WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

WMO OMM
World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

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Ref.: 09732/2020-L7 S/CMP

Our ref.: 09732/2020/S/CS/CMP/WWR-2020 29 May 2020

Annex: 1 (available in English only)

Subject: Collection of data for publication in World Weather Records 2018 and 2019

Action required: Submission of data as soon as possible **but not later than 31 July 2020**

Dear Sir/Madam,

I wish to inform you that arrangements have been made for the collection of the World Weather Records (WWR). As you may recall, the Seventeenth World Meteorological Congress (Cg-17) noted the successful implementation of the new approach for the annual submission of WWR and urged Members to submit their data in a timely manner as described by Resolution 14 (EC-64) — Submission of World Weather Records on an annual basis (*Executive Council: Abridged Final Report of the sixty-fourth session* (WMO-No. 1092)).

I invite you therefore to prepare the data for stations from your country published in the World Meteorological Organization's (WMO) Observing Systems Capability Analysis and Review Tool for surface-based observations (OSCAR/Surface, *see:* https://oscar.wmo.int/surface). The data should cover 2018 and 2019 and, **if not submitted yet**, please also provide the corresponding data for the periods 1991-2000, 2001-2010 and for the years 2011, 2012, 2013, 2014, 2015, 2016 and 2017. I would like to emphasize that our databases show big data gaps in most parts of the world for the periods/years mentioned above.

It is requested that data be digitized and provided in either EXCEL or text format, following the attached updated draft *Guidelines for the Submission of the World Weather Records 2011+* (WMO-No. 1186), (draft version 3.0 of May 2020). Updates comprise a revised (logical) sequence of climatic elements (Section II.1), related template adjustments including the accommodation of WIGOS Station Identifiers (Section II.2) and a revision of the WWR collection mechanism (Annex 1). Updated EXCEL and text file templates are available here: https://community.wmo.int/world-weather-records-wwr.

To facilitate the publication of data in the WWR, I would be grateful if you could send your contribution at your earliest convenience, but not later than **31 July 2020**, to the respective Lead Centre for the Global Climate Observing System (GCOS) as per Annex 1 of the guidelines.

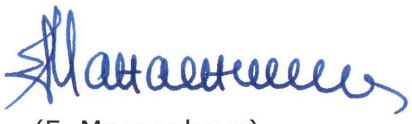
Annual updates of WWR collected under this scheme and quality-controlled thereafter are accessible through the World Data Center for Meteorology: https://www.ncdc.noaa.gov/wdcmet/data-access-search-viewer-tools/world-weather-records-wwr-clearinghouse. The most recent update includes 2011-2016 data of the current eleventh series of WWR (2011-2020).

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO

cc: Presidents of Regional Associations
President and vice-presidents of SERCOM
President and vice-presidents of INFCOM
Director of the National Centers for Environmental Information (NCEI), Asheville

Should you require further clarification, please do not hesitate to contact the WMO Climate Monitoring and Policy Services Division (Mr Omar Baddour, Head, Climate Monitoring and Policy Services Division and Mr Peer Hechler, Scientific Officer: wcdmp@wmo.int).

Yours faithfully,



(E. Manaenkova)
for the Secretary-General

Ref.: 09732/2020-L7 S/CMP

Draft updated Guidelines for the Submission of the World Weather Records 2011+

Version 3.0, May 2020, NCEI/WMO/PH;

Updates of content highlighted:

- Section II.1: Revised (logical) sequence of the climatic elements
- Section II.2: Template adjustments including accommodation of WIGOS Station Identifier (template adjustments have been incorporated –but not highlighted anymore- in Annexes 2 and 3)
- Annex 1: Update of collection mechanism
- Text alignments and updates as appropriate

Table of Contents

I. BACKGROUND

I.1 History

The World Weather Records (WWR) database contains historical monthly climatic data from land surface stations worldwide. First released in 1927, the WWR database has been widely employed in operational climate monitoring, international climate assessments, and numerous other applications. To date, there have been ten editions of WWR, the first containing data up through 1920, with each successive release containing data for another decade (i.e., 1921-1930, 1931-1940, 1941-1950, 1951-1960, 1961-1970, 1971-1980, 1981-1990, 1991-2000, 2001-2010). Since its inception, WWR has been produced by three different institutions: the Smithsonian Institution (1927, 1934, 1947); the U.S. Weather Bureau (1959, 1967); and the U.S. National Oceanic and Atmospheric Administration (NOAA; 1983, 1991, 2005). The current edition will also be produced by NOAA. It addresses the 2011+ period, consistent with WMO Secretariat guidance. However, the previous edition lacked data for many countries, posing an impediment to climate monitoring and assessment activities because of the decline in station coverage starting in 1991. World Meteorological Congress XVI, Geneva 2011, emphasized the importance of updating the World Weather Records continuously. It requested Members to complete the data sets for WWR 1991-2000, submit WWR for 2001-2010, and -starting from 2011- move towards annual updates of the WWR. This approach has been formalised through Resolution 14 (EC-64) Submission of World Weather Records on an Annual Basis.

I.2 Submission Channels of the WWRs

Each WMO Member should submit two types of files to the responsible CBS Lead Center for GCOS ~~or to WMO as appropriate~~ (see suggested collection mechanisms in ANNEX I). The first file type should contain station data for the country (single Excel file containing all stations OR single text file per station) and the second should contain a history metadata file (ANNEX IV). These files can be submitted via electronic mail following guidance provided by the WMO Secretariat or by a regional coordinating center. In the list of countries in ANNEX I, the responsible institutions are given for each region including an email address. In case of any question the Members are encouraged to contact WMO: wcdmp@wmo.int.

I.3 Quality Assurance and Accessibility of WWRs

WWRs can be accessed through the World Data Centre for Meteorology, National Centers for Environmental Information (NCEI), Asheville, United States of America at https://www.ncdc.noaa.gov/wdcmet/data-access-search-viewer-tools/world-weather-records-wwr-clearinghouse. It is planned to provide access to quality-controlled WWRs within six months of the WMO's submission deadline annually. Routine quality assurance reviews of NCEI focus on gross data problems and include format consistency checks, determination of duplication and reasonableness of submitted values and metadata.

II. METHODOLOGY FOR REPRESENTING THE WWRs

II.1 Data Elements

This document provides guidance on how to format data for submission to the current edition of WWR. As in the previous edition, the database will contain six climatic elements:

(code 2) Monthly mean station pressure

(code 3) Monthly mean sea level pressure

(code 4) Monthly mean air temperature

(code 5) Total precipitation in tenths of a mm ~~Monthly mean maximum temperature~~

(code 6) Mean daily maximum air temperature in tenths of a °C ~~Monthly mean minimum temperature~~

(code 7) Mean daily minimum air temperature in tenths of a °C ~~Total monthly precipitation~~

As practiced in recent years, monthly means of daily relative humidity can be submitted too:

(code 8) Monthly mean relative humidity.

The primary goal is to capture year-by-year, month-by-month data for each element at each station (e.g., total monthly precipitation for Geneva in January 2011, February 2011, …, December 2015+). However, station metadata are also of particular importance. At a minimum these metadata should include station name, coordinates, and elevation. Preferably, observation times, averaging formulas, instrumentation types and station changes will also be documented. WMO Members should submit data for all of their surface stations that have an official WMO station index number/WIGOS Station Identifier.

II.2 Data Format

Each WMO Member should submit the WWRs data in either Excel or text file format. This section describes the format of these files, which are similar to previous editions of WWR. There are generally two record types in these formats:

(a) Station header records documenting basic station characteristics

(b) Yearly data records with monthly and annual data for a particular year

Note that Decadal Average (MEAN) and Climate Normal (CLINO) records are no longer necessary with this data submission.

Option 1: Excel

An example of a properly formatted Excel submission is given in ANNEX II and an electronic template is provided to Members. A single Excel file should contain all stations for a given country, with a single station on each tab, and each tab containing a single station's elements.

The first line for each station must be a station header record, which should contain the most recent information for the station. A second header record line has been added to accommodate the new WIGOS Station Identifier.

The next yearly data record section contains data for each climatic element for that station. Leave the element section blank if the station does not report that element.

(a) Station Header Records

Station header records contain 15 fields documenting basic station characteristics. These characteristics should represent the most recent location of the station. Stated in tabular form, the contents include the following:

FIELD	COLUMNS	CONTENTS	NOTES
	1-2		Leave these columns blank
~~1~~A	3-7	WMO number	5-digit with leading 0 if applicable, right-justified. Leave null if new station with only WIGOS Station Identifier.
~~2~~B	8-8	Element Designator Code	1 = Station header record
~~3~~C	9-10	Degrees of latitude (0-90)	Right-justified
~~4~~C	11-12	Minutes of latitude (0-59)	Right-justified
~~5~~C	13-14	Seconds of latitude (if available, 0-59)	Right-justified
~~6~~C	15-15	Hemisphere of latitude	N (Northern) or S (Southern)
~~7~~D	16-18	Degrees of longitude (0-180)	Right-justified
~~8~~D	19-20	Minutes of longitude (0-59)	Right-justified
~~9~~D	21-22	Seconds of longitude (if available, 0-59)	Right-justified
~~10~~D	23-23	Hemisphere of longitude	E (Eastern) or W (Western)
~~11~~E	24-47	Name of country in English	Left-justified
~~12~~F	48-71	Name of station in English	Left-justified
~~13~~G	72-76	Height of station above sea level (whole meters)	Right-justified
~~14~~H	77-83	Height of barometer above sea level (tenths of meters)	Right-justified
L	3-33	WIGOS Station Identifier (WSI)	Maximum 31 character identifier from WMO's OSCAR system, left-justified

(b) Yearly Data Records

Each yearly data record contains monthly and annual data for a particular year. These records contain 17 fields documenting the WMO number (if applicable), element type, year, monthly data values, and the annual value. Stated in tabular form, the contents include the following:

FIELD	COLUMNS	CONTENTS	NOTES
	1-2		Leave these columns blank
~~1~~A	3-7	WMO number	5-digit with leading 0 if applicable, right-justified. Leave null if new station with only WIGOS Station Identifier.
~~2~~B	8-8	Element Designator Code	2 = mean station pressure in tenths of hpa. 3 = mean sea level pressure in tenths of hpa. 4 = mean daily air temperature in tenths of a °C. 5 = total precipitation in tenths of a mm. 6 = mean daily maximum air temperature in tenths of a °C. 7 = mean daily minimum air temperature in tenths of a °C. 8 = mean of the daily relative humidity in whole percent.
~~3~~I	9-12	Year	4-digits
~~4~~J	13-13	Average Value Designator Code	Blank = Yearly data record
~~5~~K	14-18	January	**If a value is missing, then leave the field blank.** **All values should be right-justified.** Decimal points are implied (e.g., 1014.1 hpa should be entered as “10141”). If there is no value after the decimal, the last character should be “0” (e.g., 1014.0 hpa should be “10140”). If the temperature is negative, the 1st value of the field should be "-" (e.g., -13). If precipitation is zero, the field should be "0". If there was trace precipitation, the field should be "T".
~~6~~K	19-23	February	
~~7~~K	24-28	March	
~~8~~K	29-33	April	
~~9~~K	34-38	May	
~~10~~K	39-43	June	
~~11~~K	44-48	July	
~~12~~K	49-53	August	
~~13~~K	54-58	September	
~~14~~K	59-63	October	
~~15~~K	64-68	November	
~~16~~K	69-73	December	
~~17~~K	74-78	Annual	

If data are missing for an entire year, then only complete Fields ~~1–4~~A, B, I and J.

Yearly data can be provided only for the data-year in question but also for other data-years where data were not previously submitted or need to be corrected.

Option 2: Text

An example of a properly formatted text file submission is given in ANNEX III and a template is provided. A single text file should contain one station containing that single station's elements.

The first line for each station must be a station header record which should contain the most recent information for the station. A second header record line has been added to accommodate the new WIGOS Station Identifier.

The next yearly data record section contains data for each climatic element for that station. Leave the element section blank by using spaces if the station does not report that element. Do not use 9's or -9's or tabs to represent missing data.

(a) Station Header Records

Station header records contain 8 rows documenting basic station characteristics. These characteristics should represent the most recent location of the station.

LINE	POSITION	CONTENTS	NOTES
1	40-44	WMO number	5-digit with leading 0 if applicable, left-justified. Leave null if new station with only WIGOS Station Identifier.
2	40-63	Name of station in English	Left-justified
3	40-63	Name of country in English	Left-justified
4	40-49	Latitude Degrees (0-90) Minutes (0-59) Seconds (0-59) Direction (N or S)	Left-justified, example 09 04 00N
5	40-50	Longitude Degrees (0-180) Minutes (0-59) Seconds (0-59) Direction (E or W)	Left-justified, example 000 45 59S
6	40-49	Height of station above sea level	Left-justified, whole meters
7	40-49	Height of barometer above sea level	Left-justified, tenths of meters, explicit decimal
8	40-70	WIGOS Station Identifier (WSI)	Maximum 31 character identifier from WMO's OSCAR system, left-justified

(b) Yearly Data Records

Each yearly data record contains monthly and annual data for a particular year. These records contain 14 fields documenting the year, element type, monthly data values, and the annual value. Stated in tabular form, the contents include the following:

FIELD	COLUMNS	CONTENTS	NOTES
1	1-4	Year	4-digits
2	6-11	January	**If a value is missing, then leave the field blank.**
3	13-18	February	
4	20-25	March	**All values should be right-justified.**
5	27-32	April	
6	34-39	May	Decimal points should be explicitly noted except for relative humidity (which is rounded to whole percent).
7	41-46	June	
8	48-53	July	If there is no value after the decimal, the last character should be “0” (e.g., 1014 hpa should be “1014.0”).
9	55-60	August	
10	62-67	September	If the temperature is negative, the 1st value of the field should be "-" (e.g., -13).
11	69-74	October	
12	76-81	November	If precipitation is zero, the field should be "0". If there was trace precipitation, the field should be "T".
13	83-88	December	
14	90-95	Annual	

If data are missing for an entire year, then only complete Field 1. If data are missing for any months, use spaces to fill (not the tab key).

Yearly data can be provided only for the data-year in question but also for other data-years where data were not previously submitted or need to be corrected.

II.3 History Metadata (Station Notes)

Each WMO Member should submit one file containing all of the metadata (station notes) for all of the stations in their country. There is no required format for this information, but there is some preferred content to make the greatest possible use of the submitted climatic data. Critical content includes the times of observation, the formulas used in computing means, and the types of instrumentation. To the extent possible, this information should be specific to each climatic element. Furthermore, it is extremely helpful if historical changes are explicitly documented for all types of metadata, including observation times, averaging formulas, instrumentation types, and (changes in) basic parameters such as location and elevation. An example of station notes is given in Annex IV.

Annex I: Proposed collection mechanism by region

REGION	Countries (ENG)	Collection mechanism	~~Alternative~~
REGION I	Angola, Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Canary Islands, Comoros Islands, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Gambia, Guinea, Guinea Bissau, Guinea Equatorial, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Niger, Nigeria, Mauritania, Mauritius, Morocco, Mozambique, Namibia, the Ocean Islands (St. Helena Island, Ascension Island, Martin de Vivies, Iles Crozet, Iles Kerguelen), Rwanda, Senegal, Seychelles, Sierra Leone, Sao Tome and Principe, Somalia, South Africa, South Sudan, Sudan, Swaziland, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	CBS Lead Center for GCOS Africa, Morocco (DMN), cbs.lead.centre.4gcos@gmail.com	~~WMO, Geneva; wcdmp@wmo.int~~
REGION II	Afghanistan, Armenia, Azerbaijan, Bahrain, Brunei, Cambodia, China, India, Iran, Japan, Jordan, Kazakhstan, Kyrgyzstan, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Oman, Pakistan, Philippines, Qatar, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, Sri Lanka, Syria, Tajikistan, Thailand, Turkey, United Arab Emirates, Vietnam, Yemen	CBS Lead Center for GCOS Asia, Japan (JMA); climatemonitor@met.kishou.go.jp	~~WMO, Geneva; wcdmp@wmo.int~~
REGION III	All countries of RA III	CBS Lead Center for GCOS South America, Chile (DMC); gtorres@meteochile.cl	~~WMO, Geneva; wcdmp@wmo.int~~
REGION IV	All countries of RA IV	CBS Lead Center for GCOS North and Central America, Caribbean, USA (NCEI); gcos.ncdc@noaa.gov	~~WMO, Geneva; wcdmp@wmo.int~~
REGION V	Countries of RA V, which are not noted under RA II	CBS Lead Center for GCOS South West Pacific, Australia (BOM); GCOS_Lead_Centre_RAV@bom.gov.au	~~WMO, Geneva; wcdmp@wmo.int~~
REGION VI	Countries of RA VI, which are not noted under RA II	CBS Lead Center for GCOS Europe, Germany (DWD); CBS-LC-GCOS.RAVI@dwd.de	~~WMO, Geneva; wcdmp@wmo.int~~

Note: The above CBS Lead Centres for GCOS constitute the principle regional nodes of the WWR collection mechanism. The WMO Secretariat does not act as a node in the WWR collection mechanism. Members are requested to contact the WMO Secretariat (wcdmp@wmo.int) for coordination should submission problems arise.

Ref.: 09732/2020-L7 S/CMP

Annex II: Example Excel File (single station per tab)

World Weather Records
Data Sheet, Single Station (All Elements)

Scroll to Detailed Column Description Instructions

Station Header Records

Blank	A WMO Number	B *	C Latitude D D M M S S N/S	D Longitude D D D M M S S E/W	E Country Name (English)	F Station Name (English)	G Station Height Whole Meters	H Barometer Height Meters, to tenths
	85629	1	34 58 01 S	071 13 59 W	CHILE	CURICO	225	224.9

Blank	L WIGOS Station Identifier
	0-20000-0-85629

Yearly Data Record

(2) Mean Station Pressure (tenths of hPa, decimal implied, example 10228 means 1022.8)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	2	2011		10228	10218	10123	10111	10031	9998	10000	10056	10124	10166	10206	10284	10129
	85629	2	2012		10207	10205	10127	10094	10076	10020	9997	10044	10124	10161	10200	10266	10127
	85629	2	2013		10238	10209	10190	10101	10070	10008	10004	10040	10101	10158	10227	10247	10133
	85629	2	2014		10238	10168	10152	10086	10041	10039	10001	10045	10107	10185	10204	10248	10126
	85629	2	2015		10234	10249	10181	10077	10049	9979	10000	10036	10119	10174	10170	10263	10128
	85629	2	2016		10238	10209	10190	10101	10070	10008	10004	10040	10101	10158	10227	10247	10133
	85629	2	2017		10238	10168	10152	10086	10041	10039	10001	10045	10107	10185	10204	10248	10126
	85629	2	2018														
	85629	2	2019														

(3) Mean Sea Level Pressure (tenths of hPa, decimal implied, example 10269 means 1026.9)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	3	2011		10269	10258	10162	10149	10067	10034	10036	10092	10161	10204	10245	10325	10167
	85629	3	2012		10247	10245	10165	10132	10113	10056	10033	10080	10161	10199	10240	10307	10165
	85629	3	2013		10279	10249	10229	10139	10107	10044	10040	10076	10138	10196	10267	10287	10171
	85629	3	2014		10279	10207	10191	10123	10078	10075	10037	10081	10144	10223	10243	10288	10164
	85629	3	2015		10275	10290	10220	10114	10086	10015	10036	10072	10156	10212	10209	10304	10166
	85629	3	2016		10279	10249	10229	10139	10107	10044	10040	10076	10138	10196	10267	10287	10171
	85629	3	2017		10279	10207	10191	10123	10078	10075	10037	10081	10144	10223	10243	10288	10164
	85629	3	2018														
	85629	3	2019														

(4) Mean Daily Air Temperature (tenths of degree Celsius, decimal implied, example -54 means -5.4 C)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	4	2011		-54	-15	73	144	231	257	273	258	212	138	53	-24	129
	85629	4	2012		1	34	98	141	219	236	275	257	205	107	34	-29	132
	85629	4	2013		-31	9	63	153	210	247	261	282	206	132	35	3	129
	85629	4	2014		-23	29	78	163	205	250	260	249	213	140	65	-5	135
	85629	4	2015		-28	-29	63	164	198	256	279	260	221	149	75	-25	132
	85629	4	2016		-31	9	63	153	210	247	261	282	206	132	35	3	129
	85629	4	2017		-23	29	78	163	205	250	260	249	213	140	65	-5	135
	85629	4	2018														
	85629	4	2019														

(5) Total Precipitation (tenths of mm, decimal implied, example 122 means 12.2 mm)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	5	2011		122	39	0	144	50	458	1286	497	92	457	214	30	3389
	85629	5	2012		0	5	60	377	123	1035	549	743	507	226	0	79	3704
	85629	5	2013		96	29	329	130	308	661	577	342	879	668	429	1	4449
	85629	5	2014		7	88	1	372	391	696	1820	507	742	99	80	32	4835
	85629	5	2015		15	100	2	170	684	664	961	1234	245	18	4	10	4107
	85629	5	2016		96	29	329	130	308	661	577	342	879	668	429	1	4449
	85629	5	2017		7	88	1	372	391	696	1820	507	742	99	80	32	4835
	85629	5	2018														
	85629	5	2019														

(6) Mean Daily Maximum Air Temperature (tenths of degree Celsius, decimal implied, example -13 means -1.3 C)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	6	2011		-13	36	139	204	295	308	323	305	267	191	111	16	183
	85629	6	2012		59	101	163	200	279	285	327	306	271	161	83	5	187
	85629	6	2013		16	61	110	208	268	304	310	317	255	186	71	53	180
	85629	6	2014		26	82	134	223	264	304	307	293	267	200	119	31	188
	85629	6	2015		21	13	125	227	256	315	327	303	272	206	134	16	185
	85629	6	2016		16	61	110	208	268	304	310	317	255	186	71	53	180
	85629	6	2017		26	82	134	223	264	304	307	293	267	200	119	31	188
	85629	6	2018														
	85629	6	2019														

(7) Mean Daily Minimum Air Temperature (tenths of degree Celsius, decimal implied, example -93 means -9.3 C)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	7	2011		-93	-60	13	83	158	207	227	212	160	88	-3	-66	77
	85629	7	2012		-52	-28	32	89	154	194	228	215	143	57	-16	-62	80
	85629	7	2013		-75	-39	19	96	154	194	220	212	164	78	2	-42	82
	85629	7	2014		-66	-16	26	107	148	202	219	210	164	87	21	-36	89
	85629	7	2015		-65	-63	4	100	145	203	236	222	174	95	26	-59	85
	85629	7	2016		-75	-39	19	96	154	194	220	212	164	78	2	-42	82
	85629	7	2017		-66	-16	26	107	148	202	219	210	164	87	21	-36	89
	85629	7	2018														
	85629	7	2019														

(8) Mean of the Daily Relative Humidity (whole percent, example 57 means 57%)

Blank	A WMO Number	B *	I Year	J #	K January	February	March	April	May	June	July	August	September	October	November	December	Annual
	85629	8	2011		57	62	31	46	44	63	68	71	63	73	56	42	56
	85629	8	2012		42	43	36	45	49	64	68	74	66	56	46	65	55
	85629	8	2013		50	52	56	50	62	56	71	67	73	59	64	42	59
	85629	8	2014		36	34	32	40	44	54	67	65	60	54	48	56	49
	85629	8	2015		41	47	31	34	48	60	66	73	59	50	45	36	49
	85629	8	2016		50	52	56	50	62	56	71	67	73	59	64	42	59
	85629	8	2017		36	34	32	40	44	54	67	65	60	54	48	56	49
	85629	8	2018														
	85629	8	2019														

Column Descriptions

A	World Meteorological Organization (WMO) Number. 99999=Unassigned.
B	*Element Designator Code. 1=Header Record, 2=Mean Station Pressure (tenths of hPa), 3=Mean Sea Level Pressure (tenths of hPa), 4=Mean Air Temperature (tenths of deg C), 5=Total Amount of Precipitation (tenths of mm), 6=Mean of the Daily Maximum Air Temperature (tenths of deg C), 7=Mean of the Daily Minimum Air Temperature (tenths of deg C), 8=Mean of the Daily Relative Humidity in whole percent.
C	Latitude. Format: DDMMSS (N or S), where DD=Degrees (00 to 90), MM=Minutes (00 to 59), SS=Seconds (00 to 59), N = North, S= South.
D	Longitude. Format: DDDMMSS (E or W), where DDD=Degrees (000 to 180), MM=Minutes (00 to 59), SS=Seconds (00 to 59). E = East, W = West
E	Country Name (in English)
F	Station Name (in English)
G	Height of Station. Format: whole meters.
H	Height of Barometer. Format: tenths of a meter (decimal implied).
I	Year of Data.
J	#Average Value Designator Code. Format: Blank=Yearly Data
K	Monthly/Annual Data Values. Format: tenths of a deg C, mm, or hPa (decimal implied), blank=missing value, annual value mean of monthly values. Precipitation: All values to tenths of a mm, annual value sum of monthly values, zero precipitation indicated with a 0, trace precipitation total (>0 and <0.05 mm) indicated with a T.
L	WIGOS Station Identifier, maximum 31-character identifier from WMO's OSCAR system

Annex III: Example Text File (single station per file)

WMO Number: 85629

Station Name: CURICO GENERAL FREIRE

Country Name: CHILE

Latitude (DD MM SS N/S): 34 58 00 S

Longitude (DDD MM SS E/W): 071 14 00 W

Station Height (whole meters): 228

Barometer Height (meters, to tenths): 228.0

WIGOS Station Identifier (WSI): 0-20000-0-85629

(2) Mean Station Pressure (precision to tenths of hPa)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	989.0	986.9	989.1	989.8	990.0	993.8	993.2	992.9	993.5	991.6	989.9	988.3	990.7
2012	988.3	988.5	988.7	990.7	990.5	991.5	990.7	991.3	990.9	991.6	988.6	986.3	989.8
2013	985.2		987.3	988.3	989.5	991.4	991.2	991.9	992.9	990.1	989.1	987.8	989.3
2014	986.9	986.2	987.3	989.8	990.7	992.0	989.0	992.7	990.9	990.7	990.0	986.2	989.4
2015	987.5	986.1	986.3	990.3	990.1	990.0	991.4	992.7	990.4	989.6	988.7	988.1	989.3
2016	985.2		987.3	988.3	989.5	991.4	991.2	991.9	992.9	990.1	989.1	987.8	989.3
2017	986.9	986.2	987.3	989.8	990.7	992.0	989.0	992.7	990.9	990.7	990.0	986.2	989.4
2018													
2019													

(3) Mean Sea Level Pressure (precision to tenths of hPa)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	1015.1	1012.9	1015.4	1016.5	1016.9	1021.2		1020.2	1020.6	1018.4	1016.3	1014.4	1017.4
2012	1014.3	1014.6	1015.0	1017.5	1017.7	1018.8	1017.9	1018.5	1017.8	1018.5	1015.0	1012.3	1016.5
2013	1011.0	1012.3	1013.6	1015.1	1016.7	1019.0	1018.6	1019.2	1020.0	1016.7	1015.3	1013.7	1015.9
2014	1012.8	1012.3		1016.7	1018.0	1019.5	1016.3	1020.0	1017.8			1012.3	1016.1
2015	1013.5	1012.1	1012.6	1017.3	1017.2	1017.1	1018.7	1020.1	1017.3	1016.3	1015.0	1014.2	1016.0
2016	1011.0	1012.3	1013.6	1015.1	1016.7	1019.0	1018.6	1019.2	1020.0	1016.7	1015.3	1013.7	1015.9
2017	1012.8	1012.3		1016.7	1018.0	1019.5	1016.3	1020.0	1017.8			1012.3	1016.1
2018													
2019													

(4) Mean Daily Air Temperature (precision to tenths of degrees Celsius)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	19.4	19.3	16.7	13.6	12.0	-7.2	7.7	8.2	9.8	12.8	15.9	18.8	13.5
2012	19.9	18.6	16.4	12.7	9.6	8.3	9.3	8.8	11.7	12.5	14.9	19.7	13.5
2013	20.5	19.1	16.1	12.2	7.9	-5.4	6.5	8.6	9.7	14.0	17.3	19.9	13.1
2014	20.3	18.2	16.4	11.4	8.3	6.1	-7.4	7.6	10.9	13.1	15.1	18.1	12.7
2015	19.3	18.6	15.8	10.6	9.6	9.6	-7.6	7.6	11.0	13.0	16.2	18.6	13.1
2016	20.5	19.1	16.1	12.2	7.9	-5.4	6.5	8.6	9.7	14.0	17.3	19.9	13.1
2017	19.3	18.6	15.8	10.6	9.6	9.6	-7.6	7.6	11.0	13.0	16.2	18.6	13.1
2018													
2019													

(5) Total Precipitation (precision to tenths of mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	11.7	0	0	2.4	191.1	75.2	44.6	110.8	33.7	18.9	0.2	0	488.6
2012	7.0	0	37.7	14.7	168.9	408.8	208.7	115.1	186.7	43.9	2.0	0	1193.5
2013	8.3	1.0	0.3	17.5	55.9	147.9	139.7	116.0	24.9	0.4	0	0.2	512.1
2014	0	1.5	3.0	22.4	203.7	135.2	390.3	108.3	65.2	47.4	6.7	0	983.7
2015	0.3	0	29.9	25.0	127.1	26.1	126.5	6.6	46.7	71.9	0.2	0	460.3
2016	7.0	0	37.7	14.7	168.9	408.8	208.7	115.1	186.7	43.9	2.0	0	1193.5
2017	8.3	1.0	0.3	17.5	55.9	147.9	139.7	116.0	24.9	0.4	0	0.2	512.1
2018													
2019													

(6) Mean Daily Maximum Air Temperature (precision to tenths of degree Celsius)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	1.3	3.6	13.9	20.4	29.5	30.8	32.3	30.5	26.7	19.1	11.1	1.6	18.2
2012	5.9	10.1	16.3	20.0	27.9	28.5	32.7	30.6	27.1	16.1	8.3	0.5	18.7
2013	1.6	6.1	11.0	20.8	26.8	30.4	31.0	31.7	25.5	18.6	7.1	5.3	18.0
2014	2.6	8.2	13.4	22.3	26.4	30.4	30.7	29.3	26.7	20.0	11.9	3.1	18.8

2015	2.1	1.3	12.5	22.7	25.6	31.5	32.7	30.3	27.2	20.6	13.4	1.6	18.5
2016	1.6	6.1	11.0	20.8	26.8	30.4	31.0	31.7	25.5	18.6	7.1	5.3	18.0
2017	2.6	8.2	13.4	22.3	26.4	30.4	30.7	29.3	26.7	20.0	11.9	3.1	18.8
2018													
2019													

(7) Mean Daily Minimum Air Temperature (precision to tenths of degree Celsius)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	9.3	6.0	1.3	8.3	15.8	20.7	22.7	21.2	16.0	8.8	0.3	6.6	7.7
2012	5.2	2.8	3.2	8.9	15.4	19.4	22.8	21.5	14.3	5.7	1.6	6.2	8.0
2013	1.6	6.1	11.0	20.8	26.8	30.4	31.0	31.7	25.5	18.6	7.1	5.3	18.0
2014	2.6	8.2	13.4	22.3	26.4	30.4	30.7	29.3	26.7	20.0	11.9	3.1	18.8
2015	2.1	1.3	12.5	22.7	25.6	31.5	32.7	30.3	27.2	20.6	13.4	1.6	18.5
2016	1.6	6.1	11.0	20.8	26.8	30.4	31.0	31.7	25.5	18.6	7.1	5.3	18.0
2017	2.6	8.2	13.4	22.3	26.4	30.4	30.7	29.3	26.7	20.0	11.9	3.1	18.8
2018													
2019													

(8) Mean Daily Relative Humidity (whole percent)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL
2011	57	62	31	46	44	63	68	71	63	73	56	42	56
2012	19	22	29	35	41	45	46	46	42	37	28	22	34
2013	20	22	25	33	41	45	47	46	43	38	27	20	34
2014	20	22	29	31	39	45	47	46	43	38	27	18	34
2015	18	20	26	34	40	45	47	47	43	37	25	23	34
2016	20	22	25	33	41	45	47	46	43	38	27	20	34
2017	20	22	29	31	39	45	47	46	43	38	27	18	34
2018													
2019													

Annex IV: Station Notes Example

TRINIDAD AND TOBAGO (2 stations)

General:

All observation hours were in local time. A total of 24 hourly observations per day were used in computing the means of temperature and pressure except at Crown Point. At this station, part time operation existed during June to December 1980; January 1976; 1977, and 1978; February, March, April 1976; and for February, March, and April 1978. Observation hours during these periods were 0700 to 2300 hours or 0800 to 22 hours.

At Piarco, the period of record of CLINO values for sea level pressure and temperature was 1946-1975. For precipitation it was 1946-1980. No CLINO exists for Crown Point since past records begin only in 1970.

Pressure:

Pressure was measured by a Kew Pattern barometer until 1974 after which a precision Aneroid type was used. Heights of the barometers were 13.4 meters at Piarco and 6.7 meters at Crown Point.

Temperature:

Thermometers, housed in a standard Stevenson Screen, were 1.2 meters above ground at both stations.

Precipitation:

Rainfall was measured by a pot gauge. A Tilting – Siphon rain recorder adjusted the pot gauge. Rainfall was measured four times daily at 0200, 0800, 1400, and 2000 hours local time at both stations except during part time operations at Crown Point. Heights of the rain gauges were .3 meters at Piarco, and 3 meters at Crown Point.

URUGUAY (13 stations)

General:

CLINO values correspond to the period 1951-80 for precipitation and 1946-1980 for other elements. Rain gauges and thermometers were located 1.5 meters above the ground.

Pressure and Temperature:

The monthly pressure and temperature values were both computed from the equation:

1/10(00+03+06+09+12+15+18+21 hours GMT + Mean Max + Mean Min)

Precipitation:

The daily values were measured at 0900 hours GMT.

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