	6.00	35.00	6.00	56.06	92.94
KALININGRAD	KL154	54.70	20.62	35.30	20.62	52.96	106.43
JULIUSRUH	JR055	54.63	13.38	35.37	13.38	54.28	99.73
SNAINTON	47050	54.20	.00	35.80	.00	56.49	86.56
KUHLUNGSBORN		54.10	11.80	35.90	11.80	54.08	97.94
DARMSTADT		54.00	9.00	36.00	9.00	54.54	95.23
FRIEDLAND		53.00	16.00	37.00	16.00	52.23	101.28
JODRELL BANK		53.00	-2.00	37.00	358.00	55.75	83.84
LANCASTER		53.00	-2.00	37.00	358.00	55.75	83.84
NEUSTRELITZ		53.00	13.00	37.00	13.00	52.81	98.47
SHEFFIELD		53.00	-1.00	37.00	359.00	55.55	84.85
ABERYSTWYTH	AB	52.43	-4.07	37.57	355.93	55.61	81.41
MIEDZESYN	MZ152	52.20	21.20	37.80	21.20	50.48	105.68
DE BILT	DT053	52.10	5.18	37.90	5.18	53.49	90.48
CAMBRIDGE		52.00	.00	38.00	.00	54.41	85.30
KOLBERG BERLIN		52.00	14.00	38.00	14.00	51.67	98.89
LEICESTER		52.00	-1.00	38.00	359.00	54.61	84.29
LEIDSCHENDAM		52.00	4.00	38.00	4.00	53.63	89.27
SWANSEA		52.00	-4.00	38.00	356.00	55.19	81.24
BADDOW	01061	51.70	.50	38.30	.50	54.03	85.63
LINDAU	LI050	51.65	10.10	38.35	10.10	52.10	95.01
SLOUGH	SL051	51.48	-.57	38.52	359.43	54.03	84.44
COLLM		51.00	13.00	39.00	13.00	50.91	97.45
COLOGNE		51.00	7.00	39.00	7.00	52.09	91.68
WINKFIELD	WK	51.00	-1.00	39.00	359.00	53.66	83.75
DOURBES	DB049	50.10	4.60	39.90	4.60	51.70	88.88
PRUHONICE	PQ052	50.00	14.60	40.00	14.60	49.65	98.49
BRETIGNY	GN	49.00	-2.00	41.00	358.00	51.94	81.74
DOMONT	13062	49.00	2.30	41.00	2.30	51.11	86.07
BAGNEUX	55039	48.80	2.30	41.20	2.30	50.91	85.97
LANNION	LN047	48.75	-3.45	41.25	356.55	51.99	80.14
FREIBURG	FR048	48.10	7.60	41.90	7.60	49.21	90.88
PARIS-SACLAY	SC047	48.10	2.30	41.90	2.30	50.25	85.65
BAD VOESLAU		48.00	16.00	42.00	16.00	47.47	98.92
KOCHEL	24064	47.70	11.40	42.30	11.40	48.08	94.39

REGION 330° - 30° E. LONGITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
GARCHY	GY042	47.28	3.07	42.72	3.07	49.31	86.05
GRAZ	GZ146	47.10	15.50	42.90	15.50	46.70	98.06
BUDAPEST	BU147	47.00	19.00	43.00	19.00	45.93	101.33
BEKESCSABA	BH147	46.67	21.17	43.33	21.17	45.20	103.24
SCHWARZENBURG	SZ045	46.60	6.70	43.40	6.70	47.95	89.34
POITIERS	PT046	46.57	.35	43.43	.35	49.16	83.01
TORINO		45.02	7.64	44.98	7.64	46.25	89.61
SAN CARLO CANAVESE		45.01	7.64	44.99	7.64	46.24	89.61
TURIN		45.00	8.00	45.00	8.00	46.16	89.96
BEOGRAD	BE145	44.80	20.50	45.20	20.50	43.53	101.89
GENOVA	GV044	44.60	9.00	45.40	9.00	45.58	90.78
SOFIA	SQ143	42.70	23.40	47.30	23.40	40.95	103.87
TORRECHIRUCCA		42.00	12.00	48.00	12.00	42.48	92.73
ROME	RO041	41.90	12.52	48.10	12.52	42.29	93.20
ISTANBUL	IS141	41.13	29.03	48.87	29.03	38.37	108.61
EBRO	EB040	40.82	.49	49.18	.49	43.60	80.90
TORTOSA	EB040	40.82	.49	49.18	.49	43.60	80.90
LISBOA		39.00	-9.00	51.00	351.00	43.64	70.54
SARDINIA	ES	39.00	9.00	51.00	9.00	40.17	88.76
ATHENS	AT138	38.00	23.60	52.00	23.60	36.36	102.54
GIBILMANNA	GM037	37.59	14.01	52.41	14.01	37.83	93.21
EL ARENOSILLO	EA036	37.10	-6.75	52.90	353.25	41.37	72.26
ST PETER-ORDING		36.00	9.30	54.00	9.30	37.21	88.11
RABAT	RT034	33.90	-6.10	56.10	353.90	38.14	71.98
CASABLANCA	CA033	33.60	-7.60	56.40	352.40	38.12	70.35
TEMARA		33.60	-7.60	56.40	352.40	38.12	70.35
TENERIFE		28.00	-17.00	62.00	343.00	34.31	59.12
TAMANRASSET	TN022	22.80	5.53	67.20	5.53	25.08	80.88
KOUROU	KF	22.00	13.00	68.00	13.00	22.84	88.08
DAKAR	DKA14	14.76	-17.42	75.24	342.58	21.35	56.00
OUAGADOUGOU	OU012	12.37	-1.53	77.63	358.47	16.21	71.60
KANO	KN	12.00	9.00	78.00	9.00	13.84	81.98
DAPANGO	TG011	10.80	7.00	79.20	7.00	13.05	79.76
TOGO	TG011	10.80	.40	79.20	.40	14.31	73.22
FORT ARCHAMBAULT	FA109	9.20	18.35	80.80	18.35	9.26	90.61
IBADAN	IB007	7.40	3.90	82.60	3.90	10.31	76.02
KUMASI		7.00	2.00	83.00	2.00	10.28	74.06
ACCRA	AG	5.63	-.17	84.37	359.83	9.34	71.65
BANGUI	BI104	4.60	18.60	85.40	18.60	4.70	89.93
BRAZZAVILLE	LZ	4.00	15.00	86.00	15.00	4.82	86.28
FUJI SHIP		.00	.00	90.00	.00	3.77	70.76
ZARYA SHIP	XF	.00	.00	90.00	.00	3.77	70.76
LWIRO	LW10K	-2.30	28.80	92.30	28.80	-4.06	98.59
KINSHASA BINZA	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
LEOPOLDVILLE	LB10M	-4.50	15.20	94.50	15.20	-3.55	84.81
ELIZABETHVILLE	EZ11J	-11.60	27.50	101.60	27.50	-12.92	95.46
TSUMEB	TS11R	-19.20	17.70	109.20	17.70	-18.44	84.25
PRETORIA	PE	-26.00	28.00	116.00	28.00	-27.11	92.76
JOHANNESBURG	JO120	-26.10	28.10	116.10	28.10	-27.22	92.83
GRAHAMSTOWN	GR13L	-33.32	26.50	123.32	26.50	-33.94	89.36
CAPETOWN	CT13M	-34.10	18.30	124.10	18.30	-33.10	81.19
HERMANUS	HR13M	-34.42	19.23	124.42	19.23	-33.59	81.99
SOYA SHIP	XD	-60.00	.00	150.00	.00	-54.71	54.63
SANAE	QM07!	-70.31	-2.41	160.31	357.59	-63.95	45.35
BAUDOUIN	BB17!	-70.40	23.20	160.40	23.20	-68.11	63.87
HALLEY BAY	HBA7N	-75.52	-26.63	165.52	333.37	-66.06	25.23
SOUTH POLE	PO09!	-90.00	.00	180.00	.00	-78.68	.00

REGION 30° - 95° E. LONGITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
KHEYSA IS.	BT280	80.60	58.00	9.40	58.00	71.34	156.42
DIKSON	DI373	73.50	80.40	16.50	80.40	63.06	162.20
AMDERMA		69.46	61.41	20.54	61.41	60.73	147.67
NORILSK	NO369	69.40	88.10	20.60	88.10	58.60	165.68
MURMANSK	MM168	69.00	33.00	21.00	33.00	64.04	127.22
LOPARSKAYA	LS168	68.00	33.00	22.00	33.00	63.14	126.25
SALEKHARD	SD266	66.50	66.50	23.50	66.50	57.36	149.67
ARKHANGELSK	AZ163	64.40	40.50	25.60	40.50	58.65	129.12
PODKAMENNAYA	TZ362	61.60	90.00	28.40	90.00	50.77	165.40
LENINGRAD	LD160	59.95	30.70	30.05	30.70	56.08	118.30
SLUTSK	4615I	59.70	30.50	30.30	30.50	55.88	117.97
TOMSK	TK356	56.50	84.90	33.50	84.90	45.99	160.62
SVERDLOVSK	SV256	56.43	58.57	33.57	58.57	48.48	139.57
GORKY	GK156	56.15	44.28	33.85	44.28	50.23	127.70
MOSCOW	MO155	55.50	39.30	34.50	39.30	50.41	123.21
NOVOSIBIRSK	NS355	54.60	83.20	35.40	83.20	44.22	158.94
KIEV	KV151	50.50	30.50	39.50	30.50	47.14	113.34
KARAGANDA	KR250	49.82	73.08	40.18	73.08	40.34	149.76
KHARKOV		49.00	37.00	41.00	37.00	44.55	118.55
ROSTOV	RV149	47.20	39.68	42.80	39.68	42.35	120.30
NOVOKAZALINSK	NK246	45.76	62.12	44.24	62.12	37.58	139.55
SIMFEROPOL	SF144	44.80	34.10	45.20	34.10	41.00	114.47
ALMA ATA	AA343	43.25	76.92	46.75	76.92	33.47	151.88
TBILISI	TB142	41.70	44.80	48.30	44.80	36.15	123.22
TASHKENT	TQ241	41.33	69.62	48.67	69.62	32.32	145.19
DUSHANBE	DS238	38.50	68.80	51.50	68.80	29.61	143.98
ASHKHABAD	AS237	37.90	58.30	52.10	58.30	30.36	134.47
TEHRAN	TE236	35.70	51.40	54.30	51.40	29.22	127.75
CAPE ZEVGARI	CV135	34.58	32.95	55.42	32.95	31.28	110.40
PESHAWAR	39234	34.00	71.50	56.00	71.50	24.85	145.69
HAIFA	HA132	32.82	34.98	57.18	34.98	29.19	111.86
QUETTA	QT230	30.20	67.00	59.80	67.00	21.61	141.01
CAIRO	O5130	30.00	31.20	60.00	31.20	27.13	107.60
DELHI	DH328	28.60	77.20	61.40	77.20	18.90	150.19
AHMEDABAD	AH223	23.00	72.60	67.00	72.60	13.82	145.23
CALCUTTA	CU322	23.00	88.60	67.00	88.60	12.38	160.27
BOMBAY	BM219	19.00	72.80	71.00	72.80	9.82	144.92
WALTAIR		18.00	83.00	72.00	83.00	7.82	154.55
HYDERABAD	HY317	17.35	78.47	72.65	78.47	7.59	150.15
KHARTOUM	23115	15.55	32.58	74.45	32.58	12.73	105.76
MADRAS	MD313	13.10	80.30	76.90	80.30	3.18	151.50
DJIBOUTI	DJ111	11.50	42.80	78.50	42.80	6.87	114.89
TIRUCHIRAPALLI	TI311	10.80	78.70	79.20	78.70	1.05	149.71
KODAIKANAL	KO310	10.20	77.50	79.80	77.50	.57	148.47
THUMBA	TC309	8.60	76.90	81.40	76.90	-.96	147.72
TRIVANDRUM	TM308	8.50	77.00	81.50	77.00	-1.07	147.81
COLOMBO	11306	6.90	79.87	83.10	79.87	-2.95	150.47
BUNIA	BN102	1.50	30.20	88.50	30.20	-.60	100.70
NAIROBI	NR10J	-1.28	36.83	91.28	36.83	-4.59	106.68
SALISBURY/RHODE	SY11P	-17.80	31.00	107.80	31.00	-19.68	97.61
TANANARIVE	IV21Q	-18.80	47.50	108.80	47.50	-23.76	113.93
REUNION	LR22J	-21.07	55.32	111.07	55.32	-27.35	121.48
DURBAN		-29.80	31.00	119.80	31.00	-31.40	94.76
MARION IS	MR140	-46.87	37.85	136.87	37.85	-49.26	95.87
KERGUELEN	KG24R	-49.35	70.24	139.35	70.24	-57.44	129.87
MIRNY	MI360	-66.50	93.00	156.50	93.00	-76.96	149.68
MAWSON	MW26P	-67.60	62.88	157.60	62.88	-73.31	105.08
SYOWA BASE	SW16R	-69.00	39.35	159.00	39.35	-69.92	79.18
SYRACUSE		-69.00	40.00	159.00	40.00	-70.04	79.75

REGION 95° - 195° E. LONGITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ARCTICA (NP-13)	XL	81.00	165.00	9.00	165.00	72.00	-155.37
ARCTICA (NP-08)	XI	80.00	165.00	10.00	165.00	71.14	-153.76
ARCTICA (NP-11)	XK	79.00	165.00	11.00	165.00	70.27	-152.28
ARCTICA (NP-12)		79.00	-173.00	11.00	187.00	72.62	-141.42
ARCTICA (NP-10)	XJ	78.00	165.00	12.00	165.00	69.38	-150.92
ARCTICA (NP-16)	XM676	78.00	176.50	12.00	176.50	70.58	-144.88
ARCTICA (NP-19)	XP	78.00	150.00	12.00	150.00	68.13	-158.79
TIKSI BAY	TX471	71.60	128.90	18.40	128.90	60.69	-167.69
CAPE SCHMIDT	CE669	68.80	179.50	21.20	179.50	62.85	-131.91
ZHIGANSK		66.70	123.30	23.30	123.30	55.60	-170.45
PROVIDENIYA	PD664	64.40	-173.40	25.60	186.60	59.91	-122.89
YAKUTSK	YA462	62.00	129.60	28.00	129.60	51.19	-165.15
MAGADAN		60.00	151.00	30.00	151.00	50.86	-148.41
UNALASKA		54.00	-167.00	36.00	193.00	51.26	-111.07
KAMCHATKO		53.02	158.65	36.98	158.65	44.91	-140.09
PETROPAVLOVSK		53.02	158.65	36.98	158.65	44.91	-140.09
IRKUTSK	IR352	52.50	104.00	37.50	104.00	41.22	175.48
CHITA	CX452	52.00	113.50	38.00	113.50	40.70	-176.83
ADAK	AD651	51.90	-176.60	38.10	183.40	47.55	-118.61
PARAMUSHIRO	36550	50.10	155.30	39.90	155.30	41.63	-142.10
MANCHULI		50.00	117.00	40.00	117.00	38.76	-173.90
MANZHOULI		49.58	117.45	40.42	117.45	38.35	-173.51
SHIKUKA	45549	49.30	143.00	40.70	143.00	39.53	-152.25
KHABAROVSK	KB548	48.50	135.10	41.50	135.10	38.10	-158.74
TSITSIHAR	52447	47.30	123.90	42.70	123.90	36.27	-168.00
YUZHNO SAKHALINSK	SA547	47.00	143.00	43.00	143.00	37.26	-151.85
TOYOHARA	50546	46.90	142.80	43.10	142.80	37.14	-152.00
WAKKANAI	WK545	45.39	141.69	44.61	141.69	35.54	-152.70
CHANGCHUN		43.83	125.27	46.17	125.27	32.87	-166.58
FUKAURA	16541	40.60	139.90	49.40	139.90	30.63	-153.56
BEIJING		40.00	116.30	50.00	116.30	28.75	-174.14
PEIPING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
PEKING	37440	39.90	116.40	50.10	116.40	28.65	-174.05
AKITA	AK539	39.73	140.13	50.27	140.13	29.78	-153.24
DAIRAN	12439	39.00	121.60	51.00	121.60	27.90	-169.46
SHIBATA	44537	37.90	139.30	52.10	139.30	27.89	-153.74
SEOUL	SU437	37.23	126.57	52.77	126.57	26.34	-164.96
HIRAISO	20536	36.40	140.60	53.60	140.60	26.52	-152.39
LANCHOW	27336	36.10	103.80	53.90	103.80	24.83	174.85
KASHIMA	KX	36.00	141.00	54.00	141.00	26.16	-151.98
ORRORAL	OL	36.00	149.00	54.00	149.00	26.98	-144.81
KOKUBUNJI	25535	35.71	139.48	54.29	139.48	25.73	-153.31
KAMINOGE	22532	35.60	139.60	54.40	139.60	25.63	-153.19
MEGURO	31534	35.60	139.70	54.40	139.70	25.64	-153.10
HIRATSUKA	21533	35.30	139.30	54.70	139.30	25.31	-153.42
KYOTO	KY535	35.10	135.50	54.90	135.50	24.79	-156.81
NANKING	32432	32.10	119.00	57.90	119.00	20.92	-171.47
YAMAGAWA	YG431	31.20	130.61	58.80	130.61	20.56	-160.87
HANKOW	19432	30.70	114.30	59.30	114.30	19.41	-175.71
WUCHANG	54430	30.60	114.40	59.40	114.40	19.32	-175.61
WUHAN	WU430	30.60	114.33	59.40	114.33	19.32	-175.68
CHONGQING		29.50	106.42	60.50	106.42	18.20	177.10
LOSHAN	29329	29.50	103.70	60.50	103.70	18.23	174.60
CHUNGKING	09429	29.40	106.30	60.60	106.30	18.10	176.98
OKINAWA	OK426	26.28	127.81	63.72	127.81	15.48	-163.09
TAIPEI	TP424	24.91	121.24	65.09	121.24	13.81	-169.13
GUANGZHOU		23.13	113.35	66.87	113.35	11.83	-176.47
CANTON		23.00	113.00	67.00	113.00	11.70	-176.79
HONG KONG	HK423	22.33	114.20	67.67	114.20	11.04	-175.66

REGION 95° - 195° E. LONGITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
MACAU	MC422	22.20	113.60	67.80	113.60	10.91	-176.22
HAINAN IS	18419	18.30	109.30	71.70	109.30	6.98	179.72
SAN-YA		18.00	109.00	72.00	109.00	6.68	179.44
RANGOON	43316	16.80	96.50	73.20	96.50	5.76	167.41
BAGUIO	BF416	16.40	120.60	73.60	120.60	5.28	-169.40
MANILA	MN414	14.70	121.10	75.30	121.10	3.60	-168.85
MANIB		14.39	120.59	75.61	120.59	3.27	-169.33
BANGKOK	BK314	13.80	100.60	76.20	100.60	2.61	171.26
GUAM	17513	13.50	144.87	76.50	144.87	4.19	-145.73
NHA TRANG	33412	12.25	109.20	77.75	109.20	.93	179.62
LEYTE	28411	11.00	125.00	79.00	125.00	.08	-164.88
KWAJALEIN	26609	9.05	167.20	80.95	167.20	2.89	-123.39
PALAU IS	34407	7.30	134.50	82.70	134.50	-2.98	-155.27
BANDOENG	0240Q	6.90	107.60	83.10	107.60	-4.41	178.02
PENANG	38305	5.50	100.40	84.50	100.40	-5.68	170.81
SINGAPORE	SI301	1.30	103.80	88.70	103.80	-9.96	174.12
MAKASSAR	3040N	.00	119.50	90.00	119.50	-11.15	-169.90
HOLLANDIA	HL50K	-2.50	140.80	92.50	140.80	-12.15	-148.03
VANIMO	VA50L	-2.70	141.30	92.70	141.30	-12.30	-147.50
TANGERANG		-6.17	106.63	96.17	106.63	-17.47	176.91
PORT MORESBY	PY50R	-9.40	147.10	99.40	147.10	-18.29	-140.75
CAPE YORK	0751J	-11.00	142.40	101.00	142.40	-20.43	-145.42
COCOS IS.	CS31K	-12.20	96.80	102.20	96.80	-23.22	166.38
DARWIN	DW41K	-12.45	130.95	102.45	130.95	-22.95	-157.28
FIJI	1461Q	-18.00	178.20	108.00	178.20	-21.78	-107.51
SANYA		-18.30	109.30	108.30	109.30	-29.62	179.68
TOWNSVILLE	TV51R	-19.63	146.85	109.63	146.85	-28.46	-139.56
BRIBIE IS.		-27.30	153.00	117.30	153.00	-35.20	-131.64
BRISBANE	BR52P	-27.53	152.92	117.53	152.92	-35.44	-131.68
NORFOLK IS	NI63!	-29.03	167.97	119.03	167.97	-34.46	-115.44
KERMADEC	KC62R	-29.20	-177.90	119.20	182.10	-32.00	-100.98
WATHEROO	WT43!	-30.30	115.90	120.30	115.90	-41.54	-172.72
WOOMERA	W053J	-31.80	136.30	121.80	136.30	-41.74	-149.21
MUNDARING	MU43K	-31.98	116.22	121.98	116.22	-43.21	-172.28
SYDNEY	CN53L	-34.05	150.67	124.05	150.67	-42.19	-132.71
SALISBURY/AUST	SR53M	-34.70	138.60	124.70	138.60	-44.37	-146.10
CANBERRA	CB53N	-35.32	149.00	125.32	149.00	-43.68	-134.25
AUCKLAND	AU63P	-37.00	175.00	127.00	175.00	-40.95	-105.96
BEVERIDGE		-37.29	144.59	127.29	144.59	-46.22	-138.74
ST KILDA	KA	-38.00	139.00	128.00	139.00	-47.60	-144.98
WELLINGTON		-41.23	175.00	131.23	175.00	-45.05	-104.55
HOBART	HO54K	-42.92	147.32	132.92	147.32	-51.39	-134.10
CHRISTCHURCH	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
EYREWELL	GH64L	-43.41	172.35	133.41	172.35	-47.66	-106.49
LAUDER	LR	-45.00	170.00	135.00	170.00	-49.63	-108.32
CAMPBELL IS.	CI65K	-52.60	169.10	142.60	169.10	-57.08	-105.61
MACQUARIE IS	MQ55M	-54.50	159.00	144.50	159.00	-60.74	-115.54
CASEY	CW46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
WILKES	WL46O	-66.28	110.53	156.28	110.53	-77.60	-178.24
TERRE ADELIE	DU56O	-66.66	140.02	156.66	140.02	-75.32	-127.64
CAPE HALLETT	HT67K	-72.30	170.20	162.30	170.20	-74.45	-81.27
SCOTT BASE	SB67Q	-77.80	166.76	167.80	166.76	-78.78	-65.88
VOSTOK	VO47P	-78.40	106.90	168.40	106.90	-89.40	116.33

REGION 195° - 330° E. LONGITUDE

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
ARCTICA (NP-07)	XH	86.30	-63.40	3.70	296.60	82.34	176.61
ALERT	ALJ82	82.50	-62.60	7.50	297.40	85.98	165.34
EUREKA	EU980	80.00	-85.90	10.00	274.10	86.86	-122.21
THULE (QANAQ)	THJ77	77.50	-69.20	12.50	290.80	88.79	12.54
THULE (TUTO)	THJ76	76.40	-68.70	13.60	291.30	87.69	10.03
FLETCHERS ICE	XC982	75.90	-124.30	14.10	235.70	78.29	-104.14
RESOLUTE BAY	RB974	74.70	-94.90	15.30	265.10	83.18	-67.13
SACHS HARBOR	SH872	72.00	-125.15	18.00	234.85	75.37	-92.67
BARROW	BW771	71.20	-156.80	18.80	203.20	68.78	-117.29
CLYDE RIVER	CRJ70	70.50	-68.60	19.50	291.40	81.81	4.24
CAPE PARRY	CF870	70.17	-125.60	19.83	234.40	73.82	-88.92
GODHAVN	GOJ69	69.26	-53.51	20.74	306.49	79.58	34.70
FORT YUKON		67.00	-145.00	23.00	215.00	67.37	-101.83
SDR STROMFJORD		67.00	-50.95	23.00	309.05	77.14	35.79
SONDERSTROM		67.00	-50.95	23.00	309.05	77.14	35.79
EILSON AFB		65.00	-147.00	25.00	213.00	65.22	-101.25
ULASKA	UL	65.00	-148.00	25.00	212.00	65.03	-102.15
COLLEGE	CO764	64.93	-148.00	25.07	212.00	64.96	-102.07
FORT NORMAN	FN864	64.90	-125.50	25.10	234.50	69.33	-80.17
BAKER LAKE	BL964	64.30	-96.00	25.70	264.00	73.81	-42.19
FROBISHER BAY	FBJ63	63.80	-68.60	26.20	291.40	75.11	3.11
PAXSON		63.00	-146.00	27.00	214.00	63.62	-98.30
YELLOWKNIFE	YE862	62.40	-114.40	27.60	245.60	69.13	-64.59
FAREWELL		62.00	-154.00	28.00	206.00	61.17	-104.65
ANCHORAGE	AN761	61.20	-149.90	28.80	210.10	61.22	-100.27
NARSSARSSUAQ	NQJ61	61.17	-45.41	28.83	314.59	70.87	38.46
WILDWOOD		60.56	-151.25	29.44	208.75	60.38	-100.99
CHURCHILL	CH958	58.80	-94.20	31.20	265.80	68.71	-35.14
FORT CHIMO	FCJ58	58.10	-68.40	31.90	291.60	69.41	3.02
KING SALMON		58.00	-157.00	32.00	203.00	56.90	-104.37
KODIAK	KD758	57.78	-152.40	32.22	207.60	57.58	-100.01
CAPE JONES		55.00	-80.00	35.00	280.00	66.10	-13.64
GREAT WHALE		55.00	-78.00	35.00	282.00	66.18	-10.81
KNOB LAKE		55.00	-67.00	35.00	293.00	66.29	4.87
MEANOOK	ME855	54.60	-113.30	35.40	246.70	61.95	-56.99
PRINCE RUPERT	42854	54.30	-130.30	35.70	229.70	58.62	-75.81
THE PAS	49954	54.00	-101.00	36.00	259.00	63.20	-41.56
GOOSE BAY	GSJ53	53.32	-60.36	36.68	299.64	64.40	13.96
PRINCE ALBERT	PB	53.00	-106.00	37.00	254.00	61.54	-47.31
SASKATOON		52.10	-106.60	37.90	253.40	60.58	-47.60
SWAN RIVER	48952	52.10	-101.20	37.90	258.80	61.32	-40.94
MOOSONEE		51.00	-81.00	39.00	279.00	62.06	-14.29
VICTORIA BEACH	53951	50.80	-96.08	39.20	263.92	60.66	-33.96
KENORA	KE948	50.00	-94.00	40.00	266.00	60.09	-31.05
PORTAGE LA PRAIRIE	41950	49.90	-98.30	40.10	261.70	59.52	-36.44
WINNIPEG	WI949	49.80	-94.40	40.20	265.60	59.85	-31.50
EAST GRAND FORKS	GF	49.00	-97.00	41.00	263.00	58.78	-34.51
VICTORIA	VI848	48.40	-123.40	41.60	236.60	54.26	-65.19
VAL D'OR		48.00	-78.00	42.00	282.00	59.19	-9.94
SEATTLE	SE847	47.75	-122.42	42.25	237.58	53.81	-63.82
ST JOHNS	SJJ47	47.60	-52.70	42.40	307.30	58.23	22.93
BAIE ST PAUL	PLJ48	47.30	-70.50	42.70	289.50	58.62	-.12
PULLMAN		47.00	-117.00	43.00	243.00	54.01	-57.47
OTTAWA	OT945	45.10	-76.15	44.90	283.85	56.35	-7.32
HIGHGATE SPGS.		45.01	-73.09	44.99	286.91	56.31	-3.42
MINNEAPOLIS		45.00	-93.00	45.00	267.00	55.24	-28.45
ERROL		44.79	-71.13	45.21	288.87	56.11	-.92
HANOVER	HNJ44	43.70	-72.20	46.30	287.80	55.01	-2.26
MILLSTONE HILL	MHJ45	42.61	-71.49	47.39	288.51	53.93	-1.35

REGION 195° - 330° E. LONGITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
BILLERICA	BOJ43	42.60	-71.30	47.40	288.70	53.92	-1.11
MAYNARD	MYJ43	42.43	-71.45	47.57	288.55	53.75	-1.30
BOSTON	56J43	42.40	-71.20	47.60	288.80	53.72	-.99
BEDFORD		42.00	-71.00	48.00	289.00	53.32	-.73
PENN ST. UNIVERSITY		41.00	-78.00	49.00	282.00	52.20	-9.36
FORT MONMOUTH	FMJ40	40.40	-74.10	49.60	285.90	51.69	-4.53
BOULDER	BC840	40.03	-105.30	49.97	254.70	48.93	-41.82
ERIE	ER842	40.01	-105.30	49.99	254.70	48.91	-41.81
PLATTEVILLE	PV842	40.01	-105.30	49.99	254.70	48.91	-41.81
BATAVIA	03439	39.40	-84.10	50.60	275.90	50.33	-16.65
FORT BELVOIR	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
WASHINGTON	WA938	38.70	-77.10	51.30	282.90	49.93	-8.12
WALLOPS IS	WP937	37.94	-75.47	52.06	284.53	49.21	-6.11
STANFORD	ST837	37.40	-122.20	52.60	237.80	43.79	-59.85
POINT ARGUELLO	PA836	35.60	-120.60	54.40	239.40	42.30	-57.61
ROSMAN	RM	35.00	-83.00	55.00	277.00	46.00	-14.89
VANDENBERG AFB		34.73	-120.57	55.27	239.43	41.45	-57.34
HUNTSVILLE	HV934	34.44	-86.35	55.56	273.65	45.25	-18.77
LA POSTA		33.00	-117.00	57.00	243.00	40.33	-53.05
WHITE SANDS	WS832	32.30	-106.50	57.70	253.50	41.15	-41.39
BATON ROUGE	04930	30.50	-91.20	59.50	268.80	40.98	-23.90
EGLIN AFB	EG930	30.30	-86.70	59.70	273.30	41.10	-18.75
CAPE KENNEDY	CC929	28.40	-80.70	61.60	279.30	39.51	-11.75
COCOA	10928	28.20	-80.60	61.80	279.40	39.32	-11.63
PATRICK AFB		28.20	-80.60	61.80	279.40	39.32	-11.63
FORT MYERS		27.00	-82.00	63.00	278.00	38.06	-13.14
GRAND BAHAMA	GB926	26.60	-78.20	63.40	281.80	37.80	-8.82
SAN SALVADOR	SSJ24	24.10	-74.50	65.90	285.50	35.39	-4.58
CUBA	CD923	23.00	-82.00	67.00	278.00	34.06	-12.90
KAUAI	KW	22.00	-160.00	68.00	200.00	21.63	-94.13
MAUI	MA720	20.83	-156.47	69.17	203.53	21.18	-90.42
MEXICO CITY	MX919	19.26	-99.42	70.74	260.58	29.04	-31.58
ARECIBO	ARJ19	18.50	-66.80	71.50	293.20	29.80	3.95
PUERTO RICO	PRJ18	18.50	-67.20	71.50	292.80	29.80	3.51
JAMAICA	JA918	18.00	-76.80	72.00	283.20	29.24	-6.97
KINGSTON		18.00	-76.90	72.00	283.10	29.24	-7.08
BARBADOS	BSJ13	13.10	-59.60	76.90	300.40	24.21	11.55
TRINIDAD	51J10	10.75	-61.57	79.25	298.43	21.93	9.37
PANAMA	PN909	9.40	-79.90	80.60	280.10	20.56	-10.00
MERIDA	MVJ08	8.51	-71.13	81.49	288.87	19.83	-.76
PARAMARIBO	PMJ06	5.80	-55.20	84.20	304.80	16.71	15.81
PALMYRA	35705	5.38	-162.18	84.62	197.82	4.93	-92.79
BOGOTA	BGJ05	4.50	-74.20	85.50	285.80	15.79	-3.93
POPAYAN	PP902	2.45	-76.62	87.55	283.38	13.70	-6.39
CHRISTMAS IS.	08701	1.90	-157.30	88.10	202.70	2.47	-87.32
QUITO	QO	-1.00	-79.00	91.00	281.00	10.19	-8.73
FORTALEZA	FZAOM	-3.75	-38.95	93.75	321.05	5.91	31.57
TALARA	TA90M	-4.60	-81.30	94.60	278.70	6.52	-10.93
NATAL	NLAON	-5.70	-35.20	95.70	324.80	3.57	35.09
CHICLAYO	CY90P	-6.80	-79.80	96.80	280.20	4.37	-9.35
CHIMBOTE	CM90R	-9.10	-78.60	99.10	281.40	2.11	-8.09
JICAMARCA	JI91J	-11.95	-76.86	101.95	283.14	-.70	-6.31
HUANCAYO	HU91K	-12.00	-75.30	102.00	284.70	-.72	-4.78
LIMA	LM	-12.00	-77.00	102.00	283.00	-.75	-6.45
JULIACA	JUJ1N	-15.50	-70.20	105.50	289.80	-4.18	.20
OVEJUVO		-16.00	-69.00	106.00	291.00	-4.68	1.36
LA PAZ	LPJ10	-16.50	-68.10	106.50	291.90	-5.19	2.22
ILO	ILJ1P	-17.40	-71.20	107.40	288.80	-6.08	-.76
TAHITI	TT71P	-17.73	-149.32	107.73	210.68	-15.23	-75.63
RAROTONGA	RA72J	-21.20	-159.80	111.20	200.20	-20.65	-85.05

REGION 195° - 330° E. LONGITUDE
(continued)

Station Name	Code	Geograph Lat.	Geograph Long.	Geograph Co-lat.	Geograph E.-long.	Dipole Lat.	Dipole Long.
LA QUIACA	LQJ2K	-22.10	-65.60	112.10	294.40	-10.82	4.54
CACHOEIRA PAULISTA		-22.70	-45.02	112.70	314.98	-12.40	23.89
SAN JOSE	BZJ2L	-22.70	-35.20	112.70	324.80	-13.32	33.14
SAO PAULO	SPJ2L	-23.50	-46.50	113.50	313.50	-13.09	22.43
PITCAIRN IS	4082N	-25.00	-130.00	115.00	230.00	-18.93	-55.72
BLUMENAU		-26.90	-48.90	116.90	311.10	-16.31	19.92
TUCUMAN	TUJ20	-26.90	-65.40	116.90	294.60	-15.62	4.64
SAN JUAN	SNJ3J	-31.55	-68.50	121.55	291.50	-20.24	1.73
SANTIAGO	NT	-33.00	-71.00	123.00	289.00	-21.68	-.53
BUENOS AIRES	BAJ3M	-34.50	-58.50	124.50	301.50	-23.40	10.68
CONCEPCION	CPJ30	-36.78	-73.12	126.78	286.88	-25.47	-2.40
TRELEW	TWJ4L	-43.20	-65.30	133.20	294.70	-31.92	4.39
PORT STANLEY	PSJ5J	-51.70	-57.80	141.70	302.20	-40.60	10.27
SOUTH ATLANTIC	FS	-52.00	-58.00	142.00	302.00	-40.89	10.08
SOUTH GEORGIA	SGA5M	-54.27	-36.50	144.27	323.50	-44.50	27.18
USHUAIA	UAJ5M	-54.80	-68.30	144.80	291.70	-43.49	1.68
DECEPCION	DEJ6L	-63.00	-60.70	153.00	299.30	-51.80	7.11
PORT LOCKROY	PCJ6M	-64.80	-63.50	154.80	296.50	-53.54	4.94
ARGENTINE IS.	AIJ6N	-65.25	-64.27	155.25	295.73	-53.98	4.37
NORWAY STATION		-71.00	-61.00	161.00	299.00	-59.78	6.07
EIGHTS	EI97N	-75.00	-77.10	165.00	282.90	-63.72	-3.91
ELLSWORTH	ELA7P	-77.72	-41.20	167.72	318.80	-67.17	15.52
BELGRANO	GEA7Q	-77.97	-38.80	167.97	321.20	-67.54	16.62
LITTLE AMERICA	LA77Q	-78.20	-162.20	168.20	197.80	-73.96	-47.72
BYRD STATION	BD88!	-80.00	-120.00	170.00	240.00	-70.66	-23.53

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
ARCTICA (NP-07)	XH		USSR	ARCTICA 2	3.70	296.60	7/57	3/59
ARCTICA 2	XH		USSR		3.70	296.60	7/57	3/59
ARCTICA (NP-02)	XC687		USSR		4.00			
ALERT	ALJ82	75W	CANADA		7.50	297.40	8/57	12/58
ARCTICA (NP-06)	XG		USSR	ARCTICA 1	7.70	9.50	7/57	9/59
ARCTICA 1	XG		USSR		7.70	9.50	7/57	9/59
NORTH POLE 6	XG		USSR		7.70	9.50	7/57	9/59
ARCTICA (NP-01)	XA483		USSR		8.00			
ARCTICA (NP-13)	XL		USSR		9.00	165.00	7/64	9/66
KHEYSA IS.	BT280	60E	USSR	HEISS IS.	9.40	58.00	1/38	
HEISS IS.	BT280	60E	USSR		9.40	58.00	1/38	
KHEYSA IS.	BT280	60E	USSR		9.40	58.00	1/38	
TIKHAYA BAY	BT280	60E	USSR		9.40	58.00	1/38	
ARCTICA (NP-08)	XI		USSR		10.00	165.00	6/60	11/61
EUREKA	EU980	75W	CANADA		10.00	274.10	7/57	1/59
ARCTICA (NP-11)	XK		USSR		11.00	165.00	7/62	10/62
ARCTICA (NP-12)			USSR		11.00	187.00	5/63	4/64
LONGYEARBYEN	LG178	15E	NORWAY	SPITSBERGEN	11.80	15.70	6/56	8/59
GEAR BOX	LG178	15E	NORWAY		11.80	15.70	6/56	8/59
KAPP LINNE	LG178	15E	NORWAY		11.80	15.70	6/56	8/59
SPITSBERGEN	LG178	15E	NORWAY		11.80	15.70	6/56	8/59
SVALBARD	LG178	15E	NORWAY		11.80	15.70	6/56	8/59
ARCTICA (NP-16)	XM676		USSR		12.00	176.50	6/68	3/70
ARCTICA (NP-19)	XP		USSR		12.00	150.00	7/70	10/72
ARCTICA (NP-10)	XJ		USSR	NORTH POLE 10	12.00	165.00	12/62	4/64
NORTH POLE 10	XJ		USSR		12.00	165.00	12/62	4/64
THULE (QANAQ)	THJ77	75W			12.50	290.80	9/68	
THULE (TUTO)	THJ76				13.60	291.30	7/55	6/66
FLETCHERS ICE	XC982	75W	USA		14.10	235.70	6/57	1/59
RESOLUTE BAY	RB974	90W	CANADA		15.30	265.10	2/49	
DIKSON	DI373	105E	USSR	DIXON	16.50	80.40	7/57	
DIXON	DI373	105E	USSR		16.50	80.40	7/57	
SACHS HARBOR	SH872				18.00	234.85		
TIKSI BAY	TX471	135E	USSR	BUKHTA TIKSY	18.40	128.90	7/57	
BUKHTA TIKSY	TX471	135E	USSR		18.40	128.90	7/57	
TIXIE	TX471	135E	USSR		18.40	128.90	7/57	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
BARROW	BW771	150W	USA	POINT BARROW	18.80	203.20	12/49	11/65
POINT BARROW	BW771	150W	USA		18.80	203.20	12/49	11/65
CLYDE RIVER	CRJ70	75W	CANADA	BAFFIN	19.50	291.40	10/43	10/58
BAFFIN	CRJ70	75W	CANADA		19.50	291.40	10/43	10/58
CAPE PARRY	CF870				19.83	234.40	NK	
KEVO					20.00	26.00		
TROMSO	TR169	15E	NORWAY		20.30	19.00	8/32	
RAMFJORDMOEN			NORWAY		20.42	19.22		
AMDERMA					20.54	61.41		
NORILSK	NO369	90E			20.60	88.10	1/68	
GODHAVN	GOJ69	45W	DENMARK		20.74	306.49	11/51	
MURMANSK	MM168	30E	USSR	LOPANSKAYA	21.00	33.0	3/56	
LOPARSKAYA	LS168			MURMANSK	22.00	33.00		
CAPE SCHMIDT	CE669	165E	USSR		21.20	179.50	1/60	
KIRUNA	KI167	15E	SWEDEN		22.16	20.42	3/49	
SODANKYLA	SO166	30E	FINLAND		22.60	26.60	8/57	
FORT YUKON			CANADA		23.00	215.00		
SDR STROMFJORD			GREENLAND		23.00	309.05		
SONDERSTROM			GREENLAND		23.00	309.05		
ZHIGANSK			USSR		23.30	123.30		
SALEKHARD	SD266	60E	USSR		23.50	66.50	7/57	
ROVANIEMI					24.00	26.00		
LULEA	LU165	15E	SWEDEN		24.40	22.10	9/47	/69
EILSON AFB					25.00	213.00	1/71	
OULU					25.00	26.00		
ULASKA	UL				25.00	212.00		
COLLEGE	CO764	150W	USA	FAIRBANKS	25.07	212.00	7/41	
FAIRBANKS	CO764	150W	USA		25.07	212.00	7/41	
FORT NORMAN	FN864	105W	CANADA		25.10	234.50	7/57	10/58
LYCKSELE	LY164	15E	SWEDEN		25.38	18.67	1/57	
ARKHANGELSK	AZ163	45E	USSR	ARCHANGEL	25.60	40.50	1/78	
PROVIDENIYA	PD664	180E	USSR	PROVIDENIE BAY	25.60	186.60	3/57	
PROVIDENYA BAY	PD664	180E	USSR		25.60	186.60	3/57	
BAKER LAKE	BL964	90W	CANADA		25.70	264.00	2/49	2/59

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
REYKJAVIK	RKA64	15W	ICELAND		25.90	338.20	4/44	12/64
FROBISHER BAY	FBJ63	60W	CANADA		26.20	291.40	9/57	1/59
PAXSON					27.00	214.00		
YELLOWKNIFE	YE862	105W	CANADA		27.60	245.60	11/57	1/59
FAREWELL					28.00	206.00		
JYVASKYLA					28.00	23.00		
YAKUTSK	YA462	135E	USSR	JAKUTSK	28.00	129.60	2/57	
JAKUTSK	YA462	135E	USSR		28.00	129.60	2/57	
PODKAMENNÁYA	TZ362	90E	USSR		28.40	90.00	1/68	
TUNGUSKA	TZ362	90E	USSR	PODKAMENNAYA	28.40	90.00	1/68	
ANCHORAGE	AN761	150W	USA		28.80	210.10	4/49	12/65
NARSSARSSUAQ	NQJ61	45W			28.83	314.59	9/50	
WILDWOOD					29.44	208.75		
NURMIJARVI	NU159	30E	FINLAND	KEIMOLA	29.50	24.60	1/57	
KEIMOLA	NU159	30E	FINLAND		29.50	24.60	1/57	
WIIKI	NU159	30E	FINLAND		29.50	24.60	1/57	
MAGADAN		150E			30.00	151.00		
KJELLER	OS059	15E	NORWAY	OSLO	30.00	11.10	4/42	1/59
OSLO	OS059	15E	NORWAY		30.00	11.10		
LENINGRAD	LD160	30E	USSR		30.05	30.70	1/39	
UPPSALA	UP158	15E	SWEDEN		30.20	17.60	11/51	
SLUTSK	4615I	30E			30.30	30.50		
CHURCHILL	CH958	90W	CANADA		31.20	265.80	7/43	
FORT CHIMO	FCJ58	75W	CANADA		31.90	291.60	4/49	12/58
KING SALMON					32.00	203.00		
KODIAK	KD758				32.22	207.60	1/79	
BURGHEAD	06063	0E		FRASERBURGH	32.30	356.30	1/41	1/47
HILLHEAD	06063	0E			32.30	356.30	1/41	1/47
FRASERBURGH	15065	0E		BURGHEAD	32.40	357.90	3/48	9/51
INVERNESS	IN056	0E	UK	BURGHEAD	32.60	355.80	10/51	6/63
SOUTH UIST			UK		32.63	352.67	11/67	
RAO					33.00	12.00		
GOTEBURG					33.00	12.00		
ONSALA					33.00	12.00		
TOMSK	TK356	90E	USSR		33.50	84.90	3/37	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
SVERDLOVSK	SV256	60E	USSR		33.57	58.57	5/44	
GORKY	GK156	45E	USSR		33.85	44.28	3/58	
EDINBURGH	ED				34.00	357.00		
MOSCOW	MO155	30E	USSR	KRASNAYA PAKHRA	34.50	39.30	3/44	
KRASNAYA PAKHRA	MO155	30E	USSR		34.50	39.30	3/44	
KRASNAYA	MO155	30E	USSR		34.50	39.30	3/44	
CAPE JONES					35.00	280.00		
GREAT WHALE					35.00	282.00		
KNOB LAKE					35.00	293.00		
KOOTWIJK					35.00	6.00		
KALININGRAD	KL154	15E	USSR		35.30	20.62	2/64	
JULIUSRUH	JR055	15E	FRG	RUGEN	35.37	13.38	4/57	
RUGEN	JR055	15E	FRG	JULIUSRUH	35.37	13.38	4/57	
NOVOSIBIRSK	NS355	90E	USSR		35.40	83.2	1/69	
MEANOOK	ME855	105W	CANADA	SWAN RIVER	35.40	246.70	7/57	1/59
MANITOBA	ME855	105W	CANADA		35.40	246.70	7/57	1/59
THE PAS	49954	90W		SWAN RIVER	36.00	259.0	5/46	12/53
SWAN RIVER	48952	90W		THE PAS	37.90	258.80	4/46	8/46
PRINCE RUPERT	42854	120W			35.70	229.70	6/45	6/54
SNAINTON	47050				35.80	00.00	8/44	9/44
KUHLUNGSBORN					35.90	11.80		
DARMSTADT			FRG		36.00	9.00		
UNALASKA					36.00	193.00		
GOOSE BAY	GSJ53	60W	USA		36.68	299.64	2/72	
KAMCHATKA					36.98	158.65		
PETROPAVLOVSK				KAMCHATKA	36.98	158.65		
JODRELL BANK					37.00	358.00		
LANCASTER					37.00	358.00		
NEUSTRELITZ					37.00	13.00		
PRINCE ALBERT	PB				37.00	254.00		
SHEFFIELD					37.00	359.00		
FRIEDLAND		15E		RECHLIN	37.00	16.00	2/40	
BERLIN		15E			37.00	16.00	2/40	
MARKISCH		15E			37.00	16.00	2/40	
RECHLIN					37.00	16.00	2/40	
IRKUTSK	IR352	105E	USSR		37.50	104.00	/56	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
ABERYSTWYTH	AB				37.57	355.93	12/61	12/61
MIEDZESYN	MZ152	15E	POLAND	WARSAW	37.80	21.20	7/58	
MICHURIN	MZ152	15E	POLAND		37.80	21.20	7/58	
WARSAW	MZ152	15E	POLAND		37.80	21.20	7/58	
DE BILT	DT053	0E	NETHERLANDS		37.90	5.18	11/49	
SASKATOON					37.90	253.40		
CAMBRIDGE					38.00	0.00		
CHITA	CX452	120E	USSR		38.00	113.50	1/46	5/63
KOLBERG BERLIN					38.00	14.00		
LEICESTER			UK		38.00	359.00		
LEIDSCHENDAM					38.00	4.00		
SWANSEA					38.00	356.00		
ADAK	AD651	180W	USA		38.10	183.40	10/45	12/65
BADDOW	01061	0E			38.30	.50	11/40	4/46
LINDAU	LI050	15E	WEST GERMANY		38.35	10.10	11/47	7/79
SLOUGH	SL051	0E	UK		38.52	359.43	1/30	
COLLM					39.00	13.00		
COLOGNE					39.00	7.00		
MOOSONEE					39.00	279.00		
WINKFIELD	WK				39.00	359.00		
VICTORIA BEACH	53951			PORTAGE LA PRAIRI	E39.20	263.92	7/45	9/45
KENORA	KE948	90W	CANADA	WINNIPEG	40.00	266.00		12/76
PORTAGE LA PRAIRIE	41950	90W		WINNIPEG	40.10	261.70	9/46	4/51
WINNIPEG	WI949	90W	CANADA	PORTAGE LA PRAIRI	E40.20	265.60	4/51	12/76
KIEV	KV151	30E	USSR		39.50	30.50	1/64	
DOURBES	DB049	0E	BELGIUM		39.90	4.60	6/57	
PARAMUSHIRO	36550	160E		SHIKUKA	39.90	155.30	11/43	0/44
SHIKUKA	45549	135E		PARAMUSHIRO	40.70	143.0	10/40	12/41
MANCHULI				LUPIN	40.00	117.00		
LUPIN					40.00	117.00		
PRUHONICE	PQ052	15E	CZECHOSLOVAKIA	PRAGUE	40.00	14.60	4/58	
PANSKA-VES	PQ052	15E	CZECHOSLOVAKIA		40.00	14.56	4/58	
PRAGUE	PQ052	15E	CZECHOSLOVAKIA	PRAGUE	40.00	14.56	4/58	
KARAGANDA	KR250		USSR		40.18	73.08	8/64	
MANZHOULI					40.42	117.45	11/5	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
BRETIGNY	GN				41.00	358.00		
EAST GRAND FORKS	GF				41.00	263.00		
KHARKOV					41.00	37.00		
DOMONT	13062	0E		BAGNEUX	41.00	2.30	3/50	4/52
BAGNEUX	55039	0E		MEUDON	41.20	02.30	3/47	12/49
MEUDON	55039	0E			41.20	02.30	3/47	12/49
LANNION	LN047	0E	FRANCE		41.25	356.55	1/71	
KHABAROVSK	KB548	135E	USSR		41.50	135.10	9/59	
VICTORIA	VI848	120W	CANADA		41.60	236.60	7/57	1/59
PARIS-SACLAY	SC047	0E	FRANCE		41.90	02.30	6/60	12/70
FREIBURG	FR048	0E	WEST GERMANY	BREISACH	41.90	07.60	7/46	12/76
BREISACH	FR048	0E	WEST GERMANY		41.90	07.60	7/46	12/76
VAL D'OR					42.00	282.00		
BAD VOESLAU		15E	AUSTRIA	VIENNA	42.00	16.00	3/43	3/45
VIENNA		15E	AUSTRIA		42.00	16.00	3/43	3/45
SEATTLE	SE847	120W	USA		42.25	237.58	1/58	10/60
KOCHEL	24064			FREIBURG	42.30	11.4	1/41	/46
ST JOHNS	SJJ47	60W	CANADA	ST. JOHN'S	42.40	307.30	5/44	9/81
ST. JOHN'S	SJJ47	60W	CANADA		42.40	307.30	5/44	9/81
TSITSIHAR	52447	120E			42.70	123.90	4/40	8/45
BAIE ST PAUL	PLJ48		CANADA	QUEBEC	42.70	289.50	11/61	2/62
QUEBEC	PLJ48		CANADA		42.70	289.50	11/61	2/62
GARCHY	GY042	0E	FRANCE	CHAMPFLEURY	42.72	03.07	10/59	
CHAMPFLEURY	GY042	0E	FRANCE		42.72	03.07	10/59	
ROSTOV	RV149	45E	USSR		42.80	39.68	1/57	
GRAZ	GZ146	15E	AUSTRIA		42.90	15.50	8/47	
PULLMAN					43.00	243.00		
YUZHNO SAKHALINSK	SA547	150E	USSR		43.00	143.0	/56	8/70
BUDAPEST	BU147	15E	HUNGARY	BEKESCSABA	43.00	19.00	1/56	
BEKESCSABA	BH147	15E	HUNGARY	BUDAPEST	43.33	21.17		
TOYOHARA	50546	135E			43.10	142.80	9/42	8/44
SCHWARZENBURG	SZ045	15E	SWITZERLAND	SOTTENS	43.40	6.70	12/50	11/75
SOTTENS	SZ045	15E	SWITZERLAND		43.40	6.70	2/50	1/72
POITIERS	PT046	0E	FRANCE		43.43	.35	7/48	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates
NOVOKAZALINSK	NK246	60E	USSR		44.24	62.12	3/64
WAKKANAI	WK545	135E	JAPAN	MOSHIRI	44.61	141.69	3/47
HOKKAIDO	WK545	135E	JAPAN		44.61	141.69	3/47
MOSHIRI	WK545	135E	JAPAN		44.61	141.69	3/47
OTTAWA	OT945	75W	CANADA		44.90	283.85	1/42
TORINO		15E	ITALY	SAN CARLO CANAVES	44.98	7.64	
SAN CARLO CANAVESE		15E	ITALY	TORINO	44.99	7.64	
HIGHGATE SPGS					44.99	286.91	
MINNEAPOLIS			USA		45.00	267.00	
TURIN					45.00	8.00	
BEOGRAD	BE145	15E	YUGOSLAVIA	BELGRADE	45.20	20.50	3/58
BELGRADE	BE145	15E	YUGOSLAVIA		45.20	20.50	3/58
SIMFEROPOL	SF144	30E	USSR	CRIMEA	45.20	34.10	1/57 12/59
CRIMEA	SF144	30E	USSR		45.20	34.10	1/57 2/59
ERROL					45.21	288.87	11/68 4/74
GENOVA	GV044	0E	ITALY	MONTE CAPELLINO	45.40	09.00	5/56 12/73
MONTE CAPELLINO	GV044	0E	ITALY		45.40	09.00	5/56 12/73
CHANGCHUN					46.17	125.27	6/56
HANOVER	HNJ44				46.30	287.80	11/68 4/74
ALMA ATA	AA343	75E	USSR		46.75	76.92	1/43
SOFIA	SQ143	30E	BULGARIA		47.30	23.40	/60
MILLSTONE HILL	MHJ45	75W	USA		47.39	288.51	4/63
BILLERICA	BOJ43	75W	USA	BOSTON	47.40	288.70	11/65 9/70
MAYNARD	MYJ43	75W	USA	BOSTON	47.57	288.55	10/70 6/75
BOSTON	56J43	75W	USA	DEAL	47.60	288.80	3/45 7/51
DEAL	56J43	75W	USA		47.60	288.80	3/45 7/51
BEDFORD					48.00	289.00	
TORRECHIRUCCA					48.00	12.00	
ROME	RO041	15E	ITALY	SAN ALESSIO	48.10	12.52	1/51
SAN ALESSIO	RO041	15E	ITALY		48.10	12.52	1/51
TBILISI	TB142	45E	USSR		48.30	44.80	6/63
TASHKENT	TQ241	75E	USSR		48.67	69.62	9/61
ISTANBUL	IS141	0E	TURKEY		48.87	29.03	7/53
PENN ST. UNIVERSITY					49.00	282.00	
EBRO	EB040		SPAIN	TORTOSA	49.18	.49	5/57
TORTOSA	EB040	0E	SPAIN	EBRO	49.18	0.49	5/57

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
FUKAURA	16541	135E	JAPAN	AKITA	49.40	139.90	3/47	12/49
AKITA	AK539	135E	JAPAN	FUKAURA	50.27	140.13	12/49	
FORT MONMOUTH	FMJ40	75W	USA		49.60	285.90	3/55	12/65
BOULDER	BC840	105W	USA		49.97	254.70	7/58	
ERIE	ER842	105W	USA		49.99	254.70	6/69	
PLATTEVILLE	PV842				49.99	254.70	10/70	8/71
BEIJING					50.00	116.30	2/53	
PEIPING	37440	120E		PEKING	50.10	116.40	4/46	12/48
PEKING	37440	120E		DAIRAN	50.10	116.40	4/46	2/48
DAIRAN	12439	120E		PEIPING	51.00	121.60	12/44	2/45
BATAVIA	03439	75W			50.60	275.90	9/51	10/52
LISBOA					51.00	351.00		
SARDINIA	ES	15E			51.00	9.00		
FORT BELVOIR	WA938	75W	USA	BELVOIR	51.30	282.90	12/29	9/68
WASHINGTON	WA938	75W	USA	FORT BELVOIR	51.30	282.90	12/29	9/68
BELVOIR	WA938	75W	USA		51.30	282.90	12/29	9/68
DUSHANBE	DS238		USSR		51.50	68.80	7/57	
ATHENS	AT138	30E	GREECE	SCARAMANGA	52.00	23.60	12/43	
EKALI	AT138	30E	GREECE		52.00	23.60	12/43	
SCARAMANGA	AT138	30E	GREECE		52.00	23.60	12/43	
WALLOPS IS	WP937	75W	USA		52.06	284.53	7/63	
ASHKHABAD	AS237	60E	USSR		52.10	58.30	3/57	
SHIBATA	44537	135E			52.10	139.3	11/46	10/49
GIBILMANNA	GM037	15E	ITALY		52.41	14.01	4/76	
STANFORD	ST837	120W	USA	SAN FRANCISCO	52.60	237.80	2/42	3/75
SAN FRANCISCO	ST837	120W	USA		52.60	237.80	2/42	3/75
SEOUL	SU437	135E	SOUTH KOREA	KOREA	52.77	126.57	10/66	
KOREA	SU437	135E	SOUTH KOREA		52.77	126.57	10/66	
EL ARENOSILLO	EA036	30E	SPAIN		52.90	353.25	12/69	
LANCHOW	27336	105E			53.90	103.8	12/46	7/49
KASHIMA	KX				54.00	141.00		
ORRORAL	OL				54.00	149.00		
ST PETER-ORDING			FRG		54.00	9.30		

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
HIRAISO	20536	120E		TOKYO	53.60	140.60	7/36	8/45
KOKUBUNJI	25535	135E	JAPAN	TOKYO	54.29	139.48	8/43	12/44
HONSHU	T0535	135E	JAPAN		54.30	139.50	6/34	
KOMURU	T0535	135E	JAPAN		54.30	139.50	6/34	
MABASHI	T0535	135E	JAPAN		54.30	139.50	6/34	
SEKI	T0535	135E	JAPAN		54.30	139.50	6/34	
TOKYO	T0535	135E	JAPAN	HIRAISHO	54.30	139.50	6/34	
KAMINOGE	22532	135E		TOKYO	54.40	139.6	1/45	8/45
MEGURO	31534	135E		TOKYO	54.40	139.70	6/34	12/40
HIRATSUKA	21533			TOKYO	54.70	139.30	12/40	5/45
TEHRAN	TE236	53E	IRAN		54.30	51.40	4/63	
POINT ARGUELLO	PA836	120W	USA		54.40	239.40	7/63	
KYOTO	KY535		JAPAN		54.90	135.50		
ROSMAN	RM				55.00	277.00		
VANDENBERG AFB		120W	USA		55.27	239.43		
CAPE ZEVGARI	CV135	30E	UK	AKROTIRI	55.42	32.95	1/64	
AKROTIRI	CV135	30E	UK		55.42	32.95	1/64	
CYPRUS	CV135	30E	UK		55.42	32.95	1/64	
NICOSIA	CV135	30E	UK		55.42	32.95	1/64	
HUNTSVILLE	HV934				55.56	273.65		
PESHAWAR	39234	75E			56.00	71.50	8/45	5/47
RABAT	RT034	0E	FRANCE	TEMARA	56.10	353.90	2/58	
TEMARA					56.40	352.40	10/51	2/58
CASABLANCA	CA033	0E	FRANCE	RABAT	56.40	352.40	10/51	2/58
MARGOC	CA033	0E	FRANCE		56.40	352.40	10/51	2/58
LA POSTA					57.00	243.00	/73	
HAIFA	HA132	30E			57.18	34.98	1/60	
WHITE SANDS	WS832	105W	USA	ALAMOGORDO	57.70	253.50	6/46-	3/82
ALAMOGORDO	WS832	105W	USA		57.70	253.50	6/46	3/82
NANKING	32432			ZO-SE	57.90	119.0	9/47	1/49
SHANGHAI	32432				57.90	119.0	9/47	1/49
ZO-SE	32432				57.90	119.0	9/47	1/49
YAMAGAWA	YG431	135E	JAPAN		58.80	130.61	12/46	
HANKOW	19432	120E		WUCHANG	59.30	114.30	9/41	1/45
WUCHANG	54430			WUHAN	59.40	114.40	8/46	5/49
WUHAN	WU430	120E		WUCHANG	59.40	114.33	/37	
BATON ROUGE	04930	90W	USA		59.50	268.80	7/43	9/53
EGLIN AFB	EG930		USA		59.70	273.30	3/64	1/69
QUETTA	QT230	75E	PAKISTAN		59.80	67.00	10/57	12/64
CAIRO	05130	30E		HELWAN	60.00	31.20	11/45	9/46
HELWAN	05130	30E			60.00	31.20	11/45	9/46

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
CHONGQING					60.50	106.42	5/53	
LOSHAN	29329	105E		CHUNGKING	60.50	103.70	1/46	5/46
CHUNGKING	09429	105E		LOSHAN	60.60	106.30	8/45	10/49
DELHI	DH328	75E	INDIA		61.40	77.20	1/42	
CAPE KENNEDY	CC929	75W	USA	CAPE CANAVERAL	61.60	279.30	3/58	6/66
CAPE CANAVERAL	CC929	75W	USA		61.60	279.30	3/58	6/66
COCOA	10928	75W			61.80	279.40	1/52	6/52
PATRICK AFB					61.80	279.40	U.K	
TENERIFE					62.00	343.00		
FORT MYERS					63.00	278.00		
GRAND BAHAMA	GB926	75W	USA	GRAND BAHAMA IS	63.40	281.80	6/57	6/71
GRAND BAHAMA IS	GB926	75W	USA		63.40	281.80	6/57	6/71
OKINAWA	OK426	135E	JAPAN	RYUKYU	63.72	127.81	4/46	
RYUKYU	OK426	135E	JAPAN		63.72	127.81	4/46	
TAIPEI	TP424	120E	TAIWAN	CHUNG-LI	65.09	121.24	3/50	
CHUNG-LI	TP424	120E	TAIWAN		65.09	121.24	10/54	12/65
FORMOSA	TP424	120E	TAIWAN		65.09	121.24	10/54	12/65
SAN SALVADOR	SSJ24	75W	USA	WARLING IS	65.90	285.50	11/58	2/65
WARLING IS	SSJ24	75W	USA		65.90	285.50	11/58	2/65
GUANGZHOU					66.87	113.35	3/55	
AHMEDABAD	AH223	75E	INDIA		67.00	72.60	1/55	2/82
CALCUTTA	CU322	90E	INDIA	HARINGHATA	67.00	88.60	7/44	NK
HARINGHATA	CU322	90E	INDIA		67.00	88.60	7/44	NK
CANTON		120E		KUANGCHOU	67.00	113.00		
KUANGCHOU		120E			67.00	113.00		
CUBA	CD923	75W	CUBA	CENTRO GEOFISICO	67.00	278.00	8/64	
CENTRO GEOFISICO	CD923	75W	CUBA		67.00	278.00	8/64	
TAMANRASSET	TN022	0E	FRANCE		67.20	5.53	2/56	/70
HONG KONG	HK423	120E	HONG KONG		67.67	114.20	1/69	
MACAU	MC422	120E	PORTUGAL	MACAO	67.80	113.60	5/58	
MACAO	MC422	120E	PORTUGAL		67.80	113.60	5/58	
KAUAI	KW				68.00	200.00		
KOUROU	KF				68.00	13.00		
MAUI	MA720	150W	USA	KIHEI	69.17	203.53	3/44	
KIHEI	MA720	150W	USA		69.20	203.50	3/44	
MEXICO CITY	MX919	90W	MEXICO	EL CERRILLO	70.74	260.58	4/58	
EL CERRILLO	MX919	90W	MEXICO		70.74	260.58	4/58	
BOMBAY	BM219	75E	INDIA		71.00	72.80	8/45	/81

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
ARECIBO	ARJ19	60W	USA		71.50	293.20	6/63	
PUERTO RICO	PRJ18	60W	USA	RAMEY AFB	71.50	292.80	2/41	6/63
RAMEY AFB			PUERTO RICO		71.50	292.70		
SAN JUAN			PUERTO RICO		71.50	292.70		
HAINAN IS	18419	120E		HAINAN	71.70	109.30	6/42	7/43
HAINAN	18419	120E			71.70	109.30	6/42	7/43
JAMAICA	JA918	75W	USA		72.00	283.20	4/62	/74
KINGSTON			JAMAICA		72.00	283.10		
SAN-YA					72.00	109.00		
WALTAIR					72.00	83.00		
HYDERABAD	HY317	75E			72.65	78.47	5/63	
RANGOON	43316	135E			73.20	96.50	6/43	2/45
BAGUIO	BF416	120E	USA	SANTA MESA HEIGHT	73.60	120.60	3/52	1/64
SANTA MESA HEIGHTS	BF416	120E	USA		73.60	120.60	3/52	1/64
MANILA	MN414	120E	PHILIPPINES	BAGUIO	75.30	121.10	3/44	
KHARTOUM	23115	30E			74.45	32.58	3/52	3/54
DAKAR	DKA14	OE	FRANCE	CAMBERENE	75.24	342.58	5/49	
CAMBERENE	DKA14	OE	FRANCE		75.24	342.58	5/49	
CAPE MANUEL	DKA14	OE	FRANCE		75.34	342.58	5/49	
MANIB					75.61	120.59		
BANGKOK	BK314	105E	THAILAND		76.20	100.60	8/63	
GUAM	17513	150E	USA	MARIANIAS IS	76.50	144.87	12/44	5/56
MARIANIAS IS	17513	150E	USA		76.50	144.87	12/44	5/56
BARBADOS	BSJ13				76.90	300.40	1/57	6/67
MADRAS	MD313	75E	INDIA		76.90	80.30	7/44	/70
OUAGADOUGOU	OU012	OE	FRANCE		77.63	358.47	5/66	
NHA TRANG	33412	120E			77.75	109.2	7/51	4/56
KANO	KN				78.00	9.00		
DJIBOUTI	DJ111	45E	FRANCE	ARTA	78.50	42.80	10/51	7/81
ARTA	DJ111	45E	FRANCE		78.50	42.80	10/51	7/81
LEYTE	28411	120E			79.00	125.00	6/45	9/48
TIRUCHIRAPALLI	TI311	75E	INDIA	TIRUCHY	79.20	78.70	2/49	
TIRUCHY	TI311	75E	INDIA		79.20	78.70	2/49	
DAPANGO	TG011			TOGO	79.20	7.00	7/65	2/67
TOGO	TG011	OE	GERMAN DEM REP	DAPANGO	79.20	0.40	7/65	2/67

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
TRINIDAD	51J10	60W		PANAMA	79.25	298.43	2/44	6/51
PANAMA	PN909	75W	USA	TRINIDAD	80.60	280.10	6/51	12/58
BALBOA HEIGHTS	PN909	75W	USA		80.60	280.10	6/51	2/58
FORT RANDOLPH	PN909	75W	USA		80.60	280.10	6/51	2/58
KODAIKANAL	KO310	75E	INDIA		79.80	77.50	7/52	
FORT ARCHAMBAULT	FA109	15E	FRANCE		80.80	18.35	1/69	2/74
KWAJALEIN	26609				80.95	167.20	1/45	2/45
THUMBA	TC309	75E	INDIA	TRIVANDRUM	81.40	76.90	10/64	
TRIVANDRUM	TM308	75E	INDIA	THUMBA	81.50	77.00	1/57	10/64
MERIDA	MVJ08				81.49	288.87		
IBADAN	IB007	0E	NIGERIA		82.60	03.90	12/51	
PALAU IS	34407	135E		KOROR	82.70	134.50	7/39	11/4
KOROR					82.70	134.50	7/39	6/44
KUMASI					83.00	2.00		
BANDOENG	0240Q				83.10	107.60	5/43	9/45
COLOMBO	11306	75E			83.10	79.87	4/45	7/46
LEGON					84.00	.00		
ACCRA	AG			LEGON	84.37	359.83	3/61	12/63
ACHIMOTA	AG				84.37	359.83	3/61	12/63
PARAMARIBO	PMJ06	0E	NETHERLANDS	SURINAM	84.20	304.80	7/57	
SURINAM	PMJ06	0E	NETHERLANDS		84.20	304.80	7/57	
PENANG	38305	105E			84.50	100.40	3/44	8/45
PALMYRA	35705	160W		CHRISTMAS IS	84.62	197.82	1/46	1/49
CHRISTMAS IS.	08701	150W		PALMYRA	88.10	202.70	12/44	7/46
BANGUI	BI104	0E	FRANCE		85.40	18.60	2/58	9/66
BOGOTA	BGJ05	75W	USA		85.50	285.80	8/45	6/67
BRAZZAVILLE	LZ				86.00	15.00		
POPAYAN	PP902	75E			87.55	283.38	5/70	
BUNIA	BN102	30E	ZAIRE	RUAMPARA	88.50	30.20	10/57	11/60
RUAMPARA	BN102	30E	ZAIRE	BUNIA	88.50	30.20	10/57	11/60
SINGAPORE	SI301	105E	UK		88.70	103.8	2/43	7/71
FUJI SHIP					90.00	0.00	11/65	4/67
MAKASSAR	3040N	120E			90.00	119.50	1/44	1/44
ZARYA SHIP	XF		USSR		90.00	0.00	8/59	11/66
QUITO	QO				91.00	281.00		
NAIROBI	NR10J	45E	KENYA		91.28	36.83	3/52	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
LWIRO	LW10K	30E	ZAIRE	BUKAVO	92.30	28.80	2/52	8/67
BUKAVO	LW10K	30E	ZAIRE		92.30	28.80	2/52	8/67
KATANA	LW10K	30E	ZAIRE		92.30	28.80	2/52	8/67
HOLLANDIA	HL50K	135E	NETHERLANDS		92.50	140.80	2/57	2/59
VANIMO	VA50L	150E	AUSTRALIA		92.70	141.30	7/64	
FORTALEZA	FZA0M	45W	BRAZIL		93.75	321.05	/74	
KINSHASA BINZA	LB10M	0E	ZAIRE	LEOPOLDVILLE	94.50	15.20	2/52	
LEOPOLDVILLE	LB10M	0E	ZAIRE	KINSHASA BINZA	94.50	15.20	2/52	
TALARA	TA90M	75W	PERU		94.60	278.70	10/54	12/65
NATAL	NLA0N	30W	BRAZIL		95.70	324.80	8/57	
TANGERANG			INDONESIA		96.17	106.63		
CHICLAYO	CY90P	75W	PERU		96.80	280.20	7/57	5/59
CHIMBOTE	CM90R	75W	PERU		99.10	281.40	7/57	5/59
PORT MORESBY	PY50R	150E	AUSTRALIA	CAPE YORK	99.40	147.10	5/61	7/72
CAPE YORK	0751J	150E	AUSTRALIA	PORT MORESBY	101.00	142.40	12/44	5/47
ELIZABETHVILLE	EZ11J	0E	ZAIRE	KARAVIA	101.60	27.50	4/52	6/60
KARAVIA	EZ11J	0E	ZAIRE		101.60	27.50	4/52	6/60
JICAMARCA	JI91J	75W	PERU		101.95	283.14	4/62	
HUANCAYO	HU91K	75W	PERU		102.00	284.70	1/37	
LIMA	LM		PERU		102.00	283.00		
COCOS IS.	CS31K	90E	AUSTRALIA	KEELING IS.	102.20	96.80	11/61	10/74
KEELING IS.	CS31K	90E	AUSTRALIA		102.20	96.80	11/61	10/74
DARWIN	DW41K	120E	AUSTRALIA	COONAWARA	102.45	130.95		
COONAWARA	DW41K	120E	AUSTRALIA		102.45	130.95		
JULIACA	JUJ1N	75W	PERU	ILO	105.50	289.80	3/59	5/59
LA PAZ	LPJ10	60W	BOLIVIA	ILO	106.50	291.90	10/57	
ILO	ILJ1P	75W	PERU	JULIACA	107.40	288.80	2/59	5/59
CHACULTAYO	ILJ1P	75W	PERU		107.40	288.80	2/59	5/59
OVEJUVO			BOLIVIA		106.00	291.00		
FARAVAO	TT71P	150W	FRANCE		107.70	210.70	12/57	
ORSTOM	TT71P	150W	FRANCE		107.70	210.70	12/57	
TAHITI	TT71P	150W	FRANCE	FARAVAO	107.73	210.68	12/57	
SALISBURY/RHODE	SY11P	30E	RHODESIA		107.80	31.00	1/58	2/58
FIJI	1461Q	180E		SUVA	108.00	178.20	4/46	4/48
SUVA	1461Q	180E			108.00	178.20	4/46	4/48
TAMAVUA	1461Q	180E			108.00	178.20	4/46	4/48
SANYA					108.30	109.30		

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

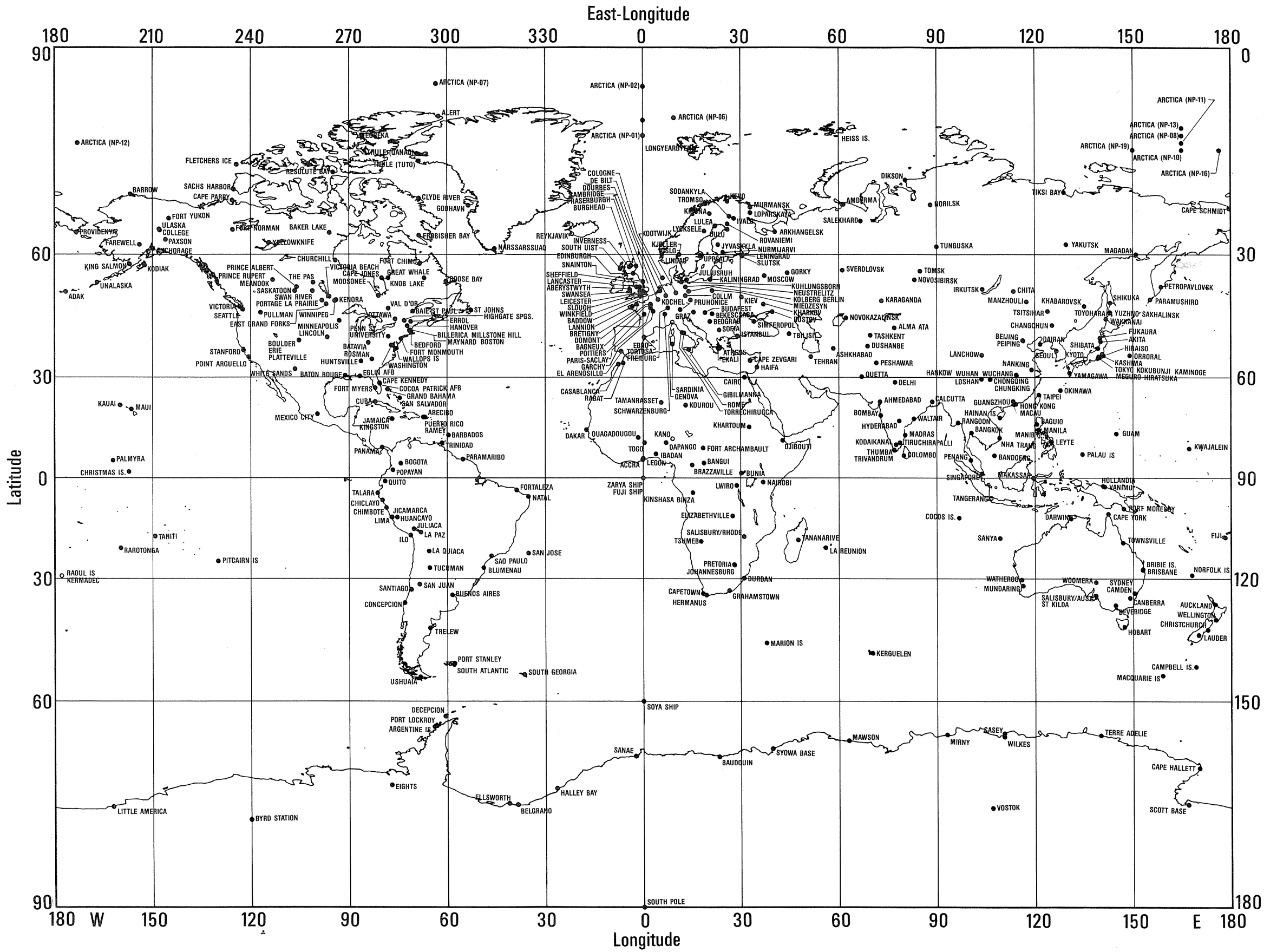
Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close dates	
TANANARIVE	IV21Q	45E	FRANCE	IVATO	108.80	47.50	11/51	5/72
IVATO	IV21Q	45E	FRANCE		108.80	47.50	11/51	5/72
TSUMEB	TS11R	15E	FED REP GERMANY		109.20	17.70	7/57	12/75
TOWNSVILLE	TV51R	150E	AUSTRALIA		109.63	146.85	6/46	
REUNION	LR22J	60E	FRANCE	LA REUNION	111.07	55.32	10/81	
LA REUNION	LR22J	60E	FRANCE		111.07	55.32	10/81	
RAROTONGA	RA72J	165W	NEW ZEALAND		111.20	200.20	2/45	3/80
LA QUIACA	LQJ2K	60W	ARGENTINA		112.10	294.40	6/58	1/59
CACHOEIRA PAULISTA			BRAZIL		112.70	314.98		
SAN JOSE	BZJ2L				112.70	324.80	U.K	
SAO PAULO	SPJ2L	45W	BRAZIL		113.50	313.50	8/53	5/65
PITCAIRN IS	4082N				115.00	230.00	10/44	2/45
PRETORIA	PE				116.00	28.00		
JOHANNESBURG	J0120	30E	SOUTH AFRICA		116.10	28.10	5/46	
BLUMENAU					116.90	311.10	U.K	
TUCUMAN	TUJ20	60W	ARGENTINA	VILLA NOGUES	116.90	294.60	7/57	
VILLA NOGUES	TUJ20	60W	ARGENTINA		116.90	294.60	7/57	
BRIBIE IS.					117.30	153.00	/75	
BRISBANE	BR52P	150E	AUSTRALIA		117.53	152.92	6/43	
NORFOLK IS	NI63!	180E	AUSTRALIA		119.03	167.97	2/64	
KERMADEC	KC62R	180E	NEW ZEALAND	RAOUL IS	119.20	182.10	4/43	9/72
RAOUL IS			NEW ZEALAND		119.20	182.10	4/43	9/72
DURBAN			S. AFRICA		119.80	31.00		
WATHEROO	WT43!	120E	AUSTRALIA	MUNDARING	120.30	115.90	7/35	3/59
MUNDARING	MU43K	120E	AUSTRALIA	WATHEROO	121.98	116.22	4/59	
SAN JUAN	SNJ3J	60W	ARGENTINA		121.55	291.50	6/80	
WOOMERA	WO53J	135E	AUSTRALIA		121.80	136.30	5/61	12/69
SANTIAGO	NT		CHILE		123.00	289.00		
SAO JOSE DOS CAMPOS					123.00	314.00		
GRAHAMSTOWN	GR13L	30E	SOUTH AFRICA		123.32	26.50	3/58	
SYDNEY	CN53L	150E	AUSTRALIA	CAMDEN	124.05	150.67	11/80	
CAMDEN	CN53L	150E	AUSTRALIA		124.05	150.67	11/80	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
CAPETOWN	CT13M	30E	S. AFRICA	HERMANUS	124.10	18.30	9/44	5/71
DURBANVILLE	CT13M	30E	S. AFRICA		124.10	18.30	9/44	5/71
SIMONSTOWN	CT13M	30E	S. AFRICA		124.10	18.30	9/44	5/71
HERMANUS	HR13M	30E	SOUTH AFRICA	DURBANVILLE	124.42	19.23	5/71	
BUENOS AIRES	BAJ3M	60W	ARGENTINA		124.50	301.50	2/50	
SALISBURY/AUST	SR53M	135E	AUSTRALIA		124.70	138.60	6/60	
MOUNT STROMLO	CB53N	150E	AUSTRALIA		125.30	149.00	3/37	
CANBERRA	CB53N	150E	AUSTRALIA	MOUNT STROMLO	125.32	149.00	3/37	
CONCEPCION	CPJ30	75W	CHILE		126.78	286.88	10/57	
AUCKLAND	AU63P	180E	NEW ZEALAND		127.00	175.00	1/67	
BEVERIDGE					127.29	144.59		
ST KILDA	KA				128.00	139.00		
WELLINGTON		N	EW ZEALAND		131.23	175.00		
HOBART	HO54K	150E	AUSTRALIA		132.92	147.32	2/45	
TRELEW	TWJ4L	60W	ARGENTINA		133.20	294.70	4/58	/79
CHRISTCHURCH	GH64L	180E	NEW ZEALAND	GODLEY HEAD	133.41	172.35	10/37	
EYREWELL	GH64L	180E	NEW ZEALAND	CHRISTCHURCH	133.41	172.35	9/42	
GODLEY HEAD	GH64L	180E	NEW ZEALAND		133.41	172.35	10/37	
LINCOLN	GH64L	180E	NEW ZEALAND		133.41	172.35	10/37	
LAUDER	LR				135.00	170.00		
MARION IS	MR14O	OE	SOUTH AFRICA		136.87	37.85	7/57	5/80
KERGUELEN	KG24R	75E	FRANCE	PORT-AUX-FRANCAIS	139.35	70.24	2/53	
PORT-AUX-FRANCAIS	KG24R	75E	FRANCE		139.35	70.24	2/53	
PORT STANLEY	PSJ5J	60W	UK	FALKLAND IS.	141.70	302.20	2/45	
FALKLAND IS.	PSJ5J	60W	UK		141.70	302.20	2/45	
SOUTH ATLANTIC	FS				142.00	302.00		
CAMPBELL IS.	CI65K	165E	NEW ZEALAND		142.60	169.10	3/44	
SOUTH GEORGIA	SGA5M	30W	UK		144.27	323.50	7/70	9/78
MACQUARIE IS	MQ55M	150E	AUSTRALIA		144.50	159.00	6/50	1/58
USHUAIA	UAJ5M	60W	ARGENTINA		144.80	291.70	11/57	
SOYA SHIP	XD		JAPAN		150.00	00.00	1/56	5/62
DECEPCION	DEJ6L	60W	ARGENTINA		153.00	299.30	1/51	11/67
PORT LOCKROY	PCJ6M	60W	UK	ARGENTINE IS	154.80	296.50	4/48	12/61
ARGENTINE IS.	AIJ6N	60W	UK	PORT LOCKROY	155.25	295.73	2/62	

TABLE 5. LISTING OF PRIMARY AND SECONDARY STATION NAMES
SORTED BY GEOGRAPHIC CO-LATITUDE
(continued)

Station Name or Alternate Name	Code	LMT	Country Interface	Alternate Name	Geog. Co-lat.	Geog. E-lon.	Open / Close	dates
CASEY	CW460	0E	AUSTRALIA	WILKES	156.28	110.53	7/57	1/75
WILKES	WL460	0E	AUSTRALIA	CASEY	156.28	110.53	7/57	1/75
KNOX COAST	CW460	0E	AUSTRALIA		156.28	110.53	2/69	12/75
TERRE ADELIE	DU560	135E	FRANCE	DUMONT D'URVILLE	156.66	140.02	12/49	
DUMONT D'URVILLE	DU560	135E	FRANCE		156.66	140.02	12/49	
POINT GEOLOGIE	DU560	135E	FRANCE		156.66	140.02	12/49	
PORT MARTIN	DU560	135E	FRANCE		156.66	140.02	12/49	
MAWSON	MW26P	0E	AUSTRALIA		157.60	62.88	2/58	
SYOWA BASE	SW16R	45E	JAPAN	SHOWA	159.00	39.35	2/59	
SHOWA	SW16R	45E	JAPAN		159.00	39.35	2/59	
SYRACUSE					159.00	40.00		
SANAE	QM07!	0E	SOUTH AFRICA	SANAE BASE	160.31	357.59	6/62	
SANAE BASE	QM07!	0E	SOUTH AFRICA		160.31	357.59	6/62	
BAUDOUIN	BB17!	30E	BELGIUM	BAS ROI BAUDOUIN	160.40	23.20	4/58	2/67
BAS ROI BAUDOUIN	BB17!	30E	BELGIUM		160.40	23.20	4/58	2/67
NORWAY STATION				HARALD COAST	161.00	299.00		
HARALD COAST					161.00	299.00		
PRINCE HARALD					161.00	299.00		
QUEEN MAUD LAND					161.00	299.00		
CAPE HALLETT	HT67K	165E	NEW ZEALAND	ADARE	162.30	170.20	1/57	2/64
ADARE	HT67K	165E	NEW ZEALAND		162.30	170.20	1/57	2/64
EIGHTS	EI97N	75W	USA	SKY HI	165.00	282.90	12/61	9/65
SKY HI	EI97N	75W	USA		165.00	282.90	12/61	9/65
HALLEY BAY	HBA7N	30W	UK		165.52	333.37	4/57	
ELLSWORTH	ELA7P	45W	ARGENTINA	WEDDELL SEA	167.72	318.80	7/57	11/62
WEDDELL SEA	ELA7P	45W	ARGENTINA		167.72	318.80	7/57	11/62
BELGRANO	GEA7Q	60W	ARGENTINA	GENERAL BELGRANO	167.97	321.20	7/58	
GENERAL BELGRANO	GEA7Q	60W	ARGENTINA		167.97	321.20	7/58	7/58
SCOTT BASE	SB67Q	165E	NEW ZEALAND	MCMURDO SOUND	167.80	166.76	3/57	
HUT POINT	SB67Q	165E	NEW ZEALAND		167.81	166.76	3/57	
MCMURDO SOUND	SB67Q	165E	NEW ZEALAND		167.81	166.76	3/57	
LITTLE AMERICA	LA77Q	165W	USA		168.20	197.80	7/57	2/58
VOSTOK	V047P	105E	USSR		168.40	106.9	3/58	
BYRD STATION	BD88!	120W	USA		170.00	240.00	7/57	12/70
SOUTH POLE	P009!	0E	USA	POLE STATION	180.00	00.00	7/57	3/68
AMUNDSEN-SCOTT	P009!	0E	USA		180.00	00.00	7/57	3/68
POLE STATION	P009!	0E	USA		180.00	00.00	7/57	3/68



MAP OF ALL IONOSPHERE VERTICAL SOUNDING STATIONS KNOWN TO HAVE EXISTED

IV. DESCRIPTION OF THE DATA AND EXPLANATION OF THE CATALOG

Section V is a summary of the data held in the World Data Center System and an indication of its location. Each station is listed in alphabetical order along with the station code (two character station code and three character computer code), geographic coordinates (north or south latitude and east longitude), reporting meridian time zone, format (ionograms, f-plots, manuscript, and computer-compatible medians and hourly values), month and year of the data and where archived. The WDC is indicated as follows: A = WDC-A, Boulder, Colorado, U.S.A.; B = WDC-B, Moscow, U.S.S.R.; X = WDC-C1, Chilton, U.K.; Y = WDC-C2, Tokyo, Japan. The use of the JFMAMJJASOND code indicates which of the 12 months are held by a data center.

The standard ionosonde of the past 40 years produces analog ionogram records on film. These ionograms show the variation of virtual height of reflection as a function of the radio frequency, normally from about 1 MHz to 20 MHz. The ionograms are the raw data and actually show the time of travel of the signal from the ionosonde to the ionosphere and back. From these raw data, the scaled, plotted and digitized data are generated - resulting in the several different data formats archived by the WDCs.

In recent years the data centers have started to receive data generated by modern ionosondes with the ionograms recorded directly on magnetic tape. In addition to the data recorded by the analog ionosondes, the digital equipment records phase, amplitude, polarization, direction of arrival, doppler phase shift, etc. The indication is that many of these digital ionosondes will be operating in the near future and depositing data in the WDC system.

The column headings in Section V are:

IONOGRAMS - the raw data recorded at the sounder (most analog data are recorded on 35mm film but a small percentage are on 16mm film; digital data indicated by an asterisk (*) are held on magnetic tape).

F-PLOTS - daily plots, generally each 15 minutes, of frequency parameters (originally recorded on paper - some of these data have been copied to microfiche or microfilm).

MANUSCRIPT - tables of daily/hourly values and monthly summary data sorted by characteristic - an asterisk (*) indicates that the data center only archives the daily worksheets (characteristics listed by hour).

COMPUTER FORMAT - daily/hourly values and monthly summary data (or only monthly summary data) characteristics held on computer magnetic tape. Contents may vary depending on the number of characteristics and the type of monthly summary (medians, counts, quartiles, or deciles) calculated from the station data.

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
ACCRA	1961	A	AS CN								
AG	1962	A	M J N								
(5.6 359.8)	1963	A	M J N								
ADAK	1945					A	OND				
AD 651 180W	1946	A	JAS OND			A	JFM AMJ JAS OND				
(51.9 183.4)	1947	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1949	A	J MJ JAS OND			A	J MJ OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*				
	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND	A	J M AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JA ND	A	JFM AMJ JA ND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AMJ JAS OND	A	JF AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
AHMEDABAD	1955					A	JFM AMJ JAS OND				
AH 223 75E	1956					A	JFM AMJ JAS OND				
(23.0 72.6)	1957	X	JAS OND	ABXY	J JAS OND	A Y	JFM AM JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	B	J JA	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X J		X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF JA		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X J		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	B	A	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
AHMEDABAD	1973			X	JFM AMJ JAS OND	A	Y JFM MJ JAS OND	A	JFM MJ JAS OND		
AH 223 75E	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(23.0 72.6)	1975			X	JFM AMJ JAS O D	A	Y JFM AMJ JAS O D	A	J M AMJ JA O D		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JF AMJ JAS OND	A	Y JF AMJ JAS OND				
	1979			X	ND	A	Y JFM AMJ JAS OND				
	1980			A X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	F	A	Y JF				
	1983			A	JFM AMJ JAS ON	A	JFM AMJ JAS OND				
	1984					A	JFM				
AKITA	1949					A	D				
AK 539 135E	1950					A	JFM AMJ JAS OND				
(39.7 140.1)	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AM S OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JF AM		
	1968	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	J JAS OND
	1969	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1979	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
AKITA	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
AK 539 135E	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(39.7 140.1)	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983			A X	JFM AMJ JAS ON	A	JFM AMJ JAS OND				
	1984					A	JFM A				
ALERT	1957	ABXY	AS OND	ABXY	AS OND	ABXY	AS OND				
AL J82 75W	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(82.5 297.4)											
ALMA ATA	1957	A XY	JAS OND	BXY	JAS OND	A XY	JAS OND				
AA 343 75E	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(43.2 76.9)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS-OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS O D	A XY	JFM AMJ JAS O D				
	1983	A	J	A	J	A	J S				
ANCHORAGE	1949	A	AMJ JAS OND			A	AMJ JAS OND				
AN 761 150W	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(61.2 210.1)	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
ANCHORAGE	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
AN 761 150W	1956	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
(61.2 210.1)	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS	A	JFM AMJ JAS
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
ARCTICA (NP-06)	1957	ABXY	JAS OND	ABXY	JAS OND	ABXY	JAS OND				
XG	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(82.3 9.5)	1959	ABXY	JFM AMJ JA	A XY	JFM AMJ JAS	A XY	JFM AMJ JAS				
	1963					Y	JFM AMJ JA				
	1964					Y	JFM A				
ARCTICA (NP-07)	1957	ABXY	JAS OND	ABXY	JAS OND	ABXY	JAS OND				
XH	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(86.3 296.6)	1959	ABXY	JFM	A XY	JFM	A XY	JFM				
ARCTICA (NP-08)	1960	ABXY	J JAS OND	ABXY	J JAS OND	ABXY	J JAS OND				
XI	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(80.0 165.0)											
ARCTICA (NP-10)	1962	ABXY	D	A XY	D	A XY	D				
XJ	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(78.0 165.0)	1964	ABXY	JFM A	A XY	JFM A	A XY	JFM A				
ARCTICA (NP-11)	1962	ABXY	JAS O	A XY	JAS O	A XY	JAS O				
XK											
(79.0 165.0)											
ARCTICA (NP-13)	1964	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND	A	J M JAS OND		
XL	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND		
(81.0 165.0)	1966	ABXY	JFM AMJ JAS	ABXY	JFM AMJ JAS	ABXY	JFM AMJ JAS	A	J M AMJ JAS		
ARCTICA (NP-16)	1967	X	J JA OND	X	J JA OND						
XM 676	1968	ABX	J JAS OND	A XY	J JAS OND	A XY	J JAS OND				
(78.0 176.5)	1969	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
ARCTICA (NP-19)	1970	ABXY	J JAS O	A XY	J JAS O	A Y	J JAS O				

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)               (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                   Year(Y=C2)   (Digital=*)  (Y=C2)   f-plots     (Y=C2)   (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
ARCTICA (NP-19)    1971 ABXY JFM AMJ JAS ON   A XY JFM AMJ JAS ON  A XY JFM AMJ JAS OND
XP                 1972  BXY   M AMJ JAS O    A XY   M AMJ JAS O   A XY JFM AMJ JAS O
( 78.0 150.0)
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ARECIBO            1964 A    JFM AMJ JA

AR  J19    60W     1966 A    JFM AMJ JAS OND
( 18.5 293.2)      1967 A    JFM AMJ JAS OND
                   1968 A    JFM AMJ JAS OND
                   1969 A    JFM AMJ JAS O
                   1971 A     FM A    A  O
                   1972 A    JFM AMJ JAS OND
                   1973 A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1974 A    JFM AMJ JAS OND                      A    JFM AMJ JAS OND
                   1975 A    JFM AMJ
                   1976 A          J JAS OND
                   1977 A    JFM AMJ JAS OND
                   1978 A    JFM AM
                   1979 A              S
                   1980 A         M      OND
                   1981 A    JFM A    AS OND
                   1982 A             AS O
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ARGENTINE IS.      1948                                          A      M AMJ J S OND

AI  J6N    60W     1952                                          A      M AMJ JAS OND
(-65.3 295.7)      1953                                          A    JFM AMJ JAS OND
                   1954                                          A    JFM AMJ JAS OND
                   1955                                          A    JFM AMJ JAS OND
                   1956                                          A    J   AMJ JAS OND
                   1957 A            JAS OND  A            JAS OND A    JF  AMJ JAS OND
                   1958 A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1959 A    JF               A    J               A    JFM AMJ JAS OND
                   1960                                          A    JFM AMJ JAS OND
                   1961                                          A    JFM AMJ JAS OND
                   1962                       X   FM AMJ JAS OND A XY  FM AMJ JAS OND
                   1963                       X  JFM AMJ JAS OND A XY JFM AMJ JAS OND
                   1964                       X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1965 A          J J        X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1966 A                ND   X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JF  AMJ JAS OND
                   1967                       X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A      M AMJ JAS OND
                   1968   X  JFM AMJ JAS OND   X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A     FM AMJ JAS OND
                   1969                       X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1970                       X  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
ARGENTINE IS.	1971	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
AI J6N 60W	1972	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-65.3 295.7)	1973	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS OND	X	JFM	XY	JFM AMJ JAS OND				
	1980	X	M AMJ JAS OND			XY	JFM AMJ JAS ON				
	1981	X	JFM AMJ JAS OND			XY	JFM AMJ JAS O				
	1982	X	JFM AMJ JAS OND								
ARKHANGELSK	1969	AB Y	JFM AMJ JAS OND			X	D				
AZ 163 45E	1970	B	JFM AMJ JAS OND			X	J JAS O D				
(64.4 40.5)	1971	AB Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1972	AB Y	JFM AMJ JAS OND								
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS OND								
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND								
	1977	B	JFM AMJ JAS OND								
	1978	B	JFM AMJ JAS OND	X	JFM AM	Y	JFM AMJ S ON				
	1979	B	JFM			Y	JFM AMJ J				
	1983			X	FM A	A	FM AM				
ASHKHABAD	1955	B	JFM AMJ JAS OND								
AS 237 60E	1956	B	JFM AMJ JAS OND								
(37.9 58.3)	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ S OND	A XY	JFM AMJ OND	A XY	JFM AMJ S OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)               (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                Year(Y=C2)   (Digital=*)  (Y=C2)   f-plots     (Y=C2)   (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
ASHKHABAD       1973 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
AS  237    60E  1974 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
( 37.9  58.3)   1975 ABXY JFM AMJ J   OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                1976   X  JFM A J JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1977   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1978   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1979   X  JFM       S OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1980   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1981   X  J   AMJ          A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1982   X      AMJ JAS      A XY JFM AMJ JAS     A  Y JFM AM  JAS
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ATHENS          1960                                           A                ND
AT  138    30E  1961                       X            S OND A  Y JFM AMJ JAS OND
( 38.0  23.6)   1962                       X   FM AMJ JAS OND A  Y JFM AMJ JAS OND
                1963                       X  JF  A   JAS OND A  Y JF      JAS OND
                1964   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1965   X  JFM A            A XY JFM AMJ JAS ON  A  Y JFM A            A    JFM A
                1966                                            A     FM AMJ JAS
                1967                                            A        AMJ JA  ON
                1968                       X           AS      A  Y          AS      A              AS
                1969                       X  JFM AMJ JAS OND A    JFM AMJ JAS OND
                1970                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1972                       X  JFM AMJ JAS OND A    JFM AMJ J S OND  A    JFM AMJ
                1973                     A X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ
                1974 A          J          X  JFM AMJ         A    JFM AMJ
                1980                                            A            JAS OND
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AUCKLAND        1967                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
AU  63P   180E  1968 A                O    X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JFM AMJ JA  O
(-37.0 175.0)   1969                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1970                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1971                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1972                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1973 A                O    X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1974                       X  JFM AMJ JAS  ND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1975                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1976                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1977                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1978                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
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BADDOW          1940                                           A                ND
01  061     0E  1941                                           A    JFM AMJ JAS OND
( 51.7    .5)   1942                                           A    JFM AMJ JAS O D
                1943                                           A    JFM AMJ JAS OND
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BADDOW	1944					A	JFM AMJ JAS OND				
01 061 0E	1945					A	JFM AMJ JAS OND				
(51.7 .5)	1946					A	JFM A				
BAGNEUX	1947					A	M AM JAS OND				
55 039 0E	1948					A	JFM AMJ J S ON				
(48.8 2.3)	1949					A	MJ JAS ON				
BAGUIO	1952					A	MJ JAS OND				
BF 416 120E	1953					A	JFM AMJ JAS OND				
(16.4 120.6)	1954					A	JFM AMJ JAS OND				
	1955	A	J			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	J JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
BAIE ST PAUL	1961	A	ND								
PL J48	1962	A	JF								
(47.3 289.5)											
BAKER LAKE	1949	A	MJ JAS OND			A	FM AMJ JAS OND				
BL 964 90W	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(64.3 264.0)	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	J			A	JFM AMJ JAS OND				
	1953	A	D			A	JFM AMJ JAS OND				
	1954	A	J			A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	XY	JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JF	A XY	JF	A XY	JF				
BANDOENG	1943					A	M				
02 40Q	1944					A	A N				
(6.9 107.6)											
BANGKOK	1963	AB Y	AS OND	A X	S OND	A XY	AS OND				
BK 314 105E	1964	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(13.8 100.6)	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BANGKOK	1967	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JF JA		
BK 314 105E	1968	A	JFM AMJ	X	J M AMJ JAS OND	A	Y JFM AMJ JAS OND	A	J M AMJ JAS O		
(13.8 100.6)	1969	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	A	FM AMJ JAS OND	A X	JFM AMJ JAS O	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	A	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	F
	1972	A	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ A		
	1973	A	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A	JFM AMJ JAS OND			A	FM AMJ JAS OND*				
	1975	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*				
	1976	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*				
	1978	A	FM J JA OND	X	AS ON	A	JFM AMJ JAS OND*	A	S D	A	S D
	1979	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	J JA	A	J JA
	1980			X	JFM AMJ JA	A	Y JFM AMJ JAS OND				
	1981			X	J	A	Y JFM AMJ				
	1982					A	M AM *				
BANGUI	1958	X	FM AMJ JAS OND	BXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND				
BI 104 0E	1959			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(4.6 18.6)	1960			X	JFM AMJ	A	Y JFM AMJ				
	1964			X	JFM AMJ J OND	AB	Y JFM AMJ J OND	A	JFM AMJ J OND		
	1965			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	N	X	JFM	A	Y JFM MJ S O	A	JFM		
BARBADOS	1957	A	J J								
BS J13	1964	A	J								
(13.1 300.4)	1965	A	J S N								
	1966	A	F								
	1967	A	F								
BARROW	1949	A	D			A	D				
BW 771 150W	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(71.2 203.2)	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BARROW	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM A J JAS OND	A	JFM A J JAS OND
BW 771 150W	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(71.2 203.2)	1963	ABXY	JFM AMJ JAS O D	ABXY	JFM AMJ JAS O	ABXY	JFM AMJ JAS O D				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS ON	ABXY	JFM AMJ JAS ON	ABXY	JFM AMJ JAS ON	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
BATAVIA	1951	A	J A J JAS OND			A	S CND				
03 439 75W	1952	A	J M AMJ JAS OND			A	JFM AMJ JAS OND				
(39.4 275.9)											
BATON ROUGE	1943					A	JAS OND				
04 930 90W	1944					A	JFM AMJ JAS OND				
(30.5 268.8)	1945					A	JFM AM JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JA			A	JFM AMJ JA				
BAUDOUIN	1958	A	J J S O	X	AMJ JAS ON	AB Y	AMJ JAS OND				
BB 17! 30E	1959			X J		AB Y J					
(-70.4 23.2)	1964			X	AMJ JAS OND	A Y	AMJ JAS OND	A	AMJ JAS OND		
	1965	X	FM AMJ JAS OND	ABX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JF	ABX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
BEKESCSABA	1964	X	JFM AMJ J OND	BXY	JFM AMJ JAS OND	B Y	JFM AMJ JAS OND				
BH 147 15E	1965	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	B Y	JFM AMJ JAS OND				
(46.7 21.2)	1966	X	JFM MJ JAS OND	BXY	JFM AMJ JAS OND	B Y	JFM AMJ JAS OND				
	1967	X	JFM AMJ J S OND	BXY	JFM AMJ JAS OND	B Y	JFM AMJ J S OND				
	1968	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1969	X	JF	BXY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1970			Y	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1971	X	AMJ J	BXY	JFM AMJ J	Y	JFM AMJ J				
	1972	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1973	X	J M AMJ JAS OND	BXY	J M AMJ JAS OND	Y	J M AMJ JAS OND				
	1974	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1975	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1976	X	JF JAS ND	BXY	JFM AMJ JAS ND	Y	JFM AMJ JAS OND				
	1977	X	FM S	BXY	JFM AMJ JAS ON	Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JA	Y	JFM AMJ JA				

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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)             (X=C1)    Manuscript   (X=C1)    Computer   (X=C1)    Computer
                    Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots   (Y=C2)   (*=7Es only)  (Y=C2)     Format    (Y=C2)     Format
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(continued)
BEKESCSABA          1982                       X   FM AMJ JAS OND    Y  FM AMJ JAS OND
BH  147    15E      1983                       X  J     J J
( 46.7  21.2)
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BELGRANO            1958                                                Y          AS

GE  A7Q    60W      1963   X          JAS      A X          JAS     A  Y         JAS
(-78.0 321.2)       1964 A X          JAS OND  A XY         JAS OND A  Y         JAS OND  A            JAS OND
                    1965 ABXY JFM AMJ JAS OND  A XY JFM AMJ         A XY JFM AMJ      ND  A    JFM AMJ
                    1966 AB Y   M AMJ J S OND                         X      AMJ J S O D

                    1968 AB Y          AS OND                         X           AS OND
                    1969 A    J
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BEOGRAD             1958                       X    M AMJ JAS OND    Y   M AMJ JAS OND
BE  145    15E      1959                       X  JFM AMJ JAS OND    Y JFM AMJ JAS OND
( 44.8  20.5)       1960                       X  JFM AMJ JAS ON     Y JFM AMJ JAS OND
                    1961                       X  JFM AMJ JAS OND    Y JFM     J
                    1962                       X        J JA    D A  Y       J JA    D
                    1963                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1964                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1965                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1966                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1967                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND
                    1968                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1969                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1970                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND
                    1971                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                    1972                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
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BILLERICA           1958                       X              ND
BO  J43    75W      1959                       X          A

( 42.6 288.7)       1965                                         A  Y              ND  A                 ND
                    1966                                         A  Y JFM AMJ JAS O    A    JFM AMJ JAS O
                    1967                       X    M AMJ JAS OND A  Y  FM AMJ JAS OND  A              S OND
                    1968                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                    1969                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                    1970                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS      A    JFM AMJ JAS
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BOGOTA              1957 ABXY         JAS OND  ABXY         JAS OND ABXY         JAS OND  A            JAS O   A            JAS O
BG  J05    75W      1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ  AS OND A    JFM AMJ  AS OND
(  4.5 285.8)       1959 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                    1960 ABXY JFM AMJ JAS OND  AB Y JFM AMJ JAS O   A X  JFM AMJ  AS OND  A             A      A             A
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BOGOTA	1961	A	JFM AM JAS								
BG J05 75W	1962	AB Y	FM AMJ JAS OND	A X	A OND	A XY	M AMJ JAS OND	A	A OND	A	A OND
(4.5 285.8)	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	JFM AMJ	A XY	JFM AMJ	A Y	JFM AMJ	A	JFM AMJ	A	JFM AMJ
BOMBAY	1945					A	S OND				
BM 219 75E	1946					A	JFM AMJ JAS OND				
(19.0 72.8)	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JA OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	J	ABXY	J JAS OND	A Y	JFM AM JAS OND				
	1958	X	JFM AMJ AS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ AS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	M AMJ J		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ J D	A Y	JFM AMJ J S D	A	JFM AMJ		
	1975			X	JFM N	A Y	JFM MJ N				
	1976			X	FM AMJ	A Y	FM AMJ				
	1977			X	S OND	A Y	S OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JF	A Y	JF N				
	1980			X	OND	A Y	S OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BOMBAY	1981			X	JFM AM	A	Y JFM AM				
BM 219 75E											
(19.0 72.8)											
BOSTON	1945	A	J			A	M AMJ JAS OND				
56 J43 75W	1946					A	JFM AMJ JAS OND				
(42.4 288.8)	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949	A	ND			A	JFM AMJ JAS OND				
	1950	A J				A	JFM AMJ JAS OND				
	1951					A	JFM AMJ				
BOULDER	1955	A	J JA D								
BC 840 105W	1956	A	O D								
(40.0 254.7)	1957	AB Y M A	AS OND			X	AS ON				
	1958	AB Y JFM AMJ JAS OND		ABXY	JA OND	ABXY JF	J JAS OND	A	D	A	D
	1959	ABXY JFM AMJ JAS OND		ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JA OND	A	JFM AMJ JA OND
	1960	ABXY JFM AMJ JAS OND		ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY JFM AMJ JAS OND		ABXY JFM AMJ	O	A XY JFM AMJ	JAS OND	A	JFM AMJ	A	JFM AMJ
	1962	ABXY JFM AMJ JAS OND				A X JFM AMJ	JAS OND	A	JFM AMJ J	A	JFM AMJ J
	1963	ABXY JFM AMJ JAS OND		A XY	MJ JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY JFM AMJ JAS OND		A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY JFM AMJ JAS OND		A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY JFM AMJ JAS OND		A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	ABXY JFM AMJ JAS OND		A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY JFM AMJ JAS OND		A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY JFM AMJ JAS OND		A X JFM		A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	AB Y JFM AMJ JAS OND		X	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS ON	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A Y JFM AMJ JAS OND		X	FM J	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A X JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS ON	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978	AB Y JFM AMJ JAS OND		X	JFM AMJ J S OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A Y JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A Y JFM AMJ JAS OND				A X JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A JFM AMJ JAS OND				A JFM AMJ	JAS OND	A	JF J JAS OND	A	JF J JAS OND
	1983	A JFM AMJ JAS OND				A JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1984	A JFM AMJ				A JFM AM		A	JFM AM	A	JFM AM
BRISBANE	1943					A	J JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BRISBANE	1944					A	JFM AMJ JAS OND				
BR 52P 150E	1945					A	JFM AMJ JAS OND				
(-27.5 152.9)	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND	A	J	A	J
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	A	J ND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	A J	MJ J N	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	A	J A	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	N	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A	M	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A F	A J	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AM J S OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM MJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ J						
BUDAPEST	1957	X	S OND	XY	JAS OND	A Y	JFM AMJ JAS OND				
BU 147 15E	1958	X	JFM AMJ AS OND	BXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
(47.0 19.0)	1959	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BUDAPEST	1964			A	JFM AMJ J OND	A	JFM AMJ J OND	A	JFM AMJ J OND		
BU 147 15E	1965			A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(47.0 19.0)	1966			A	JF MJ JAS OND	A	Y JFM MJ JAS OND	A	JFM MJ JAS OND		
	1967			A	JFM AMJ J S OND	A	Y JFM AMJ J S OND	A	J J S OND		
	1968			A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			A	J	A	Y JF	A	JF		
	1971			A	AMJ J	A	Y AMJ J	A	AMJ J		
	1972			A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			A	J M AMJ JAS OND	A	Y J M AMJ JAS OND	A	J M AMJ JAS OND		
	1974			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			A	JFM AMJ OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			A	JFM M JAS ND	A	JFM MJ JAS OND				
	1977			A	FM AMJ S ON	A	JFM AMJ S ON				
	1982					A	FM AMJ JAS OND				
	1983					A	J				
BUENOS AIRES	1950					A	FM AMJ JAS OND				
BA J3M 60W	1951					A	JFM AMJ JAS OND				
(-34.5 301.5)	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1957	BXY	ND	A XY	ND	A XY	JFM A ND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	A	JFM AMJ JAS OND	X	JFM AMJ	A Y	JFM AMJ	A	JFM AMJ		
	1970	A	JFM AMJ JAS OND								
	1971	A	JFM AMJ JAS OND								
	1972	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1973	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976	A	JFM AMJ JAS OND	X	JFM AMJ JAS O D	A	JFM AMJ JAS O D				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
BUENOS AIRES	1978			X	JF	A	Y JFM AMJ JAS OND				
BA J3M 60W	1979					A	JF				
(-34.5 301.5)	1982			X	AS OND	A	Y J J JAS D				
	1983			X	J	A	J M MJ				
BUNIA	1957	A	JF	X	OND	A	OND				
BN 102 30E	1958			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(1.5 30.2)	1959			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS ON	A	Y JFM AMJ JAS ON				
BURGHEAD	1941					A	JFM A J J S O D				
06 063 0E	1942					A	JFM AMJ JAS OND				
(57.7 356.3)	1943					A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
BYRD STATION	1957	ABXY	MJ JAS OND	A XY	JAS OND	A XY	JAS OND	A	JAS OND	A	JAS OND
BD 88! 120W	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-80.0 240.0)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM JAS OND	A	JFM AM JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
	1962	ABXY	J AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JF AMJ JAS OND	A	J AMJ J S OND	A	J AMJ J S OND
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	JFM AMJ JAS OND	X	JF	A	Y JFM AMJ JAS OND	A	JF	A	JF
	1968	A	JFM AMJ JAS OND	A	M	A	JFM A OND*				
	1969	A	JFM AMJ JAS OND			A	JFM AM J *				
	1970	A	JFM AMJ JAS O D								
CAIRO	1945					A	ND				
05 130 30E	1946					A	JFM AMJ JA				
(30.0 31.2)											
CALCUTTA	1944					A	JAS OND				
CU 322 90E	1945					A	JFM AMJ JAS OND				
(23.0 88.6)	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS ND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CALCUTTA	1952					A	JFM AMJ JAS OND				
CU 322 90E	1953					A	JFM AMJ JAS OND				
(23.0 88.6)	1954					A	JFM AMJ JA OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AM OND				
	1957	X	JAS OND	ABXY	JAS OND	A Y	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM	A Y	JFM				
	1961					Y	JF M				
	1964			X	MJ JAS OND	AB Y	JFM MJ JAS OND	A	MJ JAS OND		
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	M AS OND	AB Y	JFM AMJ JAS OND	A	MJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AM JAS O	A Y	JFM AMJ JAS O	A	JFM AM JAS O		
	1974			X	JFM AMJ JAS ON	A XY	JFM AMJ JAS OND	A	JFM AMJ		
	1975			X	AM	A XY	JFM MJ				
	1976			X	O	A Y	O				
CAMPBELL IS.	1944					A	AMJ JAS OND				
CI 65K 165E	1945					A	J MJ JAS OND				
(-52.6 169.1)	1946					A	JFM AMJ				
	1947					A	FM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JFM AM JAS OND	ABXY	JFM AM JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JF AMJ JAS OND	ABXY	JF AMJ JAS OND				
	1959	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960	X	JFM AM AS OND	ABXY	JFM AM AS OND	AB Y	JFM AM AS OND				
	1961	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CAMPBELL IS.	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
CI 65K 165E	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(-52.6 169.1)	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	AMJ J S O		
	1969			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1983					A	JFM AMJ JAS OND				
CANBERRA	1937					A	M AMJ JAS OND				
CB 53N 150E	1938					A	JFM AMJ JAS OND				
(-35.3 149.0)	1939					A	JFM AMJ JAS OND				
	1940					A	JFM AMJ JAS OND				
	1941					A	JFM AMJ JAS OND				
	1942					A	JFM AMJ JAS OND				
	1943					A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM MJ JA D				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND	A	J	A	J
	1955					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CANBERRA	1960	AB Y	MJ JAS OND	X	AMJ JAS OND	A XY	AMJ JAS OND				
CB 53N 150E	1961			X	JFM A JAS OND	A Y	JFM A JAS OND				
(-35.3 149.0)	1962			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	A JF	J D	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A FM	J	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	J AS N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A	AM JAS	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A J	J D	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	AMJ JAS ON		
	1969	A	JA	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	B	AS O	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JA OND	A Y	JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ JA						
CAPE HALLETT	1957	ABXY	MJ JAS OND	ABXY	JAS OND	ABXY	JAS OND				
HT 67K 165E	1958	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(-72.3 170.2)	1959	X JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960	X JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961	X JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962	X JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1963	X JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964	X JF		ABXY	JF	AB Y	JF	A	JF		
CAPE KENNEDY	1958	ABXY M	AMJ JAS OND	A XY	M AMJ JAS OND	A XY	M AMJ JAS OND	A	M AMJ JAS OND	A	M AMJ JAS OND
CC 929 75W	1959	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND				
(28.4 279.3)	1960	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AM JAS OND				
	1961	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1962	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1963	ABXY JFM	AMJ JAS OND	AB Y	JFM AMJ JAS OND	X	J M AMJ JAS OND				
	1964	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	AMJ JAS OND	A	AMJ JAS OND
	1965	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM JAS ON		
	1966	ABXY JFM	AMJ JAS OND	A Y	JFM AMJ JAS O	A XY	JFM AMJ JAS O				
	1967	A J	A								

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
CAPE SCHMIDT	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
CE 669 165E	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(68.8 179.5)	1962	ABXY	JFM AMJ JAS OND	A XY	FM AMJ JAS O D	A XY	FM AMJ JAS O D				
	1963	A	JFM AMJ JAS OND	A XY	ND	A XY	ND				
	1964	A	JFM AMJ JAS OND	A Y	JF	A Y	JF	A	J		
	1968	ABX	J AMJ JAS OND	A XY	J A JAS OND	A Y	J A JAS OND	A	J	A	JAS OND
	1969	BX	JFM AMJ JAS OND	A XY	JF AMJ JAS OND	A Y	JF AMJ JAS OND	A	JF	AMJ	JAS OND
	1970	ABX	JF	A XY	JF	A Y	JF	A	JF		
	1971	B	JFM AMJ JAS OND								
	1972	B	J								
	1973					Y	JFM AMJ JA OND				
	1975	X	FM	Y	FM						
	1976	X	FM	Y	FM						
CAPE YORK	1944					A	D				
07 51J 150E	1945					A	JFM AMJ JAS OND				
(-11.0 142.4)	1946					A	JF AS O				
CAPE ZEVGARI	1964	X	AMJ JAS OND	A XY	AMJ JAS OND	A XY	AMJ JAS OND	A	AMJ JAS ON		
CV 135 30E	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ OND		
(34.6 32.9)	1966	X	JFM JAS O D	A XY	JFM AMJ JAS O D	A XY	JFM AMJ JAS O D	A	JFM AMJ JAS O D		
	1967	X	JFM AMJ JA	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	J	A XY	JFM AMJ JAS OND				
	1969					X	JFM AMJ JAS OND				
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	J M AMJ JAS OND	A Y	J M AMJ JAS OND	A	J M AMJ JAS OND		
	1972			X	JFM AMJ JAS O	A Y	JFM AMJ JAS O	A	JFM AMJ JAS O		
	1973			X	JFM A J JAS OND	X	FM A JAS OND				
	1974			X	JFM AMJ J OND	X	JFM AMJ J OND				
	1975			X	JFM A J JAS ON	X	JFM A J JAS ON				
	1976			X	FM MJ JAS OND	X	FM MJ JAS OND				
	1977			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1978			X	J	X	J				
CAPETOWN	1944					A	JFM AMJ JAS OND				
CT 13M 30E	1945					A	JFM AMJ JA ND				
(-34.1 18.3)	1946					A	J				
	1948					A	J S OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CAPETOWN	1954					A	JFM AMJ JAS OND				
CT 13M 30E	1955					A	JFM AMJ JAS OND				
(-34.1 18.3)	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	X	JFM AMJ J S OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960	A	AS OND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A	AS OND	X	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ S OND	AB Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ J	A Y	JFM AMJ J	A	JFM AMJ J		
	1965	X	JFM AMJ JAS OND	A Y	JAS OND						
	1967			X	JFM AM JA OND	A Y	JFM AMJ JAS OND	A	JF MJ		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	A ND		
	1970	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AM	A Y	JFM AM	A	JFM AM		
CASABLANCA	1951					A	S OND				
CA 033 0E	1952					A	JFM AMJ J OND				
(33.6 352.4)	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ J S OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	X J		ABXY J		A XY J					
CASEY	1969	A	J JA	X	M AMJ JAS OND	A Y	M AMJ JAS OND	A	M AMJ JAS OND		
CW 460 0E	1970	A JF		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(-66.3 110.5)	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	A	D	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	A J		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A JF		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	J
CHICLAYO	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JAS OND	A	JAS OND	A	JAS OND
CY 90P 75W	1958	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-6.8 280.2)	1959	ABXY J		AB Y	J	A X	J				
CHIMBOTE	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND	A	JAS OND	A	JAS OND
CM 90R 75W	1958	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
(-9.1 281.4)	1959	ABXY JFM AM		A XY	JFM AM	A XY	JFM AM	A	JFM AM	A	JFM AM
CHITA	1957	BX JFM AMJ A		ABXY	JAS OND	A Y	JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CHITA	1958			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
CX 452 120E	1959	X	JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(52.0 113.5)	1960	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1962	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	X	J M A	ABXY	J M A	A	Y J M A				
CHRISTCHURCH	1942					A	AS OND				
GH 64L 180E	1943					A	JFM A JAS OND				
(-43.4 172.3)	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM A AS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	ABXY	JFM AMJ JAS OND				
	1958	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1959	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1963	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	F JAS OND		
	1968	X	JFM	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CHRISTCHURCH	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
GH 64L 180E	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-43.4 172.3)	1981			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1983					A	JFM AMJ JAS OND				
CHRISTMAS IS.	1944					A	D				
08 701 150W	1945	A	AMJ JAS OND			A	JFM AMJ JAS OND				
(1.9 202.7)	1946	A J				A	JFM AMJ				
CHUNGKING	1945					A	AS OND				
09 429 105E	1946					A	JFM AMJ JAS OND				
(29.4 106.3)	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS O				
CHURCHILL	1943					A	AS OND				
CH 958 90W	1944					A	JFM AMJ JAS OND				
(58.8 265.8)	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	J M J OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951	A	A			A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
CHURCHILL	1971	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
CH 958 90W	1972	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(58.8 265.8)	1973	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			A X	JF JAS ON	A	JF JAS ON				
	1984					A	J				
CLYDE RIVER	1943					A	OND				
CR J70 75W	1944					A	JFM AMJ JAS OND				
(70.5 291.4)	1945					A	JFM AMJ JAS ON				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JA OND				
	1950					A	JFM AMJ J				
	1957	ABXY	MJ JAS OND	A XY	OND	A XY	S OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS O	ABXY	JFM AMJ JAS O				
COCOA	1952	A	JFM AM			A	JFM AM *				
10 928 75W											
(28.2 279.4)											
COCOS IS.	1961			X	ND	A Y	ND	A	JF	A	JF
CS 31K 90E	1962	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-12.2 96.8)	1963			X	JFM A J JAS OND	AB Y	JFM AMJ JAS OND	A	JFM A J JAS OND	A	JFM A J JAS OND
	1964			X	J AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	J AMJ JAS OND	A	J AMJ JAS OND
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	ON	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			X	JFM AMJ J S OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
COCOS IS.	1974			X	JFM AMJ JAS	A Y	JFM AMJ JAS	A	JFM AMJ JAS	A	JFM AMJ JAS
CS 31K 90E											
(-12.2 96.8)											
COLLEGE	1941	A	AS OND			A	JAS OND				
CO 764 150W	1942	A	JFM AMJ JAS ND			A	JFM AMJ JAS OND				
(64.9 212.0)	1943	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1944	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1945	A	JFM AMJ JAS ND			A	JFM AMJ JAS OND				
	1946	A	JFM AMJ AS OND			A	JFM AMJ JAS OND				
	1947	A	JFM AMJ JA OND			A	JFM AMJ JAS OND				
	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1949	A	JF AMJ JAS OND			A	JFM AMJ JAS OND				
	1950	A	FM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JFM MJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS O D	ABXY	JFM AMJ JAS O D	A XY	JFM AMJ JAS O D				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A	JFM AMJ JAS OND	X	JFM A						
	1969	A	JFM AMJ J S OND	X	F						
	1970	A	JFM AMJ JAS OND								
	1971	A	JFM AMJ JAS OND			A Y	JF M	A	JF M	A	JF M
	1972	A	JFM AMJ JAS OND			A	S OND*				
	1973	A	JFM AMJ JA ND			A	JFM AMJ *				
	1974	A	J M AMJ JAS OND								
	1975	A	JFM AMJ JAS OND								
	1976	A	JFM AMJ JAS O								
	1977	A	JFM AMJ JAS OND								
	1978	A	JFM J JAS OND								
	1979	A	JFM AMJ JAS ON								
	1980	A	FM AMJ JAS OND								

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)              (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots    (Y=C2)  (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
COLLEGE              1981 A    JFM AMJ JAS OND
CO  764   150W       1982 A    JFM AMJ JAS OND
( 64.9 212.0)        1983 A    JFM AMJ JAS OND
                     1984 A    JFM
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COLOMBO              1945                                          A          J JAS  ND
11  306    75E       1946                                          A      M AMJ
(  6.9  79.9)
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CONCEPCION           1957 ABXY             OND  ABXY            OND A XY            OND  A               OND A               OND
CP  J30    75W       1958 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
(-36.8 286.9)        1959 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1960 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1961 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A     FM AMJ JAS  ND A     FM AMJ JAS  ND
                     1962 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JF             D  A    JF                A    JF
                     1963 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1964 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1965 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM A           A    JFM A
                     1966 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A               S OND
                     1967 A    JFM AMJ JAS OND  A X      AMJ JAS OND A  Y JFM AMJ JAS OND  A        AMJ JAS OND A        AMJ JAS OND
                     1968 A    JFM AMJ JAS OND    X  JFM AMJ J S OND A  Y JFM AMJ JAS OND  A    JFM AMJ J S OND A    JFM AMJ J S OND
                     1969 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JF  AMJ JAS OND A    JF  AMJ JAS OND
                     1970 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1971 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1972 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1973 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A    JFM AMJ JAS OND* A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1974 A X  JFM AMJ JAS OND  A  Y JFM AMJ JAS OND A    JFM AMJ JAS OND* A    JFM             A    JFM
                     1975 A    JFM AMJ JA    D  A    JFM AMJ JA    D A    JFM AMJ JA    D* A    JFM A           A    JFM A
                     1976 A X  JFM AMJ JAS OND  A  Y JFM AMJ JAS OND A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1977 A    JFM AMJ JAS OND  A    J M AMJ JAS OND A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1978 A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    J M AMJ JAS OND* A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1979 A    JFM AMJ J S OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1980 A    JFM AMJ JAS OND
                     1981 A    JFM AM    S OND
                     1982 A    JF
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CUBA                 1964 ABXY          AS OND  A XY          AS OND A XY          AS OND  A             AS  ND
CD  923    75W       1965 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JA      ABXY JFM AMJ JAS  ND  A    J M AMJ JAS
( 23.0 278.0)        1966 AB Y JFM AMJ JAS OND                        XY JFM AMJ JAS ON
                     1967                                              Y      M
                     1968 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS   D ABXY JFM AMJ JAS OND  A    JFM AMJ  AS
                     1969 ABXY JFM AMJ JAS OND  ABXY JFM AMJ         ABXY JFM              A     FM
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DAIRAN               1944                                          A                 D
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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
DAIRAN	1945					A	JF				
12 439 120E											
(39.0 121.6)											
DAKAR	1949					A	MJ JAS OND				
DK A14 0E	1950					A	JFM AMJ JAS OND				
(14.8 342.6)	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	S ON	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	X FM		ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A	J JAS O	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ S OND	AB Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A	J A	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	A	ND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	A J		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ AS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978			X	JFM AMJ	A Y	JFM AMJ				
	1979	A	S	X	MJ JAS OND	A Y	MJ JAS OND				
	1980			X	JF AMJ J S OND	A Y	JF AMJ J S OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM MJ JAS OND	A Y	JFM MJ				
DAPANGO	1965					Y	JAS ND				
TG 011	1966					Y	JFM AMJ JAS OND				
(10.8 7.0)	1967					Y	J				
DARWIN	1982			X	D						
DW 41K 120E	1983			X	JFM AMJ JAS						
(-12.4 130.9)											

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
DE BILT	1949					A	ND				
DT 053 0E	1950					A	JF AMJ AS OND				
(52.1 5.2)	1951					A	JFM A J JAS OND				
	1952					A	FM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JF AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	BXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	J	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JF ND	A Y	JFM AMJ JAS OND	A	J		
	1968			A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AM J ND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983			X	JFM AMJ J	A	JFM AMJ JAS O				
DECEPCION	1952					A	FM AMJ JAS OND				
DE J6L 60W	1953					A	JFM AMJ JAS OND				
(-63.0 299.3)	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS ON				
	1957	X	JAS O	ABXY	JAS ON	A Y	JAS OND				
	1958			A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	D	A Y	D				
	1963			X	JFM	A Y	JFM				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
DELHI	1942					A	JFM AMJ JAS OND				
DH 328 75E	1943					A	JFM AMJ JAS OND				
(28.6 77.2)	1944					A	JFM AMJ JAS OND				
	1945					A	S OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X J ND		BXY J JAS OND		A Y	JFM AMJ JAS OND				
	1958	XY JFM AMJ JAS OND		BXY JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1959	XY JFM AMJ JAS D		BXY JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1960			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1961			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1962			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1963			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1964			X JFM AMJ JAS OND		AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X JFM AMJ JAS OND		AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X JFM AMJ JAS OND		AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1968			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AM S O D		
	1973			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1974			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND	A	JFM M		
	1975			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1976			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1977			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1978			X JFM J JAS OND		A Y	JFM J JAS OND				
	1979			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1980			X JFM AMJ JAS OND		A Y	JFM AMJ JAS OND				
	1981			X JFM AMJ JAS ON		A Y	JFM AMJ JAS OND				
	1982			X JAS OND		A Y	JFM AMJ JA				
	1983			X J							
DIKSON	1957	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND				
DI 373 105E	1958	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		ABXY	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
DIKSON	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
DI 373 105E	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS ND	ABXY	JFM AMJ JAS ND				
(73.5 80.4)	1961	ABXY	JFM AMJ JAS	ABXY	JFM AMJ JAS	ABXY	JFM AMJ JAS				
	1963	ABXY	JFM AMJ JAS OND	A XY	FM AMJ JAS OND	A XY	FM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JA O D		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JA OND		
	1966	ABXY	JF AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S O D		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S O D		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1976	AB Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1977	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	A Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1979	A Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
DJIBOUTI	1951					A	OND				
DJ 111 45E	1952					A	FM AMJ JAS OND				
(11.5 42.8)	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS O D				
	1955					A	JFM A J JAS O D				
	1956					A	JFM AMJ JAS O				
	1957	X	JA O	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958			X	JFM AM S OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ S ON	AB Y	JFM AMJ JAS ON				
	1964			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A	J A	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
DJIBOUTI	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
DJ 111 45E	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(11.5 42.8)	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JA D	A	Y JFM AMJ JA D				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ J	A	Y JFM AMJ J				
DOMONT	1950					A	AMJ JAS OND				
13 062 0E	1951					A	JFM AMJ JAS OND				
(49.0 2.3)	1952					A	JFM				
DOURBES	1957			X	JAS OND	A	Y JAS OND				
DB 049 0E	1958			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(50.1 4.6)	1959			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS ND	AB	Y JFM AMJ JAS OND	A	JF J JA		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ JA	A	JFM AMJ JAS OND				
	1983					A	J AM				
DURBAN	1967						Y S O				
(-29.8 31.0)											

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)                (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots      (Y=C2)  (*=7Es only) (Y=C2)     Format     (Y=C2)     Format
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DUSHANBE             1962  B            AS ON

DS  238              1964  B   JFM

( 38.5  68.8)        1971                                          A  Y J   AMJ JAS OND
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EGLIN AFB            1964 A      M     J   ON
EG  930              1965 A     F
( 30.3 273.3)        1966 A     F
                     1967 A    J

                     1969 A    J
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EIGHTS               1961 A                  D  A                 D A                 D*
EI  97N    75W       1962                       A    JF             A    J              *

(-75.0 282.9)        1964 A    JF
                     1965 AB Y JFM AMJ JAS ON   A      M AMJ JAS       X   FM AMJ JAS O
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EL ARENOSILLO        1975                                             Y JFM AMJ JAS OND
EA  036    30E       1976                       A    JFM AMJ JAS OND A  Y JFM AMJ JAS OND
( 37.1 353.3)        1977                                             Y JFM AM
                     1978                                             Y      MJ JAS OND
                     1979                                             Y JFM AMJ
                     1980                                             Y      MJ JAS ON
                     1981                                             Y JFM AMJ JAS ON
                     1982                       A                 ND A                 ND
                     1983                       A    JFM AMJ J S     A    JFM AMJ J S
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ELIZABETHVILLE       1955                                             A      M AMJ JAS OND
EZ  11J     0E       1956                                             A    JFM AMJ JAS OND
(-11.6  27.5)        1957                         X          JAS OND A            JAS OND
                     1958                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1959                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1960                         X  JFM AMJ         A  Y JFM AMJ
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ELLSWORTH            1957 ABXY      MJ JAS OND  ABXY         JAS OND A XY         JAS OND  A            JAS OND A            JAS OND
EL  A7P    45W       1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
(-77.7 318.8)        1959   X          JAS OND  A XY JFM  MJ JAS OND AB Y JFM  MJ JAS OND
                     1960   X  JFM AMJ          A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1961 AB Y JFM AMJ JAS OND    X  JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1962 ABXY JFM AMJ JAS OND  A XY JFM     JAS OND A XY JFM AMJ JAS OND
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ERIE                 1970 A        AM  JAS OND
ER  842   105W       1971 A     FM AMJ JA  OND
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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)              (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                   Year(Y=C2)   (Digital=*)  (Y=C2)   f-plots    (Y=C2)   (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
ERIE               1972 A    JFM AMJ JAS OND
ER  842   105W      1973 A    JF          OND
( 40.0 254.7)
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EUREKA             1957 ABXY         JAS OND  ABXY         J   OND A XY         J S OND
EU  980    75W     1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
( 80.0 274.1)      1959   X  J                A XY J               A  Y J
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FIJI               1946                                            A        AMJ JAS ON
14  61Q   180E     1947                                            A    JFM AMJ JAS  ND
(-18.0 178.2)      1948                                            A    J M
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FLETCHERS ICE      1957 ABXY         JAS OND  A XY         JAS OND A XY         JAS OND  A            JAS OND A            JAS OND
XC  982    75W     1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
( 75.9 235.7)
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FORT ARCHAMBAULT   1969                         X  JFM AMJ JAS OND A  Y JFM  MJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
FA  109    15E     1970                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
(  9.2  18.3)      1971                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1972                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1973                         X  JFM AMJ JAS     A  Y JFM AMJ JAS      A    JFM AMJ JAS     A    JFM AMJ JAS
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FORT CHIMO         1949 A        AM  JAS OND                     A        A J JAS OND
FC  J58    75W     1950 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
( 58.1 291.6)      1951 A    JF  AMJ JAS OND                     A    JFM AMJ JAS OND
                   1952                                          A    JFM AMJ JAS OND
                   1953                                          A    JFM AMJ JAS OND
                   1954                                          A    JFM AMJ

                   1957 AB Y         J S OND                       X          J S
                   1958 ABXY JFM AMJ JAS OND  ABXY   M AMJ JAS OND ABXY  FM AMJ J S OND
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FORT MONMOUTH      1950 A                 D
FM  J40    75W     1951 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
( 40.4 285.9)      1952 A     FM AMJ JAS OND                     A     FM AMJ JAS OND
                   1953 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
                   1954 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
                   1955 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
                   1956 A    JFM AMJ JAS OND                     A    JFM AMJ JAS OND
                   1957 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1959 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1960 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                   1961 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ   S OND  A    JFM AMJ     OND A    JFM AMJ     OND
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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)              (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots    (Y=C2)  (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
FORT MONMOUTH        1962 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
FM  J40    75W       1963 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
( 40.4 285.9)        1964 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1965 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
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FORT NORMAN          1957 ABXY         JA    D  A XY       J J       A XY         JA    D
FN  864   105W       1958 A            JAS
( 64.9 234.5)
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FORTALEZA            1975 A            JA  OND                       A            JAS OND*
FZ  AOM    45W       1976 A    JFM AMJ JAS OND
( -3.8 321.0)        1977 A    JFM A
                     1979 A              S
                     1980 A      M A
                     1981 A        AM
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FRASERBURGH          1948                                          A      M AMJ JAS OND
15  065     0E       1949                                          A    JFM AMJ JAS OND
( 57.6 357.9)        1950                                          A    JFM AMJ JAS OND
                     1951                                          A    JFM AMJ JAS
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FREIBURG             1946                                          A            JAS OND
FR  048     0E       1947                                          A    JFM AMJ JAS OND
( 48.1   7.6)        1948                                          A    JFM AMJ JAS OND
                     1949                                          A    JFM AMJ JAS OND
                     1950                                          A    JFM AMJ JAS OND
                     1951                                          A    JFM AMJ J S OND
                     1952                                          A    JFM AMJ JAS OND
                     1953                                          A    JFM AMJ JAS OND
                     1954                                          A    JFM AMJ JAS OND
                     1955                                          A    JFM AMJ JAS OND
                     1956                                          A    JFM AMJ JAS OND
                     1957 ABXY       J JAS OND  ABXY         JAS OND A XY JFM AMJ JAS OND
                     1958 AB Y JFM AMJ JAS OND    X  JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1959                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1960                        BX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1961                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1962                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1963                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1964 A      M A             BX  JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1965                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1966                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1967                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JF      J
                     1968                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS O D
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
FREIBURG	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
FR 048 0E	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(48.1 7.6)	1971	A	O	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
FROBISHER BAY	1957	ABXY	S OND	ABXY	S ON	ABXY	S ON				
FB J63 60W	1958	ABXY J	AMJ JAS OND	ABXY	J J S OND	ABXY	MJ J S OND				
(63.8 291.4)	1959	X J		A XY J		A Y J					
FUKAURA	1947					A	M AMJ JAS OND				
16 541 135E	1948					A	JFM AMJ JAS OND				
(40.6 139.9)	1949					A	JFM AMJ JAS ON				
GARCHY	1959	X	OND	ABXY	OND	A Y	OND				
GY 042 0E	1960	X	AMJ JA OND	BXY JF	AMJ JAS OND	AB Y JFM AMJ JAS					
(47.3 3.1)	1961	X JF	AS OND	ABXY JFM	AMJ JAS OND	A Y JFM AMJ JAS OND					
	1962	X JFM AMJ		ABXY JFM	AMJ AS OND	A Y JFM AMJ JAS OND					
	1963			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1964			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JAS OND		
	1968			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1969			X	JFM A J JA OND	A Y JFM AMJ JA OND		A	JFM AM		
	1970			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1972			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
GENOVA	1956					A	MJ JAS OND				
GV 044 0E	1957			X	JAS OND	A Y JFM AMJ JAS OND					
(44.6 9.0)	1958			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1959			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1960			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1961			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1962			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND					
	1963			X	AMJ JAS OND	A Y JFM AMJ JAS OND					
	1964			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y JFM AMJ JAS OND		A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
GENOVA	1967			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
GV 044 OE	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(44.6 9.0)	1969			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973					A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
GIBILMANNA	1977					A Y	M AMJ OND				
GM 037 15E	1978					A Y	JFM AMJ JAS OND				
(37.6 14.0)	1979					A Y	JFM AMJ JAS O D				
	1980					A	J				
GODHAVN	1951	A	ND			A	ND				
GO J69 45W	1952	A	JFM AMJ J S OND			A	JFM AMJ J S OND				
(69.3 306.5)	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JA D			A	JFM AMJ JA D				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS ND	A	J J ND	A	JFM AMJ JAS ND				
	1957	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	MJ JAS OND	A	MJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O	A	JFM AMJ JAS O
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ A		JFM AMJ
	1975	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM JAS OND	A	JFM JAS OND
	1976	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1977	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1978	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	S D	A	S D
	1979	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1980	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1981	A X	JFM AMJ JAS OND	A	JFM AM N	A	JFM AM N *				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
GODHAVN	1982	A	JFM AMJ JA	A	JFM AMJ JAS O	A	JFM AMJ JAS OND*				
GO J69 45W	1983			A	JFM	A	JFM *				
(69.3 306.5)	1984			A	JFM AM	A	JFM AM *				
GOOSE BAY	1972	B	A	X	AMJ JAS O	A Y	AMJ JAS OND	A	AMJ JAS OND		
GS J53 60W	1973	B	J	X	J JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(53.3 299.6)	1974			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1975					A	FM AMJ JAS OND				
	1976					A	JFM AMJ JAS OND				
	1977					A	JFM AM				
	1978					A	J JAS ON				
	1979					A	M AMJ JAS OND				
	1980					A	JFM AMJ JAS OND				
	1981					A	JFM JAS OND				
	1982					A	JF AMJ JAS				
GORKY	1958	ABXY	M AMJ JAS OND	A XY	M AMJ JAS OND	A XY	M AMJ JAS OND				
GK 156 45E	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(56.2 44.3)	1960	ABXY	JFM AMJ J S OND	ABXY	JFM AMJ J S OND	ABXY	JFM AMJ J S OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS ON		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	A X	JFM AMJ JA OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981	A XY	JFM S OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ J S OND				
	1982	A XY	JFM AMJ J S OND	A XY	JFM AMJ J S OND	A XY	JFM AMJ J S OND				
	1983	A X	JFM AMJ	A X	JFM	A	JFM S				
GRAHAMSTOWN	1958			X	M AMJ JAS OND	A Y	M AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
GRAHAMSTOWN	1959			X	J	A	Y J				
GR 13L 30E	1965			X	FM MJ JAS OND	AB	Y FM MJ JAS OND	A	FM MJ JAS OND		
(-33.3 26.5)	1972			X	JAS OND	A	Y JAS OND	A	JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1974			X	FM AMJ J		Y JFM AMJ J				
	1976			X	JFM S OND	A	Y JFM S OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979	A	S								
GRAND BAHAMA	1957	ABXY	JAS OND	A XY	JAS OND	A XY	J JAS OND	A	J JAS ND	A	J JAS ND
GB 926 75W	1958	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(26.6 281.8)	1959	ABXY JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
	1961	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	M AMJ OND	A	M AMJ OND
	1962	ABXY JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ AS OND	A	JFM AMJ AS OND
	1963	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A X JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A Y JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A JFM AMJ	JAS OND	A X JFM AMJ	JAS OND	A Y JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A JFM AMJ	JAS OND	A X JFM AMJ	JAS OND	A Y JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A JFM AMJ	JAS OND	A X JFM AMJ	JAS OND	A Y JFM AMJ	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	A JFM AMJ		A X JFM AMJ		A Y JFM AMJ		A	JFM AMJ	A	JFM AMJ
GRAZ	1947					A	AS OND				
GZ 146 15E	1948					A	JFM AMJ J S OND				
(47.1 15.5)	1949					A	JFM AMJ JA N				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	BXY	JAS OND	A Y	JFM AMJ JAS OND				
	1958	X JFM AMJ	JAS OND	BXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				
	1959	X JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				
	1960	X JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				
	1961	X JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				
	1962	X JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				

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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)              (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)   Computer
                Year(Y=C2)   (Digital=*)  (Y=C2)   f-plots     (Y=C2)   (*=7Es only) (Y=C2)     Format     (Y=C2)    Format
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(continued)
GRAZ            1963   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
GZ  146    15E  1964   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
( 47.1  15.5)   1965   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1966   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1967   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1968   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1969   X  JFM AMJ JAS OND  ABX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1970   X  JFM AMJ JAS OND  ABX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1971   X  JFM AMJ JAS OND  ABX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1972   X  JFM AMJ JAS OND  ABX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                1973   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1974   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1975   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A            JAS OND
                1976   X  JFM AMJ JAS OND   BXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1977   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1978   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1979                        BX  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                1980                         X  J M AMJ JAS OND A  Y JFM AMJ JAS OND
                1981                         X  J    MJ JA  O   A  Y J    MJ JAS OND
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GUAM            1944                                            A                 D
17  513    150E 1945 A    J            D                       A    J            D
( 13.5 144.9)   1946 A     FM                                   A    JFM AMJ  AS
                1947 A      M AMJ JAS OND                       A      M AMJ JAS OND
                1948 A    JFM AMJ JA   ND                       A    JFM AMJ JAS OND
                1949 A        AMJ JAS OND                       A         MJ JAS OND
                1950 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1951 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1952 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1953 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1954 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1955 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                1956 A    JFM A                                 A    JFM A
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HAIFA           1960 A            A  O    A              S OND
HA  132     30E 1961                      A    JFM AMJ JA
( 32.8  35.0)
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HAINAN IS       1942                                            A          J JAS OND
18  419    120E 1943                                            A    JFM AMJ
( 18.3 109.3)
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HALLEY BAY      1957 ABXY       J JAS OND  A XY         JAS OND A XY         JAS OND
HB  A7N     30W 1958 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
HALLEY BAY	1960			X	J JAS OND	A XY	J JAS OND				
HB A7N 30W	1961			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(-75.5 333.4)	1962	ABXY	M AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964			A X	JF AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AMJ JAS OND		
	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM J JAS OND		
	1967	X	JFM AMJ JAS O	A XY	JFM AMJ JAS O	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1968	X	MJ JAS O D	A XY	M MJ JAS OND	A XY	JFM AMJ JAS OND	A	MJ JAS OND		
	1969	X	J ND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X	JF J JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1971	X	JFM AMJ JAS ON	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	X	JFM AMJ JA OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	X	JFM AMJ JAS OND	X	JFM AMJ JAS ON	A XY	JFM AMJ JAS OND				
	1977	X	JFM AMJ JAS ON	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS ON	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS OND	X	JFM AMJ JAS ON	A XY	JFM AMJ JAS OND				
	1980	X	JFM AMJ JAS ON			Y	JFM AMJ JAS ON				
	1981					Y	JFM AM S				
HANKOW	1941					A	S ND				
19 432 120E	1943					A	JFM AMJ JAS OND				
(30.7 114.3)	1944					A	JFM S O				
HANOVER	1970	A	JFM								
HN J44											
(43.7 287.8)											
HERMANUS	1971			X	J J S OND	A Y	MJ J S OND	A	J S OND		
HR 13M 30E	1972			X	JFM AMJ S OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(-34.4 19.2)	1973	A	AM	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM	A Y	JFM				
	1982					A Y	OND				
	1983			X	MJ JA	A	JFM AMJ JAS OND				
	1984					A	JF				
HIRAISO	1936					A	J JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
HIRAISO	1937					A	JFM AMJ JAS OND				
20 536 120E	1938					A	JFM AMJ JAS OND				
(36.4 140.6)	1940					A	MJ J				
	1941					A	J M AMJ J				
	1942					A	M AM S ON				
	1943					A	AS OND				
	1944					A	JF AMJ JAS OND				
	1945					A	JFM AMJ OND				
	1946					A	JFM				
HIRATSUKA	1940					A	D				
21 533	1941					A	JFM AMJ JAS OND				
(35.3 139.3)	1942					A	JFM AMJ JAS OND				
	1943					A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM A				
HOBART	1945					A	D				
HO 54K 150E	1946					A	JFM AMJ JAS OND				
(-42.9 147.3)	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND	A	J	A	J
	1955					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	X JFM		ABXY JFM		A Y	JFM	A	JFM	A	JFM
	1961			X	AMJ JAS OND	A Y	AMJ JAS OND	A	AMJ JAS OND	A	AMJ JAS OND
	1962	AB Y	OND	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	A JFM AMJ		X	FM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A	D	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A M		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
HOBART	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
HO 54K 150E	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-42.9 147.3)	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM A JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM A J JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND		Y JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AM						
HOLLANDIA	1945	A	M AM			A	AM				
HL 50K 135E	1957	X	D	ABXY	D	ABXY	D				
(-2.5 140.8)	1958	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1959			X	JF	A	Y JF				
HONG KONG	1969	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
HK 423 120E	1970	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS ON		
(22.3 114.2)	1971	A X	JFM AMJ JAS OND	BXY	JF	A	Y JF	A	JF		
	1972	A	JFM AMJ JAS OND								
	1973	A	JFM AMJ JAS OND								
	1974	A	JFM AMJ JAS OND								
	1975	A	JFM AMJ JAS OND								
	1976	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977	A X	JFM AMJ JAS OND	ABXY	JFM AMJ	A	Y JFM AMJ				
	1978	A	JFM AMJ JAS OND								
HUANCAYO	1938					A	JFM AMJ JAS OND				
HU 91K 75W	1939					A	JFM AMJ JAS OND				
(-12.0 284.7)	1940					A	JFM AMJ JAS OND				
	1941					A	JFM AMJ JAS OND				
	1942					A	JFM AMJ JAS OND				
	1943	A	J N			A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947	A	J JAS OND			A	JFM AMJ JAS OND				
	1948	A	JFM A J AS OND			A	JFM AMJ JAS OND				
	1949	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ AS OND			A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
HUANCAYO	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
HU 91K 75W	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(-12.0 284.7)	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND	A	J M AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JF AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JF AMJ JAS OND	A	JF AMJ JAS OND	A	JF AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1967	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	AB Y	JFM AMJ JAS OND	X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A XY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A XY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A X	JFM AMJ JAS OND	A	JFM A J JAS OND	A	JFM A J JAS OND	A	JFM A J JAS OND	A	JFM A J JAS OND
	1983	A	JFM MJ			A	JFM AM	A	JFM A	A	JFM A
HYDERABAD	1963			X	MJ JAS OND	A Y	FM AMJ JAS OND				
HY 317 75E	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(17.4 78.5)	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS ND	A Y	JFM AMJ JAS OND	A	M AM		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ AS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ S OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM A AS OND		
	1971			X	JFM AMJ JA ND	A Y	JFM AMJ JA N	A	JFM AMJ JA N		
	1972			X	J	AB J					

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
IBADAN	1951					A	D				
IB 007 OE	1952					A	J AMJ JAS OND				
(7.4 3.9)	1953					A	J AM J ND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A	D	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1963	A J M J		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			BX	JFM AMJ JAS ND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			BX	FM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM MJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1972			X	JF AMJ JAS OND	A Y	JFM AMJ JAS OND	A	J M A J JAS OND		
	1973			X	JFM AS ND	A Y	JFM MJ AS OND	A	M AS ND		
	1974			X	JFM A J J S ND	A Y	JFM A J J S ND				
ILO	1959	ABXY	FM AM	ABXY	FM AM	A XY	FM AM	A	FM AM	A	FM AM
IL J1P 75W											
(-17.4 288.8)											
INVERNESS	1951					A	OND				
IN 056 OE	1952					A	JFM AMJ JAS OND				
(57.4 355.8)	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	J JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	J	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963			X	JFM AMJ	A XY	JFM AMJ				
IRKUTSK	1957			X	JA	A Y	JAS OND				
IR 352 105E	1958	ABXY	M J JAS OND	ABXY	M J JAS OND	A XY	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
IRKUTSK	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
IR 352 105E	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(52.5 104.0)	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF MJ JA OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JF MJ J S O D		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ AS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983	A X	JFM AMJ JAS OND	A X	JFM AM	A X	JFM AM S				
	1984	A	JF								
ISTANBUL	1963			X	MJ JAS O						
IS 141 0E	1964			X	M AMJ JAS OND						
(41.1 29.0)	1965			X	JFM AMJ JAS OND						
	1966			X	JFM AMJ JAS OND						
	1967			X	JFM AMJ JAS ON						
	1968			X	JFM AMJ JAS ON	Y	AMJ JAS				
	1969			X	FM AMJ JAS ON	Y	JAS ON				
JAMAICA	1962	ABXY	S OND	AB Y	S OND	X	S OND				
JA 918 75W	1963	ABXY	JFM AMJ JAS OND	A Y	J M AMJ JA OND	BX	JFM AMJ S OND				
(18.0 283.2)	1964	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1965	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1966	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JF				
	1967	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND						
	1968	A X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND						
	1970	A	MJ J S OND	A	MJ JAS OND						
	1971	A	JFM	A	JFM AMJ						

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
JAMAICA	1972			A	JAS OND						
JA 918 75W	1973			A	JF AM J S O						
(18.0 283.2)	1974			A	JFM AMJ						
JICAMARCA	1962	A	A								
JI 91J 75W	1963	A	JFM AMJ JAS ND								
(-11.9 283.1)	1964	A	JFM AMJ JAS OND								
	1965	AB Y	JFM AMJ JAS OND			X	J S OND				
	1966	A	JFM AM N								
	1967	A	J								
	1968	A	MJ								
JOHANNESBURG	1946					A	AS OND				
JO 120 30E	1947					A	JFM AMJ JAS OND				
(-26.1 28.1)	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A XY	JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	A X	JFM AMJ JA	ABXY	JFM AMJ JA	A Y	JFM AMJ J	A	JFM AMJ J		
	1965	A	FM J								
	1966	A	JAS								
	1967			X	JFM AM JAS OND	AB Y	JFM AMJ JAS OND	A	J		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ J S OND	A Y	JFM AMJ J S OND	A	JFM AM J S OND		
	1972			X	JFM AMJ S OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
JOHANNESBURG	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
JO 120 30E	1979	A	S	X	JF AS OND	A	Y JFM AMJ JAS OND				
(-26.1 28.1)	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	J M AMJ JAS	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1983			X	JFM AMJ JAS	A	JFM AM JAS OND				
	1984					A	JF				
JULIACA	1959	ABXY	M AM	ABXY	M AM	A XY	M AM	A	M AM	A	M AM
JU J1N 75W											
(-15.5 289.8)											
JULIUSRUH	1957	X	JAS OND	ABX	JAS OND	A	S				
JR 055 15E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
(54.6 13.4)	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960			BXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1961	X	FM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1962	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964	BX	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	BX	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1968	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM S OND	A	Y JFM AMJ JAS OND				
	1982			X	MJ JAS OND	A	Y JFM AMJ JAS OND				
	1983					A	JFM AMJ				
KALININGRAD	1964	B	F AMJ JAS OND	BX	FM AMJ JA						
KL 154 15E	1965	B	JFM AMJ J S OND	X	MJ JA						
(54.7 20.6)	1966	B	JFM AM S ND	BX	M A	B	A				
	1967	B	JFM AMJ JAS OND	X	MJ JA						

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KALININGRAD	1968	B	JFM AMJ JAS OND	X	MJ JA						
KL 154 15E	1969	B	JFM AMJ JAS OND	X	MJ JA						
(54.7 20.6)	1970	B	JFM AMJ JAS OND	X	MJ JA						
	1971	B	JFM AMJ JAS OND	X	MJ JA						
	1972	AB	JFM AMJ JAS OND	A X	MJ JA	A	JA				
	1973	B	JFM AMJ JAS OND	X	MJ JA						
	1974	B	JFM AMJ JAS OND	X	MJ JA						
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND								
	1977	B	JFM AMJ JAS OND	A X	AS OND	A	AS OND				
	1978	B	JFM AMJ JAS OND								
	1979	B	JFM								
	1981	X	ON	A	ON						
KAMINOGE	1945					A	JFM AMJ JA				
22 532 135E											
(35.6 139.6)											
KARAGANDA	1964	B	AS OND			A	AS OND	A	AS ND		
KR 250	1965	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	J M AMJ JAS OND		
(49.8 73.1)	1966	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1967	B	JFM AMJ JAS OND				Y JF AMJ JAS	A	JFM AMJ JAS OND		
	1968	B	JFM AMJ A OND				Y JF AMJ JAS	A	JFM AMJ JAS OND		
	1969	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS		
	1972	B	JFM AMJ JAS OND	A	JA	A	Y JFM AMJ JA OND	A	JF AMJ JA OND		
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS OND								
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND								
	1977	B	JFM AMJ JAS OND								
	1978	B	JFM AMJ JAS OND								
	1979	B	JFM AMJ AS OND								
	1980	B	JFM AMJ JAS OND								
KENORA	1963	XY	OND	XY	OND	Y	OND				
KE 948 90W	1964	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
(50.0 266.0)	1965	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1966	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1967	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1968	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1969	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1970	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KENORA	1971	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
KE 948 90W	1972	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
(50.0 266.0)	1973	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1974	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1975	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1976	X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
KERGUELEN	1953					A	FM AMJ JAS OND				
KG 24R 75E	1954					A	JFM AMJ JAS OND				
(-49.3 70.2)	1955					A	JF				
	1956					A	JFM AMJ JAS O				
	1957			X	JAS OND	A XY	JFM AMJ JAS OND				
	1958			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JA	A Y	JFM AMJ JA	A	JFM AMJ JA		
	1965			X	AMJ JAS OND	A Y	AMJ JAS OND	A	AMJ JAS OND	A	AMJ JAS OND
	1966	BX	JFM AMJ JAS ON	ABX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	X	JFM AMJ JAS OND	ABX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	X	JFM	ABX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			BX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			BX	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1983					A	JFM				
KERMADEC	1944					A	MJ JAS OND				
KC 62R 180E	1945					A	JF J JAS OND				
(-29.2 182.1)	1946					A	JFM AMJ JAS OND				
	1947					A	J				
	1964			X	FM AMJ JAS OND	A Y	FM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KERMADEC	1965			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
KC 62R 180E	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(-29.2 182.1)	1967					A	J JAS OND				
	1968					A	Y JFM AMJ JAS OND	A	MJ JAS O		
	1969					A	Y JFM	A	JFM		
	1970			X	FM AMJ JAS OND	AB	Y FM AMJ JAS OND	A	FM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS	A	Y JFM AMJ JAS	A	JFM AMJ JAS		
KHABAROVSK	1960	B	JF AMJ JA O D	B	J O	B	J O				
KB 548 135E	1961	BX	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
(48.5 135.1)	1962	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ OND	A XY	JFM AMJ D	A XY	JFM AMJ OND	A	JFM AMJ D		
	1968	ABXY	F MJ JAS OND	ABXY	F MJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS		
	1976	ABXY	JFM J J D	A XY	JFM AMJ J D	A XY	JFM AMJ J D				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981	X	JFM	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982	X	MJ OND	A XY	JFM MJ OND	A	Y JFM AMJ ND				
	1983	X	F A	A X	JF	A	JF				
KHARTOUM	1952					A	M MJ J S OND				
23 115 30E	1953					A	JFM AS OND				
(15.6 32.6)	1954					A	F				
KHEYSA IS.	1957	ABXY	JFM JAS OND	ABXY	JAS OND	A XY	JAS OND				
BT 280 60E	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(80.6 58.0)	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ AS OND	A XY	JFM AMJ AS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KHEYSA IS.	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
BT 280 60E	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JA OND		
(80.6 58.0)	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ J OND		
	1966	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M MJ JAS O D		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AMJ		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	A	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
KIEV	1964	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
KV 151 30E	1965	B	JFM AM JAS OND	AB	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(50.5 30.5)	1966	B	FM AMJ JAS O D	B	N	B	N				
	1967	B	JFM AMJ JAS OND								
	1968	B	JFM AMJ JAS OND								
	1969	B	JFM AMJ JAS OND	A	JFM AMJ JA ND	A	JFM AMJ JA ND	A	JFM AMJ JA ND		
	1970	B	JFM AMJ JAS OND	A	AMJ JAS OND	A Y	AMJ JAS OND	A	AMJ JAS OND		
	1971	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1972	B	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON		
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS OND	X	MJ JA						
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND	Y	M						
	1977	B	JFM AMJ JAS OND								
	1978	AB	JFM AMJ JAS OND								
	1979	A	FM								
KINGSTON	1962	Y	S OND	Y	S OND						
	1963	Y	JFM AMJ JAS OND	Y	J M AMJ JA OND						
(18.0 283.1)	1964	Y	JFM AMJ JAS OND	Y	JFM AMJ JAS OND						
	1965	Y	JFM AMJ JAS OND	Y	JFM AMJ JAS OND						
	1966	Y	JF	Y	JFM AMJ JAS OND						
	1967			Y	JFM AMJ JAS OND						
	1968			Y	JFM AMJ JAS ON						

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
KINSHASA BINZA	1952					A	FM AMJ JAS OND				
LB 10M OE	1953					A	JFM AMJ JAS OND				
(-4.5 15.2)	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1957			X	JAS OND	A	JFM AMJ JAS OND				
	1958			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM A J J O	AB Y	JFM A J J O				
	1963			X	JFM AM ND	AB Y	JFM AM ND				
	1964			X	JF J AS OND	A Y	JF J JAS OND	A	JF J JAS OND		
	1965			X	JFM AMJ S OND	AB Y	JFM AMJ S OND	A	JFM AMJ S OND		
	1966			X	JFM AMJ A	A Y	JFM AMJ AS ND	A	JFM AMJ AS ND		
	1967			X	JF	A Y	JFM A J JAS ON	A	JFM A J JAS ON		
	1968					A Y	FM AMJ JAS OND	A	FM AMJ J S OND		
	1969			X	ND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	AMJ	A Y	JFM AMJ JA	A	JFM AMJ JA		
KIRUNA	1949					A	M AMJ JAS OND				
KI 167 15E	1950					A	JFM AMJ JAS OND				
(67.8 20.4)	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ J S OND				
	1955					A	JF J JAS O				
	1956					A	FM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A Y	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960	X	J	BXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	X	J	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JA
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	B	JFM AMJ AS OND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KIRUNA	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
KI 167 15E	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(67.8 20.4)	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1983			X	JFM AMJ JAS	A	Y JFM AMJ JAS OND				
	1984					A	JFM AMJ				
KJELLER	1945					A	J JAS OND				
OS 059 15E	1946					A	J M A				
(60.0 11.1)	1948					A	ND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A	Y JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1959	X	J	ABXY	J	A	Y J				
KOCHEL	1940					A	JFM A AS OND*				
24 064	1941					A	FM J JAS OND*				
(47.7 11.4)	1942					A	JFM A JAS OND*				
	1943					A	JF AMJ JAS OND*				
	1944					A	J S ND*				
	1945					A	M A J S O D*				
	1946					A	J *				
KODAIKANAL	1952					A	JAS OND				
KO 310 75E	1953					A	JFM AMJ JAS OND				
(10.2 77.5)	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957			ABX	JAS OND	A	Y JFM AM JAS OND				
	1958	A	F	ABX	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1959			ABX	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
KODAIKANAL	1961			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
KO 310 75E	1962			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(10.2 77.5)	1963			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964			A X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			A X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	O	X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM A		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS ON	A	Y JFM AMJ JAS OND	A	JFM AMJ		
	1975			X	AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM A JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM A	A	Y JFM AMJ JAS OND				
	1980			X	JAS N	A	Y JFM AMJ JAS ON				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
KOKUBUNJI	1945					A	OND				
25 535 135E	1946					A	JFM AMJ JAS OND				
(35.7 139.5)	1947					A	JFM AMJ JAS OND				
	1948					A	J M AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AM S OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)                (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots      (Y=C2)  (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
KOKUBUNJI            1967 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JF  AM
25  535   135E       1968  BXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A          J JAS OND
( 35.7 139.5)        1969 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS ON
                     1970 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1971 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1972 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1973 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1974 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1975 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS ON
                     1976 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1977 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1978 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1979 A XY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1980 A XY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1981 A XY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1982 A XY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1983   X  JFM AMJ          A X  JFM AMJ JAS ON  A    JFM AMJ JAS OND
                     1984                                            A    JFM A
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KYOTO                1957                                             B Y          AS OND
KY  535              1958                                             B Y JFM AMJ JAS OND
( 35.1 135.5)
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LA PAZ               1957 ABXY            OND  ABXY            OND A XY            OND  A               OND A               OND
LP  J10    60W       1958 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
(-16.5 291.9)        1959 A X               D  AB Y               D A X        J       D
                     1960 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1961 ABXY JFM AMJ J        ABXY JFM AMJ J       A XY JFM     J        A      M     J       A      M     J
                     1962 AB Y            OND  ABX              OND A XY            OND  A                ND A               ND
                     1963 ABXY JFM AMJ JA       ABXY JFM AMJ JA      ABXY JFM AMJ JA       A    JFM AMJ JA      A    JFM AMJ JA
                     1964 ABXY  FM AMJ JAS OND  ABXY  FM AMJ JAS OND ABXY  FM AMJ JAS OND  A     FM AMJ JAS OND A     FM AMJ JAS OND
                     1965 ABXY JFM AMJ JAS      ABXY JFM AMJ JAS     ABXY JFM AMJ JAS      A    JFM AMJ JA      A    JFM AMJ JA
                     1966 A                 D  A X               ND A  Y              ND
                     1967                       X          JAS OND A  Y         JAS OND  A            JAS OND
                     1968                       X  JFM             A  Y JFM
                     1970 A             S
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LA QUIACA            1958                       X        J JAS     A  Y       J JAS
LQ  J2K    60W
(-22.1 294.4)
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LANCHOW              1946                                         A                 D
27  336   105E       1947                                         A    JFM AMJ JAS OND
( 36.1 103.8)        1948                                         A    JFM AMJ JAS OND
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
LANCHOW	1949					A	JFM AMJ				
27 336 105E											
(36.1 103.8)											
LANNION	1970			X	ND						
LN 047 0E	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(48.7 356.5)	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1983					A	JFM				
LENINGRAD	1957	X	J D	ABXY	JAS OND	A	Y JAS OND				
LD 160 30E	1958	ABXY JFM AM	AS OND	A XY	JFM AM AS	A	XY JFM AM JAS OND				
(60.0 30.7)	1959	ABXY JFM AMJ	JAS OND	AB Y	AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1960	ABXY JFM AMJ	JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1961	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1962	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1963	ABXY JFM AMJ	JAS O D	A XY	JFM AMJ JAS O D	A	XY JFM AMJ JAS O D				
	1964	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM		
	1976	ABXY JFM AMJ	JAS	A XY	JFM AMJ JAS O	A	XY JFM AMJ JAS O				
	1977	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1978	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1979	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1980	A X JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1981	X JF AMJ	JAS	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)               (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)   Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots     (Y=C2)  (*=7Es only) (Y=C2)    Format    (Y=C2)    Format
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(continued)
LENINGRAD            1982 A XY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS  ND
LD  160    30E       1983 A X  JFM AMJ JAS O D  A X  JFM AMJ         A    J    MJ     O
( 60.0  30.7)        1984 A    JF
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LEYTE                1945 A             S OND                       A          J JAS OND
28  411   120E       1946 A    JFM AMJ JAS OND                      A    JFM AMJ JAS OND
( 11.0 125.0)        1947 A    JFM AMJ JAS OND                      A            A  ON
                     1948 A    JFM AMJ JA                           A    JFM AMJ JA
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LINDAU               1949                                           A    JFM AMJ JAS OND
LI  050    15E       1950                                           A    JFM AMJ JAS OND
( 51.7  10.1)        1951                                           A    JFM AMJ JAS OND
                     1952                                           A    JFM AMJ JAS OND
                     1953                                           A    JFM AMJ JAS OND
                     1954                                           A    JFM AMJ JAS OND
                     1955                                           A    JFM AMJ JAS OND
                     1956                                           A    JFM AMJ JAS OND
                     1957 ABXY         JAS OND  A XY         JAS OND ABXY JFM AMJ JAS OND
                     1958 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND
                     1959   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1960   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1961   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1962   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1963   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1964   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1965   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1966   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1967   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1968   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ J
                     1969   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A     FM AMJ JAS OND
                     1970   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1971   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1972   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1973 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1974   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1975 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1976   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1977   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1978   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1979   X  JFM              ABXY JFM AMJ         A  Y JFM AMJ
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LITTLE AMERICA       1957 ABXY         JAS OND  A XY         JAS OND A XY         JAS OND  A            JAS OND A            JAS OND
LA  77Q    165W      1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
(-78.2 197.8)
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)               (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)   Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots     (Y=C2)  (*=7Es only) (Y=C2)    Format     (Y=C2)    Format
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LONGYEARBYEN         1956                                          A          J
LG  178    15E       1957   X          JAS OND  ABXY         JAS OND A  Y         JAS OND
( 78.2  15.7)        1958   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1959   X  JFM AMJ JA       ABXY JFM AMJ JA      A  Y JFM AMJ JA
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LOSHAN               1946                                          A    JFM A
29  329   105E
( 29.5 103.7)
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LULEA                1952                                          A           JAS  ND
LU  165    15E       1953                                          A    JFM AMJ JAS OND
( 65.6  22.1)        1954                                          A    JFM AMJ J   OND
                     1955                                          A    JFM AMJ JAS OND
                     1956                                          A    JFM A J JAS OND
                     1957 A X               ND   BXY         JAS OND A  Y JFM AMJ JAS OND
                     1958 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1959 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1960 A X  J                  XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1961 A    JFM AM             X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1962 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1963 A X  JFM AMJ JAS OND    XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1964   X  JF    J JAS  ND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1965   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS  ND
                     1966 A X  JFM AMJ JAS OND  ABXY JFM AMJ JAS ON  AB Y JFM AMJ JAS OND  A    JFM AMJ JAS ON
                     1968   X               ON     X              OND A  Y             OND  A                 ND
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LWIRO                1953                                          A            AS OND
LW  10K    30E       1954                                          A    JFM AMJ JAS OND
( -2.3  28.8)        1955                                          A    JFM AMJ JAS OND
                     1956                                          A    JFM AMJ JAS OND
                     1957   X          JAS O D  ABXY         JAS OND A  Y JFM AMJ JAS OND
                     1958   X  JF  AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1959                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1960                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1961                         X  J             ND A  Y J            ND
                     1962                         X  J   AM          A  Y J   AM
                     1963                         X        J JAS OND A  Y       J JAS OND
                     1964                         X  JFM  MJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1965                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1966                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1967                         X  JFM AMJ         A  Y JFM AMJ
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LYCKSELE             1957   X          JAS OND  ABXY         JAS OND A  Y JFM AMJ JAS OND
LY  164    15E       1958   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
( 64.6  18.7)        1959   X  JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
LYCKSELE	1960	X	J	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
LY 164 15E	1961			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(64.6 18.7)	1962	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JA
	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JA
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JF A		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ J S OND	A	Y JFM AMJ JAS OND				
	1983			X	JFM AMJ JAS	A	Y JFM AMJ JAS OND				
	1984					A	JFM AM				
MACAU	1958	X	JAS OND	ABXY	MJ JAS OND	A	Y MJ JAS OND				
MC 422 120E	1959			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(22.2 113.6)	1960			X	JFM AMJ AS OND	A	Y JFM AMJ AS OND				
	1961			X	FM AMJ JAS OND	A	Y JFM AMJ AS O D				
	1962			X	J M MJ JAS OND		Y J M AMJ JAS OND				
	1963			X	JFM AM AS OND	B	Y JFM AMJ JAS OND				
	1964			X	JFM J JAS OND		Y JFM AMJ JAS OND				
	1965			X	JFM AMJ JA ND		Y JFM AMJ JA ND				
	1966			X	J		Y J				
MACQUARIE IS	1950					A	J JAS OND				
MQ 55M 150E	1951					A	JFM AMJ JAS OND				
(-54.5 159.0)	1952					A	JFM AS OND				
	1953					A	JFM AMJ JA OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	FM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	A XY	JAS OND	A	Y JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MACQUARIE IS	1958	X	J M AMJ JA ON	ABXY	J M AMJ JA ON	AB Y	J M AMJ JA ON				
MQ 55M 150E											
(-54.5 159.0)											
MADRAS	1945					A	S OND				
MD 313 75E	1946					A	JFM AMJ JAS OND				
(13.1 80.3)	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JA OND				
	1955					A	JFM AMJ JAS OND				
	1957	X	J ND	ABXY	J JAS OND	A Y	JFM AM JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JF AMJ	AB Y	JFM AMJ JAS OND	A	JF AMJ		
	1966			X	MJ JAS O	AB Y	JFM AMJ JAS O	A	MJ JAS O		
	1971			X	A N						
	1983			X	J						
MAGADAN	1968	B	MJ JAS OND								
150E	1969	B	JFM AMJ JAS OND								
(60.0 151.0)	1970	B	JFM AMJ JAS OND								
	1971	B	JFM AMJ JAS OND								
	1972	B	JFM AMJ JAS OND								
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS ON								
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND								
	1977	B	JFM AMJ JAS ON								
	1978	B	JFM AMJ JAS OND								
	1979	B	JFM AMJ JAS OND								
	1980	B	JFM AMJ JAS OND								
	1983			X	M A						

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
MAKASSAR	1944					A	JFM AMJ JAS O				
30 40N 120E											
(.0 119.5)											
MANILA	1947	A	JFM AMJ JAS OND			A	MJ				
MN 414 120E	1964	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(14.7 121.1)	1965	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JF A		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	A	FM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1984	A	JF	A	JFM	A	JFM				
MARION IS	1957	X	JA	BXY	JAS OND	AB Y	JAS OND				
MR 140 OE	1958			X	JFM M	A Y	JFM M				
(-46.9 37.8)											
MAUI	1944	A	M AMJ JAS OND			A	M AMJ JAS OND				
MA 720 150W	1945	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(20.8 203.5)	1946	A	JFM AMJ JAS ND			A	JFM AMJ JAS OND				
	1947	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1949	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MAUI	1957	ABXY	JFM AMJ JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
MA 720 150W	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(20.8 203.5)	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND	A	J M AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM A J JAS OND	A	FM A J JAS OND
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A Y	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A Y	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1984	A	JFM AMJ	A	JFM AMJ J	A	JFM AMJ J	A	JFM AM	A	JFM AM
MAWSON	1958	X	F	ABXY	F	A Y	F				
MW 26P OE	1959			X	AMJ JAS OND	AB Y	AMJ JAS OND	A	AMJ JAS OND	A	AMJ JAS OND
(-67.6 62.9)	1960	X	F J JAS OND	A XY	JF J JAS OND	AB Y	JF J JAS OND	A	JF J JAS OND	A	JF J JAS OND
	1961	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	X	J	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	X	JFM AMJ JA OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A X	FM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MAWSON	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
MW 26P OE	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	J
(-67.6 62.9)	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	A	O	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	FM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ JAS						
MAYNARD	1970			X	ON	A Y	OND	A	OND		
MY J43 75W	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(42.4 288.5)	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ	A Y	JFM AMJ				
MEANOOK	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
ME 855 105W	1958	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(54.6 246.7)	1959	ABXY J		A XY	J	A XY	J				
MEGURO	1934					A	J A OND				
31 534 135E	1935					A	J JAS OND				
(35.6 139.7)	1936					A	JFM A AS OND				
	1937					A	JFM AMJ JAS OND				
	1938					A	JFM AMJ JAS OND				
	1939					A	JFM AMJ JAS OND				
	1940					A	JFM AMJ JAS ON				
MEXICO CITY	1958	AB Y M AMJ	AS OND	X	ND	ABXY	M AMJ A OND				
MX 919 90W	1959	ABXY JFM AMJ	JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(19.3 260.6)	1960	ABXY JFM AMJ	JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1961	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABX JFM AMJ	JAS OND	ABX	JFM AMJ JAS OND	ABX	JFM AMJ JAS OND				
	1963	ABX JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND				
	1964	ABX JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABX JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABX JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A X JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JF AMJ JAS OND		
	1968	A X JFM AMJ	JAS OND	ABX	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	A X JFM AMJ	JAS OND	ABX	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	A X JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	A X JFM AMJ	JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MEXICO CITY	1972	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
MX 919 90W	1973	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(19.3 260.6)	1974	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1975	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1976	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1977	A X	JFM AMJ ND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1978	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1979	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1980	X	S OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1981	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1982			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
MIEDZESYN	1958	ABXY	JAS OND	ABXY	JAS OND	A XY	J JAS OND				
MZ 152 15E	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(52.2 21.2)	1960			X	J MJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JF AM		
	1968			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM A		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS ND	A Y	JFM AMJ JAS OND				
	1979			X	JFM A J J S ND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ AS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ AS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS O	A	JFM AM AS ON				
	1983					A	AMJ ON				
MILLSTONE HILL	1963	A	AMJ JAS OND								
MH J45 75W	1964	A	JFM AMJ JAS OND								
(42.6 288.5)	1965	A	JFM AMJ JAS OND								
	1966	A	FM AMJ JAS OND								
	1967	A	JFM AMJ JAS OND								

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MILLSTONE HILL	1968	A	JFM AMJ JAS OND								
MH J45 75W	1969	A	JFM AMJ JAS OND								
(42.6 288.5)	1970	A	JFM AMJ JAS OND								
	1971	A	JFM AMJ JAS OND								
	1972	A	JFM AMJ JAS OND								
	1973	A	JFM AMJ JAS OND								
	1974	A	JFM AMJ JAS OND								
	1975	A	JFM A JAS OND								
	1976	A	JFM AMJ JAS OND								
	1977	A	JFM AMJ JAS OND								
	1978	A	JFM AMJ JAS OND								
	1979	A	JFM AMJ								
MIRNY	1957	ABXY	J JAS OND	ABXY	J JAS OND	A XY	FM AMJ JAS OND				
MI 360 90E	1958	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-66.5 93.0)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
MOSCOW	1946					A	JFM AMJ JAS O D				
MO 155 30E	1947					A	JF				
(55.5 39.3)	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
MOSCOW	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
MO 155 30E	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(55.5 39.3)	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	X	JF AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	JF AMJ JAS O D	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981	A X	JFM AMJ J S OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1982	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983	A X	JFM AM AS OND	A X	JFM AMJ J	A X	JFM AMJ J S				
	1984	A	J								
MUNDARING	1959			X	AMJ JAS OND	AB Y	AMJ JAS OND	A	AMJ JAS OND	A	AMJ JAS OND
MU 43K 120E	1960			X	JFM MJ JA OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-32.0 116.2)	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	A	J D	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	A	J J J	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	A	J	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	J N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A	A	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ J S OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A	J D	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ J S OND	A Y	JFM AMJ JAS OND				
	1979	A	O	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AM AS						
MURMANSK	1956					A	M AMJ J				

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Station                 WDC      Ionograms    WDC                 WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)              (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots    (Y=C2)  (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
MURMANSK             1957 ABXY         JAS OND  ABXY         JAS OND A XY         JAS OND
MM  168    30E       1958 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
( 69.0  33.0)        1959 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND
                     1960 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1961 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1962 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1963 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1964 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1965 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1966 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1967 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1968 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1969 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS O D
                     1970 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1971 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1972 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JA  O
                     1973 ABXY J    MJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A              S O
                     1974 ABXY JFM AMJ JAS OND  A XY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A         MJ
                     1975 ABXY JFM AMJ JAS  N   A XY JFM AMJ J S  N  A XY JFM AMJ JAS      A    JFM A
                     1976 A X  J M A            A     F  A J JA      A  Y JFM A J
                     1977   X  JFM AMJ JAS OND  A XY JFM AM  J       A  Y JFM AM

                     1979                                             Y      MJ J S ON
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NAIROBI              1952                                            A     FM AM
NR  10J    45E       1953                                            A            AS ON
( -1.3  36.8)        1954                                            A           JAS O D
                     1955                                            A    J M AM  JAS OND
                     1956                                            A    JFM A
                     1957                                            A     FM AM

                     1964 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1965 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND
                     1966                         X  JFM  MJ JAS OND A  Y JFM  MJ JAS OND
                     1967                         X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1968                         X  JFM AMJ  A      A  Y JFM AMJ  A
                     1969                         X  JF
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NANKING              1947                                            A             S OND
32  432              1948                                            A    JFM AMJ JAS OND
( 32.1 119.0)
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NARSSARSSUAQ         1950 A                 D                        A                 D
NQ  J61    45W       1951 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
NARSSARSSUAQ	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
NQ J61 45W	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(61.2 314.6)	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1957	ABXY	JFM AM AS OND	ABXY	JFM AM JAS OND	A XY	JFM AM AS OND	A	JFM A AS OND	A	JFM A AS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	S OND	A	S OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ND	A	JFM AMJ JAS ND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABX	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1967	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS ON
	1971	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM J JAS D	A	JFM J JAS D
	1976	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	J	A	J
	1977	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1978	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	S D	A	S D
	1979	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1980	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	JF	A	JF
	1981	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1982	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS O *	A	JFM AMJ JAS O	A	JFM AMJ JAS O
	1983			A	JFM AM	A	JFM AM *				
	1984			A	JFM AM	A	JFM AM *				
NATAL	1958	ABXY	M AMJ JAS OND	ABXY	M AMJ JAS OND	ABXY	M AMJ JAS OND	A	M A J JAS OND	A	M A J JAS OND
NL AON 30W	1959	ABXY	J A J JA OND	ABXY	JFM AMJ JAS OND	ABXY	J A J JA OND	A	OND	A	OND
(-5.7 324.8)	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY	FM AMJ JAS OND	ABXY	FM AMJ JAS OND	ABXY	FM AMJ JAS OND				
	1965	ABXY	JF AM	ABXY	JF AM	ABXY	JF AM				
	1969	A	OND								
	1970	A	JFM AMJ JAS OND								

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
NATAL	1971	A	JFM AMJ JAS OND								
NL AON 30W	1972	A	JF AMJ JAS OND								
(-5.7 324.8)											
NHA TRANG	1956					A	JFM A				
33 412 120E											
(12.2 109.2)											
NORFOLK IS	1964	A	M J S D	X	FM A J JAS OND	A	Y FM AMJ JAS OND	A	FM A J JAS OND		
NI 63! 180E	1965			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(-29.0 168.0)	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS O	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND		Y JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ JA						
NORILSK	1968	B	JFM AMJ JAS OND	B	M	B	M				
NO 369 90E	1969	B	JFM AMJ JAS OND								
(69.4 88.1)	1970	B	JFM AMJ JAS OND								
	1971	B	JFM AMJ JAS OND								
	1972	B	JFM AMJ JAS OND	A	JA	A	JA				
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS OND								
	1975	B	JFM AMJ JAS OND								
	1976	B	FM AMJ JAS OND			A	JAS OND				
	1977	B	JFM AMJ AS OND								
	1978	B	JFM AMJ A N								
NOVOKAZALINSK	1964	B	J AS OND			A	Y M AMJ JAS OND	A	M AMJ JAS ND		
NK 246 60E	1965	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	J M AMJ JAS OND		
(45.8 62.1)	1966	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
NOVOKAZALINSK	1967	B	JFM AMJ JAS OND			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
NK 246 60E	1968	B	JFM AMJ JA	B	JFM AM	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(45.8 62.1)	1969					A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	B	D			A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	B	JFM AMJ JAS OND	A	JFM AMJ JAS O	A	Y JFM AMJ JAS O	A	JFM AMJ JAS O		
	1973	B	JFM AMJ J								
	1974	B	JFM AMJ JAS OND								
	1975	B	JFM AMJ JAS OND								
	1976	B	JFM AMJ JAS OND								
	1977	B	JFM AMJ JAS OND			A	J JAS OND				
	1978	B	JFM AMJ JAS OND								
	1979	B	JFM AMJ JAS OND				Y S ON				
	1980	B	JFM AMJ AS OND				Y J AM O	A	J	A	J
NOVOSIBIRSK	1969	B	FM AMJ JAS OND	B	F	B	F				
NS 355 90E	1970	B	JFM AMJ AS O D								
(54.6 83.2)	1971	B	J J D								
	1972	B	AMJ JAS N	A	A	A	A *				
	1973	B	FM AMJ JAS								
	1975	B	JFM AMJ JAS O D								
	1976	B	JFM A J JAS OND								
	1977	B	JF MJ JAS OND			A	J JAS OND				
	1978	B	JF AMJ JA								
	1979	B	A J JAS O D								
	1980	B	JF								
NURMIJARVI	1957	X	ND	ABXY	JAS OND	A	Y JFM AMJ JAS OND				
NU 159 30E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(60.5 24.6)	1959	X	JFM JAS ON	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960	X	JF AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1962	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	BXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND	A	M AMJ JAS OND		
	1967	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JF JAS		
	1968	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
NURMIJARVI	1974	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
NU 159 30E	1975	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(60.5 24.6)	1976	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977	X	JFM AM JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS ND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	JF	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983			X	JFM AMJ JAS O	A Y	JFM AMJ JAS OND				
	1984					A	JFM A				
OKINAWA	1946	A	AMJ JAS OND			A	AMJ JAS OND				
OK 426 135E	1947	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(26.3 127.8)	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1949	A	JFM AMJ J			A	JFM AMJ J ND				
	1950	A	J S OND			A	JFM S OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	F	A	F
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS ON	A	JFM MJ JAS ON
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	M AMJ JAS OND	A	M AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
	1968	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A	M O D	A X	M O D	A Y	M OND	A	M D	A	M D
	1970	A	J J ND	A X	J J ND	A Y	J J J ND	A	J J ND	A	J J ND
	1971	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
OKINAWA	1978	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
OK 426 135E	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(26.3 127.8)	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983			A X	JFM AMJ JAS ON	A	JFM AMJ JAS OND				
	1984					A	JFM A				
OTTAWA	1942					A	JFM AMJ JAS OND				
OT 945 75W	1943					A	JFM AMJ JAS OND				
(45.1 283.8)	1944					A	JFM AMJ JAS OND				
	1945					A	M AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950	A	S OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	J			A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	FM J JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)                (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                     Year(Y=C2)  (Digital=*)  (Y=C2)   f-plots      (Y=C2)  (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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(continued)
OTTAWA               1978 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
OT  945    75W       1979 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
( 45.1 283.8)        1980 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1981 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1982 A X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1983                       A X  JF      JAS ON  A    JF      JAS ON
                     1984                                            A    J
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OUAGADOUGOU          1966   X       M            X        J JAS OND A  Y       J JAS OND  A          J JAS OND
OU  012     0E       1967                        X  JFM AMJ JAS  ND A  Y JFM AMJ JAS  ND  A    JFM AMJ JAS  ND
( 12.4 358.5)        1968                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1969 A                 ND   X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1970 A    J                 X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1971                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1972                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1973                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                     1974                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A             AS OND
                     1975                        X  JFM AMJ JA  OND A  Y JFM AMJ JA  OND  A    JFM AMJ JA  OND
                     1976                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1977                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1978                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1979 A                 O    X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1980                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1981                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                     1982                        X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND
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PALAU IS             1939                                            A            J
34  407    135E      1940                                            A          J
(  7.3 134.5)        1941                                            A            JA
                     1943                                            A            J   O
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PALMYRA              1946 A                 ND                       A                 ND
35  705    160W      1947 A    J M AMJ J S OND                       A    JFM AMJ JAS OND
(  5.4 197.8)        1948 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                     1949 A    JFM AMJ JAS ON                        A    JFM AMJ J S ON
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PANAMA               1951 A          J JAS OND                       A          J JAS OND*
PN  909     75W      1952 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND*
(  9.4 280.1)        1953 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND*
                     1954 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                     1955 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND*
                     1956 A    JFM AMJ JAS OND                       A    JFM AMJ JAS OND
                     1957 ABXY JFM AMJ JAS OND  ABXY         JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
                     1958 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND A XY JFM AMJ JAS OND  A    JFM AMJ JAS OND A    JFM AMJ JAS OND
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
PARAMARIBO	1957	X	JAS OND	ABXY	JAS OND	A XY	JAS OND				
PM J06 0E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(5.8 304.8)	1959			X	JFM AMJ AS OND	A Y	JFM AMJ AS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AM	A Y	JFM AM				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	X	M MJ JAS O D	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	M MJ AS OND		
	1966	X	J	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	ND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ J	A Y	JFM AMJ J	A	JFM AMJ J		
	1969					Y	JFM AMJ				
	1970			X	OND	A Y	OND	A	OND		
	1971			X	JFM AMJ						
PARAMUSHIRO	1943					A	ND				
36 550 160E	1944					A	JFM AMJ JAS				
(50.1 155.3)											
PARIS-SACLAY	1960			X	J JAS OND	A Y	J JAS OND				
SC 047 0E	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(48.1 2.3)	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ S OND	AB Y	JFM AMJ JAS OND				
	1964			X	FM AMJ JAS ND	A Y	JFM AMJ JAS ND	A	JFM AMJ JAS ND		
	1965			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS ON	A	JFM AMJ JAS ON		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JA ND	A Y	JFM AMJ JA ND	A	JFM AMJ JA ND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
PEIPING	1946					A	AMJ JAS OND				
37 440 120E	1947					A	JFM AMJ JAS OND				
(39.9 116.4)	1948					A	JFM AMJ JAS ON				
PENANG	1944					A	M AMJ JAS OND				
38 305 105E	1945					A	JFM AM				
(5.5 100.4)											
PESHAWAR	1945					A	S OND				
39 234 75E	1946					A	JFM AMJ JAS OND				
(34.0 71.5)	1947					A	JFM A				
PETROPAVLOVSK	1968	B	OND								

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
PETROPAVLOVSK	1969	B	JFM AMJ JAS OND								
	1970	B	JFM AMJ JAS OND								
(53.0 158.6)	1971	B	JFM AMJ JAS OND								
	1972	B	JFM AMJ JAS OND								
	1973	B	JF MJ AS OND								
	1974	B	FM AMJ JAS								
	1976	B	AMJ JAS O								
PITCAIRN IS	1944					A		OND			
40 82N	1945					A	JFM AMJ JAS ON				
(-25.0 230.0)											
PLATTEVILLE	1970	A	OND								
PV 842	1971	A	FM A J								
(40.0 254.7)											
PODKAMENNAYA	1968	B	JF M JAS OND								
TZ 362 90E	1969	B	JFM AMJ JAS OND								
(61.6 90.0)	1970	B	JFM AMJ JAS OND								
	1971	B	JFM AMJ JAS OND								
	1972	B	JFM AMJ JA OND			A	JA				
	1973	B	JFM D								
	1974	B	JFM A J JAS								
	1975	B	JFM AMJ JAS D								
	1976	B	JFM A J S OND	X	S ON						
	1977	B	JFM AMJ JAS OND	X	JFM AMJ JAS OND						
	1978	B	JFM AMJ JAS ON	X	JFM AMJ JAS						
	1979	B	FM AMJ N								
POINT ARGUELLO	1963	ABXY	JAS OND	AB Y	J S ND	X	JAS OND				
PA 836 120W	1964	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A X	JFM A J J OND				
(35.6 239.4)	1965	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	X	JFM AM JAS OND				
	1966	AB Y	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	J M AMJ JAS OND				
	1967	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1968	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1969	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1970					A	JFM AMJ JAS OND				
	1971	A	JFM AMJ JAS OND	A	OND	A Y	JFM AMJ JAS OND	A	OND	A	OND
	1972	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
	1974	A	JFM AMJ JAS OND	A	JFM A	A	JFM AMJ JAS OND	A	JFM AM	A	JFM AM
	1975	A	JFM J JAS OND			A	JFM AMJ JAS OND	A	FM	A	FM
	1976	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
POINT ARGUELLO	1977	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
PA 836 120W	1978	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(35.6 239.4)	1979	A	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A	JFM AMJ JAS OND	X	JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A	JFM AMJ JAS OND	X	JFM AMJ JAS ON	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1984	A	JF			A	JFM				
POITIERS	1948					A	JAS OND				
PT 046 OE	1949					A	JFM AMJ JAS OND				
(46.6 .3)	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ J S OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961					Y	JFM AMJ JAS OND				
	1962					Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	J		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983					A	JFM AMJ				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
POPAYAN	1970	A	FM AMJ JAS ON								
PP 902 75E	1971	A	J JA OND								
(2.5 283.4)	1972	A	JF S OND			A	S OND*				
	1973	A	JFM AMJ J S OND			A	JFM AM J S OND*				
	1974	A	JFM M J			A	JFM M J *				
PORT LOCKROY	1957	BXY	J JAS OND	BXY	JAS OND	XY	JAS OND				
PC J6M 60W	1958	BXY	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
(-64.8 296.5)	1959	BXY	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1960	B Y	JF	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
PORT MORESBY	1961			X	MJ JAS OND	A Y	MJ JAS OND	A	MJ JAS OND	A	MJ JAS OND
PY 50R 150E	1962	A Y F	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-9.4 147.1)	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969			X	JFM A JAS OND	A Y	JFM AM JAS OND	A	JFM AM JAS OND	A	JFM AM JAS OND
	1970			X	JFM AM JAS O D	A Y	JFM AMJ JAS O D	A	JFM AMJ JAS O D	A	JFM AMJ JAS O D
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ J	A Y	JFM AMJ J	A	JFM AMJ J	A	JFM AMJ J
PORT STANLEY	1945					A	D				
PS J5J 60W	1946					A	JF AMJ JAS				
(-51.7 302.2)	1947					A	AS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JFM JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	AB Y	JFM A	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	A	F	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
PORT STANLEY	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
PS J5J 60W	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(-51.7 302.2)	1967	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	M AMJ JAS OND	A	M AMJ JAS OND
	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1975	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1976	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	AB Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A Y	JFM AMJ JAS OND	X	JFM AMJ JA ND	A XY	JFM AMJ JAS OND				
	1982	A Y	JF ON	X	JFM	A X	JFM ND				
	1983					X	JF				
PORTAGE LA PRAIRIE	1946					A	S OND				
41 950 90W	1947					A	JFM AMJ JAS OND				
(49.9 261.7)	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ AS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM				
PRINCE RUPERT	1945					A	JAS OND				
42 854 120W	1946					A	JFM AMJ JAS OND				
(54.3 229.7)	1947					A	J AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951	A	FM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	J			A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AM				
PROVIDENIYA	1957	ABXY	AS OND	ABXY	AS OND	A Y	JAS OND				
PD 664 180E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(64.4 186.6)	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
PROVIDENIYA	1963	ABXY J M	AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
PD 664 180E	1964	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(64.4 186.6)	1965	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY JFM	AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY JFM	AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY FM	AM	A XY FM	AM	A XY	JFM AM	A	FM AM		
	1971	X	MJ	A XY	MJ	A Y	MJ				
	1972	B M				Y	JFM	A	JFM		
	1977	X JFM		A XY	JFM	A Y	JFM				
	1978			X	ND	Y	ND				
	1979	X JFM	ON	A XY	JFM ON	A Y	JFM ON				
	1980	X JFM	AM S OND	A XY	JFM AM S OND	A Y	JFM AM S OND				
	1981	A XY JFM	J JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM A J JAS OND				
	1982	A XY JFM	AMJ OND	A XY	J M AMJ OND	A XY	JFM AMJ OND				
	1983	A X JFM	A S OND	A X	JFM AMJ JA	A X	JFM A				
	1984	A J				A	MJ JA				
PRUHONICE	1958	AB Y M	AMJ JAS OND	X	AMJ JAS OND	A XY	AMJ JAS OND				
PQ 052 15E	1959	AB Y JFM	AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(50.0 14.6)	1960	AB Y JFM	AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	D		
	1968			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	J M AMJ J		
	1970			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1971			X	M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
PUERTO RICO	1941					A	F AMJ JAS OND				
PR J18 60W	1942					A	JFM AMJ JAS OND				
(18.5 292.8)	1943					A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951	A	AMJ JAS OND			A	AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O D	A	JFM AMJ JAS O D
	1958	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	AB Y	JFM AMJ JAS OND			A X	JFM AMJ JAS OND	A	J JAS	A	J JAS
	1960	AB Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1961	AB Y	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1962	AB Y	JFM AMJ JAS ND			X	JFM AMJ JA D				
	1963	AB Y	JFM AMJ OND			X	JFM AMJ				
QUETTA	1957			X	OND	Y	JA OND				
QT 230 75E	1958			X	JFM AMJ JA OND	Y	JFM AMJ JAS OND				
(30.2 67.0)	1959			X	JF	Y	JF				
	1960					Y	JAS O				
	1961					Y	O				
	1962					Y	J J				
RABAT	1958	X	FM AMJ JAS OND	ABXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND				
RT 034 0E	1959	X	J ND	ABXY	JFM ND	A Y	JFM ND				
(33.9 353.9)	1960	X	J	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962					Y	FM AS				
RANGOON	1943					A	J JAS OND				
43 316 135E	1944					A	JFM A J				
(16.8 96.5)											
RAROTONGA	1945					A	FM S OND				
RA 72J 165W	1946					A	JFM AMJ JAS OND				
(-21.2 200.2)	1947					A	JFM A J JAS OND				
	1948					A	JF MJ JAS OND				
	1949					A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
RAROTONGA	1950					A	JFM AMJ JAS OND				
RA 72J 165W	1951					A	JFM AMJ JAS OND				
(-21.2 200.2)	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	ABXY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1963	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1966	X	JFM AMJ JAS O D	BXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O D		
	1967			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	A	*AS	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1970			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	A	S	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	A	M	X	JFM	A Y	JFM				
RESOLUTE BAY	1949	A	AMJ JAS OND			A	FM AMJ JAS OND				
RB 974 90W	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(74.7 265.1)	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	J			A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
RESOLUTE BAY	1961	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
RB 974 90W	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(74.7 265.1)	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A X	JFM AMJ J S	A XY	JFM AMJ JAS O	A Y	JFM AMJ JAS O	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A X	FM AMJ JAS OND	A XY	FM AMJ JAS OND	A Y	FM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS ON	A XY	JFM AMJ JAS ON	A Y	JFM AMJ JAS ON	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A X	M AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	J M AMJ JAS OND
	1976	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1978	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			A X	JF JAS ON	A	JF JAS ON				
	1984					A	J				
REUNION	1981			X	OND	A Y	OND				
LR 22J 60E	1982			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-21.1 55.3)											
REYKJAVIK	1944	A	M AMJ JAS OND			A	FM AMJ JAS OND				
RK A64 15W	1945	A	JFM AMJ J			A	JFM AMJ J				
(64.1 338.2)	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM J AS ON	A	FM J AS ON
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JA OND	A	JFM AMJ JA OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM JAS OND	A	JFM AM JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND	A	JFM MJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
REYKJAVIK	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ AS OND	A	J M AMJ AS OND
RK A64 15W	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(64.1 338.2)	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
ROME	1951					A	JFM AM				
RO 041 15E	1957			X	D	A Y	S OND				
(41.9 12.5)	1958			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS O D		
	1967			XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1974	A	J	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JFM AM	A Y	JFM AMJ JAS OND				
	1983					A	JFM AMJ JAS OND				
	1984					A	J M				
ROSTOV	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
RV 149 45E	1958	ABXY	JFM AMJ JAS OND	A XY	J M AMJ JAS OND	A XY	J M AMJ JAS OND				
(47.2 39.7)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ AS OND	A XY	JFM AMJ AS OND				
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	BXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
ROSTOV	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
RV 149 45E	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(47.2 39.7)	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND	A XY	FM AMJ JAS OND	A	FM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM A J AS ON		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM MJ JAS OND	A XY	JFM MJ JAS OND	A XY	JFM MJ JAS OND				
	1978	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
SALEKHARD	1957	ABXY	JFM AMJ JAS ON	ABXY	JAS OND	A XY	JAS D				
SD 266 60E	1958	ABXY	FM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(66.5 66.5)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ AS OND	A XY	JFM AMJ AS OND	A	JFM AMJ AS O D		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM AS O		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS O D				
	1977	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	ABXY	JFM AM	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981			A XY	AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	X	JAS OND	A XY	J M AM JAS OND	A Y	JFM AM JAS ND				
	1983	A X	JFM AMJ JAS N	A X	JFM AMJ JA	A X	JFM AMJ JA				
	1984	A	J								

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
SALISBURY/AUST	1962			X	OND	A Y	OND				
SR 53M 135E	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-34.7 138.6)	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ND		
	1967			X	JFM AM	A Y	JFM AM				
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	A	M	X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM J JAS OND		
	1970			X	FM AMJ J S OND	A Y	JFM AMJ J S OND	A	JFM AMJ J S OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JF AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
SALISBURY/RHODE	1958			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
SY 11P 30E											
(-17.8 31.0)											
SAN JUAN	1980					A	J JAS OND				
SN J3J 60W	1981					A	JFM AMJ JAS OND				
(-31.5 291.5)	1982					A	JFM AMJ JAS OND				
	1983					A	JFM AMJ JAS D				
	1984					A	J M				
SAN SALVADOR	1958	ABXY	ND	A XY	ND	A XY	ND				
SS J24 75W	1959	ABXY JFM AMJ JAS OND		ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A	J	A	J
(24.1 285.5)	1960	ABXY JFM AMJ JAS OND		AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND				
	1961	ABXY JFM AMJ JAS OND		A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND				
	1962	ABXY JFM AMJ JAS OND		A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND				
	1963	ABXY JFM AMJ JAS OND		A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND				
	1964	ABXY JFM AMJ JAS OND		A Y JFM AMJ JAS OND		X	JFM AMJ JAS OND				
	1965	ABXY JF		AB Y JF		X	JF				
SANAE	1962			X	J JAS OND	A Y	J JAS OND				
QM 07! 0E	1963			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
(-70.3 357.6)	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	J MJ		
	1966			X	FM AMJ JAS OND	A Y	FM AMJ JAS OND	A	FM AM JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ J	AB Y	JFM AMJ JAS OND	A	JFM AMJ J		
	1971			X	AMJ JAS OND	A Y	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1972			X	JFM A JAS OND	A Y	JFM AMJ JAS OND	A	JFM A AS OND		
	1973			X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SANAE	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JA O D		
QM 07! OE	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(-70.3 357.6)	1977			X	JFM AMJ JAS O	A	Y JFM AMJ JAS OND				
	1978			X	J AS ON	A	Y JFM AMJ JAS ON				
	1979	A	O	X	M AMJ JA	A	Y M AMJ JA				
SAO PAULO	1953					A	MJ JAS OND				
SP J2L 45W	1954					A	JFM AMJ JAS OND				
(-23.5 313.5)	1955					A	JFM AMJ JAS OND				
	1956					A	MJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960	X	JF JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS ND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS ND				
	1962	X	JFM AMJ J S OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	X	JFM J JA ND	ABXY	JFM MJ JA ND	A Y	JFM MJ JA ND				
SARDINIA	1968					X	O D				
ES 15E	1969					X	JFM AM				
(39.0 9.0)	1970					X	JFM AMJ JAS OND				
	1971					X	JFM AMJ A				
SCHWARZENBURG	1950					A	D				
SZ 045 15E	1951					A	JFM AMJ JAS OND				
(46.6 6.7)	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ AS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM A JAS OND				
	1957			X	JAS OND	A	Y JFM AMJ JAS OND				
	1958	AB	FM A S O	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1959			X	JFM JAS OND	A	Y JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND				
	1964			X	JFM AMJ J S OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ J S OND		
	1965			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1966			X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ J		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	FM AMJ AS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SCHWARZENBURG	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
SZ 045 15E	1972			X	JFM AMJ JAS	A	Y JFM AMJ JAS O	A	JFM AMJ JAS O		
(46.6 6.7)											
SCOTT BASE	1957	A X	J JAS OND	A XY	JAS OND	AB Y	M AMJ JAS OND				
SB 67Q 165E	1958	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
(-77.8 166.8)	1959	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	AMJ J		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ J S OND		
	1970			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	A	D	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	A J		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	A JF		X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1983					A	JFM AMJ JAS OND				
SEATTLE	1958	A Y JFM AMJ JAS ON				X	JFM AMJ JAS O				
SE 847 120W	1959	A Y JFM AMJ JAS				X	JFM AMJ S				
(47.7 237.6)	1960	A Y JAS O				X	AS				
SEOUL	1967	A Y MJ AS									
SU 437 135E	1969	A Y FM MJ JAS OND		Y J		Y J					
(37:2 126.6)	1970	A XY J MJ J		A X	JFM	A	Y JFM	A	JFM		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SEOUL	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
SU 437 135E	1978			X	JFM AMJ JAS ON	A	Y JFM AMJ JAS OND				
(37.2 126.6)	1979			X	MJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AM JAS OND	A	Y JFM AM JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1983			X	JFM AM	A	JFM JAS ON				
SHIBATA	1946					A	ND				
44 537 135E	1947					A	JFM AMJ JAS OND				
(37.9 139.3)	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS				
SHIKUKA	1940					A	ON				
45 549 135E	1941					A	JFM AMJ JAS OND				
(49.3 143.0)											
SIMFEROPOL	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
SF 144 30E	1958	ABXY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND	A XY JFM AMJ	JAS OND				
(44.8 34.1)	1959	ABXY J	MJ JAS OND	ABXY J	MJ JAS OND	ABXY J	MJ JAS OND				
	1961	ABXY F		BXY F		BXY F					
SINGAPORE	1943					A	F				
SI 301 105E	1946					A	M A				
(1.3 103.8)	1948					A	O				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	J JAS OND	ABXY	JFM AMJ JAS OND				
	1958	ABXY JFM AMJ	JAS OND	ABXY JFM AMJ	JAS OND	ABXY	JFM AMJ JAS OND				
	1959	ABXY J	AS	ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY JFM AMJ JAS OND		ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY JFM AMJ JAS OND		ABXY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SINGAPORE	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
SI 301 105E	1967	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(1.3 103.8)	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ J	ABXY	JFM AMJ JA	A XY	JFM AMJ J	A	JFM AMJ J		
SLOUGH	1930					A	MJ JAS				
SL 051 0E	1931					A	J M J D				
(51.5 359.4)	1932					A	JF A OND				
	1933					A	JFM AMJ JA D				
	1934					A	JFM AMJ JAS OND				
	1935					A	JFM AMJ JAS OND				
	1936					A	JFM AMJ JAS OND				
	1937					A	JFM AMJ JAS OND				
	1938					A	JFM AMJ JAS OND				
	1939					A	JFM AMJ JA OND				
	1940					A	JFM AMJ JAS OND				
	1941					A	JFM AMJ JAS OND				
	1942					A	JFM AMJ JAS OND				
	1943					A	JFM AMJ JAS OND				
	1944	A	M AMJ JAS OND			A	JFM AMJ JAS OND				
	1945	A	JFM AMJ JAS			A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	AB Y	J	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM A JAS	A	JF

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SLOUGH	1967	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
SL 051 OE	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(51.5 359.4)	1969	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	AB Y	JFM MJ JAS ND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AM J				
	1982	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS O D	A X	JFM AMJ JAS O D				
	1983	A	J			A X	JFM AM JAS				
SNAINTON	1944					A	AS				
47 050											
(54.2 .0)											
SODANKYLA	1957			X	AS OND	A Y	AS OND				
SO 166 30E	1958			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(67.4 26.6)	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	BX	J OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1967	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF JAS		
	1968	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976	X	JFM AM JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977	X	FM AMJ J S OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS ND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SODANKYLA	1979	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
SO 166 30E	1980	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(67.4 26.6)	1981	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983	X	JFM AMJ JAS N	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1984			A	JFM AM J	A	JFM AM				
SOFIA	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
SQ 143 30E	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF AMJ JAS OND		
(42.7 23.4)	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM A J JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1970			X	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
SOUTH GEORGIA	1970			A XY	JAS OND	A XY	JAS OND	A	JAS OND		
SG A5M 30W	1971	A	A	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-54.3 323.5)	1972	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JA ND	X	JFM AMJ JAS D	A XY	JFM AMJ JAS OND	A	JFM AMJ J D	A	JFM AMJ J D
	1975	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	X	M AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	X	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	X	JF	X	JFM AMJ JA	A XY	JFM AMJ JAS				
SOUTH POLE	1957	ABXY	M AMJ JAS OND	A XY	JAS OND	A XY	JAS OND	A	JAS OND	A	JAS OND
PO 09! 0E	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-90.0 .0)	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ AS ON	A	JFM AMJ AS ON
	1962	ABXY	JFM AMJ JAS OND	ABX	JFM AMJ JAS ON	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O	A	JFM AMJ JAS O
	1963	AB Y	JF J JAS OND	A X	JF J JAS O D	ABXY	JF J JAS OND	A	JF J JAS O	A	JF J JAS O
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	AB Y	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND*				
	1968	A	JFM S ON								
SOUTH UIST	1968					X	M J A D				
	1969			X	JFM MJ JA OND	X	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SOUTH UIST	1970			X	JFM AMJ JA OND	X	JFM AMJ JAS OND				
	1971			X	MJ OND	X	JF MJ JAS OND				
(57.4 352.7)	1972			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1973			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1974			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1975			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1978					X	JFM AMJ JAS OND				
	1979					X	JAS OND				
	1980					X	JFM AMJ JA				
SOYA SHIP	1956					A	ND				
XD	1957					A	JFM A				
(-60.0 .0)	1958	Y	ND	X	ND	AB Y	ND				
	1959	Y JFM AMJ JAS OND		X	J ND	AB Y	JFM AMJ JAS OND				
	1960	Y JFM AMJ JAS OND		X	JFM A ND	A Y	JFM AMJ JAS OND				
	1961	Y JFM AMJ JAS OND		X	JFM AM ND	AB Y	JFM AMJ JAS OND				
	1962	Y JFM A		X	JFM A	AB Y	JFM A				
ST JOHNS	1944					A	M				
SJ J47 60W	1945					A	JFM AMJ JAS OND				
(47.6 307.3)	1946					A	JFM MJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS ON				
	1950					A	JFM AMJ JAS OND				
	1951	A	FM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	J			A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ				
	1957	ABXY JFM AMJ JAS OND		A XY	FM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	M AMJ JAS OND	A	M AMJ JAS OND
	1958	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ND	A	JFM AMJ JAS ND
	1959	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM	A	JFM AM
	1960	A X JFM AMJ JAS OND		ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A X JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A X JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	ABXY JFM AMJ JAS OND		ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A X JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A X JFM AMJ JAS OND		A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
ST JOHNS	1969	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
SJ J47 60W	1970	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(47.6 307.3)	1971	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND		Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	ABX	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	A X	JFM AMJ	A XY	JFM AMJ	A	Y JFM AMJ	A	FM AMJ	A	FM AMJ
	1980	A X	JFM AMJ JAS OND	A XY	JFM AMJ JA	A	Y JFM AMJ JA	A	JFM AMJ JAS	A	JFM AMJ JAS
	1981	A	JFM AMJ JAS O								
ST PETER-ORDING	1983					A	JFM AMJ JAS O				
	1984					A	FM A				
(36.0 9.3)											
STANFORD	1942					A	FM AMJ JAS OND				
ST 837 120W	1943					A	JFM AMJ JAS OND				
(37.4 237.8)	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM AMJ JAS OND				
	1949	A	J JAS OND			A	JFM AMJ JAS OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM J JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS O D			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND	A	FM AMJ JAS OND
	1959	ABXY	JFM AMJ S OND	ABXY	J	A XY	J J	A	J	A	J
	1963	A	JFM AMJ JAS OND								
	1964	A	JFM AMJ JAS OND								
	1965	A	JFM AMJ JAS OND			X	JF				
	1966	ABXY	JFM AMJ JAS OND			X	JF				
	1967	A	JF AMJ JAS OND	A	J JAS OND	X	J D				
	1968	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
	1969	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
	1970	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
	1971	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND						

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
STANFORD	1972	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
ST 837 120W	1973	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
(37.4 237.8)	1974	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND						
	1975	A	JF	A	JF						
SVERDLOVSK	1944					A	MJ JAS OND				
SV 256 60E	1945					A	JFM AMJ JAS OND				
(56.4 58.6)	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ AS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	FM AMJ JAS OND		
	1975	ABXY	JFM A J JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ND		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	X	J AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	X	JF MJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS O D	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981	X	JFM A S OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AM				
	1983			A	JFM AM	A	JFM AM S				
SWAN RIVER	1946					A	M A				
48 952 90W											
(52.1 258.8)											
SYDNEY	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
CN 53L 150E	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-34.0 150.7)	1983			X	JFM AMJ JAS						
SYOWA BASE	1958			X	ND						

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
SYOWA BASE	1959	ABXY	FM AMJ JAS OND	ABXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND				
SW 16R 45E	1960	ABXY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(-69.0 39.3)	1961	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	Y	J	X	J	A Y	J				
	1966	AB Y	JFM AMJ JAS OND	X	FM AMJ JAS OND	A XY	FM AMJ JAS OND	A	FM AMJ JAS OND		
	1967	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J D		
	1970	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	MJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	A Y	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	A	JFM AMJ JAS OND			X	J				
	1981	A	JFM AMJ JAS OND			X	FM AMJ JAS OND				
TAHITI	1957	A X	D	BXY	D	A XY	D				
TT 71P 150W	1958	A X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(-17.7 210.7)	1959	A	J	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ S OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AM JAS OND	AB Y	JFM AM JAS OND	A	JFM AM JAS OND		
	1965	A	A	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	A	N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	A	ND	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	A	J	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TAHITI	1979	A	S	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
TT 71P 150W	1980	A	M	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-17.7 210.7)	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982			X	JAS OND	A Y	JFM AMJ JAS OND				
	1983					A	JFM AMJ				
TAIPEI	1950					A	M AMJ JAS OND				
TP 424 120E	1951					A	JFM AMJ JAS OND				
(24.9 121.2)	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	ABXY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF J J		
	1968	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF AMJ JAS OND		
	1975	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	J S ON	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1983	X	JFM AMJ JA	A X	JFM AMJ JAS O	A	JFM AMJ JAS O				
TALARA	1954	A	O			A	O *				
TA 90M 75W	1955	A	J M AMJ JAS OND			A	JFM AMJ JAS OND				
(-4.6 278.7)	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TALARA	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND	A	JFM MJ JAS OND
TA 90M 75W	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-4.6 278.7)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ND	A	JFM AMJ JAS ND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O D	A	JFM AMJ JAS O D
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON	A	JFM AMJ JAS ON
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
TAMANRASSET	1956					A	OND				
TN 022 OE	1957			X	JAS N	A Y	JFM A JAS N				
(22.8 5.5)	1958	X	FM AMJ AS ON	BXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND				
	1959			X	JFM AMJ JAS O	A XY	JFM AMJ JAS O				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A	J S O	X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962			X	JFM OND	AB Y	JFM OND				
	1963			X	JFM AMJ S OND	AB Y	JFM AMJ S OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	J	A Y	J	A	J		
TANANARIVE	1951					A	ND				
IV 21Q 45E	1952					A	JFM AMJ JAS OND				
(-18.8 47.5)	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS ON				
	1956					A	JFM AMJ JAS OND				
	1957			X	JAS OND	A Y	JFM AMJ JAS OND				
	1958			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ S OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	A	J JA	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TANANARIVE	1970			X	JF AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JF AMJ JAS OND		
IV 21Q 45E	1971			X	JFM A	A	Y JFM A	A	JFM A		
(-18.8 47.5)											
TANGERANG	1979						Y JFM AMJ JAS OND				
(-6.2 106.6)											
TASHKENT	1961	B	S OND	A	S OND	A	Y S OND				
TQ 241 75E	1962	B	J	A	J	A	Y J				
(41.3 69.6)	1963	B	D	A	D	A	D				
	1964	B	JFM AM JAS OND	AB	JFM AM JAS OND	A	Y JFM AM JAS OND	A	J M AM JAS ND		
	1965	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1966	B	JFM MJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	B	JFM J JAS OND	A	JFM J JAS OND	A	Y JFM J JAS OND	A	JFM J JAS OND		
	1969	B	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	B	JFM AM JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	B	J M AMJ JAS OND	A	J M J JAS	A	Y J M J JAS	A	J M J JAS		
	1973	B	JFM AMJ JAS OND								
	1974	B	JFM AMJ JAS OND								
	1975	B	JFM AM S OND								
	1976	B	JFM MJ JAS OND	Y	A						
	1977	B	JFM AMJ JAS OND								
	1978	B	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979	B	JF	A	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980						Y JFM AMJ JAS				
TBILISI	1961	B	F								
TB 142 45E	1963	BX	J JAS ON	ABXY	J JAS ON	AB Y	J JAS				
(41.7 44.8)	1964	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	J M AMJ JA OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ J S O D		
	1969	BX	JFM AMJ JAS O D	ABX	JFM AMJ JAS O D	A XY	JFM AMJ JAS O D	A	JFM AMJ JAS O D		
	1970	ABXY	JFM AMJ JAS OND	A XY	JF AMJ JAS OND	A XY	JF AMJ JAS OND	A	JF AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AM JAS OND	A XY	JFM AM JAS OND	A XY	JFM AM JAS OND	A	JFM AM JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AM JAS ON		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TBILISI	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
TB 142 45E	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(41.7 44.8)	1978	ABXY	JFM J JAS OND	A XY	JF J JAS OND	A XY	JF J JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	A	J M	A	J M AM	A X	J M AM				
	1981	A X	JFM AMJ JA	A X	JFM AMJ JA	A X	JFM AMJ JA				
	1983	A	FM								
TEHRAN	1963			X	MJ JAS OND	A Y	FM AMJ JAS OND				
TE 236 53E	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	AMJ OND		
(35.7 51.4)	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	J M AMJ JAS ND	AB Y	JFM AMJ JAS ND	A	J M AMJ JAS ND		
TERRE ADELIE	1951					A	FM AMJ JAS OND				
DU 560 135E	1952					A	J				
(-66.7 140.0)	1956					A	JAS OND				
	1957			X	JAS OND	A XY	J M AMJ JAS OND				
	1958			X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	M AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ J S OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	J AMJ JAS OND		
	1972			X	JFM A	A Y	JFM AMJ JAS OND	A	JFM A		
	1973			X	M AMJ JAS ND	A Y	JFM AMJ JAS OND				
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1979			X	JFM AMJ	A	JFM AMJ JAS OND				
THE PAS	1950	A	AMJ JAS OND			A	AMJ JAS OND				
49 954 90W	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(54.0 259.0)	1952	A	JFM AMJ			A	JFM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
THE PAS	1953					A	JFM A JA D				
49 954 90W											
(54.0 259.0)											
THULE (QANAQ)	1956	A	FM AMJ JAS OND	A	JFM AMJ JAS OND	A	FM AMJ JAS OND				
TH J77 75W	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AMJ JAS OND	A	JF AMJ JAS OND
(77.5 290.8)	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND	A	JFM MJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S OND	A	JFM AMJ J S OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AMJ JAS OND	A	JF AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM MJ JAS OND	A XY	JF AMJ JAS OND	A	JFM AMJ JAS OND	A	JF AMJ JAS OND
	1966	ABXY	JFM AMJ	A XY	JFM AMJ	A XY	JFM AMJ	A	JFM AMJ		
	1969	A	JFM AMJ JAS OND								
	1970	A	JFM AMJ JAS OND								
	1971	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND*	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	JF	A	JF
	1976	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1977	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1978	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*	A	S D	A	S D
	1979	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1980	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1981	A X	JFM AMJ JA ND	A	JFM AMJ ND	A	JFM AMJ ND*				
	1982	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND*				
	1983			A	JFM A D	A	JFM A D*				
	1984			A	JFM A	A	JFM A *				
THULE (TUTO)	1972					Y	JFM AMJ JAS OND				
TH J76	1973					Y	JFM AS				
(76.4 291.3)	1979			Y	JFM AMJ JAS OND						
	1980			Y	JFM AMJ JAS OND						

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Station                 WDC      Ionograms    WDC                  WDC    Hourly values  WDC       Medians    WDC    Hourly values
Name                   (X=C1)     Analog     (X=C1)               (X=C1)   Manuscript   (X=C1)    Computer   (X=C1)    Computer
                   Year(Y=C2)   (Digital=*)  (Y=C2)   f-plots     (Y=C2)   (*=7Es only) (Y=C2)     Format    (Y=C2)     Format
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THUMBA             1957                        Y         J    ND    Y         JAS OND
TC  309    75E     1958                        Y JFM AMJ JAS OND    Y JFM AMJ JAS OND
(  8.6  76.9)      1959                        Y JFM AMJ JAS OND    Y JFM AMJ JAS OND
                   1960                                             Y JFM AMJ JAS OND
                   1961                                             Y JFM AMJ JAS OND
                   1962                                             Y JFM AMJ JAS OND
                   1963                                             Y JFM AMJ JAS OND
                   1964                       X               ND A  Y JFM AMJ JAS OND  A                OND
                   1965                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JFM AM  JAS OND
                   1966 A                 N   X  JFM AM  JAS OND AB Y JFM AMJ JAS OND  A    JFM AM  JAS OND
                   1967                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JF
                   1968                       X  JFM AMJ JAS OND AB Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1969                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1970                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1971                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1972                       X  JFM AMJ JAS OND A  Y JFM AMJ JAS OND  A    JFM AMJ JAS ON
                   1973                       X  JFM AMJ JAS O D A  Y JFM AMJ JAS O D  A    JF    J  AS O D
                   1974                       X  JFM  MJ JAS OND A  Y JFM  MJ JAS OND  A    JFM  MJ JAS OND
                   1975                       X  JF  AMJ  AS OND A  Y JFM AMJ JAS OND  A    JFM AMJ  A
                   1976                       X  JFM A           A  Y JFM A
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TIKSI BAY          1957 ABXY         JAS      ABXY         JAS     A XY         JAS  ND
TX  471    135E    1958 ABXY     AM  JAS OND  A XY     AM  JAS OND A XY J   AM  JAS OND
( 71.6 128.9)      1959 ABXY  FM AMJ JAS OND  A XY  FM AMJ JAS OND ABXY  FM AMJ JAS OND
                   1960 ABXY JFM AMJ JAS OND  A XY JFM A   JAS OND A XY JFM AM  JAS OND
                   1961 ABXY JFM A         D  A XY JFM A         D A XY JFM A         D

                   1964 ABXY       J JAS OND  ABXY       J JAS OND ABXY       J JAS OND  A          J JAS OND
                   1965 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    J M AMJ JAS OND
                   1966   X    M AMJ JA    D  ABXY   M AMJ JA    D AB Y               D  A                   D
                   1967 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    JFM  MJ     OND
                   1968 ABXY JFM AMJ JAS OND  ABXY JFM AMJ JAS OND ABXY JFM AMJ JAS OND  A    JFM AMJ JAS OND
                   1969   X       MJ JAS OND  A XY      MJ JAS OND A  Y      MJ JAS OND  A         MJ JAS OND
                   1970   X  JFM AMJ JAS OND  A XY JFM AMJ JAS OND A  Y JFM AMJ JAS OND
                   1971   X  JFM A            A XY JFM A           A  Y JFM A

                   1974   X  JFM AMJ          A X  JFM AMJ JAS OND A    JFM AMJ JAS OND

                   1976   X  JFM                XY JFM             A  Y JFM
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COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
TIRUCHIRAPALLI	1949					A	FM AMJ JAS OND				
TI 311 75E	1950					A	JFM AMJ JAS OND				
(10.8 78.7)	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	J ND	ABXY	J JAS OND	A Y	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1959	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JF AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JF AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	M AMJ JAS, OND		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JA OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ AS OND	A Y	JFM AMJ JAS OND	A	J AS OND		
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ		
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS N	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	M A J JAS OND	A Y	M A J JAS OND				
	1979			X	JFM AMJ JAS OND	A Y	JFM A J JAS OND				
	1980			X	JFM AMJ	A Y	FM AMJ ND				
	1981			X	M ND	A Y	M ND				
	1982			X	JAS OND	Y	JFM AM J				
TOGO	1965			X	JF J ND	AB	JAS ND	A	JAS ND		
TG 011 0E	1966			X	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
(10.8 .4)	1967			X	J	A	J				
TOMSK	1944					A	JFM AMJ JA				
TK 356 90E	1949					A	JFM AMJ JAS OND				
(56.5 84.9)	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TOMSK	1957	ABXY	JAS OND	A XY	JAS OND	A Y	JAS OND				
TK 356 90E	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(56.5 84.9)	1959	ABXY	FM AMJ JAS OND	A XY	FM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JA OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S O D		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983	A X	JFM AMJ JAS OND	A X	JFM AMJ	A X	JFM AMJ				
	1984	A	JFM								
TORINO	1982					A	JFM AM ND				
15E	1983					A	JFM AMJ JA OND				
(45.0 7.6)	1984					A	JF				
TORTOSA	1957	A	J	X	JAS OND	AB Y	MJ JAS OND				
EB 040 0E	1958			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(40.8 .5)	1959			X	JFM AMJ JA OND	AB Y	JFM AMJ JA OND				
	1960			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS ON	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1964	A	J D	X	J MJ JA OND	AB Y	JFM AMJ JAS OND	A	J MJ JA OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ	A Y	JFM AMJ JAS OND	A	JFM AMJ		
	1967	A	JA ON	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TORTOSA	1968	A	J	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ J S O D		
EB 040 0E	1969	A	M JA	X	JFM AMJ JAS ND	A	Y JFM AMJ JAS OND	A	JFM AMJ J S O D		
(40.8 .5)	1970			X	JFM A JAS OND	A	Y JFM A J JAS OND	A	JFM A JAS OND		
	1971			X	J M AMJ JAS ON	A	Y JFM AM S ON	A	JFM A S ON		
	1972			X	AM ND	A	Y AM ND	A	AM ND		
	1973			X	JFM JAS OND	A	Y JFM J JAS OND	A	JFM JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM A		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM	A	Y JFM AMJ JAS OND				
	1978			X	D	A	Y JFM D				
	1979			X	JFM AMJ AS OND	A	Y JFM AMJ AS OND				
	1980			X	JFM AMJ JA	A	Y JFM AMJ JAS ON				
	1982					A	D				
	1983					A	JFM J				
TOWNSVILLE	1946					A	J JAS OND				
TV 51R 150E	1947					A	J M MJ JAS OND				
(-19.6 146.8)	1948					A	J				
	1951					A	J S				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND	A	J	A	J
	1955					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	A X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	X	J AMJ JAS ND	ABXY	J AMJ JAS OND	AB	Y J AMJ JAS OND	A	J MJ JAS OND	A	J MJ JAS OND
	1960			X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961			X	JFM AMJ JAS O	AB	Y JFM AMJ JAS O	A	JFM AMJ JAS O	A	JFM AMJ JAS O
	1962	A	J J ND	X	M AMJ JAS OND	AB	Y M AMJ JAS OND	A	M AMJ JAS OND	A	M AMJ JAS OND
	1963	A	J	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	A	D	X	JFM AMJ JAS OND	AB	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	A	N	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A	M	X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TOWNSVILLE	1977			X	JF AMJ JA OND	A	Y JFM AMJ JAS OND				
TV 51R 150E	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(-19.6 146.8)	1979			X	JFM AM AS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND		Y JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ JAS						
TOYOHARA	1942					A	S OND				
50 546 135E	1943					A	JFM AMJ JAS OND				
(46.9 142.8)	1944					A	JFM AMJ J				
TRELEW	1958	AB Y FM AMJ JAS OND		X	AMJ JAS OND	A X	J M AMJ JAS OND				
TW J4L 60W	1959	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS O D	A XY	JFM AMJ JAS OND				
(-43.2 294.7)	1960	A Y JFM MJ JA D		BX	JFM MJ JA D	A XY	JFM AMJ JAS OND				
	1961	AB Y JFM AMJ JAS OND		X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1962	A OND		X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	A JFM AMJ									
	1964			X	AMJ	A XY	JFM AMJ JAS OND	A	AMJ		
	1965	X AS		A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	AS		
	1966			X	ND	A	Y ND				
	1967			X	J M AMJ JAS O	A	Y J M AMJ JAS O				
TRINIDAD	1944	A M AMJ JAS OND				A	FM AMJ JAS ON				
51 J10 60W	1945	A JFM AM				A	JFM AM S OND				
(10.7 298.4)	1946	A JAS OND				A	JFM AMJ JAS OND				
	1947	A JFM AMJ JAS OND				A	JF AMJ JAS OND				
	1948	A JFM AMJ JAS OND				A	JF AMJ JAS OND				
	1949	A JFM AMJ JAS OND				A	JFM AMJ JAS OND				
	1950	A J M AMJ JAS OND				A	J M AMJ JAS OND				
	1951	A JFM AMJ				A	JFM AMJ				
TRIVANDRUM	1957	X J ND		ABX	JFM AMJ JAS OND	A	JFM AM JAS OND				
TM 308 75E	1958	X JFM AMJ JAS OND		ABX	JFM AMJ JAS OND	AB	JFM AMJ JAS OND				
(8.5 77.0)	1959	X JFM AMJ JAS OND		ABX	JFM AMJ JAS OND	AB	JFM AMJ JAS OND				
	1960			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A	JFM AMJ JA	A	JFM AMJ JAS		
	1965			X	JFM MJ						
TROMSO	1945					A	M A A				
TR 169 15E	1946					A	M AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TROMSO	1947					A	JF				
TR 169 15E	1951					A	JFM AMJ JAS OND				
(69.7 19.0)	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JF AM AS				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A Y	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1959	X	J	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1960			X	JFM A AS OND	A Y	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JF MJ JAS OND	A Y	JFM AMJ JAS OND	A	JF MJ JAS OND		
	1967			X	JFM AMJ JA OND	A Y	JFM AMJ JAS OND	A	JF MJ		
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ S OND	A Y	JFM AMJ S OND	A	JFM AMJ S OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS	A Y	JFM AMJ JAS				
	1977			X	JFM AMJ JAS OND	A Y	M AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
TSITSIHAR	1941					A	J JAS OND				
52 447 120E	1942					A	JFM AM AS OND				
(47.3 123.9)	1943					A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ J				
TSUMEB	1957	X	JAS OND	ABXY	JAS OND	A XY	JAS OND				
TS 11R 15E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(-19.2 17.7)	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963					Y	J JA D				
	1964	X	J JAS OND	ABXY	J JAS OND	AB Y	JFM A J JAS OND	A	J JAS OND		
	1965	X	JFM AM JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
TSUMEB	1966	X	JFM	ABXY	JFM	AB	Y JFM	A	JFM		
TS 11R 15E	1967	X	AMJ JAS OND	ABXY	AMJ JAS OND	A	Y AMJ JAS OND	A	AMJ JAS OND		
(-19.2 17.7)	1968	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	X	JFM AM	A XY	JFM AM	A	Y JFM AM	A	JFM AM		
	1970	X	MJ JAS OND	ABXY	AMJ JAS OND	A	Y MJ JAS OND	A	MJ JAS OND		
	1971	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	X	JFM AMJ J OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974	X	JFM AMJ JAS	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM		
	1975	X	JFM A JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1976						X F				
TUCUMAN	1957	ABXY	JAS OND	ABXY	JAS OND	A	XY JAS OND				
TU J20 60W	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	XY JFM AMJ JAS OND				
(-26.9 294.6)	1959	A	J	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1960			A X	JFM AMJ JAS D	A	Y JFM AMJ JAS D				
	1961			A X	JFM AMJ JAS	A	Y JFM AMJ JAS				
	1962	A	S ON	X	S OND	A	Y S OND				
	1963			A X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964	X	J AMJ JAS ON	A XY	J AMJ JAS OND	A	Y JFM AMJ JAS OND	A	J AMJ JAS ON		
	1965	X	MJ JAS O	A XY	MJ JAS OND	A	Y AMJ JAS OND	A	MJ JAS OND		
	1966			X	JFM MJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM MJ JAS OND		
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JAS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	A	FM	A X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ J		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ	A	Y JFM AMJ JAS OND				
	1979	A	S			A	Y JFM AMJ JAS OND				
	1980					A	Y JFM AMJ JAS OND				
	1981					A	JFM AMJ JAS OND				
UPPSALA	1952					A	JFM AMJ JAS OND				
UP 158 15E	1953					A	JFM AMJ JAS OND				
(59.8 17.6)	1954					A	JF AM AS				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS ON				
	1957	X	JAS OND	ABXY	JAS OND	A	Y JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
UPPSALA	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
UP 158 15E	1960			ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
(59.8 17.6)	1961			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1962	X	FM AMJ JAS OND	BXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	X	FM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1964	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	FM AMJ JAS OND
	1966			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ J
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JF J JAS		
	1968			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS O		
	1969			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1974			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1982			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1983			X	JFM AMJ JAS	A	Y JFM AMJ JAS OND				
	1984					A	JFM AM				
USHUAIA	1957			X	N	A	Y N				
UA J5M 60W	1958			X	JFM J S OND	A	Y JFM J S OND				
(-54.8 291.7)	1959			X	JF	A	Y JF				
	1960					X	JFM A				
	1961			X	M S ON	A	Y M S ON				
	1962	A X	JFM OND	A XY	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1963	A X	J M AMJ	A XY	JFM AMJ	A	Y JFM AMJ				
	1964	X	S OND	A XY	S OND	A	Y S OND	A	S OND		
	1966	X	JFM	A XY	JFM MJ AS D	A	Y JFM MJ AS D	A	JFM		
	1967			X	JFM AMJ JAS OND	A	Y JFM AMJ JAS OND				
	1968			X	JFM AMJ J	A	Y JFM AMJ J S O				
	1974			X	ND	A	ND				
	1975			X	JF A	A	JF A	A	JF A		
	1976	A	M								
	1979	A	S								
	1980			X	FM AMJ JAS OND	A	Y FM AMJ JAS OND				

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
USHUAIA	1981			X	FM AM JAS	A Y	M AMJ AS ON				
UA J5M 60W	1982					A	J				
(-54.8 291.7)											
VANIMO	1964			X	JAS OND	A Y	JAS OND	A	JAS OND	A	JA OND
VA 50L 150E	1965			X	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
(-2.7 141.3)	1966	A	ON	X	JFM MJ JAS OND	AB Y	JFM MJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ J S OND
	1967			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AM	A	JFM
	1968			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1976			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979			X	JFM AMJ JAS ND	A Y	JFM AMJ JAS OND				
	1980			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1981			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982			X	JFM AMJ JAS OND	Y	JFM AMJ	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983			X	JFM AMJ JA						
VICTORIA	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JAS OND				
VI 848 120W	1958	ABXY JFM AMJ JAS OND		ABXY JFM AMJ JAS OND		ABXY JFM AMJ JAS OND					
(48.4 236.6)	1959	X J		A XY J		A Y J					
VICTORIA BEACH	1945					A	J				
53 951											
(50.8 263.9)											
VOSTOK	1958	ABXY M AMJ JAS OND		ABXY M AMJ JAS OND		A XY M AMJ JAS OND					
VO 47P 105E	1959	ABXY JFM AMJ JAS OND		ABXY JFM AMJ JAS OND		ABXY JFM AMJ JAS OND					
(-78.4 106.9)	1960	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND					
	1961	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND					
	1963	A JFM AMJ JAS OND									
	1964	ABXY AMJ JAS OND		A XY AMJ JAS OND		A XY AMJ JAS OND		A	AMJ JAS ND		
	1965	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A	J M AMJ JAS OND		
	1966	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1967	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1968	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A	JFM AMJ JAS OND		
	1969	ABXY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A XY JFM AMJ JAS OND		A	JFM AMJ JAS OND		

COMBINED WDC IONOSPHERE VERTICAL SOUNDINGS CATALOG

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
VOSTOK	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
VO 47P 105E	1971	ABXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
(-78.4 106.9)	1972	AB	D								
	1973	AB	J								
	1974	AB	JF								
	1975	A Y	FM AM			X	FM AM				
	1976	ABXY	M AMJ JAS OND	A XY	M AMJ JAS OND	A XY	M AMJ JAS OND				
	1977	A X	JFM AMJ JAS OND	XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	A	JFM AMJ JAS OND			X	JFM AMJ JAS OND				
	1979	A	S								
WAKKANAI	1947					A	M AMJ JAS OND				
WK 545 135E	1948					A	JFM AMJ JAS OND				
(45.4 141.7)	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AM		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	J JAS OND
	1969	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1976	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
WAKKANAI	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
WK 545 135E	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(45.4 141.7)	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983			A X	JFM AMJ JAS ON	A	JFM AMJ JAS ON				
	1984					A	JFM A				
WALLOPS IS	1963	ABXY	JAS OND	AB Y	AS OND	X	F JAS OND				
WP 937 75W	1964	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
(37.9 284.5)	1965	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1966	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	X	JFM AMJ JAS OND				
	1967	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ J S	A	JFM AMJ J S
	1968	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	ABXY	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1981	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1982	A X	JFM AMJ JAS OND	A X	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1983	A	JFM AMJ JAS OND	A	JFM AMJ JAS	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1984	A	JFM AMJ	A	JFM AMJ	A	JFM AMJ	A	JFM A	A	JFM A
WASHINGTON	1936	A	JFM AMJ JAS OND								
WA 938 75W	1937	A	JFM AMJ JAS OND								
(38.7 282.9)	1938	A	JFM AMJ JAS OND								
	1939	A	JFM AMJ JAS OND								
	1940	A	JFM AMJ JAS OND								
	1941	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1942	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1943	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1944	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1945	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1946	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1947	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1949	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
WASHINGTON	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
WA 938 75W	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
(38.7 282.9)	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS O D	A	JFM AMJ JAS O D
	1960	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	ABXY	JFM AMJ JAS OND	A XY JFM AMJ	JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY	JFM AMJ JAS	A XY JFM AMJ	J	A XY	JFM AMJ JAS	A	JFM AMJ J	A	JFM AMJ J
WATHEROO	1938					A	J JAS OND				
WT 43! 120E	1939					A	JFM AMJ JAS OND				
(-30.3 115.9)	1940					A	JFM AMJ JAS OND				
	1941					A	JFM AMJ JAS OND				
	1942					A	JFM AMJ JAS OND				
	1943	A	D			A	JFM AMJ JAS OND				
	1944					A	JFM AMJ JAS OND				
	1945					A	JFM AMJ JAS OND				
	1946					A	JFM AMJ JAS OND				
	1947					A	JFM AMJ JAS OND				
	1948					A	JFM J JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	X	JAS OND	ABXY	JAS OND	A Y	JFM AMJ JAS OND				
	1958	X	JFM AMJ JAS OND	ABXY JFM AMJ	JAS OND	A Y	JFM AMJ JAS OND				
	1959			X JFM		A Y	JFM				
WHITE SANDS	1946	A	J JA OND			A	J JA OND				
WS 832 105W	1947	A	M AMJ S OND			A	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
WHITE SANDS	1948	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
WS 832 105W	1949	A	JFM A J JAS OND			A	JFM AMJ JAS OND				
(32.3 253.5)	1950	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1951	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1952	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1953	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1954	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1955	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1956	A	JFM AMJ JAS OND			A	JFM AMJ JAS OND				
	1957	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JA	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ J	A	JFM AMJ J	A	JFM AMJ J
	1973	A	JF AMJ JAS O D			A	A	A	O		
	1974	A	JF A J JAS OND								
	1975	A	JFM AMJ JAS OND								
	1976	A	JFM AMJ JAS OND			A	M AS OND*	A	M S OND	A	M S OND
	1977	A	JFM AMJ JAS OND	A	JAS OND	A	JFM AMJ JAS ON	A	FM AMJ D	A	FM AMJ D
	1978	A	JFM AMJ JAS OND	A J		A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1979	A	JFM AMJ JAS OND			A	JFM J J	A	JFM JA	A	JFM JA
	1980	A	JFM AMJ JAS ON			A	JF *	A	J J	A	J J
WILKES	1957	BXY	JAS OND	XY	JAS OND	XY	JAS OND				
WL 460 OE	1958	BXY	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
(-66.3 110.5)	1959	BXY	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1960	BXY	FM AMJ JAS OND	BXY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1961			X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND				
	1962			X	JFM AMJ JAS ND	Y	JFM AMJ JAS OND				
	1963	X	O	BXY	J OND	B Y	J OND				
	1964	X	JFM AMJ JAS OND	BXY	JFM AMJ JAS OND	B Y	JFM AMJ JAS OND				
	1965	BXY	J ND	XY	JFM AMJ JAS OND	XY	JFM AMJ JAS OND				
	1966	X	FM AMJ JAS OND	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
WILKES	1967	X JF	MJ JAS O	XY	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
WL 460 OE	1968			X	JFM AMJ JAS OND	Y	JFM AMJ JAS OND				
(-66.3 110.5)	1969			X	J	Y	J				
WINNIPEG	1951	A	AMJ JAS OND			A	JFM AMJ JAS OND				
WI 949 90W	1952	A J				A	JFM AMJ JAS OND				
(49.8 265.6)	1953	A	D			A	JFM AMJ JAS OND				
	1954	A	J			A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM MJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1961	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1962	A X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1964	AB	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1966	AB	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1967	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1968	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1969	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1975	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1976	AB	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1977							A	J	A	J
WOOMERA	1961	A	S	X	MJ JAS OND	A Y	D				
WO 53J 135E	1962	A	M N	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(-31.8 136.3)	1963			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1964	A	M	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966			X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	A	O	X	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	S D		
	1968			X	J M AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ S OND		
	1969	A	S								
WUCHANG	1946					A	AS OND				
54 430	1947					A	JFM AMJ JAS OND				

Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
WUCHANG	1948					A	JFM AMJ JAS OND				
54 430	1949					A	JFM A				
(30.6 114.4)											
YAKUTSK	1957	X	S OND	ABXY	JAS OND	A Y	JAS OND				
YA 462 135E	1958	ABXY	FM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(62.0 129.6)	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1970	BXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1971	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1972	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1973	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1974	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1975	X	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1976	X	JFM AMJ J	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1977	X	JFM AMJ J S OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1978	X	JFM AMJ JAS D	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1979	X	JFM AMJ JA	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1980	X	JAS O	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS O				
	1981	X	JFM A	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS O				
YAMAGAWA	1946					A	D				
YG 431 135E	1947					A	JFM AMJ JAS OND				
(31.2 130.6)	1948					A	JFM AMJ JAS OND				
	1949					A	JFM AMJ JAS OND				
	1950					A	JFM AMJ JAS OND				
	1951					A	JFM AMJ JAS OND				
	1952					A	JFM AMJ JAS OND				
	1953					A	JFM AMJ JAS OND				
	1954					A	JFM AMJ JAS OND				
	1955					A	JFM AMJ JAS OND				
	1956					A	JFM AMJ JAS OND				
	1957	ABXY	JAS OND	A XY	JAS OND	A XY	JFM AMJ JAS OND				
	1958	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1959	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
(continued)											
YAMAGAWA	1960	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
YG 431 135E	1961	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
(31.2 130.6)	1962	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1964	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JF AM		
	1968	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM MJ JAS OND	A	J JAS OND
	1969	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1970	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1971	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1972	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1973	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND	A	JFM AMJ JAS OND
	1974	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1975	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A	JFM AMJ JAS ON		
	1976	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1977	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1978	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1979	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1980	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1981	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
	1982	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1983			A X	JFM AMJ JAS ON	A	JFM AMJ JAS OND				
	1984					A	JFM A				
YELLOWKNIFE	1957	ABXY	J JAS OND	A XY	OND	A XY	JAS OND				
YE 862 105W	1958	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(62.4 245.6)	1959	X J		A XY	J	A Y	J				
YUZHNO SAKHALINSK	1957	ABXY	JA ND	ABXY	JAS OND	ABXY	JAS OND				
SA 547 150E	1958	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS OND				
(47.0 143.0)	1959	X	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	AB Y	JFM AMJ JAS OND				
	1960	ABXY	J M AMJ JAS OND	ABXY	J M AMJ JAS OND	ABXY	J M AMJ JAS OND				
	1961	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1962	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A XY	JFM AMJ JAS OND				
	1963	X	JFM AMJ JAS O	ABXY	JFM AMJ JAS OND	A Y	JFM AMJ JAS ON				
	1964	ABXY	M AMJ JAS OND	ABXY	M AMJ JAS OND	ABXY	M AMJ JAS OND	A	M AMJ JAS OND		
	1965	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1966	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1967	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	J M AMJ JAS OND		
	1968	ABXY	FM AMJ JAS OND	ABXY	FM AMJ JAS OND	ABXY	JFM AMJ JAS OND	A	JFM AMJ JAS OND		
	1969	ABXY	JFM AMJ J	A XY	FM AMJ J	A XY	FM AMJ J	A	FM AMJ J		

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Station Name	Year	WDC (X=C1) (Y=C2)	Ionograms Analog (Digital=*)	WDC (X=C1) (Y=C2)	f-plots	WDC (X=C1) (Y=C2)	Hourly values Manuscript (*=7Es only)	WDC (X=C1) (Y=C2)	Medians Computer Format	WDC (X=C1) (Y=C2)	Hourly values Computer Format
ZARYA SHIP	1959	ABXY	AS OND	ABXY	AS OND	ABXY	AS OND				
XF	1960	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND	ABXY	JFM AMJ JAS OND				
(.0 .0)	1961	ABXY	JFM AMJ JAS O	ABXY	JFM AMJ JAS	ABXY	JFM AMJ JAS O				
	1962	ABXY	S OND	ABXY	S OND	ABXY	S OND				
	1963	ABXY	JFM AM	ABXY	JFM AM	ABXY	JFM AM				
	1964	ABXY	AS ON	ABXY	AS ON	ABXY	AS ON				
	1965	ABXY	S OND	ABXY	S OND	ABXY	S OND				
	1966	ABXY	JFM	ABXY	JFM	ABXY	JFM				

VI. DATES OF REGULAR WORLD DAYS

A table of the Regular World Days for each year since 1957, selected first by CSAGI and now by IUWDS, is presented below. Beginning in 1961 these are sequences of three days, with the middle day, the Priority Regular World Day, always on a Wednesday.

	1957	1958	1959	1960	1961	1962	1963
J		3,4,19,20	3,4,9,10	12,13,14	17,18,19	16,17,18	22,23,24
F		10,18,19,26	17,18,19	16,17,18	14,15,16	13,14,15	19,20,21
M		20,21,28	17,18,19	15,16,17	21,22,23	20,21,22	19,20,21
A		18,19,20	14,15,16	19,20,21	18,19,20	17,18,19	16,17,18
M		5,18,19	12,13,14	17,18,19	16,17,18	15,16,17	14,15,16
J	27,28,29	9,17,18,24	16,17,18	14,15,16	20,21,22	19,20,21	18,19,20
J	4,26,27	16,17,27	14,15,16	12,13,14	18,19,20	17,18,19	16,17,18
A	12,25,26	7,12,14,15	11,12,13	9,10,11	15,16,17	14,15,16	13,14,15
S	1,23,24,30	6,13,14,20	15,16,17	20,21,22	19,20,21	18,19,20	17,18,19
O	22,23,24	10,11,12,13	1,2,3,9,10,11	18,19,20	17,18,19	16,17,18	15,16,17
N	14,21,22	4,10,11,18	17,18,19	15,16,17	14,15,16	13,14,15	19,20,21
D	13,16,21,22	10,11,13,17	14,15,16,17	13,14,15	19,20,21	18,19,20	17,18,19

	1964	1965	1966	1967	1968	1969	1970
J	14,15,16	12,13,14	11,12,13	17,18,19	16,17,18	14,15,16	13,14,15
F	18,19,20	16,17,18	15,16,17	14,15,16	13,14,15	11,12,13	10,11,12
M	17,18,19	16,17,18	15,16,17	14,15,16	12,13,14	18,19,20	10,11,12
A	14,15,16	20,21,22	12,13,14	11,12,13	16,17,18	15,16,17	14,15,16
M	19,20,21	18,19,20	17,18,19	9,10,11	14,15,16	13,14,15	12,13,14
J	16,17,18	15,16,17	14,15,16	13,14,15	11,12,13	17,18,19	16,17,18
J	14,15,16	20,21,22	12,13,14	18,19,20	16,17,18	15,16,17	14,15,16
A	18,19,20	17,18,19	16,17,18	15,16,17	13,14,15	12,13,14	18,19,20
S	22,23,24	14,15,16	13,14,15	19,20,21	17,18,19	9,10,11	15,16,17
O	20,21,22	19,20,21	11,12,13	17,18,19	15,16,17	14,15,16	13,14,15
N	17,18,19	16,17,18	15,16,17	14,15,16	12,13,14	18,19,20	17,18,19
D	15,16,17	14,15,16	13,14,15	12,13,14	17,18,19	16,17,18	15,16,17

	1971	1972	1973	1974	1975	1976	1977
J	12,13,14	18,19,20	16,17,18	15,16,17	14,15,16	20,21,22	18,19,20
F	9,10,11	15,16,17	13,14,15	12,13,14	11,12,13	17,18,19	15,16,17
M	16,17,18	14,15,16	20,21,22	19,20,21	11,12,13	16,17,18	15,16,17
A	13,14,15	18,19,20	17,18,19	16,17,18	15,16,17	13,14,15	19,20,21
M	11,12,13	16,17,18	15,16,17	14,15,16	13,14,15	18,19,20	17,18,19
J	15,16,17	13,14,15	19,20,21	18,19,20	10,11,12	22,23,24	14,15,16
J	20,21,22	11,12,13	17,18,19	16,17,18	15,16,17	13,14,15	19,20,21
A	17,18,19	15,16,17	14,15,16	13,14,15	12,13,14	10,11,12	16,17,18
S	14,15,16	19,20,21	18,19,20	17,18,19	16,17,18	21,22,23	13,14,15
O	19,20,21	17,18,19	16,17,18	15,16,17	14,15,16	19,20,21	11,12,13
N	16,17,18	14,15,16	13,14,15	12,13,14	11,12,13	16,17,18	15,16,17
D	14,15,16	19,20,21	18,19,20	10,11,12	16,17,18	21,22,23	6,7,8

	1978	1979	1980	1981	1982	1983	1984
J	17,18,19	16,17,18	15,16,17	13,14,15	19,20,21	11,12,13	17,18,19
F	7,8,9	13,14,15	12,13,14	17,18,19	16,17,18	15,16,17	14,15,16
M	7,8,9	20,21,22	18,19,20	17,18,19	16,17,18	15,16,17	13,14,15
A	11,12,13	17,18,19	15,16,17	14,15,16	20,21,22	12,13,14	17,18,19
M	9,10,11	22,23,24	13,14,15	12,13,14	18,19,20	17,18,19	15,16,17
J	6,7,8	19,20,21	10,11,12	9,10,11	15,16,17	14,15,16	19,20,21
J	11,12,13	17,18,19	8,9,10	14,15,16	13,14,15	12,13,14	17,18,19
A	15,16,17	21,22,23	12,13,14	11,12,13	17,18,19	16,17,18	14,15,16
S	5,6,7	18,19,20	9,10,11	15,16,17	14,15,16	13,14,15	18,19,20
O	17,18,19	16,17,18	7,8,9	13,14,15	19,20,21	18,19,20	16,17,18
N	14,15,16	20,21,22	11,12,13	17,18,19	16,17,18	15,16,17	13,14,15
D	12,13,14	18,19,20	9,10,11	15,16,17	14,15,16	13,14,15	18,19,20

	1985
J	15,16,17
F	12,13,14
M	19,20,21
A	16,17,18
M	21,22,23
J	18,19,20
J	16,17,18
A	13,14,15
S	17,18,19
O	15,16,17
N	12,13,14
D	10,11,12

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UAG-84 CATALOG OF AURORAL RADIO ABSORPTION DURING 1976-1979 AT ABISKO, SWEDEN, by J.K. Hargreaves, C.M. Taylor and J.M. Penman, Environmental Sciences Department, University of Lancaster, Lancaster, UK, July 1982, 69 pp, $3.00.

UAG-85 CATALOG OF IONOSPHERE VERTICAL SOUNDINGS DATA, edited by Raymond O. Conkright and H. Irene Brophy, National Geophysical Data Center, NOAA, Boulder, CO, July 1982, 107 pp. Supersedes UAG-54.

UAG-86 INTERNATIONAL CATALOG OF GEOMAGNETIC DATA, compiled by J.H. Allen and C.C. Abston, National Geophysical Data Center, NOAA, Boulder, CO; E.P. Kharin and N.E. Papitashvili, Academy of Sciences of the USSR, World Data Center B2, Moscow, USSR; and V.O. Papitashvili, IZMIRAN, Moscow Region, USSR, November 1982, 191 pp. Supersedes UAG-35 and 49.

UAG-87 CHANGES IN THE GLOBAL ELECTRIC FIELDS AND CURRENTS FOR MARCH 17-19, 1978, FROM SIX IMS MERIDIAN CHAINS OF MAGNETOMETERS, by Y. Kamide, Kyoto Sangyo University, Kyoto, Japan; H.W. Kroehl, National Geophysical Data Center, NOAA, Boulder, CO; and A.D. Richmond, NOAA Space Environment Laboratory, Boulder, CO, November 1982, 102 pp, $3.50.

UAG-88 NUMERICAL MODELING OF IONOSPHERIC PARAMETERS FROM GLOBAL IMS MAGNETOMETER DATA FOR THE CDAW-6 INTERVALS, by Y. Kamide, Kyoto Sangyo University, Kyoto, Japan; H.W. Kroehl, National Geophysical Data Center, NOAA, Boulder, CO; and B.A. Hausman, National Geophysical Data Center, NOAA, Boulder, CO, November 1983, 197 pp, $4.00.

UAG-89 ATMOSPHERIC HANDBOOK: ATMOSPHERIC DATA TABLES AVAILABLE ON COMPUTER TAPE, by V.E. Derr, NOAA Environmental Research Laboratories, Boulder, CO, July 1984, 56 pp.

UAG-90 EXPERIENCE WITH PROPOSED IMPROVEMENTS OF THE INTERNATIONAL REFERENCE IONOSPHERE (IRI): CONTRIBUTED PAPERS, MAINLY FROM THE URSI-COSPAR WORKSHOP HELD IN BUDAPEST IN 1980, edited by K. Rawer, University of Freiburg, Federal Republic of Germany, and C.M. Minnis, former Secretary General of URSI, Brussels, Belgium, May 1984, 233 pp, $6.00.

UAG-91 COMBINED CATALOG OF IONOSPHERE VERTICAL SOUNDINGS DATA, compiled by World Data Centers A, B2, C1, and C2, National Geophysical Data Center, NOAA, Boulder, CO, December 1984, 170pp.

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