



Notre réf.: OBS/WIS/DMA/WWR-IV

GENÈVE, le 8 juin 2016

Annexe: 1 (disponible en anglais seulement)

Objet: Collecte des données concernant la Région IV pour l'année 2015

Suite à donner: Communiquer les données au centre régional de coordination (voir l'adresse ci-après) dès que possible et **au plus tard le 31 juillet 2016**

Madame, Monsieur,

Des dispositions ont été prises concernant la préparation et la publication des *World Weather Records* (WWR) pour l'année 2015. Comme vous le savez peut-être, le Dix-septième Congrès météorologique mondial a noté que les nouvelles modalités de présentation annuelle des *World Weather Records* donnaient satisfaction et a prié les Membres de communiquer leurs données en temps opportun, tel que le prévoit la résolution 14 (EC-64) – Communication annuelle des *World Weather Records*.

La Commission des systèmes de base (CSB) a invité ses centres principaux pour le Système mondial d'observation du climat (SMOC) à participer activement à la collecte, à la compilation et à la diffusion des WWR, conformément à ladite résolution 14.

Centre principal de la CSB pour la Région IV, le Centre national d'information sur l'environnement (NCEI, anciennement connu sous le nom de Centre national de données climatologiques) d'Asheville (États-Unis) a accepté de jouer le rôle de centre régional de coordination pour la collecte des WWR, c'est-à-dire qu'il se chargera de rassembler et de contrôler les données pertinentes transmises par les Membres de la Région IV afin qu'elles soient publiées.

Je vous invite donc à préparer les données de votre pays ainsi que les métadonnées des stations. Il s'agira de fournir les données pour l'année 2015 et, le cas échéant, celles couvrant les périodes 1991-2000, 2001-2010 ainsi que les années 2011, 2012, 2013 et 2014. En ce qui concerne ces périodes et années, nos bases de données sont encore très lacunaires pour la plupart des régions du monde.

Les paramètres à inclure sont les suivants: moyennes mensuelles et annuelles de la pression (à la station et au niveau de la mer), températures (moyennes, maximales et minimales) et totaux mensuels et annuels des précipitations. La liste des stations devant fournir ces données figure dans le Volume A – Stations d'observation de la publication OMM-N° 9 (voir <http://www.wmo.int/pages/prog/www/ois/volume-a/vola-home.htm>). Vous êtes invité(e) à inclure d'autres stations, sans omettre de fournir leurs données les plus anciennes.

Aux: Représentants permanents des Membres du Conseil régional IV (AMN-567)

cc: Président et vice-président du Conseil régional IV)
Président et vice-président de la Commission de climatologie)
Président et vice-président de la Commission de systèmes de base) (pour information)
Directeur des centres nationaux d'information)
sur l'environnement (NCEI), Asheville)

Les données doivent être numérisées et soumises en format Excel ou dans un fichier texte, **en suivant de préférence les nouvelles indications figurant dans l'annexe ci-jointe**. Un **nouveau modèle Excel** peut être téléchargé à l'adresse http://www.wmo.int/pages/prog/wcp/wcdmp/GCDS_2.php. En cas de problème, il est possible de suivre les modalités précédentes et d'utiliser l'ancien modèle, disponibles à la même adresse.

Veuillez noter que le format ASCII n'est plus proposé dans le cadre de ces nouvelles indications. De plus, de légères modifications techniques et rédactionnelles ont été apportées et quelques informations pratiques ont été ajoutées. Je vous invite à nous faire part de vos observations concernant ces nouvelles modalités d'ici au 30 septembre 2016 (voir ci-après). En fonction de vos remarques, il est prévu de publier la nouvelle marche à suivre avant la fin de l'année 2016 afin qu'elle puisse être appliquée en 2017, c'est-à-dire lors de la collecte des données pour l'année 2016.

Afin que les données relatives à l'Amérique du Nord, l'Amérique centrale et les Caraïbes soient publiées rapidement dans les *World Weather Records*, je vous saurais gré de faire parvenir votre contribution le plus tôt possible à:

M. Bryant Korzeniewski
NOAA's National Centers for Environmental Information (NCEI)
Center for Weather and Climate (CWC)
151, Patton Avenue, Room 515
Asheville, NC 28801-5001
États-Unis d'Amérique
Tél.: +1 828 271 4307
Fax: +1 828 271 4022
Courriel: gcos.ncdc@noaa.gov

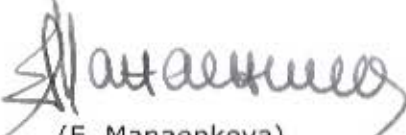
Vous pouvez également envoyer vos données à:

M. Peer Hechler (OBS/WIS/DMA)
Organisation météorologique mondiale
7 bis, avenue de la Paix
1211 Genève 2
Suisse
Tél.: +41 (0)22 730 82 24
Courriel: wcdmp@wmo.int

Je tiens à souligner qu'il est important de préparer ces données avec le plus grand soin, en respectant scrupuleusement les formats indiqués et en communiquant toutes les informations voulues relatives aux stations. Les métadonnées des stations représentent une partie essentielle des informations à communiquer et devraient systématiquement accompagner les listes de données.

Si vous souhaitez obtenir de plus amples informations, n'hésitez pas à prendre contact avec les responsables de la Division des applications de la gestion des données du SIO (M. Omar Baddour et M. Peer Hechler, à l'adresse wcdmp@wmo.int).

Veuillez agréer, Madame, Monsieur, l'expression de ma considération distinguée.


(E. Manaenkova)
pour le Secrétaire général

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

Version 2.0, May 2016, WMO/DMA/PH

Draft

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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 nine 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. The Sixteenth World Meteorological Congress, 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 formalized 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 E-mail 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 <http://www1.ncdc.noaa.gov/pub/data/wwr/>. 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 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 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.

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. 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-digit with leading 0 if applicable, right-justified
2	8-8	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	15-15	Hemisphere of latitude	N (Northern) or S (Southern)
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	23-23	Hemisphere of longitude	E (Eastern) or W (Western)
11	24-47	Name of country in English	Left-justified
12	48-71	Name of station in English	Left-justified
13	72-76	Height of station above sea level (whole meters)	Right-justified
14	77-83	Height of barometer above sea level (tenths of meters)	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-digit with leading 0 if applicable, right-justified
2	8-8	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 percent.
3	9-12	Year	4-digits
4	13-13	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
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	"0" (e.g., 1014.0 hpa should be "10140").
14	59-63	October	
15	64-68	November	If the temperature is negative, the 1 st value of the field should be "-" (e.g., -13).
16	69-73	December	
17	74-78	Annual	If precipitation is zero, the field should be "0". If there was trace precipitation, the field should be "T".

If data are missing for an entire year, then only complete Fields 1-4.

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.

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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 9's or -9's or tabs to represent missing data.

(a) Station Header Records

Station Header records contain 7 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
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

(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 percent). 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 1 st 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 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 basic parameters such as location and elevation. An example of station notes is given in ANNEX-IV.

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Annex I: Proposed Collection Mechanism By Region

Note: Members may choose to submit their WWRs through any of the below mentioned CBS Lead Centers for GCOS. Members are invited to notify WMO (wcdmp@wmo.int) should they decide to deviate from the below proposed scheme.

REGION	Countries (ENG)	Collection mechanism	Alternative
RA I	All Members of RA I	CBS Lead Center 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 Center for GCOS Asia, Japan (JMA); climatemonitor@met.kishou.go.jp	WMO, Geneva; wcdmp@wmo.int
RA III	All Members of RA III	CBS Lead Center for GCOS South America, Chile (DMC)	WMO, Geneva; wcdmp@wmo.int
RA 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
RA V	All Members of RA V	CBS Lead Center 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 Center for GCOS Europe, Germany (DWD); christiana.lefebvre@dwd.de	WMO, Geneva; wcdmp@wmo.int

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

Yearly Data Record

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

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		WMO Number	A	B	C	D	E	F	G	H	I	J	K																																																																	
				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		10076		10024		9987		10000		10087		10124		10161		10200		10266		10137																																																	
		99999	2	2013	10209		10209		10192		10101		10070		10068		10027		10040		10081		10158		10204		10266		10137																																																	
		99999	2	2014	10238		10168		10102		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)

[illegible]

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

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

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

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Blank		WMO Number		A		B		C		D		E		F		G		H		I		J		K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z		AA		AB		AC		AD		AE		AF		AG		AH		AI		AJ		AK		AL		AM		AN		AO		AP		AQ		AR		AS		AT		AU		AV		AW		AX		AY		AZ		BA		BB		BC		BD		BE		BF		BG		BH		BI		BJ		BK		BL		BM		BN		BO		BP		BQ		BR		BS		BT		BU		BV		BW		BX		BY		BZ		CA		CB		CC		CD		CE		CF		CG		CH		CI		CJ		CK		CL		CM		CN		CO		CP		CQ		CR		CS		CT		CU		CV		CW		CX		CY		CZ		DA		DB		DC		DD		DE		DF		DG		DH		DI		DJ		DK		DL		DM		DN		DO		DP		DQ		DR		DS		DT		DU		DV		DW		DX		DY		DZ		EA		EB		EC		ED		EE		EF		EG		EH		EI		EJ		EK		EL		EM		EN		EO		EP		EQ		ER		ES		ET		EU		EV		EW		EX		EY		EZ		FA		FB		FC		FD		FE		FF		FG		FH		FI		FJ		FK		FL		FM		FN		FO		FP		FQ		FR		FS		FT		FU		FV		FW		FX		FY		FZ		GA		GB		GC		GD		GE		GF		GG		GH		GI		GJ		GK		GL		GM		GN		GO		GP		GQ		GR		GS		GT		GU		GV		GW		GX		GY		GZ		HA		HB		HC		HD		HE		HF		HG		HH		HI		HJ		HK		HL		HM		HN		HO		HP		HQ		HR		HS		HT		HU		HV		HW		HX		HY		HZ		IA		IB		IC		ID		IE		IF		IG		IH		II		IJ		IK		IL		IM		IN		IO		IP		IQ		IR		IS		IT		IU		IV		IW		IX		IY		IZ		JA		JB		JC		JD		JE		JF		JG		JH		JI		JJ		JK		JL		JM		JN		JO		JP		JQ		JR		JS		JT		JU		JV		JW		JX		JY		JZ		KA		KB		KC		KD		KE		KF		KG		KH		KI		KJ		KK		KL		KM		KN		KO		KP		KQ		KR		KS		KT		KU		KV		KW		KX		KY		KZ		LA		LB		LC		LD		LE		LF		LG		LH		LI		LJ		LK		LM		LN		LO		LP		LQ		LR		LS		LT		LU		LV		LW		LX		LY		LZ		MA		MB		MC		MD		ME		MF		MG		MH		MI		MJ		MK		ML		MN		MO		MP		MQ		MR		MS		MT		MU		MV		MW		MX		MY		MZ		NA		NB		NC		ND		NE		NF		NG		NH		NI		NJ		NK		NL		NM		NN		NO		NP		NQ		NR		NS		NT		NU		NV		NW		NX		NY		NZ		OA		OB		OC		OD		OE		OF		OG		OH		OI		OJ		OK		OL		OM		ON		OO		OP		OQ		OR		OS		OT		OU		OV		OW		OX		OY		OZ		PA		PB		PC		PD		PE		PF		PG		PH		PI		PJ		PK		PL		PM		PN		PO		PP		PQ		PR		PS		PT		PU		PV		PW		PX		PY		PZ		QA		QB		QC		QD		QE		QF		QG		QH		QI		QJ		QK		QL		QM		QN		QO		QP		QQ		QR		QS		QT		QU		QV		QW		QX		QY		QZ		RA		RB		RC		RD		RE		RF		RG		RH		RI		RJ		RK		RL		RM		RN		RO		RP		RQ		RR		RS		RT		RU		RV		RW		RX		RY		RZ		SA		SB		SC		SD		SE		SF		SG		SH		SI		SJ		SK		SL		SM		SN		SO		SP		SQ		SR		SS		ST		SU		SV		SW		SX		SY		SZ		TA		TB		TC		TD		TE		TF		TG		TH		TI		TJ		TK		TL		TM		TN		TO		TP		TQ		TR		TS		TU		TV		TW		TX		TY		TZ		UA		UB		UC		UD		UE		UF		UG		UH		UI		UJ		UK		UL		UM		UN		UO		UP		UQ		UR		US		UT		UU		UV		UW		UX		UY		UZ		VA		VB		VC		VD		VE		VF		VG		VH		VI		VJ		VK		VL		VM		VN		VO		VP		VQ		VR		VS		VT		VU		VV		VW		VX		VY		VZ		WA		WB		WC		WD		WE		WF		WG		WH		WI		WJ		WK		WL		WM		WN		WO		WP		WQ		WR		WS		WT		WU		WV		WW		WX		WY		WZ		XA		XB		XC		XD		XE		XF		XG		XH		XI		XJ		XK		XL		XM		XN		XO		XP		XQ		XR		XS		XT		XU		XV		XW		XX		XY		XZ		YA		YB		YC		YD		YE		YF		YG		YH		YI		YJ		YK		YL		YM		YN		YO		YP		YQ		YR		YS		YT		YU		YV		YW		YX		YY		YZ		ZA		ZB		ZC		ZD		ZE		ZF		ZG		ZH		ZI		ZJ		ZK		ZL		ZM		ZN		ZO		ZP		ZQ		ZR		ZS		ZT		ZU		ZV		ZW		ZX		ZY		ZZ	

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

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
A		B	I		J		K																																																																						
Blank	WMO Number	*	Year	#	January	February	March	April	May	June	July	August	September	October	November	December	Annual																																																												
	999999	8	2011		57	62	31	46	44	63	68	71	63	73	56	42	56																																																												
	999999	8	2012		42	43	36	45	49	64	68	74	66	56	46	65	55																																																												
	999999	8	2013		50	52	56	50	62	56	71	67	73	59	64	42	59																																																												
	999999	8	2014		41	36	34	40	44	54	67	65	60	54	49	48	56																																																												
	999999	8	2015		41	47	31	34	48	60	66	73	59	50	45	36	49																																																												
	999999	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: DDMSSS (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 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

(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)

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[illegible]

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

Precipitation:

The daily values were measured at 0900 hours GMT.