



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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8 June 2017

Annex: 1 (available in English, French and Spanish only)

Subject: Collection of data for publication in World Weather Records 2016

Action required: Submission of data at the earliest convenience **but not later than 31 July 2017**

Dear Sir/Madam,

Arrangements have been made for the collection of the World Weather Records (WWR) 2016 series. As you 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 due time as described by Resolution 14 (EC-64) – Submission of World Weather Records on an annual basis.

I therefore invite you to prepare the data for stations from your country published in WMO Publication No. 9, Volume A, Observing Stations (see: <http://www.wmo.int/pages/prog/www/ois/volume-a/vola-home.htm>). Additional stations are welcome and should include data from the earliest record available. The data should cover 2016 and **if not submitted yet**, please provide also the data for the periods 1991-2000, 2001-2010 and the years 2011, 2012, 2013, 2014 and 2015. I should like to emphasize that our data bases show big data gaps in most parts of the world for the mentioned periods and years.

It is requested that data be digitized and provided in either EXCEL or text format, following the attached *Guidelines for the Submission of the World Weather Records 2011+*. Additional information including the EXCEL template is available here: http://www.wmo.int/pages/prog/wcp/wcdmp/GCDS_2.php.

To facilitate the publication of data in the WWR, I should be grateful if you would send your contribution at your earliest convenience, but not later than **31 July 2017**, to the respective Commission for Basic Systems (CBS) lead centre for GCOS as per Annex 1 of the attached guidelines. Alternatively, the data could be sent to the WMO Secretariat (wcdmp@wmo.int).

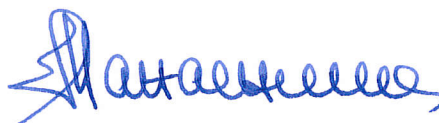
To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO

cc: Presidents of Regional Associations)
 President and vice-president of CCI)
 President and vice-president of CBS) (for information)
 Director of the National Centers for)
 Environmental Information (NCEI), Asheville)

WWR collected under this scheme are accessible -in ten years blocks- through the World Data Center for Meteorology: <https://www.ncdc.noaa.gov/wdcmnet/data-access-search-viewer-tools/world-weather-records-wwr-clearinghouse>. Measures are under consideration to move to an annual presentation of WWR updates.

Should you require further clarification, please do not hesitate to contact the WMO Data Management Applications Division (Mr Omar Baddour and Mr Peer Hechler: wcdmp@wmo.int).

Yours faithfully,



(E. Manaenkova)
for the Secretary-General

Guidelines for the Submission of the World Weather Records 2011+

2017 edition

WEATHER CLIMATE WATER



WORLD
METEOROLOGICAL
ORGANIZATION

WMO-No. 1186

Guidelines for the Submission of the World Weather Records 2011+

2017 edition



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ORGANIZATION

WMO-No. 1186

EDITORIAL NOTE

METEOTERM, the WMO terminology database, may be consulted at <http://public.wmo.int/en/resources/meteoterm>.

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WMO-No. 1186

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1. **BACKGROUND**

1.1 **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 nine editions of the WWR database, the first containing the available data up to and including 1920, with each successive release containing data for another decade (that is, 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 United States of America Weather Bureau (1959, 1967); and the United States 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/territories because of the decline in station coverage that started in 1991, posing an impediment to climate monitoring and assessment activities. The Sixteenth World Meteorological Congress, Geneva 2011, emphasized the importance of updating the WWR database 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 database. This approach has been formalized through Resolution 14 (EC-64) – Submission of World Weather Records on an annual basis.

1.2 **Submission channels of the World Weather Records**

Each WMO Member should submit two types of files to one of the responsible Commission for Basic Systems (CBS) lead centres for the Global Climate Observing System (GCOS) or to WMO as appropriate (see recommended collection mechanisms by region in Annex I). The first file type should contain station data for the country/territory (single Excel file containing all stations OR single text file per station, see Annexes II and III, respectively), 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 centre. Annex I specifies responsible institutions for each region including an e-mail address. In case of any questions, Members are encouraged to contact WMO: wcdmp@wmo.int.

1.3 **Quality assurance and accessibility of World Weather Records**

World Weather Records can be accessed through the World Data Centre for Meteorology, National Centers for Environmental Information (NCEI), Asheville, United States at <http://www1.ncdc.noaa.gov/pub/data/wwr/>. It is planned to provide access to quality-controlled WWR within six months of the WMO 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.

2. **METHODOLOGY FOR REPRESENTING THE WORLD WEATHER RECORDS**

2.1 **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 temperature;

- (Code 5) Monthly mean maximum temperature;
 (Code 6) Monthly mean minimum temperature;
 (Code 7) Total monthly precipitation.

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

- (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 (for example, 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.

2.2 Data format

Each WMO Member should submit the WWR 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/territory, 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. There must be only one Station Header record for each station, and it should contain the most recent information for the station.

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 14 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	3–7	WMO number	5 digits with leading 0 if applicable, right-justified
2	8	Record type	1 = station header record
3	9–10	Degrees of latitude (0–90)	Right-justified
4	11–12	Minutes of latitude (0–59)	Right-justified
5	13–14	Seconds of latitude (if available, 0–59)	Right-justified
6	15	Hemisphere of latitude	N (northern) or S (southern)

Field	Columns	Contents	Notes
7	16–18	Degrees of longitude (0–180)	Right-justified
8	19–20	Minutes of longitude (0–59)	Right-justified
9	21–22	Seconds of longitude (if available, 0–59)	Right-justified
10	23	Hemisphere of longitude	E (eastern) or W (western)
11	24–47	Name of country/territory in English	Left-justified
12	48–71	Name of station in English	Left-justified
13	72–76	Height of station above sea level (whole metres)	Right-justified
14	77–83	Height of barometer above sea level (tenths of metres)	Right-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, 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	3–7	WMO number	5 digits with leading 0 if applicable, right-justified
2	8	Element type	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 per cent
3	9–12	Year	4 digits
4	13	Record type	Blank = yearly data record
5	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	19–23	February	
7	24–28	March	
8	29–33	April	
9	34–38	May	
10	39–43	June	
11	44–48	July	
12	49–53	August	
13	54–58	September	
14	59–63	October	
15	64–68	November	
16	69–73	December	
17	74–78	Annual	

If data are missing for an entire year, then only complete fields 1–4.

Yearly data can be provided for only 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 section for each station must be a station header record. There must be only one station header record for each station, and it should contain the most recent information for the station.

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 figure "9" or "-9" or tabs to represent missing data.

(a) Station header records

Station header records contain seven 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 digits with leading 0 if applicable, left-justified
2	40–63	Name of station in English	Left-justified
3	40–63	Name of country/territory 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 metres
7	40–49	Height of barometer above sea level	Left-justified, tenths of metres, explicit decimal

(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 All values should be right justified Decimal points should be explicitly noted except for relative humidity (which is rounded to whole per cent) If there is no value after the decimal, the last character should be "0" (e.g., 1014 hpa should be "1014.0") 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"
3	13–18	February	
4	20–25	March	
5	27–32	April	
6	34–39	May	
7	41–46	June	
8	48–53	July	
9	55–60	August	
10	62–67	September	
11	69–74	October	
12	76–81	November	
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 for only the data year in question but also for other data-years where data were not previously submitted or need to be corrected.

2.3 **History metadata (station notes)**

Each WMO Member should submit one file containing all the metadata (station notes) for all the stations in their country/territory. 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 basic parameters such as location and elevation. An example of station notes is given in Annex IV.

ANNEX I. RECOMMENDED COLLECTION MECHANISM BY REGION

Note: Members may choose to submit their WWR through any of the below mentioned CBS lead centres for GCOS. Members are invited to notify WMO (wcdmp@wmo.int) should they decide to deviate from the normal channels.

<i>Region</i>	<i>Member States/ Territories</i>	<i>Collection mechanism</i>	<i>Alternative</i>
RA I	All Members of RA I	CBS Lead Centre for GCOS Africa, Morocco (DMN*); cbs.lead.centre.4gcos@gmail.com	WMO, Geneva; wcdmp@wmo.int
RA II	All Members of RA II	CBS Lead Centre for GCOS Asia, Japan (JMA*); climatemonitor@met.kishou.go.jp	WMO, Geneva; wcdmp@wmo.int
RA III	All Members of RA III	CBS Lead Centre for GCOS South America, Chile (DMC*); gtorres@meteochile.cl	WMO, Geneva; wcdmp@wmo.int
RA IV	All countries of RA IV	CBS Lead Centre for GCOS North and Central America and the Caribbean, United States (NCEI*); gcoss.ncdc@noaa.gov	WMO, Geneva; wcdmp@wmo.int
RA V	All Members of RA V	CBS Lead Centre for GCOS South West Pacific, Australia, (BOM*); GCOS_Lead_Centre_RAV@bom.gov.au	WMO, Geneva; wcdmp@wmo.int
RA VI	All Members of RA VI	CBS Lead Centre for GCOS Europe, Germany (DWD*); christiana.lefebvre@dwd.de	WMO, Geneva; wcdmp@wmo.int

* BOM: Bureau of Meteorology; DMC: Dirección Meteorológica de Chile; DMN: National Meteorological Office of Morocco; DWD: Deutscher Wetterdienst; JMA: Japan Meteorological Agency; NCEI: National Centers for Environmental Information.

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 Record

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	A	B	C			D			E															F															G		H																																									
Blank	WMO Number	*	Latitude			Longitude			Country Name (English)															Station Name (English)															Station Height		Barometer Height																																									
			D	D	M	M	S	S	N/S	D	D	M	M	S	S	E/W																															Whole Meters		Meters, to tenths																																	
	99999	1	47	22	59					8	34	0	COUNTRY NAME															STATION NAME															31		31.3																																					

Yearly Data Record

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

Blank	A	B	I	J	K											
WMO Number	Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual		
99999	2	2011	10228	10218	10123	10111	10031	9998	10000	10056	10124	10166	10206	10284	10129	
99999	2	2012	10207	10205	10127	10094	10076	10020	9997	10044	10124	10161	10200	10266	10127	
99999	2	2013	10238	10209	10190	10101	10070	10008	10004	10040	10101	10158	10227	10247	10133	
99999	2	2014	10238	10168	10152	10086	10041	10039	10001	10045	10107	10185	10204	10248	10126	
99999	2	2015	10234	10249	10181	10077	10049	9979	10000	10036	10119	10174	10170	10263	10128	
	2	2016														

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

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
Blank		A	B	I		J	K																																																																					
WMO Number			Year	January		February	March	April	May	June	July	August	September	October	November	December	Annual																																																											
	99999	3	2011		10269	10258	10162	10149	10067	10034	10036	10092	10161	10204	10245	10325	10167																																																											
	99999	3	2012		10247	10245	10165	10132	10113	10056	10033	10080	10161	10199	10240	10307	10165																																																											
	99999	3	2013		10279	10249	10229	10139	10107	10044	10040	10076	10138	10196	10267	10287	10171																																																											
	99999	3	2014		10279	10207	10191	10123	10078	10075	10037	10081	10144	10223	10243	10288	10164																																																											
	99999	3	2015		10275	10290	10220	10114	10086	10015	10036	10072	10156	10212	10209	10304	10166																																																											
		3	2016																																																																									

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78																							
Blank		A		B		I		J		K																																																																																										
WMO Number		Year				January		February		March		April		May		June		July		August		September		October		November		December		Annual																																																																						
99999		4		2011		-54		-15		73		144		231		257		273		258		212		138		53		-24		129																																																																						
99999		4		2012		1		34		98		141		219		236		275		257		205		107		34		-29		132																																																																						
99999		4		2013		-31		9		63		153		210		247		261		262		206		132		35		3		132																																																																						
99999		4		2014		-23		29		78		163		205		250		260		249		213		140		65		-5		135																																																																						
99999		4		2015		-28		-29		63		164		198		256		279		260		221		149		75		-25		132																																																																						
		4		2016																																																																																																

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

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
	A				B	I		J	K																																																																				
Blank	WMO Number				*	Year	#	January	February	March	April	May	June	July	August	September	October	November	December	Annual																																																									
	99999				5	2011		122	39	0	144	50	458	1286	497	92	457	214	30	3389																																																									
	99999				5	2012		0	5	60	377	123	1035	549	743	507	226	0	79	3704																																																									
	99999				5	2013		96	29	329	130	308	661	577	342	879	668	429	1	4449																																																									
	99999				5	2014		7	88	1	372	391	696	1820	507	742	99	80	32	4835																																																									
	99999				5	2015		15	100	2	170	684	664	961	1234	245	18	4	10	4107																																																									
					5	2016																																																																							

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

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
	A		B	I		J	K																																																																						
Blank	WMO Number		*	Year	#	January	February	March	April	May	June	July	August	September	October	November	December	Annual																																																											
	99999	6		2011		-13	36	139	204	295	308	323	305	267	191	111	16	183																																																											
	99999	6		2012		59	101	163	200	279	285	327	306	271	161	83	5	187																																																											
	99999	6		2013		16	61	110	208	268	304	310	317	255	186	71	53	180																																																											
	99999	6		2014		26	82	134	223	264	304	307	293	267	200	119	31	188																																																											
	99999	6		2015		21	13	125	227	256	315	327	303	272	206	134	16	185																																																											
		6		2016																																																																									

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

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
	A		B	I		J	K																																																																						
Blank	WMO Number		*	Year	#	January	February	March	April	May	June	July	August	September	October	November	December	Annual																																																											
	99999	7	2011			-93	-60	13	83	158	207	227	212	160	88	-3	-66	77																																																											
	99999	7	2012			-52	-28	32	89	154	194	228	215	143	57	-16	-62	80																																																											
	99999	7	2013			-75	-39	19	96	154	194	220	212	164	78	2	-42	82																																																											
	99999	7	2014			-66	-16	26	107	148	202	219	210	164	87	21	-36	89																																																											
	99999	7	2015			-65	-63	4	100	145	203	236	222	174	95	26	-59	85																																																											
		7	2016																																																																										

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

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
	A		B		I		J		K																																																																				
Blank	WMO Number		Year		January		February		March		April		May		June		July		August		September		October		November		December		Annual																																																
	99999	8	2011				57	62	31		46		44		63		68		71		63		73		56		42		56																																																
	99999	8	2012				42	43	36		45		49		64		68		74		66		56		46		65		55																																																
	99999	8	2013				50	52	56		50		62		56		71		67		73		59		64		42		59																																																
	99999	8	2014				36	34	32		40		44		54		67		65		60		54		48		56		49																																																
	99999	8	2015				41	47	31		34		48		60		66		73		59		50		45		36		49																																																
		8	2016																																																																										

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.

ANNEX III. EXAMPLE TEXT FILE (SINGLE STATION PER FILE)

WMO number:						85629							
Station name:						CURICO GENERAL FREIRE							
Country/territory 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 metres):						228							
Barometer height (metres, to tenths):						228.0							
(2) Mean station pressure (tenths of hPa)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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	986.3	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													
(3) Mean sea-level pressure (tenths of hPa)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
2011	1015.1	1012.9	1015.4	1016.5	1016.9	1021.2	1020.6	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	1013.6	1016.7	1018.0	1019.5	1016.3	1020.0	1017.8	1017.4	1016.6	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													
(4) Mean daily air temperature (tenths of degrees Celsius)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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													
(5) Total precipitation (tenths of mm)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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													
(6) Mean daily maximum air temperature (tenths of degree Celsius)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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													
(7) Mean daily minimum air temperature (tenths of degree Celsius)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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													
(8) Mean of the daily relative humidity (whole percent)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MEAN
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													

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 2200 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 metres at Piarco and 6.7 metres at Crown Point.

Temperature:

Thermometers, housed in a standard Stevenson screen, were 1.2 metres 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 metres at Piarco, and 3 metres at Crown Point.

URUGUAY (13 stations)

General:

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

Pressure and temperature:

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

$$1/10(00+03+06+09+12+15+18+21 \text{ hours GMT} + \text{Mean max} + \text{Mean min})$$

Precipitation:

The daily values were measured at 0900 hours GMT.

For more information, please contact:

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