

# Selected stations for building Mediterranean long-term climate datasets from Croatia

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## Data rescue and data storage

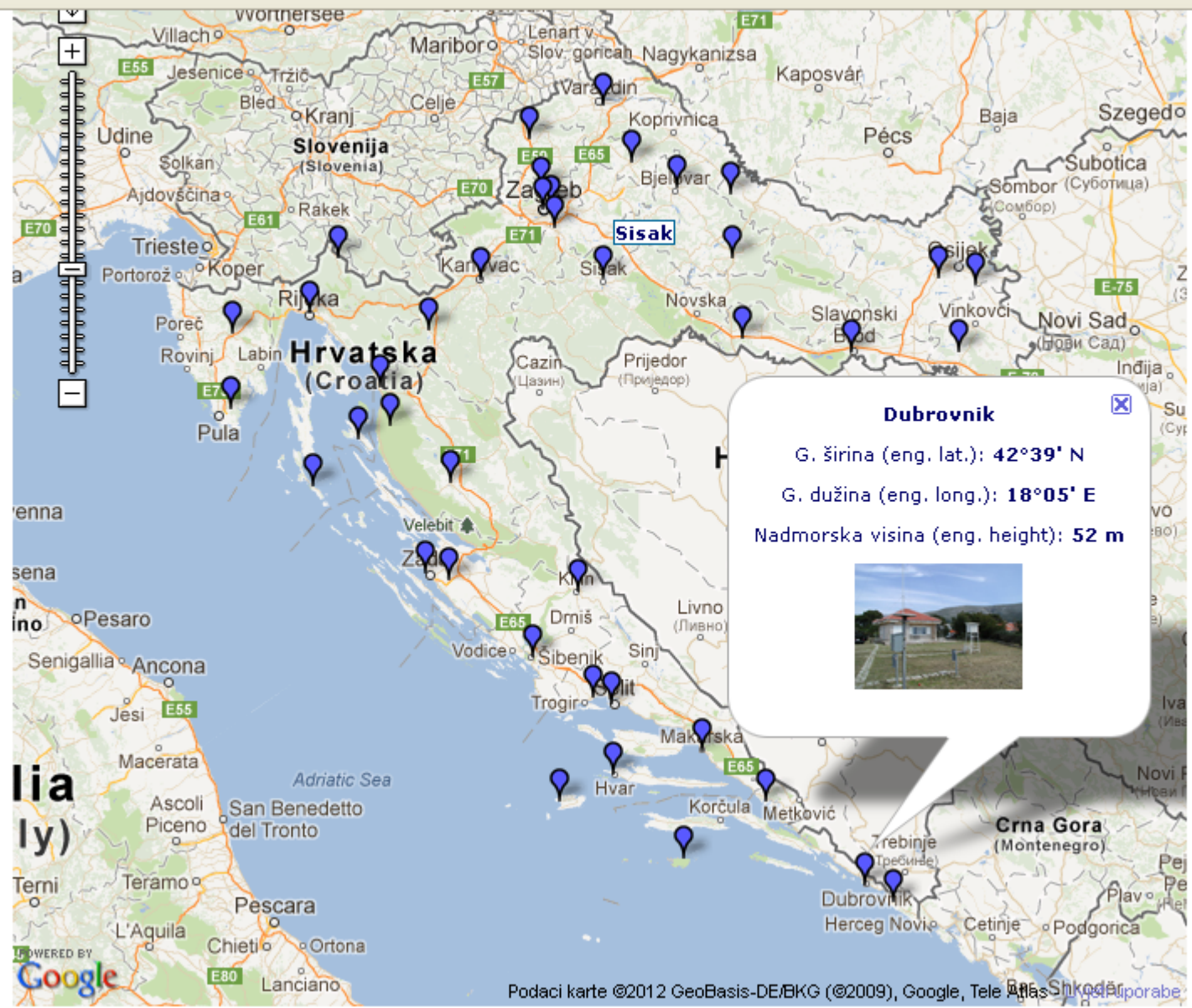
- Computer data processing and storage were introduced in Belgrade, former Yugoslavia, in 1968 and were there till 1980;
- At the very beginning, the data were stored as punch cards – technology was changed and part of data were lost; There is no complete data series from 1968 to 1980;
- In 1981 computer data processing of climatological data (7, 14 and 21 local time) of the main and climatological stations were started in Zagreb;

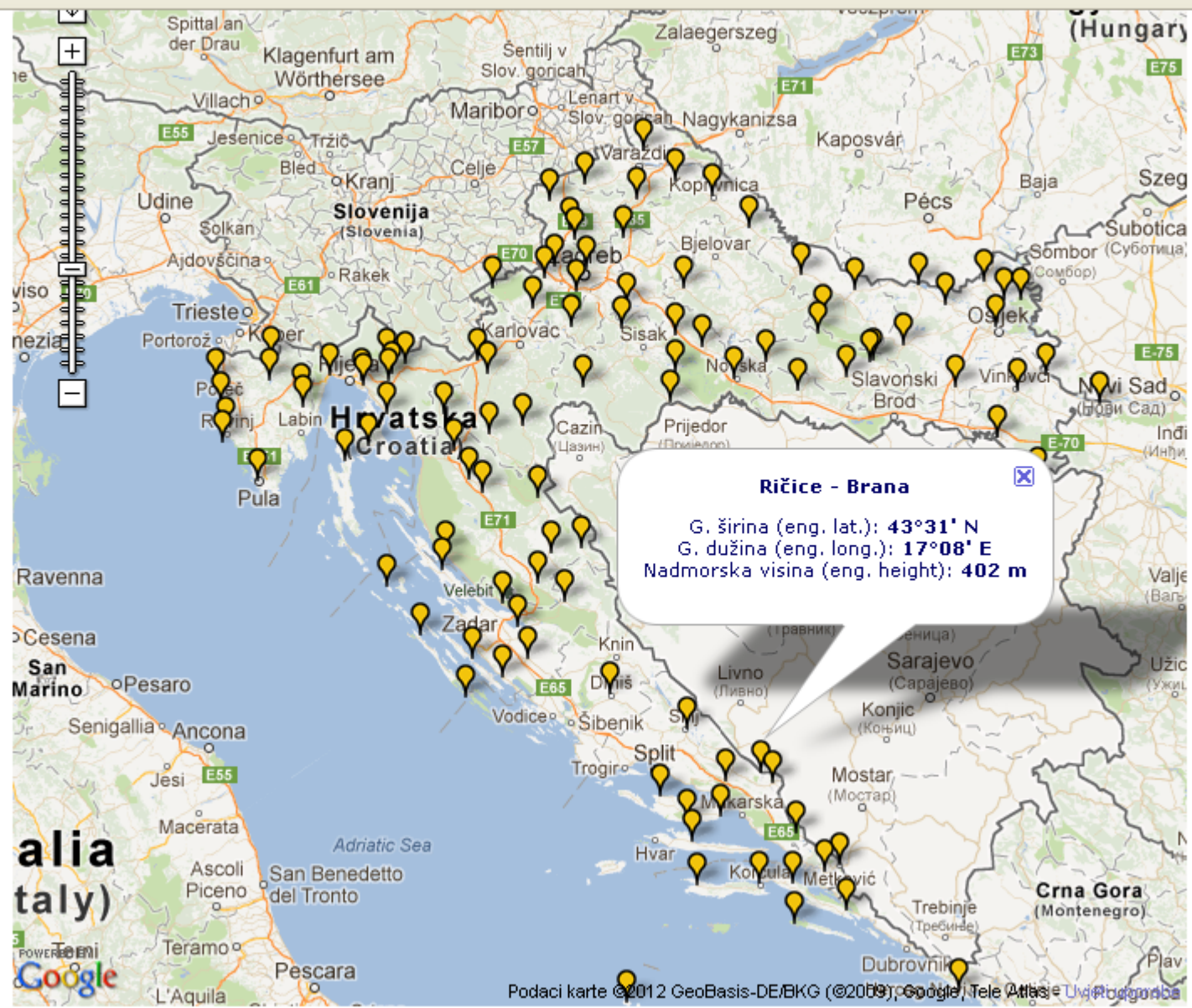
## Data rescue and data storage

- In 1991 computer data processing of all precipitation stations were started;
- In the same year data entry of the hourly values of different meteorological elements were carried out;
- Once the quality control is done the data are stored into the data base;
- Until 1999 all controlled and processed data have been stored into the Micro Vax computer;
- Since 1999 the data have been stored into the UNIX operational system;

## Data rescue and data storage

- Data from main, automatic and radiosonde stations are received in digital form in real-time;
- Climatological and precipitations stations data are operationally digitized from paper observation forms on a monthly basis;
- Historical data (climatological data before 1981, and precipitation data before 1991) are digitized as much as we can or on request ;
- We estimate that between 50 and 60% of historical observations are in digital formats;







# Selection of stations

- Stations are selected according requested criteria (temporal and spatial coverage, long term continuity...)
- All digitized data are quality controlled, but not homogenized;
- There are some experience with homogenization data (temperature and precipitation), but we do not apply procedure on regularly basis;
- 26 stations are selected from all over the country;

# Selected stations from Croatia





# Selected stations – basic information

SELECTED STATIONS FOR MEDARE DATABASE - DAILY VALUES OF TEMPERATURE AND PRECIPITATION AND HOURLY VALUES OF AIR PRESSURE

	<b>Station: Bjelovar</b>					Lat	Long	Alt
	Digitised record length	Missing data		Missing data		Non digitised record		45°55' 16° 51' 141
Mean temp	1949-01-01	2011-12-31						
Precipitation	1949-01-01	2011-12-31						
Air pressure	2001-02-01	2011-12-31				1952-04-01 2000-12-31		

	<b>Station:Crikvenica</b>					Lat	Long	Alt	
	Digitised record length	Missing data		Missing data		Non digitised record		45°10' 14° 42' 2	
Mean temp	1891-01-01	2011-12-31		2008-04-01	2008-06-30		1987-04-01	1987-06-30	
Precipitation	1891-07-01	2011-12-31		2008-04-01	2008-06-30		1987-04-01	1987-06-30	
Air pressure									

	<b>Station: Daruvar</b>					Lat	Long	Alt
	Digitised record length	Missing data		Missing data		Non digitised record		45°36' 17° 14' 161
Mean temp	1978-01-01	2011-12-31						
Precipitation	1978-01-01	2011-12-31						
Air pressure	1996-10-01	2011-12-31				1950-08-01 1995-12-31		

	<b>Station: Djurdjevac</b>					Lat	Long	Alt	
	Digitised record length	Missing data		Missing data		Non digitised record		46°03' 17° 04' 121	
Mean temp	1960-01-01	2011-12-31							
Precipitation	1960-01-01	2011-12-31							
Air pressure									

# Different forms of daily values

**Dnevni srednjaci - Mozilla Firefox**

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Dnevni srednjaci

lahor.gric.dhz.hr/klima/dnklime.html

Google

**<- Povratak : Dnevni srednjaci klimatoloških elemenata**

Korisnik:  @cirus.dhz.hr

Postaja:  Početna god.  Završna god.

**Ispis vrijednosti u tablici**

- Srednja dnevna temperatura (s)
- Temperatura po suhom t. u 21h
- Srednja dnevna temperatura (m)
- Maksimalna dnevna temperatura
- Minimalna dnevna temperatura
- Srednja dnevna naoblaka
- Dnevna insolacija
- Srednji dnevni tlak zraka
- Srednji dnevni tlak vodene pare
- Srednja dnevna jačina vjetra (bof)
- Srednja dnevna brzina vjetra (m/s)
- Srednja dnevna relativna vlaga
- Visina ukupnog snijega (cm)
- Visina novog snijega (cm)
- Dnevna oborina

**Ispis vrijednosti u koloni**

Dnevna temperatura (suha)

srednja  07 h  14 h  21 h

Srednja dnevna temperatura (m)

Maksimalna dnevna temperatura

Minimalna dnevna temperatura

Srednja dnevna naoblaka

Dnevna insolacija

Dnevni tlak zraka

srednji  07 h  14 h  21 h

Srednji dnevni tlak vodene pare

Dnevna jačina vjetra (bof)

srednja  07 h  14 h  21 h

Dnevna brzina vjetra (m/s)

srednja  07 h  14 h  21 h

Dnevna relativna vlaga

srednja  07 h  14 h  21 h

Visina ukupnog snijega (cm)

Visina novog snijega (cm)

Dnevna oborina

Dnevna oborina (\*)

**Višegodišnji srednjaci**

Srednja dnevna temperatura (s)

Temperatura po suhom t. u 21h

Srednja dnevna temperatura (m)

Maksimalna temperatura

Minimalna temperatura

Srednja naoblaka

Dnevna oborina 1

Dnevna oborina 2

Podatke poslati MAIL-om:  ili na EKRAN:

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# Different forms of daily temperature values

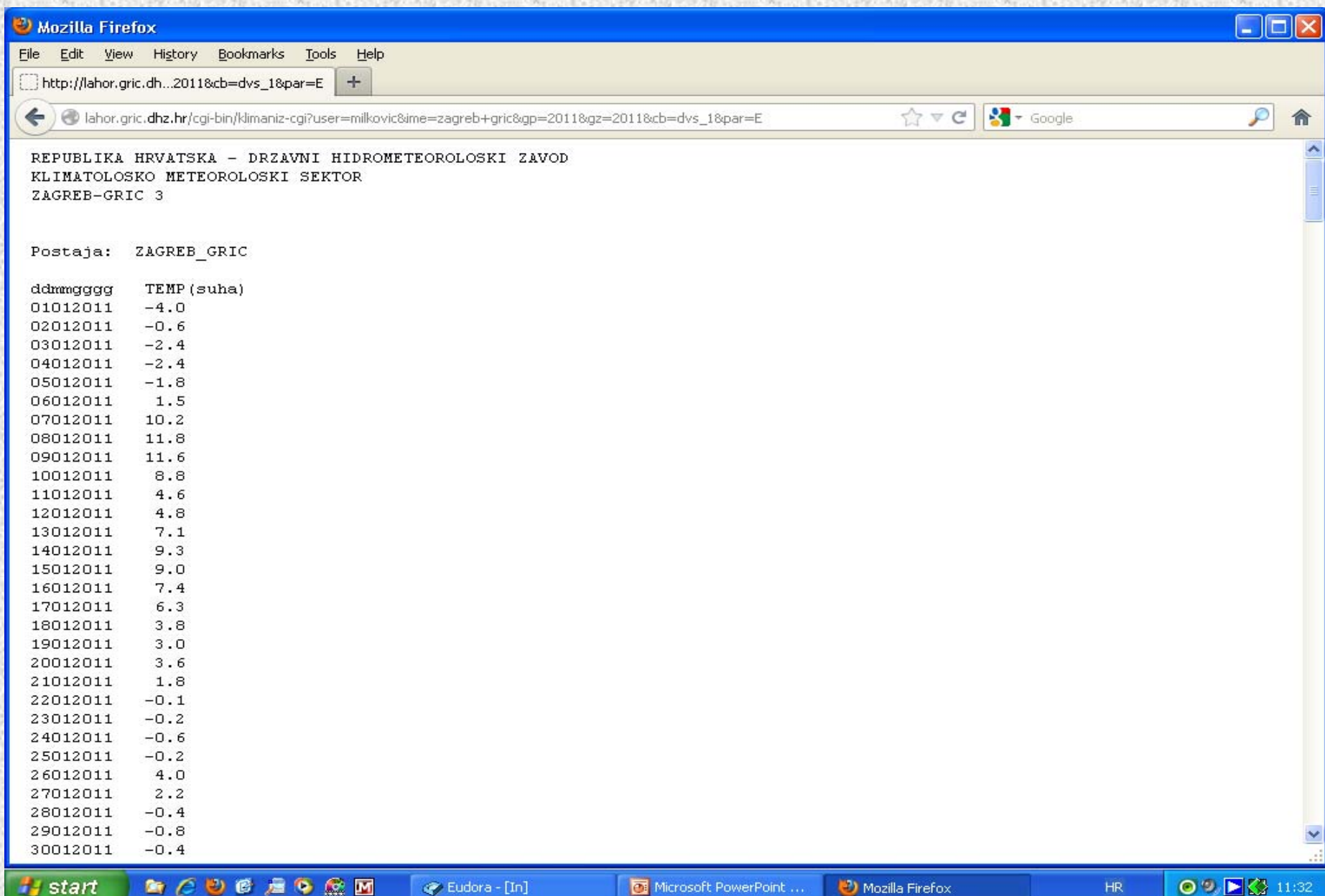
REPUBLICA HRVATSKA - DRZAVNI HIDROMETEOROLOSKI ZAVOD  
 KLIMATOLOSKO METEOROLOSKI SEKTOR  
 ZAGREB-GRIC 3

SREDNJE DNEVNE TEMPERATURE SUHOG TERMOMETRA (°C)

Postaja: ZAGREB\_GRIC godina: 2011

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	-4.0	-1.4	0.9	15.9	14.9	21.2	20.9	20.6	24.8	19.0	9.3	0.2
2	-0.6	-2.7	-0.3	16.6	15.7	20.9	18.0	22.5	22.0	19.8	8.4	3.0
3	-2.4	-0.6	0.0	16.9	14.6	21.0	21.2	24.4	23.2	18.8	8.3	10.8
4	-2.4	2.8	1.7	15.4	10.2	20.9	24.0	23.5	25.8	18.9	13.0	12.9
5	-1.8	6.4	1.9	13.0	12.1	20.1	22.0	22.8	24.1	18.7	14.9	10.5
6	1.5	8.6	2.7	13.9	14.1	21.7	23.7	24.4	20.8	18.8	12.6	4.8
7	10.2	9.2	1.4	20.1	16.9	22.8	26.6	26.1	21.3	9.2	11.1	3.8
8	11.8	9.3	2.5	17.3	11.3	21.0	27.1	22.0	21.4	8.8	8.7	7.1
9	11.6	8.3	4.0	17.2	15.8	18.2	29.1	19.4	22.8	8.7	9.5	8.4
10	8.8	6.5	9.0	14.2	18.7	19.5	29.1	17.9	24.3	9.6	8.6	11.1
11	4.6	7.5	10.8	15.2	20.6	20.8	26.9	19.3	25.6	15.4	6.3	6.9
12	4.8	6.0	10.9	13.5	21.2	21.0	27.5	21.3	25.8	15.9	5.2	7.6
13	7.1	3.0	12.8	9.1	20.5	20.8	29.7	23.2	24.5	11.5	3.0	7.4
14	9.3	1.8	14.4	11.1	20.6	20.5	29.7	24.8	23.7	9.1	2.3	10.5
15	9.0	0.8	14.8	10.1	12.4	22.3	22.5	26.0	21.0	8.4	2.9	7.6
16	7.4	3.8	11.2	11.3	14.3	24.1	24.0	23.2	21.6	7.8	2.5	8.9
17	6.3	3.8	13.0	12.8	17.1	24.3	25.8	24.3	23.4	6.6	-0.4	3.1
18	3.8	4.0	9.4	12.7	18.6	24.8	26.0	26.1	23.8	8.3	-0.9	0.2
19	3.0	5.5	7.6	14.3	19.8	14.8	24.0	25.2	15.4	13.8	-1.2	2.7
20	3.6	4.6	7.2	16.0	22.1	19.2	20.2	26.8	16.3	6.8	-2.0	0.4
21	1.8	-0.6	6.3	17.2	19.3	23.3	21.6	26.8	18.2	8.2	-2.4	0.4
22	-0.1	-1.0	8.4	18.1	20.5	26.0	22.5	28.6	18.0	7.6	-1.4	2.6
23	-0.2	-2.3	11.8	18.1	21.2	26.2	19.0	29.4	18.9	8.2	-0.4	3.2
24	-0.6	-1.7	13.8	18.3	23.1	19.6	16.6	29.0	18.8	9.1	1.0	3.0
25	-0.2	-0.7	14.8	18.0	21.5	20.3	15.3	28.4	19.0	10.4	1.5	2.8
26	4.0	-0.3	14.5	14.1	22.3	21.1	18.4	29.2	19.4	12.5	1.6	3.6

# Different forms of daily temperature values



REPUBLICA HRVATSKA - DRZAVNI HIDROMETEOROLOSKI ZAVOD  
KLIMATOLOSKO METEOROLOSKI SEKTOR  
ZAGREB-GRIC 3

Postaja: ZAGREB\_GRIC

ddmmgggg	TEMP (suha)
01012011	-4.0
02012011	-0.6
03012011	-2.4
04012011	-2.4
05012011	-1.8
06012011	1.5
07012011	10.2
08012011	11.8
09012011	11.6
10012011	8.8
11012011	4.6
12012011	4.8
13012011	7.1
14012011	9.3
15012011	9.0
16012011	7.4
17012011	6.3
18012011	3.8
19012011	3.0
20012011	3.6
21012011	1.8
22012011	-0.1
23012011	-0.2
24012011	-0.6
25012011	-0.2
26012011	4.0
27012011	2.2
28012011	-0.4
29012011	-0.8
30012011	-0.4

# Different forms of daily temperature values

PREGLJED VISEGODISNJIH SREDNJAKA SREDNJIH DNEVNIH TEMPERATURA SUHOG TERMOMETRA

POSTAJA: ZAGREB\_GRIC RAZDOBLJE: 1981-2011

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	1.7	2.2	5.6	11.9	16.0	18.5	22.1	23.1	19.4	15.6	9.8	3.5
2	2.0	2.5	5.2	11.7	15.9	19.3	21.9	23.5	19.1	15.6	9.5	3.9
3	2.2	3.0	5.7	12.1	15.8	19.6	22.3	23.6	19.5	15.5	9.4	4.5
4	1.8	3.6	6.1	12.3	15.7	19.3	22.0	22.7	18.6	14.8	9.5	4.0
5	1.2	3.9	5.3	11.8	15.2	18.7	22.0	22.2	17.9	14.9	8.9	4.5
6	2.1	4.4	5.7	11.7	15.9	19.3	22.3	22.5	17.8	15.1	8.4	3.7
7	2.1	4.6	6.5	12.5	16.0	19.2	21.8	22.0	18.0	14.8	8.2	3.3
8	1.9	4.0	6.6	12.3	15.8	20.1	21.5	22.2	18.2	13.8	8.1	3.8
9	1.8	3.8	6.8	12.0	16.1	20.1	22.0	22.2	18.0	13.6	8.3	3.4
10	1.4	3.6	7.2	11.5	17.0	20.9	21.8	22.6	17.7	13.8	8.0	2.9
11	1.8	3.2	7.6	11.3	17.2	20.4	22.2	22.0	18.4	13.9	7.6	2.4
12	1.6	3.2	7.9	10.8	17.5	20.1	22.0	22.4	18.7	13.3	6.9	2.3
13	1.4	2.9	7.8	10.1	17.7	19.1	22.6	22.5	17.9	12.7	7.0	2.3
14	1.5	2.5	8.3	10.9	17.6	20.3	22.1	22.7	17.5	12.1	7.2	2.4
15	1.2	2.4	8.5	11.5	17.1	20.5	22.2	22.7	17.4	12.3	7.1	1.9
16	1.2	2.6	8.5	12.0	17.2	20.0	23.0	22.8	17.7	12.5	7.6	2.1
17	1.7	2.5	8.7	11.5	18.0	19.4	23.1	22.9	16.9	11.7	6.5	1.9
18	1.4	2.9	8.7	11.9	18.2	19.8	22.7	22.6	16.7	10.7	5.4	2.1
19	1.5	4.1	8.3	12.5	17.6	20.1	22.7	23.0	16.6	10.8	5.2	3.1
20	1.5	4.2	7.9	13.2	17.4	20.5	22.9	23.1	17.4	10.7	5.1	2.4
21	2.1	3.8	8.8	13.5	17.7	21.3	22.5	21.7	17.0	11.3	5.5	2.9
22	1.8	3.5	8.4	13.8	17.8	21.9	23.3	21.8	17.1	11.0	5.5	3.0
23	1.8	3.8	8.8	14.2	17.9	20.8	23.4	21.6	17.4	11.0	5.3	2.9
24	1.6	3.9	9.7	13.8	18.2	20.4	23.0	21.8	16.5	10.2	5.6	2.3
25	1.6	4.9	10.4	14.6	18.9	20.6	21.9	21.0	15.9	10.5	5.3	2.1
26	1.9	4.9	9.6	15.3	19.3	21.6	21.9	21.0	16.4	10.8	5.7	2.0
27	1.7	5.1	9.6	14.7	19.6	21.9	23.1	21.1	16.0	9.9	5.5	1.3
28	2.2	5.2	9.7	14.5	18.9	21.5	22.9	19.9	15.4	10.2	4.4	1.8
29	2.6	5.8	10.1	14.5	18.1	21.2	22.8	19.5	15.5	10.4	4.4	2.3

# Different forms of daily precipitation values

Mozilla Firefox

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http://lahor.gric.dh...11&cb=doborina&par=E

lahor.gric.dhz.hr/cgi-bin/klimaniz-cgi?user=milkovic&ime=zagreb+maksimir&gp=1981&gz=2011&cb=doborina&par=E

PREGLED VISEGODISNJIH SREDNJAKA DNEVNE OBORINE (srednjak samo dana s oborinom)

POSTAJA: ZAGREB\_MAKSIMIR RAZDOBLJE: 1981-2011

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	5.5	0.5	2.9	1.7	2.6	8.1	2.8	12.2	3.5	5.4	2.4	1.8
2	7.5	1.2	2.8	4.5	4.6	2.8	9.4	3.0	6.3	4.9	8.1	2.5
3	2.5	3.3	3.7	3.9	4.7	5.3	6.3	1.9	6.2	6.9	5.3	4.1
4	2.0	2.3	3.4	5.4	3.4	4.5	11.0	7.4	6.8	6.1	5.6	3.1
5	3.5	5.6	3.6	3.4	6.4	7.2	3.9	7.6	7.2	11.2	5.4	3.9
6	3.1	1.9	7.0	4.3	4.1	8.0	3.3	6.2	10.5	8.7	2.5	6.1
7	2.9	1.9	1.1	3.1	5.5	4.8	3.8	9.6	4.2	5.9	3.4	2.4
8	3.5	4.3	1.4	5.5	4.0	3.4	11.4	7.4	10.9	8.7	4.0	2.2
9	6.9	2.2	2.5	2.1	3.5	3.8	5.0	12.4	6.9	4.0	3.7	4.3
10	1.9	5.7	0.6	5.5	3.2	5.8	4.1	7.1	7.0	2.6	3.8	5.6
11	2.0	6.8	3.8	4.7	6.1	4.4	4.4	6.0	6.4	8.9	5.3	4.3
12	1.7	3.7	1.8	4.4	3.7	5.2	6.0	13.8	4.4	10.7	5.8	4.8
13	0.3	3.2	3.4	4.1	3.8	7.8	2.9	8.6	10.9	4.2	9.2	7.7
14	2.4	3.0	2.8	5.1	5.8	4.8	3.4	12.1	11.2	1.1	6.3	2.1
15	5.0	1.3	2.8	3.0	3.9	5.0	9.8	5.9	9.1	3.1	7.0	3.9
16	2.2	0.8	1.3	2.5	8.3	6.0	2.7	5.7	7.6	4.7	5.8	4.5
17	0.5	4.9	4.4	3.1	5.6	7.7	9.6	4.7	8.3	12.7	4.6	2.9
18	2.6	3.0	4.4	4.7	2.9	10.2	4.3	3.1	9.9	10.0	6.9	4.4
19	1.9	2.1	4.3	4.4	3.5	6.1	7.0	9.8	7.8	10.5	4.7	5.1
20	2.9	1.9	5.7	2.1	5.7	5.9	3.0	5.0	5.0	6.0	3.2	4.7
21	2.2	4.4	3.6	3.6	7.3	8.8	6.6	3.4	1.4	7.2	5.5	3.5
22	3.5	2.4	2.9	3.9	5.9	5.7	4.4	13.9	6.0	4.2	7.3	5.9
23	5.0	3.2	8.3	1.9	3.3	10.9	7.9	16.0	4.3	5.1	7.5	4.6
24	3.8	4.4	4.2	2.0	3.8	7.9	4.6	7.7	10.9	11.7	2.9	2.2
25	6.3	3.0	3.9	4.8	8.1	5.7	5.5	10.7	11.2	4.5	2.3	3.5
26	2.9	3.8	5.7	2.5	1.9	7.0	7.4	14.1	7.0	4.0	3.9	4.0
27	3.1	6.5	5.7	2.2	1.5	6.5	4.2	8.2	4.0	4.7	7.1	6.5
28	3.7	1.6	5.4	4.4	5.2	5.9	2.2	8.8	12.4	5.9	5.3	5.5
29	1.5	2.2	3.8	4.6	5.2	7.5	7.8	10.0	9.3	2.6	6.9	4.6

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# Different forms of daily precipitation values

Mozilla Firefox

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http://lahor.gric.dh...1&cb=dozorina1&par=E

lahor.gric.dhz.hr/cgi-bin/klimaniz-cgi?user=milkovic&ime=zagreb+maksimir&gp=1981&gz=2011&cb=dozorina1&par=E

PREGLED VISEGODISNJIH SREDNJAKA DNEVNE OBORINE (srednjak dana s oborinom i bez nje)

POSTAJA: ZAGREB\_MAKSIMIR

RAZDOBLJE: 1981-2011

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	2.9	0.2	1.4	0.7	1.1	2.9	1.2	4.7	1.2	0.9	0.7	1.4
2	4.1	0.4	1.7	2.2	2.2	1.6	3.0	1.0	2.6	2.6	3.6	1.5
3	1.6	1.1	2.3	2.1	1.7	2.4	2.4	0.6	2.2	2.9	2.6	2.0
4	0.8	0.7	1.9	2.3	1.5	2.3	4.6	3.6	3.3	1.8	2.5	1.6
5	2.1	1.8	1.7	1.7	3.7	5.1	1.9	3.9	3.7	5.4	2.6	1.5
6	1.1	0.5	2.5	2.6	2.5	4.9	1.4	2.6	3.4	3.7	1.4	3.2
7	0.8	0.7	0.4	1.7	3.0	2.6	1.5	4.0	1.9	2.6	2.1	1.3
8	1.9	1.9	0.7	1.8	1.8	2.1	5.5	3.1	3.5	4.5	1.7	1.2
9	2.9	1.2	1.1	0.9	2.1	1.7	1.8	4.0	2.4	1.7	1.3	1.5
10	0.9	2.4	0.3	2.7	1.5	2.6	1.7	2.3	3.4	0.9	2.0	2.5
11	0.7	2.9	0.8	2.9	2.3	1.7	1.4	1.7	2.5	3.2	2.9	2.5
12	0.6	1.7	0.5	3.1	1.8	2.8	3.3	4.4	1.6	3.5	2.2	2.7
13	0.1	1.8	1.0	3.0	2.2	3.8	1.1	3.9	4.6	1.9	3.3	4.0
14	1.1	1.5	1.1	3.6	2.6	3.2	1.6	4.3	4.7	0.3	2.8	1.1
15	2.6	0.7	0.8	1.6	1.9	2.2	4.8	2.1	4.7	0.5	4.3	2.4
16	1.0	0.4	0.5	1.4	4.3	2.9	1.2	2.0	2.7	1.4	1.9	2.5
17	0.1	2.5	1.8	1.9	2.4	5.4	2.2	1.4	4.3	2.9	2.4	1.9
18	0.9	1.3	2.0	2.0	1.1	5.6	1.4	0.9	4.5	3.2	4.2	2.3
19	1.0	0.8	1.5	2.8	1.5	3.7	2.7	2.5	3.3	3.7	1.8	2.1
20	1.1	0.9	2.8	1.0	3.1	2.5	1.3	1.8	2.1	2.7	1.6	2.6
21	1.1	1.8	1.6	1.8	4.0	4.3	2.1	1.4	0.6	3.7	2.5	1.3
22	2.3	1.2	1.2	1.6	3.0	2.4	1.7	5.4	2.1	2.5	3.3	2.7
23	2.1	1.6	4.8	0.7	2.1	6.3	2.0	3.6	1.4	2.8	3.4	2.4
24	1.1	2.1	2.3	1.0	1.8	4.3	1.9	1.7	4.2	5.7	1.4	0.9
25	3.2	1.8	1.5	2.3	2.4	2.8	3.0	4.5	4.0	1.9	1.3	1.9
26	1.1	1.5	2.9	0.7	0.6	2.3	4.3	6.4	3.4	1.4	2.0	2.3
27	1.4	2.7	3.5	1.4	0.6	2.5	1.5	3.2	1.8	2.4	3.4	3.6
28	1.7	0.6	2.4	2.3	2.3	2.7	0.6	3.4	5.6	1.7	2.6	2.5
29	0.6	1.0	1.9	2.1	2.5	4.4	3.8	5.2	3.3	0.9	3.6	1.3

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Satne vrijednosti - Mozilla Firefox

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Satne vrijednosti

uran.gric.dhz.hr/~gmp/satnev.html

Google

<- Povratak : Satne vrijednosti iz Dnevnika motrenja Glavne meteorološke postaje

Korisnik:  @cirus.dhz.hr

Postaja:  Početni mjesec: , godina:  Završni mjesec: , godina:

Standardni izlaz:  ili samo podaci:

Provjereni  ili neprovjereni i nekorigirani podaci

vidljivost     naoblaka  
 temperatura     relativna vlažnost  
 tlak zraka     tlak zraka reduciran na morsku razinu  
 oborina     sijanje Sunca  
 vjetar     maksimalna brzina vjetra

Podatke poslati MAIL-om:  ili na EKTRAN:

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# Different forms of hourly values – air pressure

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 http://172.20.0.102/~gmp/satnev.php  
 172.20.0.102/~gmp/satnev.php

DHMZ RH Sluzba za opcu meteorologiju  
 ODJEL ZA OBRADU I KONTROLU PODATAKA I KLIMATSKE PODLOGE

SATNE VRIJEDNOSTI ATMOSFERSKOG TLAKA (hPa) ( LIST 1 )

POSTAJA ZAGREB GRIC  
 MJESEC SIJECANJ 1  
 GODINA 2011  
 SIRINA 45 49 N  
 DULJINA 15 59 E  
 VISINA 157 m

IZVOR	Barograf	IZRADA															
BROJ		VISINA m															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*SAT																	
* DAN*																	
1	1004.6	1004.5	1003.9	1003.5	1003.3	1003.2	1002.9	1002.6	1002.4	1001.7	1001.3	1000.6	999.6	998.7	998.5	997.8	
2	997.8	997.7	997.5	997.4	997.4	997.4	997.6	997.9	998.1	998.5	998.6	998.5	998.2	998.0	998.2	998.8	
3	1000.5	1000.7	1000.7	1000.6	1000.9	1001.2	1001.5	1001.9	1002.6	1003.1	1003.7	1003.9	1003.7	1003.6	1003.5	1003.8	
4	1005.0	1005.0	1004.8	1004.7	1004.5	1004.5	1004.5	1004.4	1004.5	1004.7	1005.0	1004.8	1003.9	1003.6	1003.1	1003.1	
5	1003.5	1003.5	1003.1	1002.9	1002.6	1002.3	1002.4	1002.4	1002.4	1002.6	1002.8	1002.6	1001.9	1001.5	1001.3	1001.2	
6	1001.4	1001.2	1000.9	1000.6	1000.4	1000.4	1000.4	1000.4	1000.6	1000.3	1000.2	1000.0	999.0	998.5	998.3	998.1	
7	998.0	998.2	998.5	999.0	998.9	999.1	999.5	999.7	1000.4	1000.6	1001.0	1001.0	1000.8	1000.4	1000.6	1000.8	
8	1001.2	1001.1	1000.8	1001.2	999.7	999.6	999.4	999.4	999.4	999.2	999.2	999.3	999.2	998.9	998.9	999.4	
9	1000.4	1000.3	1000.2	1000.0	999.4	999.5	999.5	999.5	999.7	1000.1	999.7	999.4	998.7	998.5	998.5	998.7	
10	999.3	999.4	999.3	999.3	999.6	1000.0	1000.1	1000.8	1000.9	1001.1	1001.1	1001.0	1000.7	1000.3	999.8	1000.4	
11	999.4	999.4	999.0	998.7	998.1	997.6	997.6	997.5	997.3	997.4	997.4	996.6	995.7	995.4	994.7	994.5	
12	993.7	994.0	994.4	995.1	995.7	997.0	997.2	998.1	998.9	999.8	1000.5	1000.6	1000.3	1000.3	1001.1	1001.1	
13	1001.1	1000.7	1000.0	999.7	998.8	998.7	998.3	998.0	997.7	997.3	996.8	996.1	995.3	994.5	994.7	995.2	
14	996.3	996.4	996.7	996.9	996.7	996.9	997.3	998.2	998.5	998.8	999.0	998.9	998.7	997.9	997.9	998.0	
15	996.9	996.7	996.2	996.3	996.6	998.2	999.4	999.7	1000.8	1001.1	1002.3	1002.7	1002.5	1002.9	1003.6	1004.3	
16	1008.9	1009.0	1009.0	1009.0	1009.0	1009.5	1009.6	1009.8	1010.4	1010.6	1010.6	1010.5	1009.9	1009.6	1009.5	1009.5	
17	1008.7	1008.4	1008.4	1008.3	1007.7	1007.6	1007.5	1007.1	1007.2	1007.2	1007.3	1007.3	1006.4	1005.9	1005.7	1005.3	
18	1004.8	1004.8	1004.8	1005.0	1005.2	1005.4	1006.0	1006.1	1006.7	1006.7	1006.9	1006.8	1005.9	1005.5	1005.4	1005.6	
19	1004.9	1004.9	1004.2	1004.1	1003.7	1003.7	1003.7	1003.7	1003.8	1003.8	1003.6	1003.4	1002.8	1002.6	1002.2	1002.0	
20	1001.7	1001.6	1001.5	1001.3	1001.3	1001.3	1001.6	1001.7	1001.5	1001.7	1001.9	1001.8	1001.5	1001.2	1001.0	1001.1	
21	1003.2	1003.4	1003.5	1003.5	1003.8	1004.1	1004.4	1005.2	1005.3	1006.2	1006.2	1005.8	1005.4	1005.4	1005.2	1005.4	
22	1006.7	1006.6	1006.7	1006.7	1006.4	1006.3	1006.5	1006.7	1006.7	1006.8	1006.9	1006.2	1005.3	1004.6	1004.8	1004.6	
23	1003.0	1003.0	1003.0	1002.6	1002.5	1002.5	1002.5	1002.5	1002.3	1002.4	1002.3	1001.9	1001.1	1000.8	1000.6	1000.6	
24	1000.1	1000.0	1000.0	999.8	999.6	999.6	999.8	1000.1	1000.6	1000.8	1001.2	1001.3	1000.9	1000.3	1000.2	1000.4	

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# Different forms of hourly values – air pressure

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http://172.20.0.102/~gmp/satnev.php

172.20.0.102/~gmp/satnev.php

236 ZAGREB GRIC 45 49 N 15 59 E 157 m

012011

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1004.6	1004.5	1003.9	1003.5	1003.3	1003.2	1002.9	1002.6	1002.4	1001.7	1001.3	1000.6	999.6	998.7	998.5	997.8	997.7	997.4
997.8	997.7	997.5	997.4	997.4	997.4	997.6	997.9	998.1	998.5	998.6	998.5	998.2	998.0	998.2	998.8	999.3	999.8
1000.5	1000.7	1000.7	1000.6	1000.9	1001.2	1001.5	1001.9	1002.6	1003.1	1003.7	1003.9	1003.7	1003.6	1003.5	1003.8	1004.1	1004.3
1005.0	1005.0	1004.8	1004.7	1004.5	1004.5	1004.5	1004.4	1004.5	1004.7	1005.0	1004.8	1003.9	1003.6	1003.1	1003.1	1003.1	1003.2
1003.5	1003.5	1003.1	1002.9	1002.6	1002.3	1002.4	1002.4	1002.4	1002.6	1002.8	1002.6	1001.9	1001.5	1001.3	1001.2	1001.3	1001.6
1001.4	1001.2	1000.9	1000.6	1000.4	1000.4	1000.4	1000.4	1000.6	1000.3	1000.2	1000.0	999.0	998.5	998.3	998.1	998.1	998.1
998.0	998.2	998.5	999.0	998.9	999.1	999.5	999.7	1000.4	1000.6	1001.0	1001.0	1000.8	1000.4	1000.6	1000.8	1001.1	1001.5
1001.2	1001.1	1000.8	1001.2	999.7	999.6	999.4	999.4	999.4	999.2	999.2	999.3	999.2	998.9	998.9	999.4	999.6	1000.0
1000.4	1000.3	1000.2	1000.0	999.4	999.5	999.5	999.5	999.7	1000.1	999.7	999.4	998.7	998.5	998.5	998.7	998.9	999.2
999.3	999.4	999.3	999.3	999.6	1000.0	1000.1	1000.8	1000.9	1001.1	1001.1	1001.0	1000.7	1000.3	999.8	1000.4	1000.5	1000.3
999.4	999.4	999.0	998.7	998.1	997.6	997.6	997.5	997.3	997.4	997.4	996.6	995.7	995.4	994.7	994.5	994.4	993.9
993.7	994.0	994.4	995.1	995.7	997.0	997.2	998.1	998.9	999.8	1000.5	1000.6	1000.3	1000.3	1001.1	1001.1	1001.2	1001.7
1001.1	1000.7	1000.0	999.7	998.8	998.7	998.3	998.0	997.7	997.3	996.8	996.1	995.3	994.5	994.7	995.2	995.4	995.6
996.3	996.4	996.7	996.9	996.7	996.9	997.3	998.2	998.5	998.8	999.0	998.9	998.7	997.9	997.9	998.0	998.2	998.2
996.9	996.7	996.2	996.3	996.6	998.2	999.4	999.7	1000.8	1001.1	1002.3	1002.7	1002.5	1002.9	1003.6	1004.3	1005.6	1006.2
1008.9	1009.0	1009.0	1009.0	1009.0	1009.5	1009.6	1009.8	1010.4	1010.6	1010.6	1010.5	1009.9	1009.6	1009.5	1009.5	1009.4	1009.5
1008.7	1008.4	1008.4	1008.3	1007.7	1007.6	1007.5	1007.1	1007.2	1007.2	1007.3	1007.3	1006.4	1005.9	1005.7	1005.3	1005.1	1004.8
1004.8	1004.8	1004.8	1005.0	1005.2	1005.4	1006.0	1006.1	1006.7	1006.7	1006.9	1006.8	1005.9	1005.5	1005.4	1005.6	1005.5	1005.5
1004.9	1004.9	1004.2	1004.1	1003.7	1003.7	1003.7	1003.8	1003.8	1003.6	1003.4	1002.8	1002.6	1002.2	1002.0	1002.0	1001.9	1002.1
1001.7	1001.6	1001.5	1001.3	1001.3	1001.3	1001.6	1001.7	1001.5	1001.7	1001.9	1001.8	1001.5	1001.2	1001.0	1001.1	1001.2	1001.3
1003.2	1003.4	1003.5	1003.5	1003.8	1004.1	1004.4	1005.2	1005.3	1006.2	1006.2	1005.8	1005.4	1005.4	1005.2	1005.4	1005.7	1006.0
1006.7	1006.6	1006.7	1006.7	1006.4	1006.3	1006.5	1006.7	1006.7	1006.8	1006.9	1006.2	1005.3	1004.6	1004.8	1004.6	1004.6	1004.2
1003.0	1003.0	1003.0	1002.6	1002.5	1002.5	1002.5	1002.5	1002.3	1002.4	1002.3	1001.9	1001.1	1000.8	1000.6	1000.6	1000.5	1000.5
1000.1	1000.0	1000.0	999.8	999.6	999.6	999.8	1000.1	1000.6	1000.8	1001.2	1001.3	1000.9	1000.3	1000.2	1000.4	1000.6	1000.7
1001.3	1001.0	1001.1	1000.6	1000.3	999.6	999.7	999.6	999.6	999.4	999.4	998.4	997.4	996.3	995.7	995.2	994.6	994.6
991.6	990.8	990.1	989.9	989.9	989.4	989.5	989.6	989.9	989.9	989.9	989.8	989.4	988.9	989.0	989.5	989.7	990.0
992.7	992.8	993.2	993.4	993.6	993.9	994.1	994.8	995.7	995.8	996.5	996.4	996.4	996.3	996.5	996.6	997.0	997.6
1000.2	1000.4	1000.9	1000.9	1001.3	1001.9	1002.3	1003.0	1003.4	1004.4	1004.8	1004.6	1004.5	1003.8	1003.8	1003.7	1003.7	1004.1
1005.5	1005.5	1005.3	1005.3	1005.4	1005.7	1005.8	1006.2	1006.4	1006.3	1006.2	1005.6	1004.9	1004.1	1003.8	1003.2	1003.2	1003.1
1002.7	1002.0	1001.8	1001.4	1000.9	1001.0	1001.0	1001.3	1001.4	1001.6	1001.7	1001.6	1001.2	1000.7	1000.5	1000.5	1000.5	1000.9
1002.7	1002.8	1003.0	1003.3	1003.4	1004.0	1004.5	1004.9	1005.5	1005.7	1006.2	1006.2	1006.2	1005.8	1005.7	1005.8	1005.8	1006.5

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# Conclusions

- Meteorological and Hydrological Service is prepare to offer data series for 26 selected stations - but only the data stored in digital form in data base by this time;
- Digitized data are quality controlled, but we could not homogenized above mentioned data series;
- Because of economical and financial situation, deficit of staffs (retirement, left institution...) there are no plans in near future for additional recovery historical observations;

Thank you very much for your  
attention!



Headquarters of Meteorological and Hydrological Service in  
Zagreb

<http://meteo.hr>