

Report on Routeing and Monitoring of CLIMAT bulletins CBS Expert Team on WIS-GTS Operation and Implementation (ET-OI)

Version History and Distribution

Version	Date	Change/Comments	Distribution
0.1	10/03/2010	Summary of progress and findings of major errors for CLIMAT bulletins received in March 2010	Pierre Kerherve Richard Thigpen
0.2	12/03/2010	Added comments from Pierre Kerherve and reference documents	RTH Focal Points Pierre Kerherve Richard Thigpen Miroslav Ondras Carolin Richter Kevin Smith (Lead Centre RA V) Bruce Stewart (National Focal Point for GCOS, Australia)
0.3	18/03/2010	Revised document for briefing to CBS-MG-XI	Pierre Kerherve Sue Barrell

Reference Documents

No.	Document Name and version	Date/Author	File Name and Location
1.	Deficiencies in the application of the WMO standards for the presentation of the CLIMAT and CLIMAT TEMP bulletins	December 2004 Dr Anatoly Laptev	http://www.wmo.int/pages/prog/www/WDM/Documentation/Deficiencies-CLIMAT_CL-TEMP.pdf
2.	Handbook on CLIMAT and CLIMAT TEMP Reporting, WMO/TD No. 1188	2004 WWW, WMO	http://www.wmo.int/pages/prog/www/O/SY/Publications/TD1188/HandbookCLIMAT-CLIMATTEMP_en.pdf
3.	Practical help for compiling CLIMAT reports, WMO/TD No. 1477	March 2009 GCOS, WMO	http://www.wmo.int/pages/prog/gcos/Publications/GCOS-127_EN.pdf

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SUMMARY

The routing issues of CLIMAT bulletins were brought to the notice of ET-OI in May/June 2009 from GCOS Secretariat. In coordination with other RTH Focal Points immediate actions were taken at WMC Melbourne to investigate possible routing issues for the identified bulletins. The GTS has come a long way from the days of point-to-point circuits to cloud-base networks. The traditional practice of routing based on source is becoming less relevant and could cause problems if the bulletins come from other sources, e.g GCOS Monitoring Centres in Germany where CLIMAT bulletins received from inter-regions are compiled and delivered from RTH Offenbach.

The solution recommended by ET-OI was to 'spray' all CLIMAT bulletins among MTN centres in order to eliminate routing issues at individual RTH centres. With effect from 1 July 2009 Melbourne commenced 'spraying' all the CLIMAT bulletins to the MTN centres connected to WMC Melbourne. Significant improvements were noticed in the data receipt of CLIMAT bulletins at the GCOS Monitoring Centres in Germany and Japan since July 2009 (Table 2-1). There were some problems in September and October 2009 and the data receipt numbers dropped slightly but they were attributed to the internal problems at NCDC and CMC, Canada. Both incidents had nothing to do with routing issues at RTH centres. The numbers increased in November 2009 but dropped slightly in December 2009 and January 2010 albeit by a small percentage in comparison with numbers before July 2009. This indicated that there are still some other ongoing problems beyond routing issues.

Attempts were made in February and March 2010 to monitor the encoded CLIMAT messages received in WMC Melbourne and document the pattern of errors detected by the decoder. It is not surprising to know that there has been lots of encoding errors found in the CLIMAT bulletins. This is likely to be one of the reasons why the reports did not make their way to NCDC and the GCOS Monitoring Centres. This report summarised the errors consistently made by some of the originating centres. Please note that this is not a complete list of all the errors. Attention is concentrated on the major errors with the highest number of reported errors detected by the decoder operated in WMC Melbourne. The report is based on the February CLIMAT reports collected for the first 8 days received in March 2010 and supplemented by similar January CLIMAT reports received in February 2010..

ET-OI Chair has contacted some of the centres where major problems are found and he will continue to resolve some of the problems reported for countries in Region V. Some discussions were made with GCOS and WMO Secretariat with respect to the current GCOS model in dealing with data monitoring of CLIMAT message bulletins. The GCOS/CBS groups with a role in this matter include the following:

GCOS Monitoring Centres in Germany and Tokyo
CBS Lead Centre for GCOS
MTN/RTH centres and NMCs responsible for distribution of the bulletins
CBS ET-OI (delivery and routing issues)
CBS IPET-DRC (code forms and migration to BUFR)

Some comments on the current model are:

- There is not much link between GCOS groups and CBS groups in the past until GCOS Secretariat Richard Thigpen first contacted Chair of ET-OI in May/June 2009
- Annual reports from GCOS Monitoring Centres does not provide immediate mechanisms to resolve operational problems
- Limited input from CBS Lead centres possibly due to limited scope of its Terms of Reference
- No immediate feedback to NMCs consistently making the same encoding errors
- Insufficient coordination between groups responsible for bulletin compilation and data distribution within the National Meteorological Service

The findings of this report indicated that it appears to be a misconception to consider routing issues as the main contributing factor that caused data reception problems of CLIMAT bulletins on GTS whereas the deficiencies in the presentation of the CLIMAT encoded reports in the bulletin have been overlooked. The report recommended a review of the activities of the GCOS Monitoring Centres and CBS Lead Centres for GCOS to align their monitoring activities in coordination with RTH centres.

1 Background

The purpose of this report is to present the findings of the investigation conducted on the data receipt anomalies as noticed in the monthly data monitoring products compiled by the GCOS Monitoring Centre in DWD, Germany. The problem was first brought to the notice of ET-OI Chair in May/June 2009. The intention of this report is to seek the cooperation of RTH Focal Points to rectify the problems as identified for the CLIMAT bulletins originated at their centres and to coordinate with the NMCs involved in their zone of responsibility

2 Routeing Issues

In coordination with other RTH Focal Points immediate actions were taken at WMC Melbourne to investigate possible routeing issues for the bulletins identified as received at the GSN Monitoring Centre but not at NCDC. According to the reports of the CBS Lead Centres for GCOS and the monitoring centres at DWD, JMA and NCDC, which is also the GCOS archive centre, they have consistently complained about data receipt problems and the receipt of data at the centers is not consistent. The monitoring centers at DWD and at JMA report the receipt of CLIMAT reports each month and for years DWD has always received substantially more reports. Figure 2-1 is a sample of the monthly monitoring products prepared by GSNMC Germany and the diagrams displayed the percentage of data receipt of CLIMAT reports collected at GSNMC Germany and Japan for the GSN stations (1025 stations as of 1 January 2009) averaged over the 12-month period May 2008 to April 2009. There has been a pattern of anomaly in data receipt between the two centres repeated every month with differences in South America and in southern Africa.

As reflected in the GCOS GSNMC Monitoring Reports¹ there has been a consistent discrepancy in data receipt of CLIMAT bulletins at the Monitoring Centres at DWD, JMA and NCDC. According to the assessment at GCOS from the GSNMC performance reports and the WMO AGM and SMM results the data receipt rate for CLIMAT is around 80%. As discussed among the RTH Focal Points it is evident that not all missing data is due to GTS problems as many stations are simply not reporting. However, assessment at GCOS in the past suggested that about 5% of the stations are actually not reporting. They have indicated that the performance of the GTS might be a major contributor for the rest of the data loss.

In order to resolve the problems of routeing for the CLIMAT bulletins (TTAAii=CS****) at MTN/RTH centres the solution recommended by ET-OI Chair was to 'spray' all CLIMAT bulletins among MTN centres. Suggestion was made for MTN centres in Melbourne, Tokyo, Washington and possibly Exeter to implement the spraying concept for "CS" bulletins, i.e. Melbourne will spray all "CS" bulletins received from Exeter to Washington and Tokyo, and similarly all "CS" bulletins received from Tokyo will be sprayed to Washington and possibly Exeter if it is agreeable to them. Currently the "MTN spray" implemented in WMC Melbourne is limited to some parts of the SYNOP bulletins SMxx[01..19] on the incoming UK, US and Japan "Alphanumeric" circuits. Melbourne is no longer doing the "spray" to Exeter as they had requested Melbourne to stop this practice some time ago.

The effect of 'spraying' will certainly increase the flow of CLIMAT bulletins to Tokyo and Washington and eliminate the data receipt discrepancy between GSNMC at DWD and JMA. However, the MTN centres will need to organise a number of things and seek the agreement of participating centres before implementing the spraying of messages between MTN centres. The ability to identify and remove duplicates, removal of implicit switching addresses and making sure that messages are not returned to originating centres are all necessary procedures before implementing 'spraying' of bulletins. The agreement between participating centres is also important because there will always be some centres not able to implement some of the procedures as they involve some additional work and it can cause some problems if not done properly.

With effect from 1 July 2009 Melbourne commenced 'spraying' all the CLIMAT bulletins to the MTN centres in Tokyo and Washington. Significant improvements were noticed in the data receipt of CLIMAT bulletins at the GCOS Monitoring Centres in Germany and Japan since July 2009. The numbers of CLIMAT reports received for GSN stations at the GSNMC centres in Germany and Tokyo for each month since July 2009 are given in Table 2-1.

¹ <http://www.gsnmc.dwd.de/>

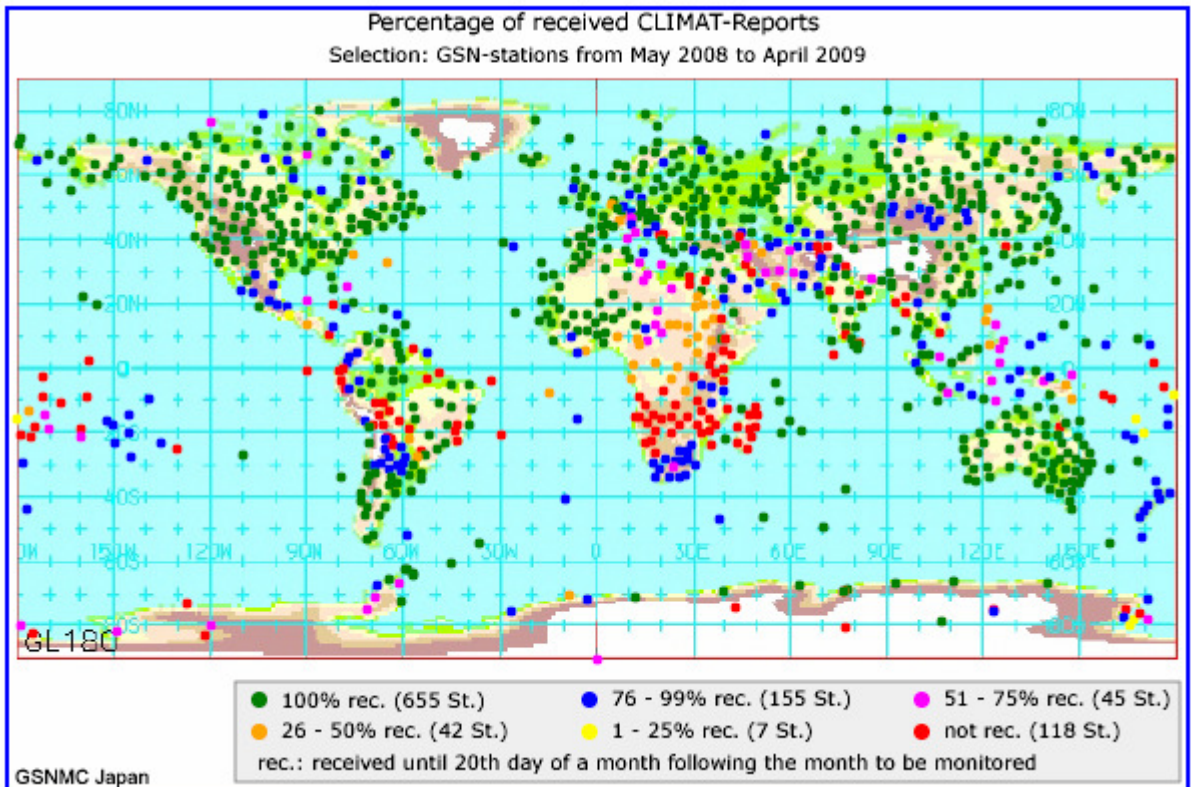
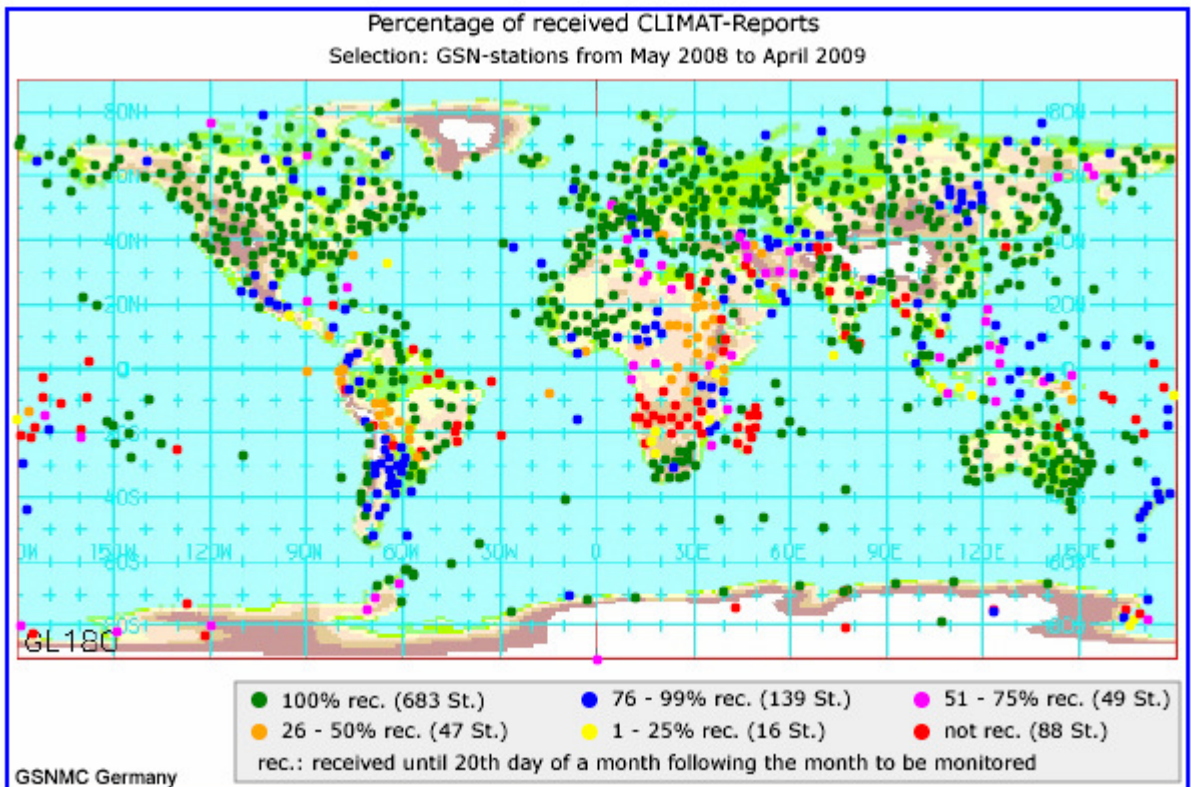


Figure 2-1. Comparison of data receipt of CLIMAT reports collected at GSNMC Germany and Japan for GSN stations, May 2008 to April 2009

Table 2-1. Comparison of data receipt of CLIMAT reports received for GSN stations at the GSNMC centres in Germany and Tokyo

Year	Month	DWD	JMA
May 2008 – Apr 2009		683	655
2009	Jul	881	880
	Aug	873	866
	Sep	809	792
	Oct	803	799
	Nov	904	891
	Dec	883	877
2010	Jan	863	860

There were some problems in September and October 2009 and the data receipt numbers dropped slightly but they were attributed to the internal problems at NCDC and CMC, Canada. Both incidents had nothing to do with routing issues at RTH centres. NCDC took over the responsibility for the generation of CLIMAT bulletins from Climate Prediction Centre (CPC) in October 2009 for the first time. The US CLIMAT bulletins CSXX[02-09] KWNO delivered for the month of September were found missing the code name (CLIMAT) and month/year (MMJJJ) groups in all bulletins except CSXX01 KWNO. The error was in the body of the encoded message and as far as GTS transmission is concerned most RTH centres will on forward the messages without noticing the error. However, the messages would have encountered decoding problems and rejected by most systems.

The Canadian CLIMAT bulletins CSCN(10-19) CWAO for October 2009 were not received on GTS until 25 November 2009. The delay was acknowledged to be some internal problems at CMC Canada. Unfortunately, this is well after the cut off day of the GSNMC processing date at Offenbach and Tokyo. As expected the data receipt of CLIMAT reports for the GSN stations displayed in Figure 2-2 and Figure 2-3 for both incidents in September and October 2009 produced by GSNMC Germany indicated a complete missing of CLIMAT reports for the US and Canadian stations. The two incidents are typical examples for which GTS routing is not a factor and the incidents such as encoding problems or messages simply not being sent from the source compiling centres are beyond the control of RTH/MTN centres.

The numbers increased in November 2009 but dropped slightly in December 2009 and January 2010 albeit by a small percentage in comparison with numbers before July 2009. This indicated that there are still some other ongoing problems beyond routing issues.

3 Delivery of bulletins via email

The delivery of bulletins via email has become a common practice for some countries especially where direct access to GTS is not possible. The GSNMC in Germany has been collecting CLIMAT reports for many countries and deliver compiled bulletins on GTS. The NWS Email Data Input System² (EDIS) is another software application that allows designated meteorological data providers the capability to input weather bulletins to the National Weather Service Telecommunication Gateway (NWSTG) via email.

The direct email transmission of CLIMAT bulletins from NMCs to the GCOS Monitoring Centre in Offenbach is likely to be a contributing factor that caused loss of data at some RTH centres for a number of reasons. It is possible that this is also part of the reason that caused the on-going discrepancy of data reception between GSNMC Offenbach and Tokyo.

Several investigations into the loss of data originated from RTH Offenbach indicated that there is a major problem particularly for CLIMAT bulletins whenever there is a discrepancy between the date/time (YYGGgg) indicated in the abbreviated header of the bulletin and the actual time when the

² <http://www.nws.noaa.gov/tg/emailingest.html>

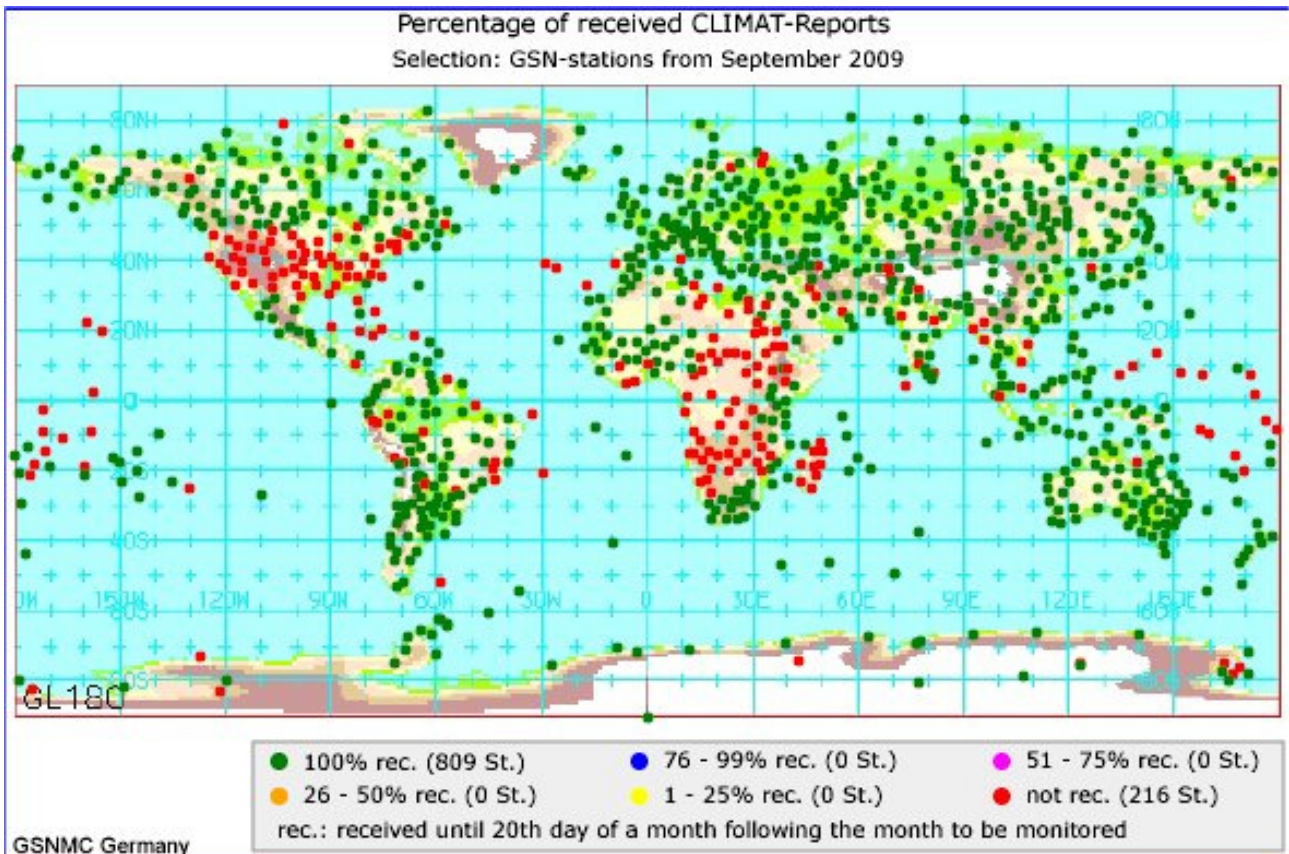


Figure 2-2. Data receipt of CLIMAT reports collected at GSNMC Germany for September 2009 (Note that most NWS stations are missing)

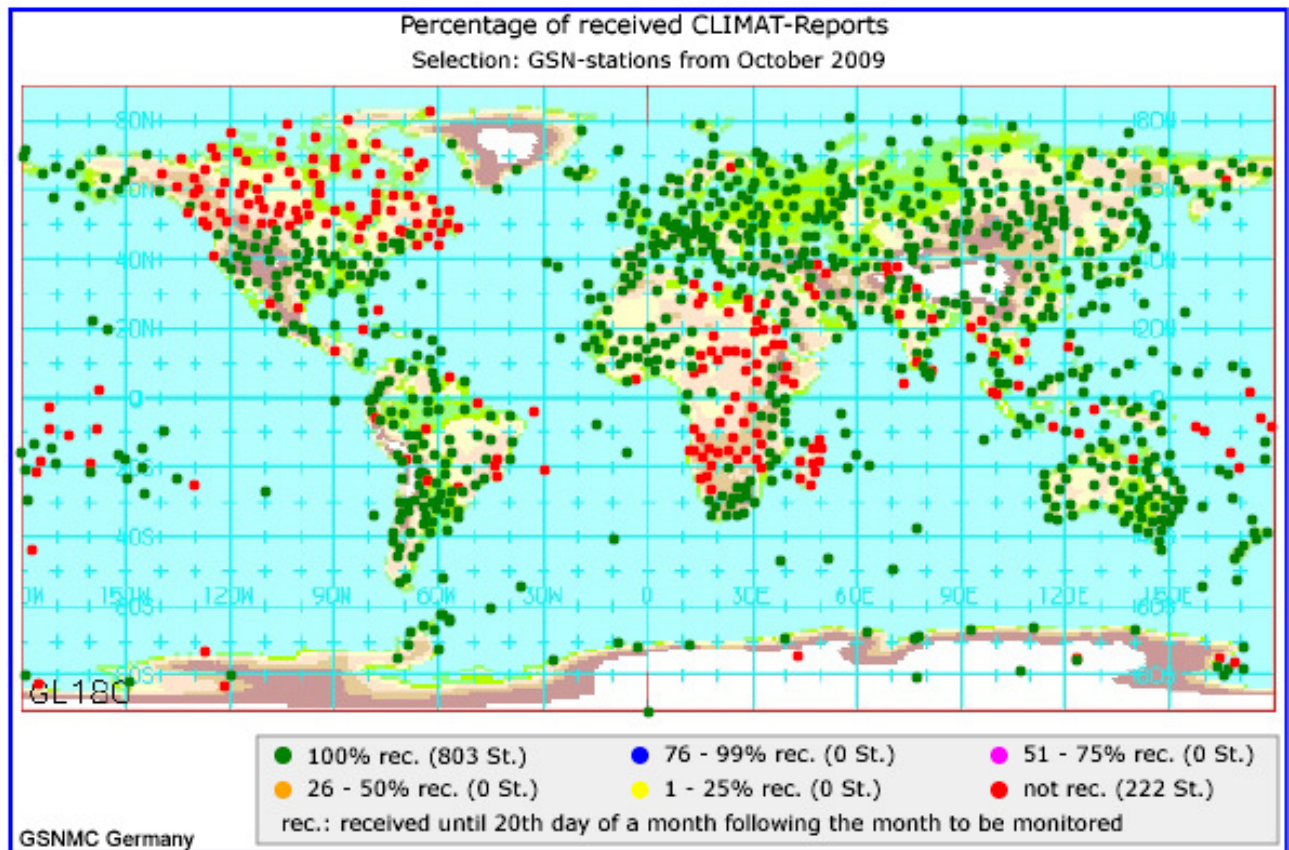


Figure 2-3. Data receipt of CLIMAT reports collected at GSNMC Germany for October 2009 (Note that all Canadian stations are missing)

bulletin is transmitted on GTS. This is also a common error made by some RTH centres when late reports and corrections are re-transmitted at a different date/time using the same header date/time when it was first transmitted earlier in the month. This may cause problem at some RTH centres which reject all bulletins more than one day old. Furthermore, this is against the practice as described in the Manual on the GTS³. Para. 2.3.2.2 stipulates how the international date/time group (YYGGgg) should be used for various bulletins. For CLIMAT bulletins the date/time shall be the time of compilation in UTC.

As an example the CLIMAT reports for New Zealand (CSNZ01 NZKL) is compiled by the National Institute of Water and Atmospheric Research (NIWA). They compiled and delivered the CLIMAT bulletin to RTH Wellington for transmission on GTS up until July 2008. They were then asked by the GCOS Monitoring Centre in DWD Offenbach to email the bulletin to them, at which time they stopped sending the bulletin to RTH Wellington without consultation to New Zealand Meteorological Service. Unfortunately when the bulletins came on GTS from RTH Offenbach they used to be several days after the date/time (YYGGgg) indicated in the header. As a consequence most of the New Zealand CLIMAT bulletins were rejected when they went through the Message Switch System in RTH Exeter which rejected all messages more than one day old.

Furthermore the routing tables at RTH centres are organised assuming the normal path of transmission for bulletins from the RTH centres which normally collect the reports from the NMCs or stations in their zone of responsibility. The direct email delivery to Offenbach by-passing the responsible RTH centre has upset this arrangement and possibly resulted in bulletins not being transmitted by some RTH centres not expected to receive the bulletins. In order to guarantee appropriate delivery on GTS the centres responsible for compiling the bulletin should contact the responsible RTH centres if there are changes in data distribution procedures. Testings should be conducted to confirm appropriate GTS procedures are adhered to and message switching arrangements are made for intended recipients.

There is no suggestion for the GCOS Monitoring Centre in Offenbach to refrain from using emails for collection of CLIMAT reports as for some countries this may be the only mechanism available for them to deliver their reports on GTS. However, the GCOS Monitoring Centres should work closely with the RTH Focal Points and make sure that problems described above will not occur. This is potentially a routing issue but it can be avoided if managed properly by the experts from both the GCOS and CBS groups.

4 Presentation of CLIMAT bulletins and encoded messages

Attempts were made in February and March 2010 to monitor the encoded CLIMAT messages received in WMC Melbourne and document the pattern of errors detected by the decoder. In 2004 WMO conducted a similar analysis based on the results of two Special MTN Monitoring exercises in April and October 2004. A report⁴ was published that described some of the deficiencies in the presentation of CLIMAT and CLIMAT TEMP bulletins. A letter was sent to WMO Members to mitigate the deficiencies. At the same time WMO also issued a handbook for CLIMAT and CLIMAT TEMP reporting⁵ (WMO/TD No. 1188) that includes guidance for the WMO Members to prepare and format CLIMAT reports and bulletins. Since then GCOS also provided other documents that provided practical help for compiling CLIMAT reports⁶.

It is not surprising to know that there has been lots of encoding errors found in the CLIMAT bulletins. This is likely to be one of the reasons why the reports did not make their way to NCDC and the GCOS Monitoring Centres. The Appendix in this report has listed the major errors consistently made by some of the originating centres. It should be noted that this is not a complete list of all the errors. Attention is concentrated on the major errors with the highest number of reported errors detected by the decoder operated in WMC Melbourne. The report is based on the February CLIMAT reports collected for the first 8 days received in March 2010 and supplemented by similar January CLIMAT reports received in February 2010.

³ http://www.wmo.int/pages/prog/www/TEM/GTS/ManOnGTS_en.html

⁴ http://www.wmo.int/pages/prog/www/WDM/Documentation/Deficiencies-CLIMAT_CL-TEMP.pdf

⁵ http://www.wmo.int/pages/prog/www/OSY/Publications/TD1188/HandbookCLIMAT-CLIMATTEMP_en.pdf

⁶ http://www.wmo.int/pages/prog/gcos/Publications/GCOS-127_EN.pdf

ET-OI Chair has contacted some of the centres where major problems are found and he will continue to resolve some of the problems reported for countries in Region V. A summary of the common errors found in the presentation of CLIMAT bulletins and the encoded messages are listed as follows:

Region I

RTH Pretoria, Mauritius, Vacoas

CSMA01 FIMP

Texts for station name, month and year are inserted in the coded message. Other texts of disclaimer notice and virus checker are appended at the end of the message. Occasionally messages are re-sent removing parts of the text but not all of the texts are removed.

RTH Dakar, Mauritania, Nouakchott

CSMT01 QNN

CCCC inserted between code name CLIMAT and MMJJJ

No end of report indicator '=' for NIL report

RTH Dakar, Senegal, Dakar

CSA002 GOOY

Incorrect MMJJJ (0204) and coding errors found in almost every report

Region II

RTH Bangkok, Lao People's Democratic Republic, Vientiane

CSLA01 VLIV

Encoded month and year MMJJJ given as 02/2010

MMJJJ should be coded as 02010

Section 222 group 6 should only have 6 code figures

Section 222 group 7 should only have 3 code figures

RTH Tashkent, Kazakhstan, Almaty

CSKZ10 UAAA

CCCC inserted between code name CLIMAT and MMJJJ

No end of report indicator '=' for NIL report

RTH Jeddah, Oman, Muscat/Seeb

CSOM10 OOMS

Multi-part segmented bulletins are found. The second and third segments of the bulletin do not contain the code name and MMJJJ which are important for the decoders to identify the message type and year/month of the CLIMAT reports.

The bulletin received from New Delhi is a full message bulletin without segmentation. However, message bulletins received from Tokyo and Exeter are multi-part segments with no BBB indicator PPA, PPB, PZC but with additional texts '//END OF PART 01//', '//END OF PART 02//' and '//END OF PART 03/03//'

Most stations reported in the bulletin are not described in WMO Volume C1. Stations listed in WMO Volume C1 are 41256, 41268, 41288, 41314, 41316

Region III

RTH Buenos Aires, Bolivia, La Paz

CSBO01 SLLP

Code name given in lower case is potentially a problem to some decoders which only identify upper case code name 'CLIMAT'

Region V

RTH Melbourne, Australia, Melbourne

CSAA01 AMMC

CSAU(01-10) AMMC

Incomplete Section 333 with only the group identifier but no other code figures. Sections with no data should be omitted.

RTH Melbourne, Indonesia, Jakarta

CSID01 WIIX

Coding errors found in almost every report and consistently making a lot of the following errors:

1. The character 'X' is used in Group 6 (rainfall) in Section 111 when quintile is not reported.
2. The Groups 6 and 7 (rainfall and sunshine) in Section 222 are found to be encoded in the same way as Section 111. The number of coding figures for Groups 6 and 7 in Section 222 is not the same as Section 111.
3. Section 444 requires the reporting of day(s) of occurrence of the event. A lot of the reports do not give the day of occurrence of the event and '/' is not encoded in the group.
4. Sections with no data should be omitted, e.g. Section 222. There are no provisions in the CLIMAT code form to indicate 'NIL' Sections. Characters 'NIHIL', 'N I H I L', 'NIL' and 'N I L' inserted in sections with no data are invalid.

RTH Melbourne, New Caledonia, Noumea
CSNC01 NWBB

Section 444 group 7 – The group 7_{1y}G_xG_xG_nG_n is for reporting measurement practice, and time of reading of max/min temperature. Non numeric invalid character '-' is consistently seen to be used in the group for every month

RTH Melbourne, Philippines, Manila
CSPH01 RPMM

Incorrect MMJJJ=06010 which indicates June 2010

RTH Melbourne, Tuvalu, Funafuti
CSTV01 NGFU

Tuvalu has been sending CLIMAT report to Melbourne and Wellington by email using some unidentified special codes. It looks like WMO station number (Iliiii) is reported in the first group with no WMO block number 91 and only station number 636, 643, 648 are reported. The month of the year is reported after station number (iii)

RTH Melbourne, Papua New Guinea (PNG), Port Moresby
CSNG01 AMMC

PNG CLIMAT reports are delivered by email to RTH Melbourne with no abbreviated header (TTAAii CCCC). The reports also included some plain text with headings, station names and end of message indicator 44777 which are not part of the FM-71XII CLIMAT code form.

CLIMAT bulletin CSNG01 AMMC is compiled by RTH Melbourne for distribution on GTS

CLIMAT reports for 92004, 92022, 92035, 92044, 902072, 902076, 92087, 92100 are not compiled in CSNG01 AMMC possibly due to problems encountered in parsing the reports when end of report indicator '=' is not detected in the original message bulletin submitted by PNG.

The CLIMAT reports compiled for 92014 and 92047 in CSNG01 AMMC incorrectly included the station name of the next report in the original message.

Region VI

RTH Norrkoping, Lithuania, Vilnius
CSLT10 EYHM

Code name CLIMAT and MMJJJ are missing
CSLT10 EYHM is not found in WMO Volume C1

RTH Moscow, Georgia, Tbilisi
CSGG10 UGGG

CSGG10 UGGG 010827 is an invalid CLIMAT message

MMJJJ = 023 is invalid and the section indicator is missing

Encoded values in CSGG10 UGGG 010827 and CSGG10 UGGG 010832 are different

Section 111 group 3 - missing standard deviation not encoded as '///'

Section 111 group 4 - max/min temp group missing one '/'

RTH Rome, Italy, Rome
CSY01 LIIB

Encoded month and year MMJJJ given as '0201:'

MMJJJ should be coded as 02010

Errors are also found in the mean daily max/min temperature (Group 4) in Section 111 with invalid characters '-'

RTH Rome issued altogether 55 CLIMAT bulletins on 5 March 2010 as follows:

1 CLIMAT bulletin CSY01 LIIB 051200 with 32 reports

22 CLIMAT bulletins CSIY01 LIIB 051200 with BBB indicators RRA ... RRV consisting mostly one single report in the bulletin.

30 CLIMAT bulletins CSIY01 LIIB 051200 with BBB indicator RRW consisting mostly one single report in the bulletin.

Too many single-report bulletins using the same YYGGgg can cause problems as the BBB indicators RRA ... RRW will only give 23 unique abbreviated headers TTAAii CCCC YYGGgg [BBB].

Same problems also happened for CSIY01 LIIB for January 2010 when MMJJJ was given as '0101:'

RTH Sofia, Yugoslavia, Beograd

CSYG01 LYBM

YYGGggZ inserted between WMO number and 'NIL=' for every NIL report

RTH Sofia, Syrian Arab Republic, Damascus

CSSY01 OSDI

Encoded month and year MMJJJ are incorrect and given as 022010

MMJJJ should be coded as 02010

Section 111 missing for stations 40022, 40045

Region VII

RTH Buenos Aires in RA III, Antarctic, Base Marambio

CSAA01 SAWB

Code name 'cLIMAT' given in mixed case is potentially a problem to decoder. Same problem happened in previous months.

Regions I and VI

CLIMAT bulletins received from RTH Algeria and Offenbach are found to be using Section 555 and Section 666 for their CLIMAT reports. The groups are likely to be national exchange coding groups. Section 555 is most commonly used and section 666 is also found occasionally.

Section 555 is found in the following bulletins:

CSAL(01,02,03,04,20,21) DAMM

CSDL(01,02,03,04, 45,46,47,48) EDZW

Some description in FM-71XII CLIMAT to indicate that Section 555 and 666 as national exchange groups would be appropriate.

5 APPENDIX – Major Encoding errors

Samples of encoding errors found in CLIMAT bulletins received in March 2010 for the CLIMAT reports compiled for February 2010. (Messages with encoding errors are marked in red)
Prepared by Kelvin Wong, RTH Focal Point, Melbourne, March 2010

5.1 Region I

RTH Nairobi, Kenya, Nairobi

Code name 'CLIMAT' is missing and replaced by numbers '09006'

562

CSKN01 HKNC 100600

09006 02010

63624 111 19853 20107 30327009 403740260 5208 60110/02 9000028

333 02827 12700 22800 3//01 40101 50100

444 0035819 1023728 2039219 3021228 4108127 5301822 60100=

63740 111 18390 21506 30228014 402730161 5168 60097/05 9000028

333 02601 22800 3//04 40301 8010000 9000001

444 0025502 1019006 2030202 3012110 4050119 5302005 60500=

63612 111 19532 20085 30311021 403710251 5199 60007/01 7239093

333 02828 126003//01 8010000

444 0032820 1028228 2038819 3021702 4005928 5302023=

63723 111 19930 20097 30302009 403720251 5243 60006/01 9000028

333 02828 127003//01 8010000

444 0032819 1030401 2028726 3023710 4005927 5302013=

63820 111 10044 20111 30290010 403310249 5276 9000028

333 02828 20028 8050000

444 0029927 1028314 2034618 3023502 5302251 60100=

63661 111 18170 21522 30206018 401770134 5163 60137/10 7167074 9000002

333 02605 22800 3//06 40500 8020000

444 0022814 1017926 2031603 3010651 4036116 5302323 61400=

RTH Pretoria, Mauritius, Vacoas

Texts for station name, month and year are inserted in the coded message. Other texts of disclaimer notice and virus checker are appended at the end of the message. Occasionally messages are re-sent removing parts of the text but not all of the texts are removed.

991

CSMA01 FIMP 030500

CLIMAT 02010 61974 DATA FOR AGALEGA, FEBRUARY 2010

111 10095 20100 30283008 403200246 5314 60247315

7206095 8000000 9000000

222 07100 10088 20093 30274008 403070241 5308

6024816 7195 8000000 9000000

333 00127 30801 40302

444 0029713 1026015 2023311 3023024 4071714

60500 711206=

61986 DATA FOR SAINT BRANDON

111 10099 20103 30293006 403230270 5320 60110212

7//// 8000000 9000028

222 07100 10093 20097 30279008 403050255 5307

6017913

333 00325 30800 40400 8040000

444 0030162 1027968 2034811 3024618 4032324 5430066

60300 711206=

61988 DATA FOR RODRIGUES

111 10054 20117 30281007 403050257 5307 60169311

7248105 8000000 9000000

222 07100 10049 20112 30266007 402930238 5280

6018513 7237 8000000 9000000

333 00622 30502 40301 8030000

444 0029306 1025720 2032607 3023920 4058220 5450420

60100 711206=

61990 DATA FOR PLAISANCE

111 10056 20119 30276007 403070244 5307 60267422

7195095 8000000 9000000

222 07100 10050 20109 30262008 402950231 5282

6026716 7205 8000000 9000000

333 00325 31004 40602

444 0029103 1036009 2032703 3022702 4075210 5427817

60700 711206=

61995 DATA FOR VACOAS

111 19641 2//// 30253007 402890223 5278 60264218

7213108 8000000 9000000

222 07100 19631 2//// 30240007 402750207 5251

6040018 7194 8000000 9000000

333 02602 30802 40700 50100

444 0026505 1023810 2030605 3020501 4058816 5431304

60900 711206=

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RTH Dakar, Mauritania, Nouakchott

CCCC inserted between code name CLIMAT and MMJJJ
No end of report indicator '=' for NIL report

345
CSMT01 GQNN 020900
CLIMAT GQNN 02010
61450 111 19676 21012 30276/// 40347180 5952 60000500 7//////// 8000000
9000031
333 02828 11201 20000 30000 40000 50000 8000000 9000000
444 0032328 1022815 2041027 3014009 4000000 50//////// 60000=
61461 NIL
61489 111 10125 20132 30284/// 403750198 5108 60000500 7////////
8000000 9002828
333 02828 12109 20000 30000 40000 50000 8000000 9000001
444 0033625 1023114 2044226 3015712 4000000 53016005 60000=
61492 111 10132 20151 30299/// 403760227 5089 60000400 7////////
8000000 9000028
333 02827 12207 20000
444 0535323 1022414 2042576 3016015 4000000 5300000 60000=
61498 111 19957 20104 3030325 40389200 5107 6000000 7////////
8000000 9000028
333 02828 12708 20000 30000 40000 50000 8000000 9000000
444 0034927 1026615 2040428 3016010 4000000 50//////// 60000=
61497 111 1///// 29859 30304/// 403770233 5072 6000000 7//////// 8280000
9000028
333 02828 12406 20000 30000 40000 50000 60000
444 0036928 1026509 2044028 307909 4000000 5300000 60000=
61499 111 19857 20101 30296/// 403600225 5684 60000500 7////////
8000000 9000028
333 02828 12203 20000 8000000 9000000
444 0034127 1026908 2043026 3019008 4000000 530000 60000=

RTH Dakar, Senegal, Dakar

Incorrect MMJJJ (0204) and coding errors found in almost every report

84678
CSAO02 GOOY 040000
CLIMAT 0204
61202 NIL=
61214 NIL=
61223 NIL=
61226 NIL=
61230 NIL=
61233 NIL=
61240 NIL=
61250 NIL=
61257 NIL=
61265 NIL=
61272 NIL=
61277 NIL=
61291 NIL=
61293 NIL=
61701 NIL=
61766 111 10058 201000 30235/// 403630196 5198 60000/00 9//00//
333 02828 12200 20000 30000 40000 50000 8000000 9000000
444 00//////// 10//////// 2039033 3017013 40000// 54000///=
61769 NIL=
61666 111 10100 20108 30282028 40360172 5180 60000200 7257// 8000000
9000000
222 07100 10107 20117 403590174 5113 6000000 70009 8000000
9000000
333 02828 12409
444 0033524 0023815 2043325 3011768=
61697 111 10096 20116 30245/// 403860172 5219 60000/00 7235///
8000000 9000000
333 0000008 11406 20000 30000 40000 50000 8000000 9000000
444 0026907 1022214 2038000622 3017000213 4000000 5400000
60000=
61698 111 10092 20103 30284020 403970190 5186 6000000 7215/// 8000000
9000000
222 07120 10098 20109 30//////// 403720159 5125 6000000 7//
8000/// 9000000
333 02828 12813 20000 30000 40000 50000 8000000 9000000
444 032822 1025313 204228 3014512 4000000 5000000 60000 711806=
61699 111 19888 20073 30309/// 40388230 5188 60000500 72406///
8000000 9000000
333 02828 12807 2TNTN00 30000 40000 50000 80000 9000000
444 0038928 1028618 2042228 3019303 4000000 50000 60000=

275
CSAO01 GOOY 040000
CLIMAT 0204
08521 NIL=
08524 NIL=
08583 NIL=
08594 NIL=
61017 NIL=
61027 NIL=
61036 NIL=
61043 NIL=
61045 NIL=
61049 NIL=
61052 NIL=
61075 NIL=

61080 NIL=
61091 NIL=
61696 NIL=
61699 NIL=
61600 111 10113 20118 30241005 40320177 5183 60000500 726167 8000000
900000//
222 07100 10126 20131 302450 13403230168 5128 600201 7238
8000000 9000000
333 02718 11205 20000 30000 40000 50000 8000000 9000002
444 0033824 10238 142043225 3011915 400000 5//////// 60000=
61612 111 10106 20114 30277036 403740189 5124 60000300 7253//
8000000 9000000=
61627 111 1///// 2///// 290031 403820175 5106 60000300 7//////// 8280000
9000017
333 00006 11309 20000 30000 40000 50000 8//////// 9000000
444 0033824 10238 142043225 3011915 400000 5//////// 60000=
61630 111 10082 20101 30297/// 403930201 5154 60000200 7248098
8000000 9000000
222 00190 1///// 20112 30//////// 4032600176 509160001// 72520
8000000 9000000
333 52828 12511 30000
444 0034225 1025115 2044328 3015509 4000000 60000=
61641 111 10107 20119 302223014 402700190 5205 60000300 7282088
8000000 9000000
222 07100 10093 20127 30209013 402460173 5176 6000000 7008
8000100 9010000
333 02305 10100 20000 30000 40000 50000 801000 9000001
444 026007 1020813 2035106 3017328 4000000 5101004 60000=
61679 111 10107 20116 30291018 403860207 5181 60000100 7240094
8000000 9000000
222 07100 10126 20132 30260012 403440176 5112 6000100 8000000
9000000
333 03131 12700 2TNOTNOO 30000 40000 50000 9000000
444 0029331 1024327 2034917 3015426 4000000 60000=
61687 111 10104 20109 30305199 403930202 5126 60000300 7251100
8000000 9000000
222 07100 10051 20108 30281// 40367200 5084 6000000 7246
8000000 9000000
333 02828 12811 20700 30000 40000 50000 8000000 9000000
444 0340423 1265415 2043828 3016612 400000 5401106 60000 71806=
61695 111 10085 20111 30269016 403800200 5194 6000000 7220088 8000000
9000000
222 07100 10085 20112 30267008 403600174 5160 600000 7089
8000000 9000000
333 12507
444 0029722 1023415 2043025 3017213 4000000 54///// 60000
711806=

RTH Bangkok, Lao People's Democratic Republic, Vientiane

**Encoded month and year MMJJJ given as 02/2010
MMJJJ should be coded as 02010
Section 222 group 6 should only have 6 code figures
Section 222 group 7 should only have 3 code figures**

02090
CSLA01 VLIV 040330
CLIMAT 02/2010
48930 111 19769 20118 30246015 403420149 5184
60000000 7234/// 8000000 9000000
222 07100 19773 29119 30230013 403090151 5188
60022303 7203/// 8000000 9000000=
48938 111 19776 20110 30243008 403360150 5183
60002202 7225/// 8000000 9000000
222 07100 19901 20098 30228010 403060149 5184
60014402 7292/// 8000000 9000000=
48940 111 19903 20098 30264017 403300207 5233
60003203 7255/// 8000000 9000000
222 07100 19929 20124 30245011 403040185 5197
60013302 7218/// 8000000 9000000=
48946 111 19940 20104 30266027 403250207 5237
60064/05 7172/// 8000000 9000000
222 08800 19956 20134 30242011 403100173 5210
60030/03 7220/// 8000000 9000000=
48947 111 19936 20100 30275024 403420208 5249
60021402 7202/// 8000000 9000000
222 07100 19938 20116 30245017 403140177 5197
60017403 7226/// 8000000 9000000=
48948 111 19907 20117 30274026 403330215 5236
60007402 7190/// 8000000 9000000
222 07100 19907 20119 30241016 403100171 5187
60020402 7282/// 8000000 9000000=
48952 111 19906 20096 30283018 403240213 5240
60003/02 7252/// 8000000 9000000
222 08100 19908 20101 30262012 403320191 5204
60016/02 7242/// 8000000 9000000=
48955 111 19988 20104 30291016 403180237 5237
60014401 7246/// 8000000 9000000
222 07100 19999 20104 30269011 403290208 5207
60012402 7246/// 8000000 9000000=

RTH Tashkent, Kazakhstan, Almaty

CCCC inserted between code name CLIMAT and MMJJJ
No end of report indicator '=' for NIL report

05850
CSKZ10 UAAA 010830
CLIMAT 02010
28679 111 10131 20317 31207/// 5009 60013506 7143///=
28766 111 10110 20320 31222/// 5010 60007403=
28879 111 10010 20325 31209/// 5010 60010404 7136048=
28952 111 10120 20330 31200 5012 60008/03 7152142=
28966 111 10013 20324 31202/// 410351370 5011 60010/04=
29807 111 10190 20321 31232 5009 60007/02=
34398 111 10237 20250 31107/// 5025 60021/05 7145///=
34691 111 10255 20242 31076 5030 60018/03=
35067 111 10023 20326 31200/// 5012 60007203=
35078 111 19915 20331 31214072 411441267 5011 60008204 7164059=
35108 111 10236 20286 31129/// 5021 60024404 7149028=
35188 111 19856 20330 31200073 411471245 5010 60010305 7150128=
35217 111 10241 20284 31127/// 5014 60011/03=
35229 111 10018 20313 31159/// 400051298 5015 60026505 7137024
9//15//=
35357 111 19836 20312 31206 5012 411491273 60007/03 7173///=
35394 111 19592 20327 31191/// 411401241 5012 60021/05 7173///=
35406 111 10283 20285 31105 5021 6000901 7192///=
35416 111 10149 20277 31122/// 5018 60011203 7177029=
35426 111 19992 20305 31147/// 400061301 5016 60021404 9//22//=
35576 111 19826 20343 31181027 411271227 5015 60014/02 9000028=
35671 111 19844 20305 31162/// 410991219 5015 60009/02 7204///=
35700 111 10276 20252 31076/// 5026 60011/02 7167///=
35746 111 10195 20282 31145 5020 60011303 7210031=
35796 111 19843 20311 31166/// 411111217 5015 60014/03 7173///=
35849 111 10184 20274 31111/// 5022 60011302 7205///=
35925 10148 20265 31120 5025 6007/03=
35953 111 10129 20265 31093/// 5026 60088302=
36003 111 10156 20326 31233 5010 60010404 7163023=
36177 111 10072 20344 31231/// 5010 60009203 7160023=
36208 111 19267 20316 31182/// 5013 60018407=
36428 111 31254/// 5009 60030/07 7165117=
36535 111 19665 20366 31248/// 5008 60024/06 7148///=
36859 111 19463 20266 31055 5037 60056/10 7097///=
36870 111 19225 20265 31048/// 5040 60061510 7071060=
38062 111 10085 20256 31081/// 5032 60009202=
38069 111 10037 20234 31043 5039 60027502=
38198 111 19958 20223 31002/// 5051 60024/09=
38328 111 19484 20218 30012/// 5054 60112616 7064///=
38334 111 19248 20219 31002 5051 60129516=
38341 111 19436 20244 31047/// 5045 60087500 7078///=
38343 111 19383 20248 31039/// 5042 60042511=
38439 111 19879 20221 30027 05711 0055/ // // // ìó-÷ 55=

RTH Jeddah, Oman, Muscat/Seeb

Multi-part segmented bulletins are found. The second and third segments of the bulletin do not contain the code name and MMJJJ which are important for the decoders to identify the message type and year/month of the CLIMAT reports.

The bulletin received from New Delhi is a full message bulletin without segmentation. However, message bulletins received from Tokyo and Exeter are multi-part segments with no BBB indicator PPA, PPB, PZC but with additional texts '//END OF PART 01//', '//END OF PART 02//' and '//END OF PART 03/03//'

Most stations reported in the bulletin are not described in WMO Volume C1. Stations listed in WMO Volume C1 are 41256, 41268, 41288, 41314, 41316

893

CSOM10 OOMS 050000

CLIMAT 02010

41241 111 10109 20149 30234025 402740193 5159 60101003 7//////// 8000000 9000028
333 02304 30303 40200 8120300
444 0027426 1018209 2031825 3014510 4047606 5335007 6//// 712006=
41242 111 10139 20162 30213018 402600168 5167 60005001 7//////// 8020202 9020228
333 02200 30100 8070302
444 0023705 1017510 2028621 3011610 4003006 5346507 6//// 712006=
41244 111 19805 20160 30213030 402770148 5116 60005002 7//////// 8000000 9000028
333 02107 30200 8080200
444 0026326 1015408 2033324 3009510 4003406 5336227 6//// 712006=
41246 111 10144 20149 30222015 402600180 5182 60013001 7//////// 8000000 9000028
333 02200 30101 40100 8030000
444 0025628 1019308 2028528 3014808 4013006 5322206 6//// 712006=
41252 111 19778 20163 30227029 402890168 5106 60020001 7//////// 8000000 9000028
333 02411 30101 40100 8140100
444 0026727 1015808 2034624 3008709 4020207 5333007 6//// 712006=
41253 111 19778 20160 30220024 402860164 5156 60022001 7//////// 8000000 9000028
333 02310 30101 40100 8010000
444 0025624 1017309 2034225 3012809 4021407 5321021 6//// 712006=
41254 111 18069 29982 30109020 401580059 5052 60019002 7//////// 800000
0 9000031
333 30202 40100 8100202
444 0014022 1006511 2020622 3002413 4013401 5374111 6//// 712006=
41255 111 19625 20166 30221020 402830153 5118 60027001 7//////// 8000000 9000028
333 02406 30101 40100 8050101
444 0025828 1017909 2034324 3011609 4027207 5344707 6//// 712006=
41256 111 10136 20146 30228020 402730184 5141 60022001 7119/// 8000000 9000028
333 01907 30101 40100 8110301
444 0027527 1019409 2033721 3015701 4022607 5344328 6//// 712006=
41257 111 19674 20162 30225028 402830173 5152 60036002 7//////// 8000000 9000028
333 02313 30202 40100 8100200
444 0026827 1017009 2034024 3013009 4026607 5331507 6//// 712006=
41258 NIL=
41259 111 17119 20288 30059022 400980029 5039 60040001 7//////// 8010201 9010128
333 20300 30101 40100 8211305
444 0010027 1002511 2014823 31-01012 4039607 5351705 6//// 712006=
41262 NIL=
41263 111 19482 20172 30219022 402770156 5104 60036002 7//////// 8000000 9000028
333 02205 30201 40100 8030000
444 0025828 1017709 2033824 3011409 4035007 5325307 6//// 712006=
41264 111 19775 20111 30225020 402950155 5122 60008002 7//////// 8000000 9000028
333 02814 30200 8170100
444 0026828 1018108 2034624 3011311 4004422 5337307 6//// 712006=
41265 111 19618 20171 30224018 402870161 5158 60049001 7//////// 8000000 9000028
333 02606 10100 30101 40100 8040000
444 0026224 1018710 2035124 3012711 4048607 5326407 6//// 712006=
41268 111 10134 20150 30240025 402910200 5158 60021001 7//////// 8000000 9000028

333 02413 10100 30101 40100 8170902
444 0029725 1020310 2036425 3016515 4021007 5344927 6///// 712006=
41270 111 10100 20159 30225014 402650188 5199 60017002 7//////// 8000000 9000028
333 02202 30201 40100 8161001
444 0025428 1019810 2032421 3015410 4015207 5343126 6///// 712006=
41275 NIL=
41287 111 10112 20181 30229019 402990167 5169 60011002 7//////// 8000000 9000028
333 02715 30201 8190400
444 0025927 1018009 2034624 3011909 4007408 5332627 6///// 712006=
41288 111 10137 20160 30238016 402750204 5198 60016002 7//////// 8020202 9020228
333 02305 30202 8080101
444 0026527 1019911 2031422 3017509 4008807 5340407 6///// 712006=
41290 111 10132 20188 30232021 402970174 5175 60008002 7//////// 8000000 9000028
333 02713 30201 8120000
444 0027227 1019008 2034824 3014209 4006208 5329907 6///// 712006=
41295 111 19970 20151 30225021 402980160 5157 60017002 7//////// 8000000 9000028
333 02616 30202 40100 8180600
444 0026528 1016909 2033924 3010709 4010607 5335627 6///// 712006=
41304 111 19831 20150 30224019 402980161 5149 60020001 7//////// 8000000 9000028
333 02615 30101 40100 8281608
444 0026428 1017809 2033523 3011409 4019809 5382127 6///// 712006=
41312 111 10109 20149 30244009 402740211 5200 60004001 7//////// 8000000 9000028
333 02800 30100 8010000
444 0026428 1023103 2029059 3018217 4004207 5326308 6///// 712006=
41314 111 19637 20172 30222021 402930157 5115 60000000 7//////// 8000000 9000028
333 02611 8150500
444 0026928 1017109 2034528 3011717 4000208 5338526 6///// 712006=
41315 111 19166 20188 30185018 402330154 5140 60006002 7//////// 8000000 9000028
333 00600 30200 8050300
444 0022122 1014008 2027822 3010409 4004207 5330705 6///// 712006=
41316 111 10126 20153 30242011 402790204 5175 60004002 7229/// 8000000 9000028
333 02801 30200 8060200
444 0026828 1022803 2034322 3017417 4003007 5332508 6///// 712006=

232

CSOM10 OOMS 050000

CLIMAT 02010

41241 111 10109 20149 30234025 402740193 5159 60101003 7////////
8000000 9000028
333 02304 30303 40200 8120300
444 0027426 1018209 2031825 3014510 4047606 5335007 6///// 712006=
41242 111 10139 20162 30213018 402600168 5167 60005001 7////////
8020202 9020228
333 02200 30100 8070302
444 0023705 1017510 2028621 3011610 4003006 5346507 6///// 712006=
41244 111 19805 20160 30213030 402770148 5116 60005002 7////////
8000000 9000028
333 02107 30200 8080200
444 0026326 1015408 2033324 3009510 4003406 5336227 6///// 712006=
41246 111 10144 20149 30222015 402600180 5182 60013001 7////////
8000000 9000028
333 02200 30101 40100 8030000
444 0025628 1019308 2028528 3014808 4013006 5322206 6///// 712006=
41252 111 19778 20163 30227029 402890168 5106 60020001 7////////
8000000 9000028
333 02411 30101 40100 8140100
444 0026727 1015808 2034624 3008709 4020207 5333007 6///// 712006=
41253 111 19778 20160 30220024 402860164 5156 60022001 7////////
8000000 9000028
333 02310 30101 40100 8010000
444 0025624 1017309 2034225 3012809 4021407 5321021 6///// 712006=
41254 111 18069 29982 30109020 401580059 5052 60019002 7//////// 8000000

0 9000031
333 30202 40100 8100202
444 0014022 1006511 2020622 3002413 4013401 5374111 6//// 712006=
41255 111 19625 20166 30221020 402830153 5118 60027001 7////////
8000000 9000028
333 02406 30101 40100 8050101
444 0025828 1017909 2034324 3011609 4027207 5344707 6//// 712006=
41256 111 10136 20146 30228020 402730184 5141 60022001 7119///
8000000 9000028
333 01907 30101 40100 8110301
444 0027527 1019409 2033721 3015701 4022607 5344328 6//// 712006=

//END OF PART 01//

90276
CSOM10 OOMS 050000
41257 111 19674 20162 30225028 402830173 5152 60036002 7////////
8000000 9000028
333 02313 30202 40100 8100200
444 0026827 1017009 2034024 3013009 4026607 5331507 6//// 712006=
41258 NIL=
41259 111 17119 20288 30059022 400980029 5039 60040001 7////////
8010201 9010128
333 20300 30101 40100 8211305
444 0010027 1002511 2014823 31-01012 4039607 5351705 6//// 712006=
41262 NIL=
41263 111 19482 20172 30219022 402770156 5104 60036002 7////////
8000000 9000028
333 02205 30201 40100 8030000
444 0025828 1017709 2033824 3011409 4035007 5325307 6//// 712006=
41264 111 19775 20111 30225020 402950155 5122 60008002 7////////
8000000 9000028
333 02814 30200 8170100
444 0026828 1018108 2034624 3011311 4004422 5337307 6//// 712006=
41265 111 19618 20171 30224018 402870161 5158 60049001 7////////
8000000 9000028
333 02606 10100 30101 40100 8040000
444 0026224 1018710 2035124 3012711 4048607 5326407 6//// 712006=
41268 111 10134 20150 30240025 402910200 5158 60021001 7////////
8000000 9000028
333 02413 10100 30101 40100 8170902
444 0029725 1020310 2036425 3016515 4021007 5344927 6//// 712006=
41270 111 10100 20159 30225014 402650188 5199 60017002 7////////
8000000 9000028
333 02202 30201 40100 8161001
444 0025428 1019810 2032421 3015410 4015207 5343126 6//// 712006=
41275 NIL=
41287 111 10112 20181 30229019 402990167 5169 60011002 7////////
8000000 9000028
333 02715 30201 8190400
444 0025927 1018009 2034624 3011909 4007408 5332627 6//// 712006=
41288 111 10137 20160 30238016 402750204 5198 60016002 7////////
8020202 9020228
333 02305 30202 8080101
444 0026527 1019911 2031422 3017509 4008807 5340407 6//// 712006=

//END OF PART 02//

313
CSOM10 OOMS 050000
41290 111 10132 20188 30232021 402970174 5175 60008002 7////////
8000000 9000028

333 02713 30201 8120000
444 0027227 1019008 2034824 3014209 4006208 5329907 6//// 712006=
41295 111 19970 20151 30225021 402980160 5157 60017002 7/////////
8000000 9000028
333 02616 30202 40100 8180600
444 0026528 1016909 2033924 3010709 4010607 5335627 6//// 712006=
41304 111 19831 20150 30224019 402980?61 5149 60020001 7/////////
8000000 9000028
333 02615 30101 40100 8281608
444 0026428 1017809 2033523 3011409 4019809 5382127 6//// 712006=
41312 111 10109 20149 30244009 402740211 5200 60004001 7/////////
8000000 9000028
333 02800 30100 8010000
444 0026428 1023103 2029059 3018217 4004207 5326308 6//// 712006=
41314 111 19637 20172 30222021 402930157 5115 60000000 7/////////
8000000 9000028
333 02611 8150500
444 0026928 1017109 2034528 3011717 4000208 5338526 6//// 712006=
41315 111 19166 20188 30185018 402330154 5140 60006002 7/////////
8000000 9000028
333 00600 30200 8050300
444 0022122 1014008 2027822 3010409 4004207 5330705 6//// 712006=
41316 111 10126 20153 30242011 402790204 5175 60004002 7229///
8000000 9000028
333 02801 30200 8060200
444 0026828 1022803 2034322 3017417 4003007 5332508 6//// 712006=

//END OF PART 03/03//

5.3 Region III

RTH Buenos Aires, Bolivia, La Paz

Code name given in lower case is potentially a problem to some decoders which only identify upper case code name 'CLIMAT'

470

CSBO01 SLLP 052045

climat 02010

85033 111 19941 20091 30274011 403170230 5307 60209219 8000000 90000//
333 02824 10000 20000 31812 40700 50000 8000000
444 2034220 3021706 4044213 5401002 712112=

85041 111 19822 20085 30266015 403080223 5302 60520520 80010/0 90000//
333 01713 10000 20000 31917 41102 50201 8000000
444 2034604 3020025 4158922 5401510 712112=

85043 111 19929 20090 30275010 403220228 5306 60408522 8000000 90000//
333 02822 10000 20000 32215 41102 50000 8000000
444 2034619 3021515 4058427 540 1810 712112=

85104 111 19916 20075 30277013 403210233 5307 60302416 8000000 90000//
333 02825 10100 20000 31613 41100 50000 8010000 8000000
444 2035220 3022012 4048528 5402022 712112=

85109 111 19922 20082 30277012 403210233 5306 60268/16 8000101 90001//
333 02823 10100 20000 31612 41001 50000 8000000
444 2035108 3021306 4061405 5401818 712112=

85114 111 19925 20087 30274010 403130235 5307 60136115 8000000 90000//
333 02822 10000 20000 31510 40300 50000 8000000
444 2034019 3022206 4033615 5401409 712112=

85123 111 19920 20084 30283013 403220243 5303 60215212 8000000 90000//
333 02823 10200 20000 31207 40701 50000 8000000
444 2035602 3022006 4083905 5401809 712112=

85139 111 19872 20065 30277012 403230230 5302 60090/12 8050555 90505//
333 02319 10200 20000 31205 40400 50000 8000000
444 2035319 3020026 4025925 5401507 712112=

85140 111 19892 20107 30272013 403130231 5305 60283/17 8000000 90000//
333 02722 10000 20000 31608 40502 50000 8000000
444 2034004 3021014 4099311 5401407 712112=

=====
85141 111 19848 20077 30273013 403170229 5313 60293214 8000000 90000//
333 02823 10100 20000 30807 40702 50000 8000000
444 2035204 3021006 4079628 5401210 712112=

85152 111 19813 20074 30276011 403150237 5303 60157109 8000000 90000//
333 02821 10000 20000 30906 40600 50000 8010000
444 2034120 3021612 4043805 5402024 712112=

85153 111 19893 20085 30273012 403190226 5307 60279313 8000000 90000//
333 02822 10000 20000 31309 40802 50000 8010000
444 2034524 3020612 4083505 5402505 712112=

85154 111 19914 20090 30275012 403090241 5306 60303416 8000000 90000//
333 02822 10100 20000 31410 40902 50000 8010000
444 2035008 3020826 4077314 5402510 712112=

85175 111 10618 20101 30268016 403070228 5295 60340517 8000000 90000//
333 02719 10000 20000 31612 41001 50000 8000000
444 2033720 3018626 4085125 5401810 712112=

85195 111 19500 20099 30249017 402920206 5275 60169314 8000000 90000//
333 02713 10000 20000 31210 40400 50000 8000000
444 2032103 3016026 4049111 5401303 712112=

85196 111 19540 20104 30255015 402950215 5281 60127215 8000000 90000//
333 02813 10000 20000 31509 40400 50000 8000000
444 2033004 3017326 4033125 5401004 712112=

85201 111 16334 30105011 40157053 5090 60191521 8000000 90000//
333 00000 10000 20000 31613 40700 50000 8020000
444 2019810 302707 4027405 5402312 712112=

85207 111 19634 20100 30257014 403030210 5285 60094114 8000000 90000//
333 02817 10000 20000 31409 40200 50000 8000000
444 2034604 3016526 4025109 5401503 712112=

85210 111 19951 20132 30265022 403270203 5313 60224/15 8000330 90000//
333 02521 10600 20000 31513 40701 50000 8010000
444 2036818 3016613 4058210 5402319 712112=

85223 111 17497 27135 30204019 402710136 5143 60080217 8000110 90000//
333 02106 10000 20000 31005 40300 50000 8000000
444 2032210 3011206 4020927 5401419 712112=

85242 111 16557 30140009 40205074 5099 60102416 8000000 90000//
333 00000 10000 20000 31307 40300 50000 8000000
444 2023810 305028 4024027 5401420 712112=

85244 111 19655 20079 30260015 403020218 5274 60192/19 8000000 90001//
333 02718 10000 20000 31508 40701 50000 8160000
444 2032408 3018227 4066310 5403504 712112=

85245 111 19608 20090 30265015 403010228 5272 61199619 8000000 90000//
333 02816 10000 20000 31610 40701 50101 8160000
444 2032620 3018626 4999918 5403604 712112=

85247 111 19781 20109 30273016 403220223 5284 60112213 8000000 90000//
333 02824 10200 20000 31209 40300 50000 8000000
444 2035604 3019426 4030610 5401503 712112=

85264 111 18023 30191034 402350147 5181 60167/15 8020552 90202//
333 00600 10000 20000 31506 40501 50000 8000000
444 2029008 3012328 4055616 5401614 712112=

85268 111 19799 20106 30279022 403260231 5287 60058109 8000000 90000//
333 02823 10900 20000 30803 40200 50000 8000000
444 2037508 3016626 4024709 5401905 712112=

85283 111 17207 27129 30167019 402190114 5150 60149413 8000000 90000//
333 00400 10000 20000 31108 40401 50000 8000000
444 2027304 309728 4063227 5401821 712112=

85289 111 19924 20075 30286021 403360235 5313 60050107 8000000 90000//
333 02824 11200 20000 30604 40200 50000 8000000
444 2038204 3020009 4014008 5401604 712112=

85293 111 16371 30114079 40188041 5097 60041/09 8040884 90404//
333 00000 10000 20000 30903 40200 50000 8000000
444 2021203 300212 4011826 5401410 712112=

85312 111 18810 30245027 403060184 5235 60160/09 8030773 90303//
333 01913 10300 20000 30909 40500 50000 8000000
444 2036308 3016327 4042216 5400810 712112=

85315 111 19190 20062 30265035 403160213 5241 60084211 8000000 90001//
333 02520 10600 20000 31104 40400 50000 8000000
444 2038106 3015926 4019108 5401802 712112=

85345 111 19639 20097 30281039 403500212 5288 60245/11 8000440 90000//
333 02320 11604 20000 31108 40601 50000 8010000
444 2042208 3016726 4093312 5402802 712112=

85364 111 18131 28245 30220024 402840155 5186 60199514 8000000 90000//
333 02312 10100 20000 31107 40601 50000 8000000
444 2036603 3012825 4075223 5402003 712112=

85365 111 19284 20092 30264034 403250203 5283 60401510 8000000 90001//
333 02622 10801 20000 30908 40703 50100 8000000
444 2041007 3013625 4142015 5401802 712112=

85394 111 19631 20057 30274031 403300218 5298 60287/12 8040884 90404//
333 02016 10800 20000 31109 40702 50000 8000000
444 2037004 3015025 4092708 5401523 712112=

5.4 Region IV

RTH Washington, Honduras, Tegucigalpa/Toncontin

The following errors are found in the Honduras CLIMAT report for every month:

1. MMJJJ is consistently incorrectly encoded every month using YYGGgg in place of MMJJJ
2. NIL report is consistently using 'NILL' instead of 'NIL'
3. No report separation indicator '=' at end of each report
4. No separation between end of report and next report, e.g. CLIMAT report for station 78720 followed straight after end of the previous report for 78708
4. AFTN address 'MHTGYMYX' or location indicator 'MHTG' inserted on the same line as code name
5. Section 111 indicator is missing in every report
6. Additional text inserted at the end of the coded message

CLIMAT report for February 2010 received on 10 March 2010

```
598
CSHO01 MHTG 101700
CLIMAT 090310 MHTGYMYX
78705 NILL
78708 10096 20120 302450003 402860196 5266 60065406 7150008
8000000 9000000
222 07100 10108 20143 302480001 402820222 5246 60051//
7188 8000000 9000000
333 01400 10000 20028 30603 40200
50000 8010100 9000000
444 0029601 1021112 2036622 3016314
4004011 5104313 6//// 78720 19020 20103 302340002
402670195
5173 60007201 7233 8000000 9000000
222 19035 20129 302060008 402240188
5156 60004// 7230 8000000 9000000
333 000900 10000 20028 30101 40000
50000 8010100 9000000
444 0029011 1016125 2033122 3011014 4000709
5102618 605// NOTA: MES DE FEBRERO 2010
```

CLIMAT report for January 2010 received on 9 February 2010

```
378
CSHO01 MHTG 092200
CLIMAT 090210 MHTGYMYX
78705 NILL
78708 10120 20143 302340003 402810180
60067309 7190083 8000000 9000000
222 07100 10116 20151 302420001
402630218 5244 60071// 7190
8000000 9000000
333 01200 10000 20031 30903 40200
50000 8000000 9000000
444 0028123 1020027 2037024 3016313
4002002 51///// 6////
78720 19037 20132 302070002 402380140
5184 600022// 7240108 8000000 9000000
222 07100 19038 20139 301970007 402120181
5160 60005// 7222 8000000 9000000
333 00000 10000 20031 30000 40000 50000
8000000 9000000
444 0025731 1014024 2031921 30104022
4000000 5101410
```

NOTE: JANUARY 2010

5.5 Region V

RTH Melbourne, Australia, Melbourne

Incomplete Section 333 with only the group identifier but no other code figures. Sections with no data should be omitted.

```
CSAA01 AMMC 051200
CLIMAT 02010
89577 111 15814 2//// 31437057 4//////// 8000099 900////
  333 2
  444 0134611 1154028 710303=
```

```
CSAU09 AMMC 051200
CLIMAT 02010
95971 111 1//// 2//// 4//////// 8222899 92226//
  222 06190 30176013 402220095 5122 6044009 7203 8300303 9030003
  333 2
  444 712222=
```

RTH Melbourne, Fiji, Nadi

**Consistently made the same error in Section 111 with Group 9 identifier replaced by '8'.
Plain text notices should not be inserted in encoded messages which are processed by automatic
system and will not attract attention of operational staff. Important notices which require immediate
attention should use headers for notices, e.g. NOFJ01 NFFN**

February CLIMAT bulletin received on 9 March

01866
CSPS01 NFFN 090100
CLIMAT 02010

91650 111 1///// 20065 30282006 403100250 5331
60193125 7171106 8280000 8280028
333 02826 32112 40600
444 0029026 1027027 20232106 3023711 4037211 5////////
6//// 712121=
91652 111 1///// 20087 30278012 403130252 5///
60208218 7//////// 8280600 8280028
333 02826 31608 40701
444 0029518 1025512 2033004 3023305 4055304 5////////
6//// 712121=
91680 111 1///// 20077 30273005 403230236 5///
60113112 7224119 8280001 8280000
333 02727 31107 40300
444 0028221 1026202 2034505 3021310 4043128 5122028
605// 712121=
91683 111 1///// 20082 30270006 403080238 5///
60234224 7//////// 8280000 8280028
333 02822 32009 40601 50101
444 0028005 1025912 2033001 3020910 4193728 5////////
601// 712121=
91699 111 1///// 2///// 3//////// 4//////// 5///
6//////// 7//////// 8//////// 9////////
333 0///// 3///// 4///// 5////////
444 0//////// 1//////// 2//////// 3//////// 4//////// 5////////
6///// 7////////=

Urgent attention Please: Note that station 91699 data for the period August 2009 to date are incorrect. After exhaustive enquiries it has been established that the care taker removed the Stevenson screen and the rain gauge and took them home and placed them on top of their fiber glass water tank. All measurements of temperature are grossly high and due to this please remove all data for this period from your data archive. Inform your users of this issue please to ensure that wrong conclusions are not arrived at using the old data. All data prior to August 2009 are correct and do not have any problems with them.

Same problem for January CLIMAT received on 3 February 2010

99436

CSPS01 NFFN 032315

CLIMAT 01010

91650 111 1///// 20062 30281008 403060254 5337
60214118 7189111 8000000 8310031
333 03125 31810 40701
444 0029322 1026229 2032027 3023506 4066905 5////////
6///// 712121=
91652 111 1///// 2///// 30265/// 402920238 5271
60309417 7//////// 8310000 8310031
333 03109 31409 40702
444 0//////// 1//////// 2033029 3022063 4077113 5////////
6///// 712121=
91680 111 1///// 20099 30259010 403050221 5238
60285509 7218096 8000000 9000000
333 03121 30704 40301 50101
444 0028605 1024321 2033005 3019030 4200114 5156014
600// 712121=
91683 111 1///// 20110 30249010 402810216 5251
60221323 7//////// 8310000 8310031
333 03101 31505 40301 50100
444 0026706 1022520 2030304 3012315 4126514 5////////
600// 712121=
91699 111 1///// 2///// 3//////// 403110227 5275
60221323 7//////// 8310000 8310031
333 003127 30402 40202
444 0//////// 1//////// 2033177 3020824 4096115 5////////
6///// 712121=

RTH Melbourne, Indonesia, Jakarta

Coding errors found in almost every report and consistently making a lot of the following errors:

- 1. The character 'X' is used in Group 6 (rainfall) in Section 111 when quintile is not reported.**
- 2. The Groups 6 and 7 (rainfall and sunshine) in Section 222 are found to be encoded in the same way as Section 111. The number of coding figures for Groups 6 and 7 in Section 222 is not the same as Section 111.**
- 3. Section 444 requires the reporting of day(s) of occurrence of the event. A lot of the reports do not give the day of occurrence of the event and '/' is not encoded in the group.**
- 4. Sections with no data should be omitted, e.g. Section 222. There are no provisions in the CLIMAT code form to indicate 'NIL' Sections. Characters 'NIHIL', 'N I H I L', 'NIL' and 'N I L' inserted in sections with no data are invalid.**

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CSID01 WIIX 040600

CLIMAT 02010

```
96009 111 19906 20124 30261005 403180233 5288 60461521 71380162
      8000000 9000000
      222 07504 19889 2///// 30250004 402960221 5/// 6034221 7085
      8//0000 9//0000
      333 02824 10000 20000 32115 41003 50000 60000 70000 8000000
      9000000
      444 0027023 1024719 2034220 3021810 4081210 5410007 610000
      711200=
96035 111 10104 20139 30285006 403330244 5295 60030106 7138131
      8000000 9000000
      222 07200 10080 20112 30268006 403150232 5288 60111209 7106
      8000000 9000000
      333 02828 10000 20000 30603 40000 50000 8010000 9000000
      444 0029526 1027319 2034728 3023164 4007419 5420028 60800
      711200=
96073 111 10089 20096 30269005 403230216 5047 60467321 7149099
      8000000 9000000
      222 07090 10092 20099 30259100 40034 00210 5/// 6048714 7155
      8000000 9000000
      333 02828 10000 20000 32113 41104 50000 8000000 9000014
      444 028417 1025010 2034412 3002072 4070021 541068 61600 711200=
96163 111 10102 20109 30274007 403170234 5283 60427618 7147081
      8000000 9000000
      222 07100 10104 20111 30253005 403000223 5/// 6025714 7180
      8000000 9000000
      333 02828 10000 20000 31613 40902 50100 60000 70000 8000000
      9000000
      444 0028725 1025621 2033126 3021001 4103827 5415005 61900 71200=
96249 111 10041 20103 30267006 403120241 5309 60082213 7108074
      8000000 9000000
      222 07190 10043 20103 30259003 403000230 5292 6016911 7146
      8000000 9000000
      333 02824 10000 20000 31306 40200 50000 8010000 9000000
      444 0027713 1024920 2033727 3023426 4017320 5420028 61700
      711200=
96295 111 20110 3027026 40324240 5029 60308X19 7015513 8000000
      9000000
      222 07606 10005 20109 3026137 40311227 5029 6031218 7135
      8000000 9000000
      333 02828 10000 20000 31913 40602 50000 60002 70000 8000000
      9000000
      444 0028727 1025824 2033628 3023026 4008923 5401725 6100014
      711200=
96509 111 10110 20121 30279007 403140252 5300 60163X23 70230///
      8000000 9000000
      222 00000 10000 20000 30000000 400000000 5000 6000000 7000
      8000000 9000000
```


333 02826 10000 20000 32306 40501 50000 8000000 9000000
 444 0029028 1026105 2032819 3023606 4064801 5414005 60200
 711200=
 96633 111 10095 20102 30281008 403140214 5307 60248509 7034035
 8000000 9000000
 222 09510 10086 20094 30272013 403120241 5303 6022814 7099
 8000000 9000000
 333 02824 10600 20000 3906 40402 50100 8060000 900002
 444 0029418 1026502 2036913 3023501 4119721 5426020 67000
 711200=
 96655 111 10079 20122 3028113 403300246 5301 60353518 7139139 8000000
 9000000
 222 080010 10096 20128 30267024 403190231 5294 6025020 7054
 8000000 9000000
 333 00000 10000 20000 31812 40902 50100 8000000 9000000
 444 0030812 1025919 2033011 3024613 40110724 5416000 61400
 711200=
 96839 111 20104 3027908 403340290 5296 60340X11 781181 8000000
 9000000 2
 222 09508 10093 20098 30268043 403060239 5294 6025020 7054
 8000000 9000000 3
 333 02927 10000 20000 31110 41002 5000 8000000 9000001 4
 444 0029027 1025706 203410 3022720 4095619 5418006 62100 711200=
 96933 111 20107 30284008 403350244 5308 60434519 7142134 8000000
 9000000
 222 07195 10094 20101 30270005 403100241 5291 6024117 7106
 8000000 9000000
 333 02827 103000 20000 31912 40903 50000 8040000 9000000
 444 0029715 1026219 2035628 3022668 4098419 5425026 61600
 711200=
 97014 111 10026 20119 30262008 403050226 5278 60185110 7163140
 8000000 9000000
 222 08009 10010 20104 30255003 402990221 5282 6037618 7116
 8000000 9000000
 333 02823 10000 20000 31007 40501 50000 8090000 9000000
 444 0027111 1023413 2031923 3021013 4058812 5423055 60100
 711200=
 97072 111 18556 20116 30279002 403430234 5267 60310X05 7175148
 8000000 9000000
 222 07604 10013 20115 30263010 403180226 5264 6004207 7119
 8000000 9000000
 333 02828 11300 20000 30503 40100 50000 8030000 9000000
 444 0029083 1025112 2036814 3021412 4011101 5420028 60200
 711200=
 97086 111 10083 20107 30294060 403310257 5292 60034X01 7237067
 222 08605 10074 20098 30278060 403130244 5289 6079808 7169
 333 02828 10200 20000 30100 40000 80000
 444 0031026 1027419 2036026 3024101 4002119 5418013 60200
 711200=
 97146 111 14002 20102 30275079 40316228 5///// 603433X20 7/////
 8000000 9000000
 222 NIHIL
 333 02827 10000 20000 31817 41201 5///// 80000000 9000000
 444 0028862 1025706 2032826 3015405 4050705 541611 61414 71200=
 97180 111 10093 20111 30275008 403240244 5322 60437218 70177158
 8000000 9000000
 222 09509 10079 20097 30262006 403070233 5297 6067020 70112
 8000000 9000000
 333 02826 10000 20000 31812 41103 50000 8050000 9000000
 444 0029127 1025602 2034017 3023706 4007806 5402714 61000
 721200=
 97230 111 10092 20099 3028104 40317255 5319 60191417 7221// 8000000
 9000000

222 08100 10086 20093 30278009 403140249 5300 6032316 7167
8000000 9000014
333 2828 10000 20000 30136 40061 50000 8000000 9000000
444 0028910 1026808 2032609 3023801 4044328 5413001 601400
711200=
97270 111 10102 20097 30279010 403320249 5318 60106113 7152080
8000000 9000000
222 00110 10095 20090 30273004 403230244 5304 6016515 7136
8000000 9000000
333 00126 10100 30502 40400 50000 8000000 9000000
444 0029527 1025101 2035016 3023401 4032209 5415052 61200
711200=
97300 111 10075 20108 3279008 403180229 5237 60000000 7282117 8000000
9000000
222 09009 10091 20123 30269001 403150231 5256 6000809 7242
8000000 9000000
333 03030 10000 20000 30000 40000 50000 8000000 9000000
444 0027727 1024823 2032827 3019823 4000000 5415028 60000
711200=
97340 111 10084 20098 30280008 403320241 5306 60036010 7165125
8000000 9000000
222 06190 10089 20103 30266004 403140236 5285 6018212 7132
8151515 9150020
333 02827 10200 20000 30803 40100 50000 8000000 9000000
444 0029927 1026606 2035267 3023008 012004 5419027 61600 711200=
97372 111 10074 20091 30264074 401900220 5327 60208X03 7162123
8000000 9000000
222 07800 19953 20082 30263004 403010232 5291 6044216 7130
8000000 9000000
333 00000 10000 20000 30300 40000 50000 8000000 9000000
444 0029619 10030 2034700 30050 4058024 5415027 61700 711200=
97430 111 10079 20109 30275006 403170243 5294 60090211 7215144
8000000 9000000
222 09397 10060 20090 30265005 403020233 5292 6021212 7149
8000000 9000000
333 02827 10000 20000 31104 40200 50000 60000 70000 8020000
9000000
444 0028359 1025113 2032823 3022813 4038913 5424003 60200
711200=
97460 111 10082 20091 30270009 403150233 0292 60104500 7191///
8000000 9000000
222 NIHIL
333 02926 10000 20000 31409 40800 50000 8030000 9000000
444 0028501 1024701 2033626 3022259 4025501 5412017 60700
711200=
97560 111 10094 20108 30272008 403040245 5295 6009328 71430011 80303
9030303
222 07000 10079 20099 30273008 40313242 5305 60420425 7119
8000000 9000000
333 02821 10000 20000 30805 40400 50000 8000000 9000000
444 0028415 1024720 2031663 3023405 4030001 5415060 60000
711200=
97686 111 18358 20090 30202009 402760156 5000 60137414 7112001
8010101 9000101
222 N I H I L
333 02801 10000 20000 31411 40600 50000 8030000 9000000
444 0021055 0108622 2030012 3013204 4025516 5422555 60500
711200=
97796 111 1 10063 20107 30273032 403320238 5306 60330X17 7151///
8000000 9000000
222 NIHIL
333 02828 10100 20000 31717 40802 50000 60000 70000 8000000
9000002

444 0029227 1025601 2035028 3022026 4085406 5312011 61900
711200=

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CSID20 WIIX 040600

CLIMAT 02010

96001 111 10121 29972 30273/// 403120219 5313 60543X05 7157///
8000000 9000000

222 NIHIL

333 00127 10000 20000 30101 40200 50000 60000 70000 8030000
9000000

444 0028363 1026420 2032468 3019623 4028623 5420068 60500
711200=

96171 111 10078 20103 30277009 403210240 5304 60147313 7128103
8000000 9000000

222 06190 10087 20112 30266007 403120222 5281 60185011 8000000
9000000

333 02827 10000 20000 31308 40600 50000 8000000 9000007

444 0029010 1025418 2033873 3023055 404181 5415005 60017 711200=

96525 111 10114 20121 30275007 403210239 5296 60171X13 7135140
8000000 9000000

222 00110 10100 20107 30269009 403160237 5294 6024316 7096
8020000 9000000

333 02827 10000 20000 31309 40800 50000 8000000 9000000

444 0030327 1026505 2033673 3021408 4027317 5418010 60400
711200=

96535 111 10098 20118 30268007 403100238 5308 60130X11 7097081
8000000 9000000

222 09605 10102 20122 30257004 403010225 5291 6026415 7119
8000000 9000000

333 02823 31107 40400

444 0028177 1024920 2033028 3022405 4044019 5419063 60700=

96559 111 10077 20111 30273049 403230237 50305 6465X13 7148///
8000000 9000000

222 00000 10000 20000 30000000 400000000 5000 6000000 7000
8000000 9000000

333 02824 10000 20000 31309 40704 50101 60000 70000 8000000
9000004

444 0028827 1024605 2034809 3022205 4019019 5413002 60500
711200=

96595 111 10057 20107 30264072 403370234 5297 6183X11 7152103 8000000
9000000

222 09605 10054 20100 30269094 403180232 5295 6025615 7147
8000000 9000000

333 02826 10700 20000 30000 40000 50000 8000000 9000000

444 0030016 10029 2036068 3019902 40000005412012 60200 711200=

96615 111 10101 20113 30280008 403170246 5309 60252X17 7161///
8000000 9000000

333 02803 10000 20000 31710 40701 50000 8000000 9000101

444 0029527 1025920 2032921 3023105 4063811 5412057 61300
711200=

96695 111 10098 20103 30278010 403210240 5306 60188X15 7161150
222 09504 10092 20097 30266007 403130234 5295 6021317 7109

333 00127 30701 40700

444 0028913 1025402 2033624 3020002 4046528 5282528 61200
711200=

96739 111 96739 10062 20111 30268008 403200239 5299 60228317 7098092
8000000 9000000

222 07594 10059 20108 30258004 403080229 5284 6024920 7104
8010001 9000000

333 02825 10000 20000 31710 40800 50000 8000000 9000001

444 0028011 1025013 2034277 3022214 4045016 5415070 62500

711200=
96741 111 10102 20106 30282011 403170254 5311 60358X18 7133141
8000000 9000000
222 07397 10104 10107 30269005 40305241 6030618 7098 8010000
9//0004
333 02826 10000 20000 31811 40702 50000 60000 70000 8000000
9000000
444 0030427 1025513 2034010 3024019 4088318 5434004 61100
711200=
96797 111 10098 20102 30278008 403130252 5310 60251X13 7165140
8000000 9000000
222 08310 10096 20099 3026605 403050240 5302 6031119 7118
8020000 9120004
333 02827 10000 20000 31309 40702 50000 8010100 9000508
444 0029060 1026019 2034028 3023620 4061020 5443020 61305
711200=
96937 111 10092 20109 30264088 403400256 5310 60403X15 7170181
8000000 9000000
222 08107 10093 20102 30281003 403290245 5304 6023518 794
8000000 9000000
333 02828 10500 20000 31510 40803 50000 8050000 9000000
444 0030061 10029 2036001 30003 4098019 5430019 61100 711200=
96973 111 10105 20102 30289 403200253 5282 60172X13 7144 8000000
9001100
222 09510 10098 20101 30281 403110242 5278 60087X07 7280
8000000 9000000
333 02828 10000 20000 31310 40800 50000 8010000 9000000
444 0028516 1024312 2033828 3024419 4031406 5420006 62000
711200=
97016 111 10107 20109 30281008 403250245 5275 60102110 7139090
8000000 9000000
222 07796 10081 20094 30274010 403120239 5285 6020815 7154
8000000 9000000
333 02828 10000 20000 30805 40400 50000 60000 70000 8100000
9000000
444 0029066 1025313 2034822 3022601 4026001 5402254 600000
711200=
97126 111 10044 20105 30292008 403290236 5299 6044X20 7184119 8000000
9000000
222 00009 10028 20088 30270008 403290227 5296 602851718 7154
8000000 9000000
333 02828 10000 20000 31916 41303 50000 8010000 9000000
444 0029211 1025707 2034211 3022308 4055501 5424028 61800
711200=
97182 111 10098 20103 30258086 402860236 5317 60427X18 731402 8000000
9000000
222 08195 10101 20108 30277005 403260246 5301 6057016 7130
8000000 9000000
333 02826 10000 20000 31811 41001 50101 8110000 9000000
444 0030017 1025902 2033728 3023906 40180020 5430061 60900
711200=
97184 111 10099 20118 30271009 403090246 0314 60612X18 7169///
8000000 9000000
222 NIL
333 02822 10000 20000 31814 41107 50000 8000000 9000000
444 0028727 1025402 2032427 3023651 4089301 5414003 60800
711200=
97240 111 10065 20085 30278009 403260246 567 601150218 7185303
8000000 9000000
222 7106 10065 20085 30268009 403080238 5290 6241018 7153
8000000 9000000
333 01828 10000 20000 30901 40400 50000 60000 70003 8000000
9000003

444 029828 1025301 2034405 3022601 4036001 5414006 61200 711200=
97380 111 21009 3295010 40330262 5326 60088X07 7262142 8000000
9000000
222 09610 10064 20097 300281009 40315224 5310 60243X16 7184
8000000 9000001
333 02828 10000 20000 30705 40500 50000 8000000 9000000
444 0031028 1027106 2034219 3024456 4023907 501227 60600 711200=
97460 111 10082 20091 30270009 403150233 0292 60104500 7191///
8000000 9000000
222 NIHIL
333 02926 10000 20000 31409 40800 50000 8030000 9000000
444 0028501 1024701 2033626 3022259 4025501 5412017 60700
711200=
97630 111 19944 20103 30270008 403160232 5291 60053X08 7159///
8000000 9000000
222 09605 19935 2//// 30262007 40302218 5282 6026 7197114
8000000 9000000
333 02827 10000 20000 30905 40300 50000 60000 70000 8010101
9000000
444 0029515 1000079 2034025 3000079 4016516 5486026 60500
711200=
97722 111 97722 10076 20090 30263090 403110252 5288 60028X02 718403
8000000 9000000
222 08998 1091080 20191230 302730070 40285002460 552860 6010115
7131 8000000 9000000
333 02827 10000 20000 30201 40100 50000 800000 9000000
444 0029776 10029 2034300 30004 4023517 5415075 61200 710000=

595

CSID01 WIIX 050000
CLIMAT 02010
97580 111 10108 20110 30277010 403080213 5//// 60328X19 7045050
8000000 9//0701
222 00722 10000 20000 31101 40502 50000 60000 70000 8000000
9000000
444 0029216 1025120 2031868 3018263 4094006 5401072 60100
711200=

788

CSID01 WIIX 050600
CLIMAT 02010
97530 111 10083 20100 30271010 403540229 5298 60120115 7129118
8000000 9000000
222 07099 10070 20087 30253012 403080229 5290 60290157 7109
8000000 9000000
333 00000 10000 20000 31507 40400 500000 8000000 9000000
444 0028628 1025206 2032628 3022008 4027918 5420052 60000
711200=

789

CSID20 WIIX 050600
CLIMAT 02010
96607 111 10115 30272010 403440248 5299 60163X07 7094200 8000000
9000000
222 02009 10096 20109 30274005 403200236 5293 6017217 7194
8000000 9000000
333 02828 11000 20000 30703 40301 50000 8030000 9000000
444 0030418 1027420 2036005 3023220 4088020 5420020 60500
711200=
96737 111 20092 30275007 403150243 5306 60193209 7148148 8000000
9000000

222 8100 10061 20110 30264007 403060232 5281 6026117 7100
8000000 9000000
333 02826 10000 20000 30906 40401 50000 60000 70000 8000000
9000000
444 0028721 1025914 2033827 3023056 4050018 5414021 61400
711200=
97682 111 10094 20101 30274100 403240205 5317 60715X20 7145///
8020107 9010000
222 00000 10000 20000 30000000 400000000 5000 6000000 7000
8000000 9000000
333 02121 10000 20000 32017 41506 50000 60000 70000 8000000
9000000
444 0028863 1025621 2033669 3018009 4082919 5312020 60200
711200=

923

CSID01 WIIX 051200

CLIMAT 02010

96839 111 10099 20104 3027908 403340290 5296 60340X11 781181 8000000
9000000
222 09508 10093 20098 30268043 403060239 5294 6025020 7054
8000000 9000000
333 02927 10000 20000 31110 41002 5000 8000000 9000001
444 0029027 1025706 203410 3022720 4095619 5418006 62100 711200=
97192 111 10062 20117 30273009 403180247 50320 60300X17 7163082
8000000 9000000
222 09403 10043 20107 30273090 40312236 50302 6022515 7148
8000000 9000000
333 02824 10000 20000 30314 40000 50000 8000000 9000000
444 0029127 1025206 2033228 3023006 4048002 5413001 61900
711200=
97260 111 10092 20099 30273008 403300222 5309 6169211 7214151 8000000
9001300
222 08110 10077 20084 30263004 403030231 5296 6302317 7142
8000000 9000000
333 02826 10000 20000 31106 40201 50100 8000000 9000000
444 0028627 1025001 2033019 3022202 4116007 5413019 61400
711200=
97502 111 10097 20100 30279006 403200246 5297 60069X11 7199///
8000000 9000000
222 N I H I L
333 02828 10000 20000 31104 40200 50000 8000000 9000000
444 0028623 1026207 2033062 3020404 4025426 5416009 60300
711200=
97724 111 10072 20086 30266089 403210244 5291 60032X06 7163106
8000000 9000000
222 09498 10063 20078 30274007 403160242 5287 6011517 7154
8000000 9000000
333 02827 10000 20000 30602 40000 50000 8000000 9000000
444 0029526 10029 2034202 30002 4009002 5413059 60100 710000=
97900 111 0079 20109 30287010 403260263 5327 60110X11 7184144 8000000
9000000
222 08100 10066 20097 30275009 403120232 5307 6028816 7128
8000000 9000000
333 02827 10000 20000 31106 40400 50000 8020000 9000000
444 0030115 1025502 2034617 3024202 4037802 5320076 60800
711200=

830

CSID01 WIIX 060600

CLIMAT 02010

97028 111 20114 30274009 403160229 5293 60108X08 7155/// 8000000
9000000
222 09510 10086 20091 30265009 403080230 5194 60217X13 7143///
8000000 9000000
333 02828 10000 20000 30806 40400 50000 8000000 9000000
444 029127 102530 2034028 3021010 4046818 5407057 60000 711200=

435

CSID20 WIIX 060600
CLIMAT 02010
96791 111 20048 30271067 403240241 5305 60315223 7138069 8000000
9000000
222 09498 10104 20044 30260066 403180232 5297 60439218 7120///
8000000 9000000
333 02800 10000 20000 31711 40902 50000 60000 70000 8000000
9000000
444 028826 1025601 2033676 3023054 4054809 5400053 62300 71120=
96925 111 10099 20102 30280008 403150254 5304 60302X17 7189160
8000000 9000000
222 08998 10100 20107 30271005 403060240 5246 6037517 7118
8000000 9000006
333 00001 12700 20000 31000 40502 50000 8040000 9000000
444 0029828 1026019 2033328 3023319 4095806 5412056 60900
711200=

170

CSID01 WIIX 080600
CLIMAT 02010
96221 111 10090 20108 3027008 403150239 5309 60283X22 7131062
222 08397 10086 20101 30264007 403120231 5293 6026914 7095
333 02825 10000 20000 32217 41400 50000 8030000 9000001
444 028328 1025105 2033828 322601 4030002 542252 61300 711200=
96839 111 10099 20104 3027908 403340290 5296 60340X11 781181 8000000
9000000
222 09508 10093 20098 30268043 403060239 5294 6025020 7054
8000000 9000000
333 02927 10000 20000 31110 41002 5000 8000000 9000001
444 0029027 1025706 203410 3022720 4095619 5418006 62100 711200=
96935 111 10098 20105 30277009 403250242 5307 60490418 7135100
8000000 9000000
222 08110 10091 20097 30270004 403210239 5296 6039320 7135
8000000 9000000
333 02828 10000 20000 31813 41104 50000 8000000 9000000
444 0028659 1025619 2033813 3022620 4093720 5418008 62600 71200=
97028 111 10108 20114 30274009 403160229 5293 60108X08 7155///
8000000 9000000
222 09510 10086 20091 30265009 403080230 5194 60217X13 7143///
8000000 9000000
333 02828 10000 20000 30806 40400 50000 8000000 9000000
444 029127 102530 2034028 3021010 4046818 5407057 60000 711200=
97260 111 10092 20099 30273008 403300222 5309 6169211 7214151 8000000
9001300
222 08110 10077 20084 30263004 403030231 5296 6302317 7142
8000000 9000000
333 02826 10000 20000 31106 40201 50100 8000000 9000000
444 0028627 1025001 2033019 3022202 4116007 5413019 61400
711200=
97502 111 10097 20100 30279006 403200246 5297 60069X11 7199///
8000000 9000000
222 N I L
333 02828 10000 20000 31104 40200 50000 8000000 9000000

```

444 0028623 1026207 2033062 3020404 4025426 5416009 60300
711200=
97530 111 10083 20100 30271010 403540229 5298 60120115 7129118
8000000 9000000
222 07099 10070 20087 30253012 403080229 5290 60290157 7109
8000000 9000000
333 00000 10000 20000 31507 40400 500000 8000000 9000000
444 0028628 1025206 2032628 3022008 4027918 5420052 60000
711200=
97810 111 10101 20108 30278007 403140242 5325 60289112 7151066
8000000 9000000
222 08110 10092 200911 30271005 403080239 5319 6033919 7100
8000000 9000000
333 02827 10000 20000 31207 40502 50000 60000 70000 8000000
9000000
444 0029325 1025408 2032818 3023408 4096420 5432024 60100
711200=

627
CSID20 WIIX 080600
CLIMAT 02010
96607 111 10100 10115 30272010 403440248 5299 60163X07 7094200
8000000 9000000
222 02009 10096 20109 30274005 403200236 5293 6017217 7194
8000000 9000000
333 02828 11000 20000 30703 40301 50000 8030000 9000000
444 0030418 1027420 2036005 3023220 4088020 5420020 60500
711200=
96737 111 10062 20092 30275007 403150243 5306 60193209 7148148
8000000 9000000
222 8100 10061 20110 30264007 403060232 5281 6026117 7100
8000000 9000000
333 02826 10000 20000 30906 40401 50000 60000 70000 8000000
9000000
444 0028721 1025914 2033827 3023056 4050018 5414021 61400
711200=
96791 111 10107 20048 30271067 403240241 5305 60315223 7138069
8000000 9000000
222 09498 10104 20044 30260066 403180232 5297 60439218 7120///
8000000 9000000
333 02800 10000 20000 31711 40902 50000 60000 70000 8000000
9000000
444 028826 1025601 2033676 3023054 4054809 5400053 62300 71120=
96935 111 10098 20105 30277009 403250242 5307 60490418 7135100
8000000 9000000
222 08110 10091 20097 30270004 403210239 5296 6039320 7135
8000000 9000000
333 02828 10000 20000 31813 41104 50000 8000000 9000000
444 0028659 1025619 2033813 3022620 4093720 5418008 62600 71200=
96987 111 10047 20107 30276008 403230245 5307 60112210 7123134
8000000 9000000
222 08100 10021 20081 30266006 403340222 5284 6021216 7123
8000000 9000000
333 02827 10000 20000 31005 40500 50000 8000000 9000000
444 0028716 1025506 2033626 3020619 4031405 5418026 61100
711200=
97682 111 10094 20101 30274100 403240205 5317 60715X20 7145///
8020107 9010000
222 00000 10000 20000 30000000 400000000 5000 6000000 7000
8000000 9000000
333 02121 10000 20000 32017 41506 50000 60000 70000 8000000
9000000

```


444 0028863 1025621 2033669 3018009 4082919 5312020 60200
711200=

RTH Melbourne, New Caledonia, Noumea

Section 444 group 7 – The group 7_iG_xG_xG_nG_n is for reporting measurement practice, and time of reading of max/min temperature. Non numeric invalid character '-' is consistently seen to be used in the group for every month

974
CSNC01 NWBB 040915
CLIMAT 02010
91577
111 10081 20101 30261007 403050222 5246 60111/09 8000000 9000028
333 02819 30907 40500 8210000
444 0027427 1024811 2032207 3019718 4025723 5115422 72-606=
91592
111 10032 20110 30257008 402880233 5258 60128/12 7228/// 8000000
9000000
333 02804 31206 40401 8250000
444 0027624 1023910 2031728 3020903 4054206 5118006 72-606=
91753
111 10031 20062 30282007 403130258 5308 60157/12 7141/// 8000000
9000000
333 02826 31206 40500 8140000 9000003
444 0029125 1026107 2032203 3024511 4037206 5115215 60000 72-606=

RTH Melbourne, Philippines, Manila

Incorrect MMJJ=06010 which indicates June 2010

05523
CSPH01 RPMM 060000
CLIMAT 06010
98134 111 19961 20151 30235004 402650205 5248 60089/06
333 02400 30602 40201 8 140200
444 0025028 1020019 2028628 3018016 4060525 122013=
98223 111 10126 20132 30260008 403150205 5264 60000000
7266///
333 02827 10000 30000 8030000
444 0027928 1024220 2033128 3018212 4000000 5111019
60000 710600=
98232 111 10141 20144 30263///
333 02811 10000 30303 403010218 5226 60034/03
444 0028327 1024523 2032528 3020022 40016619 5105013=
98233 111 10074 20145 30263010 403310189 5198 6000000
7245///
333 02828 10200
444 0028125 1023919 2035227 3016808 4000000 5108009
60000=
98325 111 10130 20133 30265044 403210208 5230 60001/01
333 02827 10200 30100 8010000
444 0028827 1024819 2035014 3022508 4001019 5113020
60000 710000=
98330 111 10108 20140 30276008 403410211 5///
333 02828 10200 30000 69999/00
444 0028723 1026104 2035427 3018404 4000000 5000000
60000=
98328 111 18537 20116 30185///
7628094 402490139 5182 69999/01
333 01200
444 0020827 1017812 2026427 3012624 4999927 5104009
60000 710621=
98425 111 101121 20129 30283///
333 02827 10000 30000 403200251 5233 60000/00
444 0029724 1027101 2033508 3023404 50000 8000000
60000 50000 4000000 5////////
7////////=
98430 111 10081 20130 30269007 403330216 5486 69999/01
333 02828 10000 8030000
444 0029222 1025754 2034524 3018304 4999909 5110056=
98637 111 10121 20128 0270///
333 02827 10000 30100 403180222 5281 60002/01
444 0028625 1026402 2033225 3021402 4002013 51////////
60000=
98644 111 10119 20128 30272006 403280229 5281 60021/04
333 02826 10000 30402 40100
444 0029517 1023712 2034815 3020827 4014604 5109014
60000=
98646 111 10116 20148 30270///
333 02804 10000 30801 403060238 5289 60016/08
444 0028214 1025804 2031702 3022802 50000 8010000
60000 710600=
98653 111 10080 20125 30270007 403030233 5298 60199/14
333 02819 31408 40501 8010000
444 0028227 1024404 2032427 3022303 4058004 5112009=
98550 111 10127 20130 30277///
7193586 403160239 5298 60022/05
333 02827 30501 40100
444 0028928 1025804 2033028 3022602 4012101 5109006=

98755	111	10124	20128	30264///	402990233	5317	60247/18
	333	02828	31815	40702	8030000		
	444	0027509	1022707	2031516	3021006	4062019	51012010=
98836	111	10111	20119	30266///	403350215	5280	60014/01
	333	02828	10200	30101	40100	8000000	
	444	0029014	1025101	2028420	3025428	4013815	5109022
		60100	710600=				
98851	111	19964	20112	30284///	403390229	5280	60013/02
	333	02822	10600	30201	40100	50000	8010000
	444	0032421	1023703	2035221	3022805	4011822	5112007
		60100	710600=				

RTH Melbourne, Tuvalu, Funafuti

Tuvalu has been sending CLIMAT report to Melbourne and Wellington by email using some unidentified special codes. It looks like WMO station number (Iliii) is reported in the first group with no WMO block number 91 and only station number 636, 643, 648 are reported. The month of the year is reported after station number (iii)

Message reports are received by email in Melbourne from email address tuvmet@tuvalu.tv and the same reports are also received from RTH Wellington

Messages received in WMC/RTH Melbourne:

```
RELAY TO AFTN
GG NZMBYM METEX
CSTV01 NGFU 030618
CLIMAT 63602 10308 20248 32221 23510 52444 60426 72106
      MEAN PPPP 1007.4
      MEAN RH 91%=
```

```
RELAY TO AFTN
GG NZMBYM METEX
CSTV01 NGFU 030000
CLIMAT 34802 10316 20259 33124 25002/10 52654 60541 70718
      MEAN PPPP 1006.0
      MEAN RH 88%=
```

```
RELAY TO AFTN
GG NZMBYM METEX
CSTV01 NGFU 020147
CLIMAT 64302 10306 20258 32922 20240 54850 60886 72614
MEAN PRESSURE 1008.1
MEAN RH 85.6%=
```

Messages received from RTH Wellington:

```
716
CSTV01 NGFU 030618
CLIMAT 63602 10308 20248 32221 23510 52444 60426 72106
MEAN PPPP 1007.4
MEAN RH 91%=
```

```
572
CSTV01 NGFU 030000
CLIMAT 34802 10316 20259 33124 25002/10 52654 60541 70718
MEAN PPPP 1006.0
MEAN RH 88%=
```

RTH Melbourne, Papua New Guinea (PNG), Port Moresby

PNG CLIMAT reports are delivered by email to RTH Melbourne with no abbreviated header (TTAAii CCCC). The also reports included some plain text with headings, station names and end of message indicator 44777 which are not part of the FM-71XII CLIMAT code form.

PNG February 2010 CMILAT reports received on 4 March 2010:

ZCZC PMBY GPNG

PNG CLIMAT REPORTS FOR THE MONTH OF FEBRUARY 2010

DARU CLIMAT 02010 92003 NIL

WEWAK CLIMAT 02010 92004

111 10097 20101 3//////// 403100241 5319 60113/13 7//////// 8002800
9000028 44777

MT HAGEN CLIMAT 02010 92005 NIL

MADANG CLIMAT 02010 92014

111 10089 20095 3//////// 40///0245 5307 60218218 7//////// 8020302
9010128 44777

VANIMO CLIMAT 02010 92022

111 10096 20107 3//////// 402970241 5302 60305316 7000000 8000000
9000028 44777

PORT MORESBY CLIMAT 02010 92035

111 10027 20085 3//////// 403260243 5291 60093/10 7//////// 8000200
90000// 44777

MOMOTE CLIMAT 02010 92044

111 10095 20101 3//////// 403110252 5307 60177213 7//////// 8000000
9000028 44777

NADZAB CLIMAT 02010 92047

111 10000 20077 3//////// 40///0/// 5304 60171215 7//////// 8000028
9000028 44777

HOSKINS CLIMAT 02010 92072

111 10091 20100 3//////// 402990237 5314 60761/24 7//////// 8090606
90600// 44777

KAVIENG CLIMAT 02010 92076

111 10095 20100 3//////// 403110250 5313 60226/14 7//////// 8000000
9000000 44777

GURNEY CLIMAT 02010 92077 NIL

MISIMA CLIMAT 02010 92087

111 1//// 2//// 3//////// 403170245 5336 60159/16 7//////// 8282800
9000028 44777

TOKUA CLIMAT 02010 92100

111 10081 20097 3//////// 403110237 5/// 60135/13 7//////// 8000000
9000000 44777

NNNN

CLIMAT bulletin CSNG01 AMMC is compiled by RTH Melbourne for distribution on GTS

CLIMAT reports for 92004, 92022, 92035, 92044, 92072, 92076, 92087, 92100 are not compiled in CSNG01 AMMC possibly due to problems encountered in parsing the reports when end of report indicator '=' is not detected in the original message bulletin submitted by PNG.

The CLIMAT reports compiled for 92014 and 92047 in CSNG01 AMMC incorrectly included the station name of the next report in the original message.

```
CSNG01 AMMC 051200
CLIMAT 02010
92001 NIL=
92003 NIL=
92004 NIL=
92005 NIL=
92014 111 10089 20095 3//////// 40///0245 5307 60218218 7////////
      8020302 9010128 VANIMO=
92022 NIL=
92035 NIL=
92044 NIL=
92047 111 10000 20077 3//////// 40///0/// 5304 60171215 7////////
      8000028 9000028 HOSKINS=
92072 NIL=
92076 NIL=
92077 NIL=
92087 NIL=
92100 NIL=
```

5.6 Region VI

RTH Norrkoping, Lithuania, Vilnius

**Code name CLIMAT and MMJJJ are missing
CSLT10 EYHM is not found in WMO Volume C1**

02358

CSLT10 EYHM 010600

26730	111	19916	20114	31041038	410211059	5041	60044410	7026037	8000000	9000000=
26524	111	19967	20104	31049035	410211073	5040	60036510	7018028	8000000	9000000=
26629	111	10009	20108	31039050	410171061	5043	60039408			
7035051		8000000	9000000=							
26531	111	10033	20112	31047034	410241076	5040	60046611	7028///		
8000000		9000000=								
26509	111	10081	20090	31033034	410111053	5042	60033309			
7033051		8000000	9000000=							

RTH Moscow, Georgia, Tbilisi

**CSGG10 UGGG 010827 is an invalid CLIMAT message
MMJJJ = 023 is invalid and the section indicator is missing
Encoded values in CSGG10 UGGG 010827 and CSGG10 UGGG 010832 are different**

Invalid MMJJJ and section indicator missing

```
05649
CSGG10 UGGG 010827
CLIMAT 023
37279 19957 20098 30080 5105 605703//=
37395 19966 20105 30106 5503 60040//=
37404 NIL=
37432 18908 21436 30028 5201 60005//=
37484 10084 20094 30110 5802 60045//=
37545 19605 20118 30069 52// 60000//=
37621 19483 21012 30067 5600 60000//=
```

**Section 111 group 3 - missing standard deviation not encoded as '///'
Section 111 group 4 - max/min temp group missing one '/'**

```
5966
CSGG10 UGGG 010832
CLIMAT 02010
37279 111 19994 20136 30079 4//////// 5097 618911//=
37395 111 10008 20147 30093 4//////// 5611 60162//=
37404 NIL=
37432 111 10118 21471 30008 4//////// 5207 60033//=
37484 111 10118 20128 30112 4//////// 5109 60157//=
37545 111 19661 20179 30043 4//////// 5605 60037//=
37621 111 19534 21018 30035 4//////// 5607 60037//=
```

RTH Rome, Italy, Rome

Encoded month and year MMJJJ given as '0201:'

MMJJJ should be coded as 02010

Errors are also found in the mean daily max/min temperature (Group 4) in Section 111 with invalid characters '-'

RTH Rome issued altogether 55 CLIMAT bulletins on 5 March 2010 as follows:

1 CLIMAT bulletin CSIY01 LIIB 051200 with 32 reports

22 CLIMAT bulletins CSIY01 LIIB 051200 with BBB indicators RRA ... RRV consisting mostly one single report in the bulletin.

30 CLIMAT bulletins CSIY01 LIIB 051200 with BBB indicator RRW consisting mostly one single report in the bulletin.

Too many single-report bulletins using the same YGGgg can cause problems as the BBB indicators RRA ... RRW will only give 23 unique abbreviated headers TTAAii CCCC YGGgg [BBB].

Same problems also happened for CSIY01 LIIB for January 2010 when MMJJJ was given as '0101:'

883

CSIY01 LIIB 051200

CLIMAT 0201:

```
16008 111 18406 21373 31048034 410-11-84 5030 60011203 7////////
      8000000 9000028
      222 06190 1///// 31030051 400091076 5008 6002906 7///
      8300000 9000030
      333 22818 30300 62828 72810 8090000
      444 0000725 1110101 2007018 3115001 4003405 5430019 60000=
16022 111 17714 21366 31069028 41-511-86 5032 60015303 7107///
      8000000 9000002
      222 06190 1///// 31052042 401241074 5007 6002405 7///
      8300000 9000030
      333 22828 30301 62828 72828 8210300 9141520
      444 0102318 1113001 2100118 3115101 4005619 5448007 60000=
16033 111 18668 21380 31033041 400141-75 5042 60023307 7////////
      8000000 9000028
      222 06190 1///// 31019055 400221073 5039 6003404 7///
      8300000 9000030
      333 22509 30702 62828 72800 9000004
      444 0002618 1111501 2006618 3116201 4006210 5414012 60000=
16052 111 16471 22888 31139032 411131166 5013 69999000 7135094
      8000000 9002800
      222 06190 1/////31120049 410811146 7143
      8300000 9303000
      333 22828 62828 72828 8221001 9000223
      444 0108504 1121901 2106628 3123002 4//////// 5461026 60000=
16061 111 19222 26857 30018026 400461002 5047 60067510 7113088
      8000000 9000000
      222 06190 1///// 30032036 400600003 5013 6004305 7129
      8300000 9000000
      333 21702 31004 40200 62828 72600 8080000 9000017
      444 0006827 1101809 2010226 3103412 4025219 5438026 60000=
16110 111 19993 210000 30068026 400930043 5073 60123511 7066065
      8040433 9040304
      222 06190 1///// 20155 30061031 400870041 5016 6006207 7118
      8000000 9000000
      333 31108 40500 60101 8160802 9000002
      444 0011419 1001908 2013619 3100008 4030620 5465010 60000=
16134 111 17681 21371 31049037 410351062 5039 60011104 7067058
      8000000 9000000
      222 06190 1///// 31046044 410231068 5035 6004307 7115
      8300000 9000000
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333 22819 30400 62828 72828 8231001 9222224
444 0000225 1112402 2002028 3114201 4003619 5405819 60000=
16148 111 10051 20060 30041037 400820006 5075 60078510 7080///
8000000 9000000
222 06190 1///
20159 30049042 400900007 5014 6004907 7///
8070707 9070707
333 21000 31005 40300 60404 8080000 9000005
444 0010226 1103701 2014826 3109002 4030010 5429006 60100=
16153 111 19792 20060 30075020 401020057 5069 60102410 7107078
8000000 9000000
222 06190 1///
20142 30087029 401200065 5019 6007306 7137
8030303 9030303
333 31005 40300 60101 70101 8240600 9000002
444 0011827 1004111 2017826 3100011 4030219 5453019 60000=
16158 111 10049 20060 30075033 401180035 5085 60065309 7086072
8000000 9000000
222 06190 1///
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8000000 9000000
333 20600 30905 40300 8110100 9000101
444 0012426 1000901 2015825 3104001 4016405 5440019 60000=
16179 111 19374 20682 30045039 400700022 5068 60162515 7/////////
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222 06190 1///
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333 20900 31512 40700 61212 70700 8201105 9000717
444 0012128 1101601 2015428 3103201 4025412 5476019 60200=
16206 111 10048 20060 30085036 401300046 5085 60064313 7/////////
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222 06190 1///
20144 30080042 401300033 5018 6005707 7///
8000000 9000030
333 20400 31304 40100 60101 8190400 9000001
444 0014026 1002201 2018626 3103601 4014010 5453019 60100=
16219 111 17942 21332 3////////// 410-71-34 5048 69999000 7048045
8282800 9282801
222 06190 1///
31029040 410051049 5042 7109
8300000 9003000
333 22512 62828 72828 9232323
444 0002419 1107502 2003219 3108202 4////////// 5400001 60100=
16224 111 19734 20050 30084028 401040064 5088 60103411 7112085
8010100 9010000
222 06190 1///
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8000000 9000000
333 31107 40500 60101 8160000 9000003
444 0012623 1001912 2014427 3100012 4027022 5433026 60200=
16232 111 10003 20060 30098030 401290072 5094 60040406 7118108
8000000 9000000
222 06190 1///
20144 30085031 401120061 5019 6002605 7109
8000000 9000000
333 30603 40100 8210200 9000002
444 0015328 1005702 2021628 3003803 4013010 5444028 60000=
16245 111 10035 20060 30096035 401340060 5098 60118515 7/////////
8000000 9000028
222 06190 1///
20144 30091039 401330045 5092 6008108 7///
8010101 9010130
333 20300 31508 40500 8180100 9000001
444 0014823 1002702 2018219 3102201 4021622 5444019 60201=
16252 111 19124 20695 30047035 400750025 5073 60090512 7112114
8000000 9000000
222 06190 1///
30038042 400710013 5063 6006009 7098
8300000 9000000
333 20600 31207 40300 60202 70101 8050100 9000305
444 0011228 1101302 2015428 3103401 4021610 60000=
16253 111 10057 20070 30091035 401380051 5102 60129514 7109088

8000000 9000000
222 06190 1///// 20152 30085/// 401360039 5019 6008109 7123
8030303 9030303
333 20400 31408 40600 8160100
444 0014723 1003002 2020428 3102002 4023010 5440006 60200=
16258 111 19075 20692 30036034 400600016 5060 60066415 7/////////
8000000 9000028
222 06190 1///// 30037037 400600016 5013 6004507 7///
8300000 9000030
333 20902 31504 40100 60707 70101 8240100 9202021
444 0009128 1103302 2014828 3104002 4016610 5441027 60000=
16310 111 19854 20080 30103025 401300075 5091 60093410 7091072
8010100 9010501
222 06190 1///// 20144 30099030 401290072 5021 6008510 7132
8000000 9000000
333 31005 40400 9000001
444 0015819 1005402 2019619 3002213 4025011 5400001 60200=
16325 111 10047 20060 30104028 401420068 5106 60064408 7/////////
8000000 9000628
222 06190 1///// 20144 30093033 401330054 5020 6005106 7140
8070705 9070505
333 30804 40300 8230300
444 0015018 1004302 2019218 3000804 4028010 5444010 60000=
16344 111 18208 21397 31005030 400141-24 5056 60234608 7031///
8000000 9001400
222 06190 1///// 30002038 400231021 5055 6008711 7///
8300000 9000030
333 22011 30807 40601 62828 72828 9272727
444 0006828 1105802 2011828 3108603 4059211 60501=
16360 111 19943 20080 30105022 4////////// 5100 69999000 7131///
8000099 9002800
222 06190 1///// 20143 30100030 401250076 5021 6006008 7///
8000000 9000030
333 8230000
444 0014518 1005502 2////////// 3////////// 4////////// 5438006 60100=
16400 111 19794 20080 3////////// 401440094 5107 60078511 7141099
8282800 9280000
222 06190 1///// 20150 30107022 401270086 5022 6004508 7143
8000000 9000000
333 31105 40300 8110000
444 0016328 1005812 2020828 3002612 4027010 5439010 60100=
16420 111 10019 20080 30133030 401660102 5126 60154519 7128099
8000000 9000000
222 06190 1///// 20150 30119025 401480096 5024 6098411 7129
8000000 9000000
333 31908 40500 8240300
444 0018619 1008502 2024223 3005002 4030007 5442024 60403=
16429 111 10077 20090 30124025 401470102 5115 60054411 7143102
8000000 9000000
222 06190 1///// 20155 30116027 401530080 5024 6045808 7140
8010100 9010000
333 31105 40100 8260500
444 0017019 1008212 2020228 3005002 4010214 5445016 60301
16450 111 18989 21459 30069033 401040046 5082 60089511 7/////////
8000000 9000028
222 06190 1///// 30050035 400690027 5014 6003506 7///
8301616 9161630
333 20200 31104 40400 60101 70101 8280700 9171720
444 0013628 1001502 2019428 3100212 4034114 5454014 60000=
16459 111 10054 20090 30107026 401690054 5106 60074506 7/////////
8000000 9000028
222 06190 1///// 20152 30104029 401630054 5022 6004706 7158
8000000 9000000

333 30604 40200 8250300 9000102
444 0015224 1006302 2023026 3100004 4040914 5444012 60000=
16480 111 10025 20090 30130022 401710092 5134 60042307 7188///
8000000 9000000
222 06190 1///< 20154 30119028 401540090 5110 6004306 7///<
8000000 9000030
333 30703 40100 8210100 9000002
444 0016024 1008602 2021618 3004203 4013814 5443010 60300=
16522 111 19822 20065 30104027 401230083 5109 60049207 7112085
8000000 9000000
222 06190 1///< 20140 30101029 401410063 5109 6006809 7137
8000000 9150000
333 30703 40100 60101 8261402 9000207
444 0016128 1004212 2020028 3100012 4020009 60000=
16546 111 10046 20074 30104037 401530058 5100 60073413 7////////
8000000 9000000
222 06190 1///< 20147 30100040 401460050 5099 6006609 7///<
8000000 9000030
333 20200 31305 40100 8230200 9000001
444 0016828 1003312 2023028 3100404 4020009 5442006 60000=

RTH Sofia, Yugoslavia, Beograd

YYGGgZ inserted between WMO number and 'NIL=' for every NIL report

```
33379
CSYG01 LYBM 050900
CLIMAT 02010
13160 050900Z NIL=
13168 111 19985 20088 30018047 400551018 5062
      60066512 7058059 8000000 9000000
      222 07100 10097 20207 30018049 400631020 5056
      6002905 7099 8000000 9000000
      333 00000 10000 21502 31205 40100 50000
      61614 70300 8020000 9000104
      444 0010424 1106803 2015524 3110709 4015713
      5121706 60000 712020=
13262 050900Z NIL=
13272 050900Z NIL=
13274 111 19923 20085 30037045 400690008 5058
      60113513 7068068 8000000 9000000
      222 07100 10031 20202 30030048 400700000 5056
      6003806 7100 8000000 9000000
      333 00000 10000 21300 31306 40300 50000
      61616 70600 8110100 9000000
      444 0012419 1101908 2016623 3104103 4039125
      5127306 60000 712020=
13285 050900Z NIL=
13289 050900Z NIL=
13363 050900Z NIL=
13376 050900Z NIL=
13388 111 19849 20100 30033047 400791001 5064
      60088618 7042044 8000000 9000000
      222 07100 19951 20203 30025046 400751014 5057
      6003507 7094 8000000 9000000
      333 00000 10000 21500 31807 40100 50000
      61717 70400 8070000 9010104
      444 0012620 1105103 2018720 3110503 4014225
      5113427 60000 712020=
13462 050900Z NIL=
13463 050900Z NIL=
13473 050900Z NIL=
13489 050900Z NIL=
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RTH Sofia, Syrian Arab Republic, Damascus

**Encoded month and year MMJJJ are incorrect and given as 022010
MMJJJ should be coded as 02010
Section 111 missing for stations 40022, 40045**

014
CSSY01 OSDI 040922
CLIMAT 022010
40001 111 19595 20128 30103109 401410065 5098 60390006 7000000
8000000 09000000 333 00000 10000 20100 30600 40100 50000
60000 70000 8050000 9000001 444 0015218 1003105 2019820 3101005

1003105 2019820 3101005 4026728 5101416 60000 711806=
40007 111 19689 20144 30093 4019401024 5031 600081/09 7/////////
8000000 9000000 333 00000 10000 20300 030905 40300 50000 60000
70000 8060000 9000005 444 0013216 1002505 2019420 3102405
4031828
5001922 60400=
40022 10115 20124 30134017 401790112 5114 6013009 7135048 8000000
9000000=
40030 111 19778 20140 30103/// 401540062 5094 6004711 7041///
333 00000 10000 20300 31106 4010000 8050000 9000002 444
0016419
1003805 2022520 3102306 4010426 511921 60101 711806=
40045 19915 20164 30112026 40168060 05086 60026/7 7047073 8000000
9000000 333 20003 30402 40100 8110200 9010101 444 0017016
104106
2023416 3102005 4014228 5102219 711806=
40061 111 19661 20137 40114000 401700064 5078 60032/04 7146077
8000000 9000000 333 20300 30102 40100 08060100 9000002
444 0016219 1003505 2024221 3102807 4014025 5102422
60100 711806=
40080 111 19429 20141 30107/// 401790046 5079 6015804 7064061 8000000

9000000 222 19448 20165 30079/// 401470015 5069 6040// 7065
808080000 9080000 333 00300 20300 30402 40100 8100200 9020205
444 0017616 1001107 2028016 3105007 4011228 5102119 711806=

5.7 Region VII

RTH Buenos Aires in RA III, Antarctic, Base Marambio

Code name 'cLIMAT' given in mixed case is potentially a problem to decoder. Same problem happened in previous months.

495

CSAA01 SAWB 041754

cLIMAT 02010

88963 111 19844 29946 31008021 400181034 5049 60010/02 7081///
8000000 9000000 333 22705 30201 62315 70400 8130100 9010312

444 0005117 1106821 2010417 3110021 4006812 5465028=

88968 111 19913 29926 30009015 400241006 5060 60158611 7027///
8000000 9000000 333 21801 31108 40501 61611 8251409 9000405

444 0003311 1102821 2006617 3105622 4062010 5485010=

89034 111 19621 29941 31060033 410221098 5032 60025/05 7209///
8000000 9000000 333 22820 30502 60807 70200 8140200 9000007

444 0100809 1112526 2004603 3115826 4009418 5452012=

89053 111 19926 29940 30003014 400201012 5055 60011/06 7030///
8000000 9000000 333 22202 30601 61406 8130000 9030513

444 0002412 1104221 2005012 3105521 4002110 5350004=

89055 111 19703 29943 31031025 410071059 5043 60093/15 7085///
8000000 9000000 333 22719 31508 40300 61615 70600 8110400
9192123 444 0004717 1111621 2007016 3114421 4015228 5450028=

89066 111 19946 29702 30018///
8000099 9000000 333 30705 40100 60403 8100805 9010102
444 005102 1102028 4015615 5468005=

5.8 Regions I and VI

RTH Algeria

RTH Offenbach

CLIMAT bulletins received from RTH Algeria and Offenbach are found to be using Section 555 and Section 666 for their CLIMAT reports. The groups are likely to be national exchange coding groups. Section 555 is most commonly used and section 666 is also found occasionally.

Section 555 is found in the following bulletins:

CSAL(01,02,03,04,20,21) DAMM

CSDL(01,02,03,04, 45,46,47,48) EDZW

Some description in FM-71XII CLIMAT to indicate that Section 555 and 666 as national exchange groups would be appropriate.