



Seasonal Bulletin on the Climate in WMO Region VI

- Europe and Middle East -

Winter 2014

Deutscher Wetterdienst

Last Change: Mon Apr 7 10:48:45 UTC 2014



The following maps are first guess products based on meteorological bulletins which have been quality checked roughly. The text is based upon these maps as well as the monthly climate bulletins of the countries of RA VI as far as they are available on the web. More detailed information including updated analyses of more data which have undergone a better quality control and further aspects like clouds and water vapour may be found on the link of the Regional Climate Centre on Climate Monitoring in RAVI:

[RCC-CM RA VI/](#)

and at the Global Precipitation Climatology Center (GPCC):

[The GPCC](#)

The Seasonal Bulletin on the Climate in WMO Region VI will usually be delivered within 2 months after the end of a season.

Highlights:

- Winter 2013/2014 one of the warmest winters in long time series in many European countries
- Winter 2013/2014 the wettest in long time series in UK and regionally in France and Switzerland
- Winter 2013/2014 the driest in Israel for 70 years
- An unusual number of North Atlantic storm depressions with high impact mainly in UK and the northern European continent
- Probably the winter with the highest number of gales since 1871 in UK (based upon an analysis of pressure fields)
- Unusually high precipitation totals in Israel, Jordan and western Syria low temperatures and snow on the mountains in December 2013
- Much snow in the southern Alps, extremely heavy rain in Slovenia end of December 2013 to early January 2014
- 3 Tornadoes in Portugal in January 2014
- Landslides and coastal rock slides in southeastern France after extreme 4-day precipitation in January 2014
- Extended flooding in the southwest of France in January 2014
- Storm STEPHANIE with high tides in Portugal in February 2014

Overview:

Temperature:

Winter 2013/2014 was warmer than normal on Greenland, the European Arctic Sea and the Norwegian Sea, Scandinavia and northern European Russia, Central and western Europe, and most of the Mediterranean Sea and the Balkan Peninsula. Colder than normal was an area on the western North Atlantic as well as a small region in eastern Turkey and Iran as well as a part of northern Russia (already outside RA VI). The warm anomalies were partly exceptional.

Some ranks of warm winters based on web-available bulletins by NMHSs are given below:

Country	rank	since
Norway	8	1900, regionally (Vestlandet) rank 1
United Kingdom	5	1981
Netherlands	2	1706, together with 1990
Denmark	5	1874
France	2	1900
Germany	4	1881
Poland	7	1952
Slovakia	2	1952
Slovakia	1	1952 Lomnicky peak
Switzerland	3	1864
Austria	2	1767
Portugal	15	1932
Montenegro	1	1951

Croatia classified the winter 2013/2014 as very warm in the northeastern part and extremely warm in the western part (based on the normal period, 1961-1990).

Most of the region was warmer than normal during all three months. Several countries reported each month as one of the 10 warmest months in their long time-series either for the whole country or for regions or at least for stations.

December 2013 was warmer than normal on most of the northern, western, central and eastern part of the continent and colder than normal in Turkey and Middle East. The highest positive anomalies of more than 4 K occurred over eastern Norway, Sweden, Finland, the Baltic states and the northern part of European Russia. Also the Arctic regions had partly positive anomalies above 4 K. The negative anomalies in Turkey and the Middle East were below -4 K partly as well. The month therefore has been the 10th warmest December since the beginning of the 20th century and also since 1881 in Germany. In Denmark it was the 2nd warmest December since 1874. In the Netherlands December 2013 was the 6th warmest December since 1901. In Ireland it was the warmest December at single stations for 22 to 25 years. On 12th December Malin Head recorded its highest maximum temperature for December for 58 years (15.2°C). In UK it was provisionally the warmest December since 1988. In Norway December 2013 was the 8th warmest December for the whole country since 1900 with an anomaly of 4.2 K (locally 6-8 K). In the region Ostland it was the 3rd warmest after 2006 and 1924.

In **January 2014** it was warmer than normal nearly over the complete RA VI area with exception of the southeastern Baltic Sea and parts of northern Scandinavia. Most remarkable is the positive anomaly over the Balkan Peninsula as well as over the Norwegian Sea and the Arctic Ocean with more than +4 K. On Iceland in the eastern part it was in places the 2nd warmest January since measurements started in 1873. In France it was the warmest January since 1900 together with 1988 and 1936. Also in the Netherlands January 2014 was one of the 10 warmest Januaries since 1901. In Portugal it was the 3rd warmest January since 1931 together with 1955 and 1966. It was also the 3rd warmest January since 1961 in Spain. In Austria it was the 5th warmest January since 1768. In Switzerland January 2014 ranked on place 9 of the warm Januaries since 1864. The lower level places of Switzerland north of the Alps did not register a single ice day (maximum temperature below 0°C) which is rather seldom. It was the 4th warmest January since 1961 on Malta.

In **February 2014** it was warmer than normal in the whole WMO RA VI region. The positive anomalies were above 4 K from the Arctic Sea over Scandinavia to eastern Central Europe, eastern Europe and parts of the Balkan Peninsula as well as partly in eastern Turkey. Several Arctic stations registered new records of high February mean temperatures. The positive anomalies ranged from 4.9 K (Jan Mayen) to 14.5 K (Svalbard Lufthavn). For Jan Mayen February 2014 was the 3rd warmest on record (the warmest was February 1929). In the Norwegian Sea the station Ekofisk registered the 3rd warmest February since 1980. In Norway the positive anomalies were 6 K above normal for the whole country and it was the 2nd warmest February since 1900. In the region of Finnmark and partly in eastern Norway the positive anomalies ranged 8 - 11 K. In Belarus the mean temperature was 4 - 6 K above the normal February mean in the whole country. In Denmark it was the 6th warmest February since 1874. In Germany it was the 6th warmest since 1881. In Sweden several stations broke their warm February records since 1800. Latvia reports February 2014 as the 8th warmest on their record. The Netherlands report February 2014 on place 4 of the warm Februaries since 1901 (based on the station de Bilt). In Austria February 2014 was on rank 9 of the warm Februaries for 247 years. In Turkey 25 stations recorded new records of daily maximum temperatures for February. The warm weather caused early blooming of plants. Switzerland reported for instance that blooming of hazel occurred in regions above 600 m asl 2-4 weeks earlier than usual. Some places reported blooming of tussilago (Huflattich) about 3 to 5 weeks earlier than usual.

Precipitation:

Winter 2013/2014 was wetter than normal in Greenland and in UK, western France and the northern Iberian Peninsula under Atlantic influence. It was as well wetter than normal in southern Norway, partly in southern Sweden and northeastern Denmark. Wetter than normal was also the southern Alpine region, and parts of the Adriatic coast, the western Italian Peninsula and western Sicily and partly the eastern Balkan Peninsula. Smaller parts of European Russia mostly in the north were wetter than normal as well. Drier than normal were western Iceland, parts of Norway, parts of central Europe, mostly Germany, western parts of the Balkan Peninsula, eastern Ukraine and southern Russia and the Caucasus region and most severely Turkey and the Levante coast. Israel reported that the period from mid December 2013 to end of February 2014 was the driest for more than 70 years. Most other regions were around normal.

The following table gives some ranking values for the wettest regions:

Country	rank	since	
United Kingdom	1	1910	
United Kingdom	1	1766	for the England&Wales series
Northern Ireland	2	1910	
France	1	1959	for the regions Bretagne and Provence-Alpes-Cotes D'Azur
Switzerland	1	1764	for the southern part of the country
Portugal	17	1932	
Austria*	2	1813	*Station Klagenfurt, Carynthia

The contrasts north and south of the Alps were high: In Austria the northern parts received the lowest precipitation since the winter 1857/1858. Germany was dry, the Netherlands were drier than normal.

December 2013 was wetter than normal on Greenland (except the southernmost part, on the British Isles, in Scandinavia and northern Russia. It was further wetter than normal in eastern European Russia and the Middle East. Precipitation totals and precipitation surplus were partly remarkable with above 300 mm resp. above 167 percent in some areas. On the other hand much of central Europe and most of southern, eastern central and southeastern Europe was drier than normal. In the Mediterranean Sea area the spatial variability between wetter and drier regions is great. The Balkan Peninsula and Middle East had partly monthly totals below 10 mm. In Denmark it was the 2nd wettest December since 1874. In Ireland it was the wettest December at single stations for 7 to 24 years. In Norway December 2013 was the 2nd wettest since 1900 (after 1975) for the whole country and in the region Agder it was the wettest. In Scotland it was the wettest December since 1910. In December 2013 in consistency with the relatively warm temperatures there was not much snow. The mean snow depth over Russia was above 50 cm only in a limited area and a mean snow depth of 1 to 10 cm extended westwards over Belarus and southern Baltic states and southwards over northern Ukraine and northern Kazakhstan. Of Scandinavia a great part except around the southern Baltic

Sea was snow covered but mean snow depths above 50 cm were limited to mountaineous areas in southern Norway, central Norway and northern Sweden. Also in the Alps these areas are very small.

In **January 2014** more precipitation than normal fell over the northern North Atlantic, the North Sea, in western and southwestern Europe including the Iberian Peninsula, the western Mediterranean Sea with the Adriatic Sea, in eastern Central Europe, the eastern Balkan Peninsula and southern Russia. It was drier than normal in most of northern Europe, in Central Europe and on the western Balkan Peninsula as well as in Turkey and the eastern Mediterranean Sea. The positive anomalies were remarkably high at the Atlantic coasts, in southern France and the southern Alpine region and the eastern Adriatic coast where heavy rainfall contributed much to floodings.

The UK overall received 151% of average rainfall making it the third wettest January in the series. A broad region from east Devon to Kent and up to the central midlands received well in excess of 200 % and some more localised regions were closer to three times the average. Parts of eastern Scotland were also similarly wet, with in excess of twice the normal rainfall. The region of south east and central south England beat its January rainfall record by a large margin and was the wettest calendar month for that region in a series from 1910. It was also the wettest January in the England and Wales precipitation series that is based on a much smaller network of rain gauges, but extends back to 1766, with January 1948 being the closest comparable to January 2014. It was not wet everywhere though and parts of northern Scotland were significantly drier than average. In France January 2014 was overall one of the 10 wettest Januaries since 1959. In parts of Austria (Osttirol, Oberkärnten) it was the wettest January since 1917 while easterly parts of the country were drier than normal. The last decade of January 2014 brought cold air from Russia and Scandinavia to Central Europe and precipitation fell as snow so that the covered area grew compared to December 2013 in northern, central and eastern Europe. Generally there was not much snow in January 2014 in the northern Alps but episodes of very intense snowfall led to higher totals of freshly fallen snow than the mean of 1981-2010 for instance in places in Austria or Switzerland in the southern Alps.

February 2014 was wetter than normal in western and southern Europe, in Sweden, southern Norway and Denmark as well as in eastern parts of the Baltic states and in northern Russia. It was also wetter than normal in the southern Alpine region and the north-western Adria, especially in Slovenia. Switzerland reported monthly totals close to new records for February at some stations. At Lugano the 2nd highest total since 1864 was registered. The station San Bernadino may have had its highest February total since 1901 (there is an uncertainty due to missing data). The region Bretagne in northwestern France had its wettest February since 1959 with 200 to 300 percent of the long-term mean. For the whole country it was the 4th wettest February since 1959. It was as well the 4th wettest February in UK with a mean of 184 percent of the 1981-2010 long-term reference. Similar precipitation surplus like in northwestern France was recorded in southern England. Valentia Observatory in Ireland reported its wettest February on record with 292.4mm and 236% of the long-term average, its wettest February since records began in 1866 (148 years). In southern Norway more than 300 percent of the normal February rainfall was recorded as well and in a smaller region even 400 percent were exceeded. In Slovenia at the beginning of February 2014 4-day totals between 130 mm and 400 mm occurred. It was drier than normal in eastern Central Europe as well as on the eastern Balkan Peninsula, southern Ukraine and southern Russia, the eastern Mediterranean and Middle East. In parts of eastern Central Europe, north of the Black Sea in Middle East and in parts of the Levante monthly totals were below 10 mm, partly even below 1 mm. Rather dry was as well most of Norway except southern Norway which was wetter than normal. Due to the warm temperatures southern Sweden, western, central and southern Europe, the Mediterranean, most of the Balkan Peninsula and most of Middle East had mostly no snow. Exceptions were the Alps and eastern Romania.

Sunshine Duration:

Winter 2013/2014 was sunnier than normal in southern UK, western and central Europe, most of the Balkan Peninsula, Turkey and Middle East. It was less sunny than normal in most of northern and eastern Europe as well as the western Mediterranean region. In Germany winter 2013/2014 was on rank 11 of the sunny winters since 1951.

December 2013 was sunnier than normal from most of the Iberian Peninsula over the western European continent and southeastern UK, central, southern, southeastern and parts of eastern continental Europe. It was less sunny than normal over Ireland and northern UK, Denmark and southern and northern Scandinavia, most of Russia and Middle East. December 2013 has been the 7th richest December in sunshine since 1951 in Germany. Relative sunshine surplus was above 150 percent in parts of the sunnier-than-normal area whereas northern Russia received less than 25 percent of the 1961-1990 normal.

January 2014 was sunnier than normal mainly over European Russia and the eastern parts of the Baltic Sea area. In western Central Europe, the south of the British Isles, parts of the Balkan Peninsula, on Sicily and eastern Turkey it was partly sunnier than normal as well but the pattern was very variable. Less sunny conditions than normal prevailed in the northwest, in the west, in the south and in the southeast of the region.

February 2014 was mostly sunnier than normal from western Europe to the Middle East, while it was dull in Scandinavia and most of eastern Europe as well as in the southwest and south. France received less sunshine than normal except the northwestern part of the country. In Poland and eastern Germany the sunshine surplus exceeded 150 percent as well as in parts of Turkey and Middle East. Below 25 percent of sunshine were recorded in Finland and adjacent parts of Russia.

Circulation:

As a mean of winter 2013/2014 the Icelandic low had a sea level pressure below 995 hPa and was centered south of Iceland. The low pressure extended over the whole North Atlantic from the eastcoast of North America to the westcoast of Europe and from the Norwegian Sea to southwest of the British Isles. The Azores high was shifted southwestwards so that the Azores lay outside the center with more than 1025 hPa mean sea level pressure. The negative anomalies exceeded an absolute amount of 14 hPa. The Azores high and the Asian high were connected over most of the European continent and the Mediterranean Sea. The positive anomalies were in the range of 2 to 6 hPa in the Azores region and in southeastern Europe and Middle East and in the Russian Arctic region. The seasonal means of NAO and AO were +0.55 and +0.176. The southward shift is the reason that the indices are relatively small.

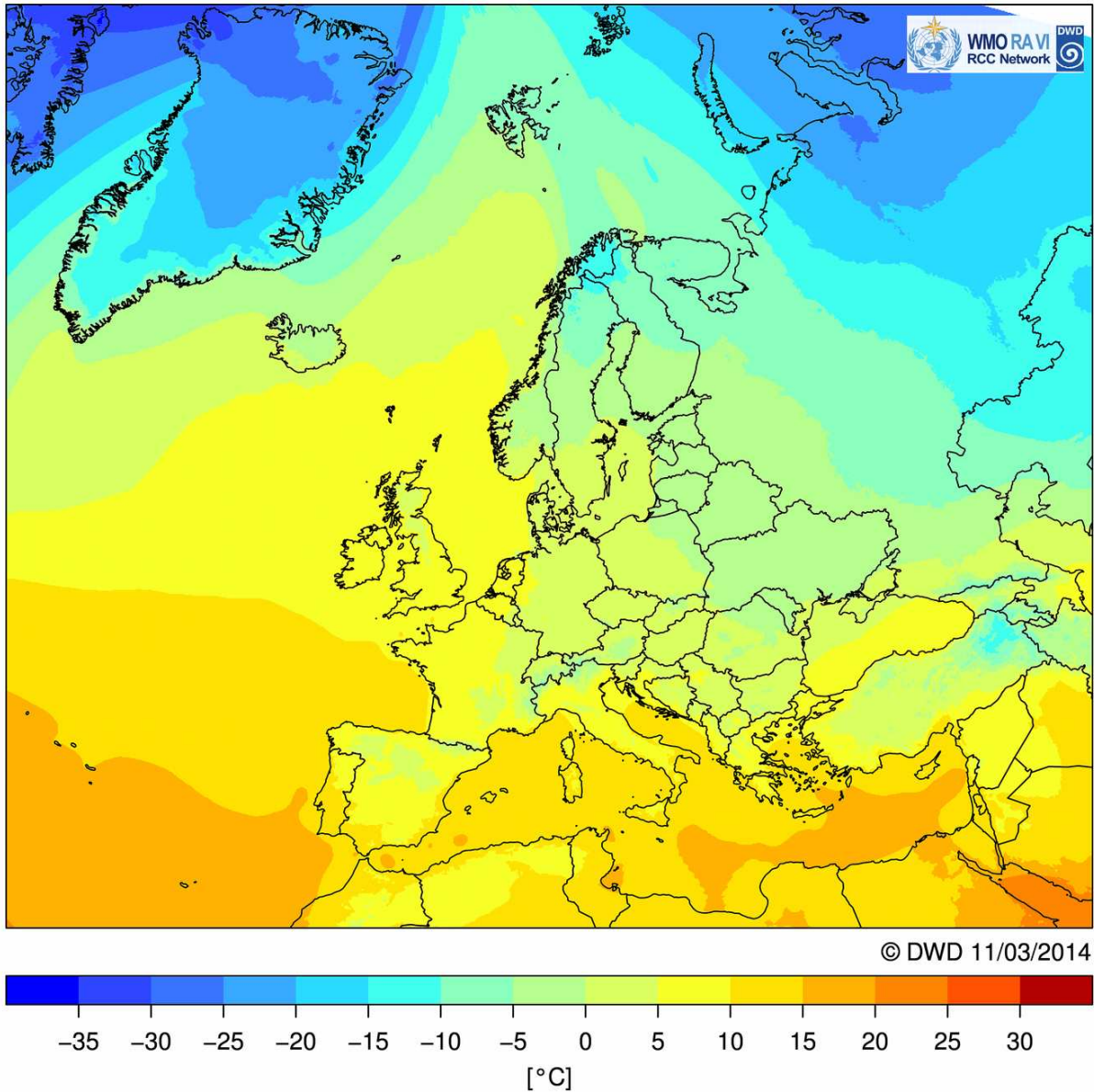
December 2013 was characterized by intense and extended low pressure centered over Iceland with a mean sea surface level pressure below 995 hPa reaching from southern Greenland to northern Norway and high pressure in the south and southeast from the Azores (mean pressure in the range 1020 to 1025 hPa) eastwards and northeastwards. The highest mean pressure of 1025 to 1030 hPa was over the Iberian Peninsula and over the northern Balkan Peninsula. Lower pressure but not very low (1015 to 1020 hPa) was over the eastern Mediterranean Sea and adjacent southern and eastern countries. The highest positive anomalies of 6 to 10 hPa was over the central Mediterranean, the Balkan Peninsula and the Black Sea whereas the highest negative anomalies of -14 hPa and lower occurred around Iceland. The strongest gradients between the low and the high pressure occurred between northern France and Scotland and the gradient zone remained rather sharp also over northern central Europe and northern Sweden. The frequent and strong winter storms in December are closely related to this. Many low pressure cyclones accompanied the frequent far southward reaching troughs and brought heavy to extremely heavy precipitation to the Mediterranean Sea and Balkan Peninsula. The NAO index for December 2013 of only 0.79 reflects the large extent of the low pressure in the north. A higher positive value of 1.475 resulted for the AO index.

In **January 2014** the Icelandic low was extended far southwards with a mean pressure below 995 hPa enclosing most of Ireland and Scotland. This means a negative anomaly of more than 14 hPa for the British Isles and northwest of them. Low pressure extended far onto the European continent with negative anomalies in the range of -2 to -6 hPa over most of central, southern and southwestern Europe and -6 to -10 hPa for the west of the continent. Northern, eastern and southeastern Europe had higher mean pressure. The positive anomalies were highest over northern Scandinavia and the Arctic Sea with 10 to 14 hPa. The strong gradients between the North Atlantic low and the Azores high allowed several cyclones to affect the British Isles and the west of the continent with high wind speeds.

February 2014 was characterized by low sea surface pressure below 995 hPa as monthly mean on the North Atlantic. Low pressure extended also over the western and northern European continent. The Azores high was weak and shifted southwards. The negative anomalies exceeded -14 hPa. High pressure was centered over the east with more than 1020 hPa as a mean over the eastern Ukraine, Russia and the Caucasus region and Middle East. The positive anomalies of more than 10 hPa were centered over northern Russia. The resulting NAO index was positive with 1.07 while the AO resulted in 0.04. NAO was above the normal during the whole month and exceeded in phases 1 sigma above normal.

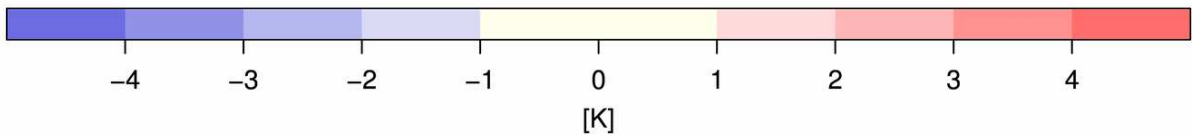
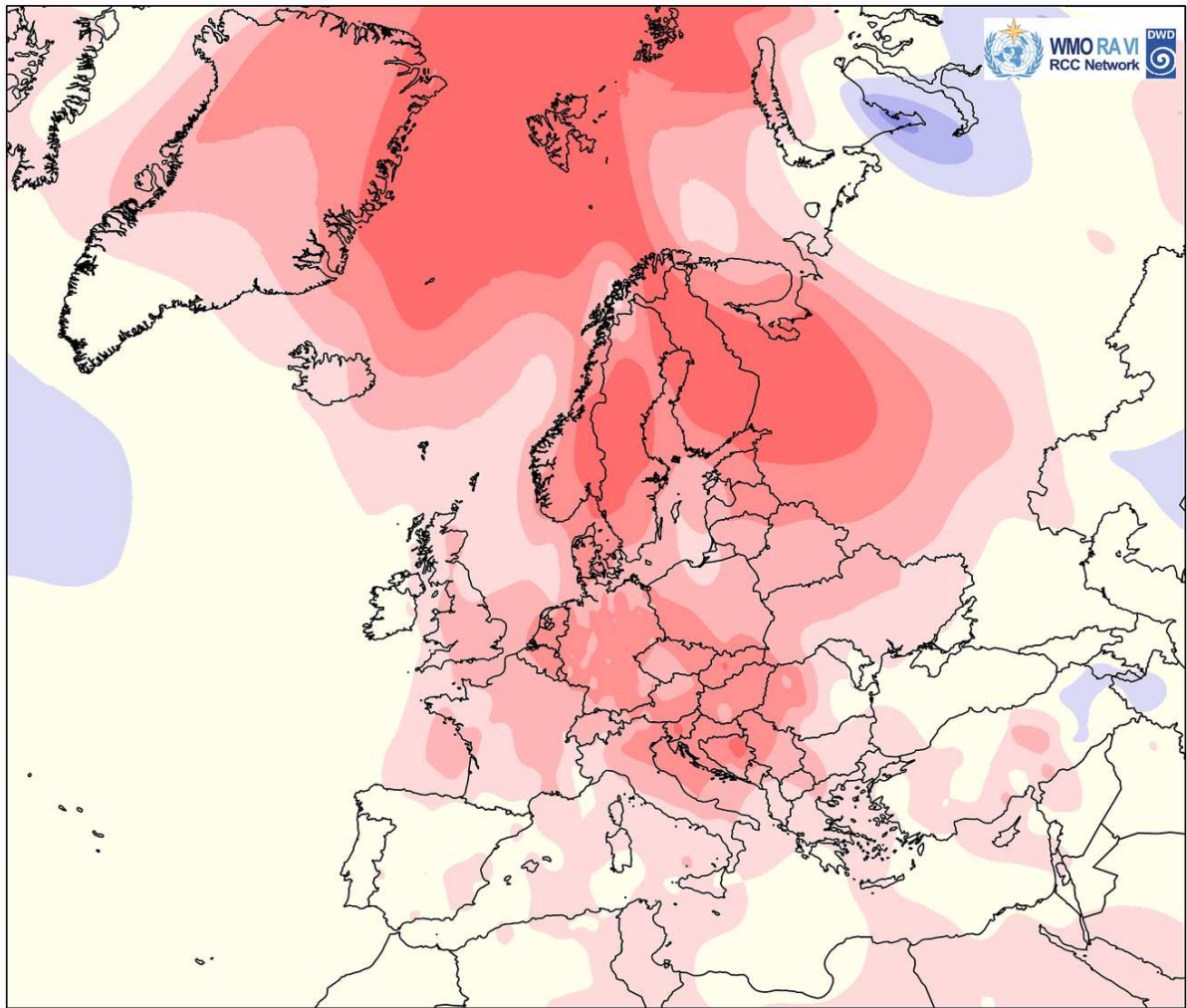
Temperature:

Mean Temperature Winter 2013/14

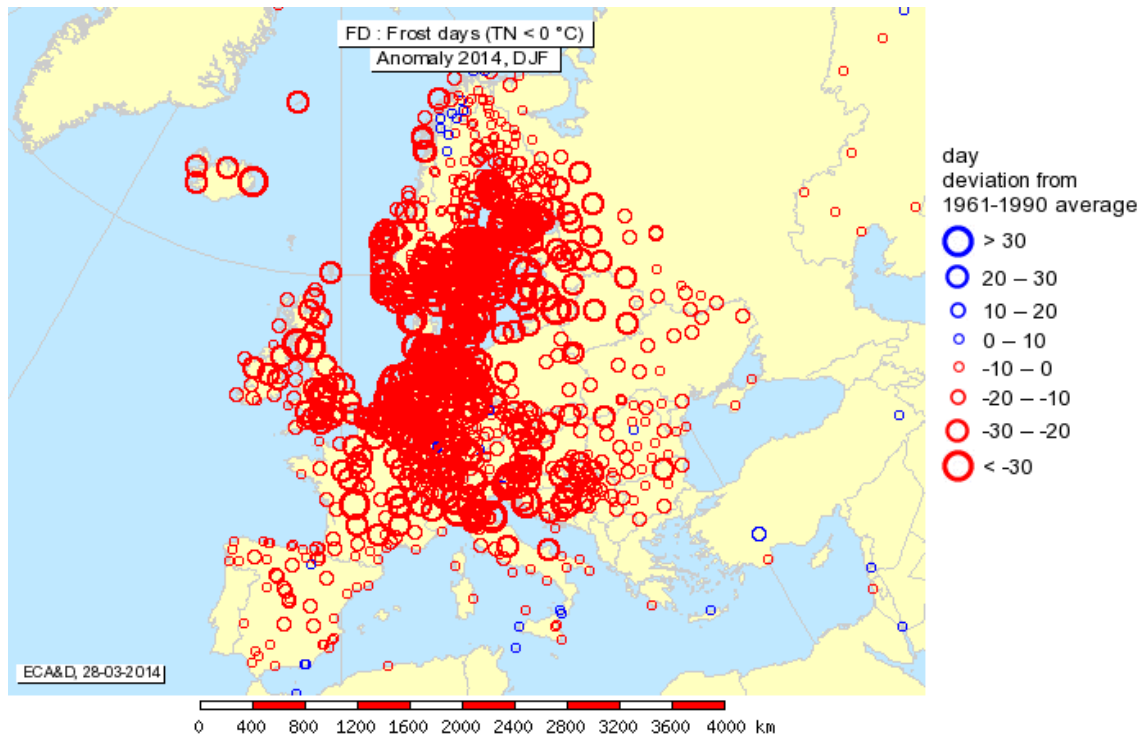


Map of seasonal temperature mean (deg C) Europe DJF 2014

Temperature Anomaly Winter 2013/14 (reference period 1961–1990)



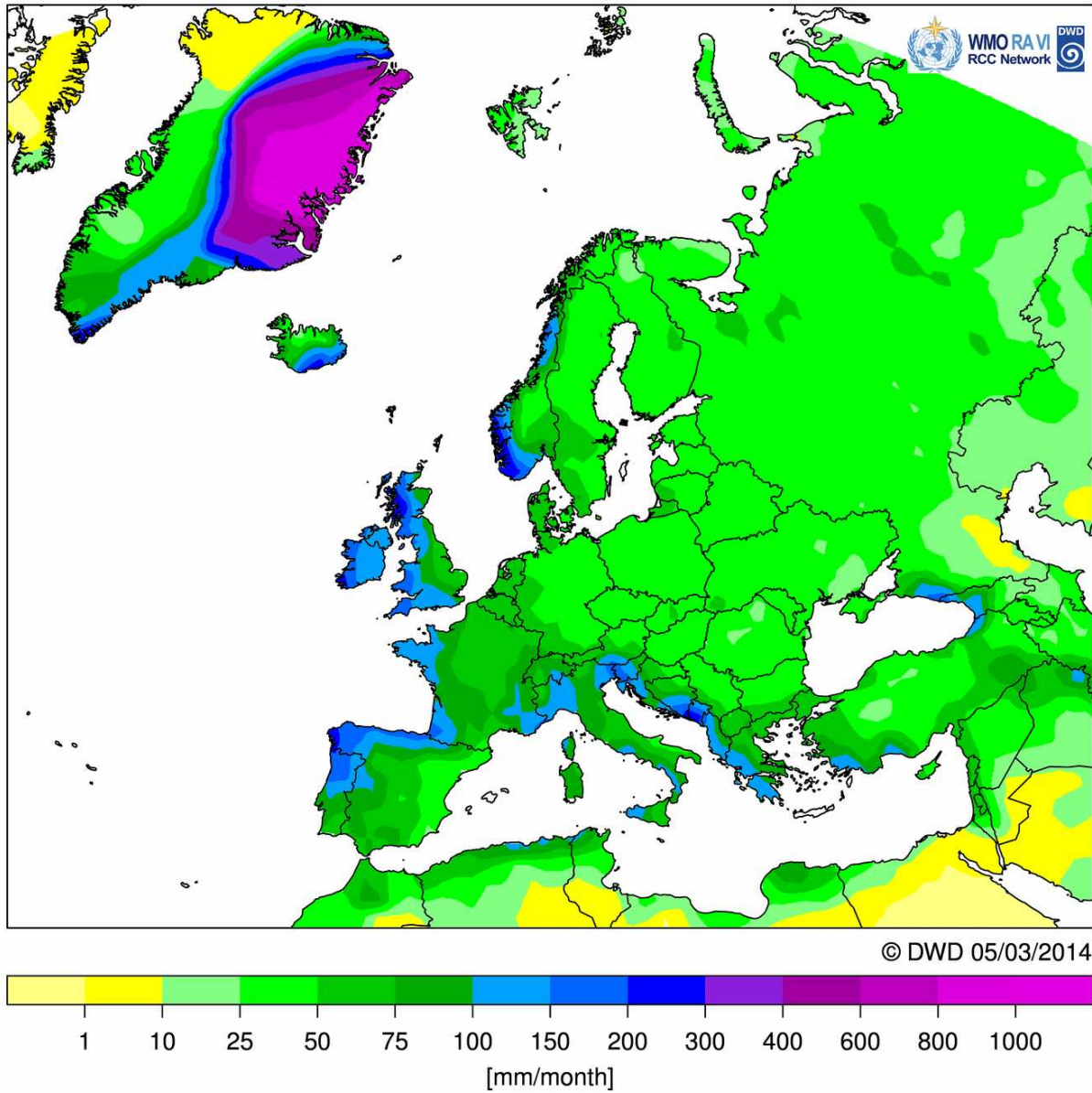
Map of seasonal temperature anomaly Europe DJF 2014



Anomaly of the number of Frost Days in winter 2014 (source: RCC-CD, ECA&D)

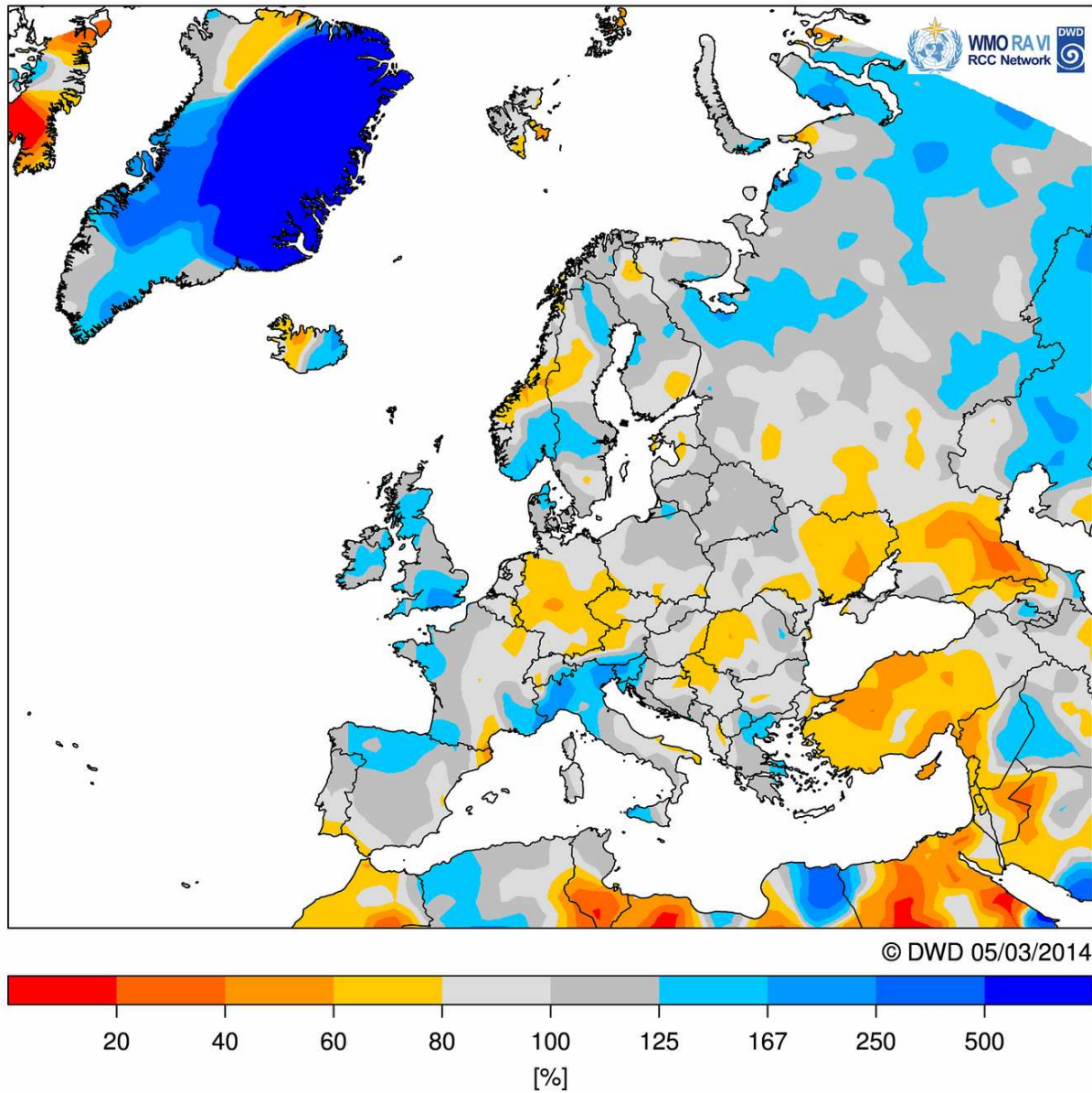
Precipitation:

Total Precipitation GPCP First Guess Winter 2013/14



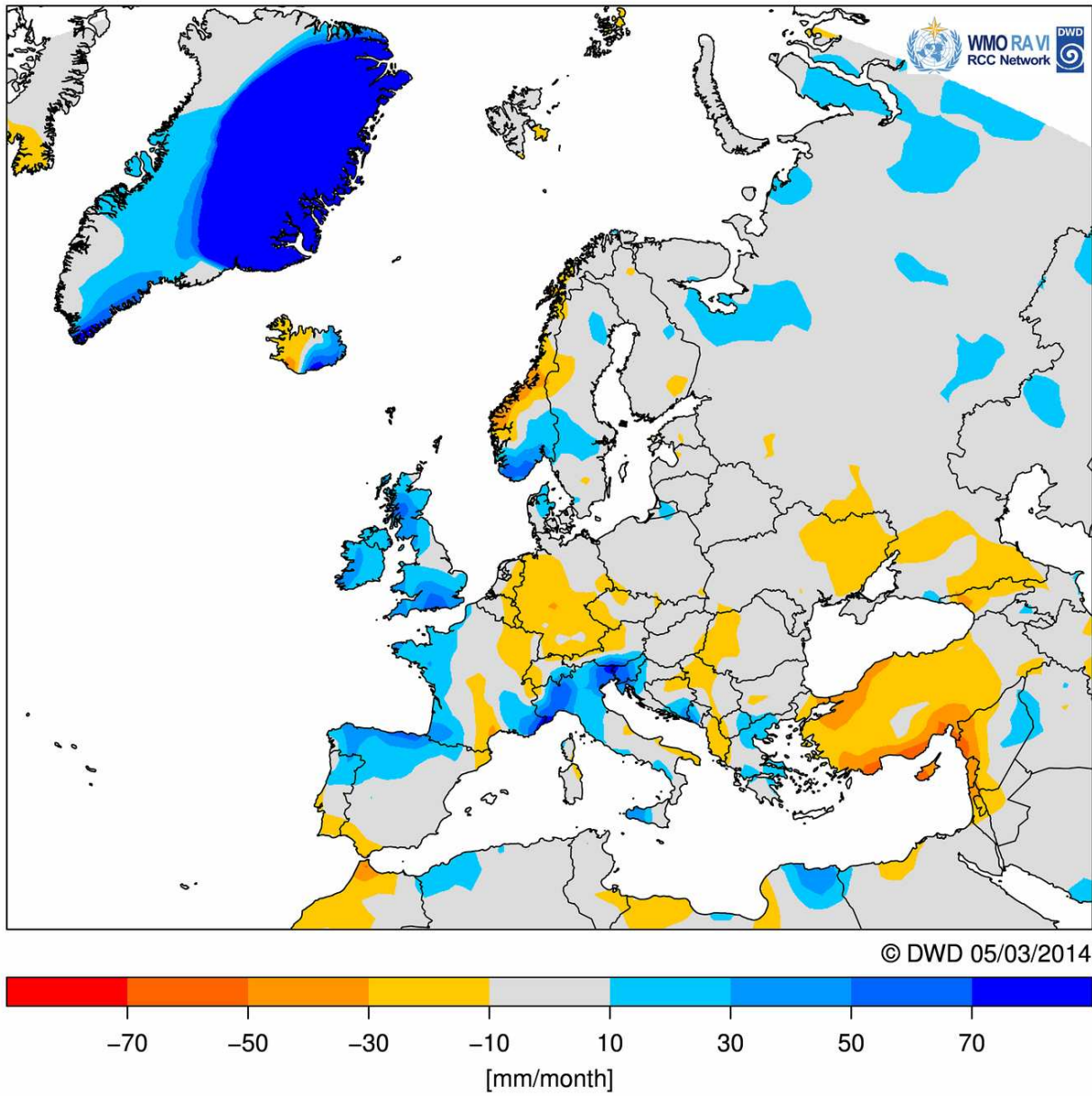
Map of seasonal precipitation totals (mm) Europe DJF 2014

Relative Anomaly of Precipitation GPCP First Guess Winter 2013/14 (reference period 1951–2000)

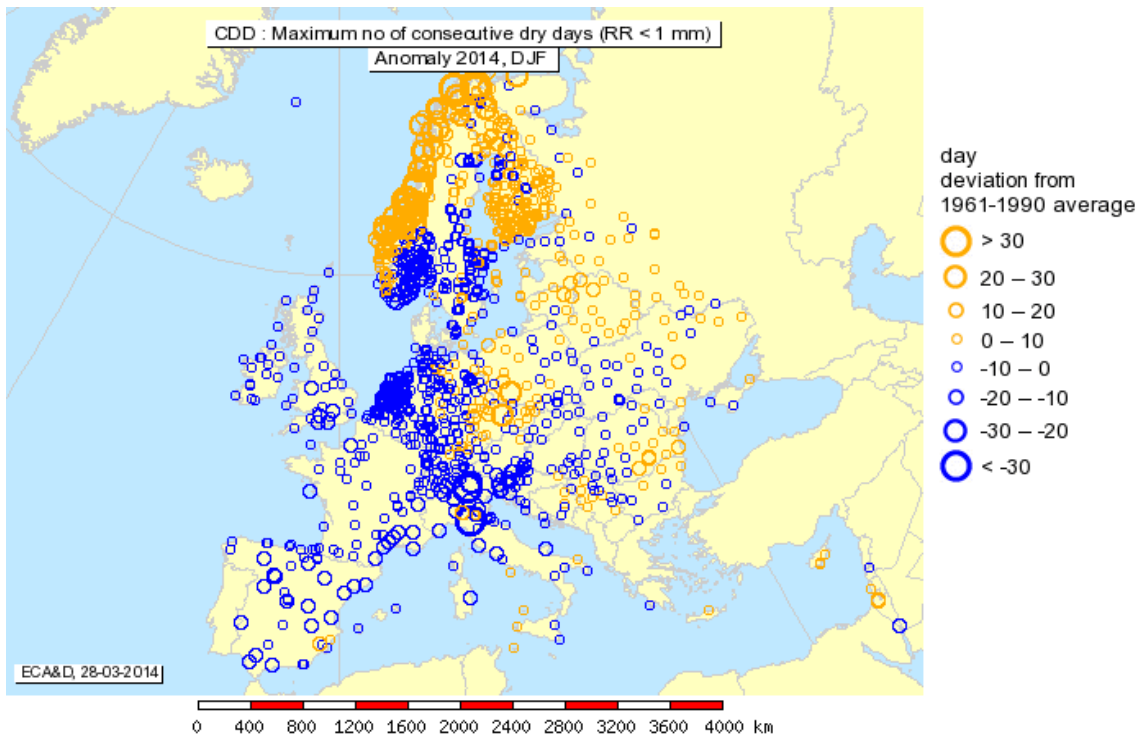


Map of seasonal precipitation anomaly (percentage) Europe DJF 2014

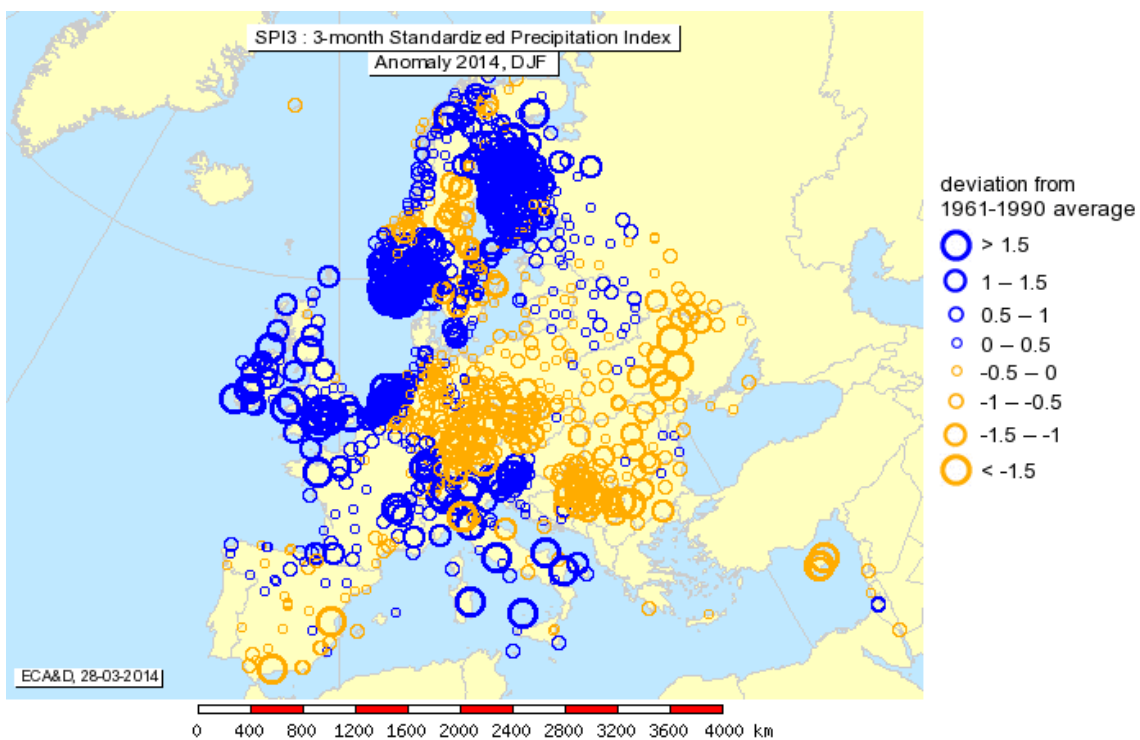
Absolute Anomaly of Precipitation GPCP First Guess Winter 2013/14 (reference period 1951–2000)



Map of seasonal precipitation anomaly (mm) Europe DJF 2014

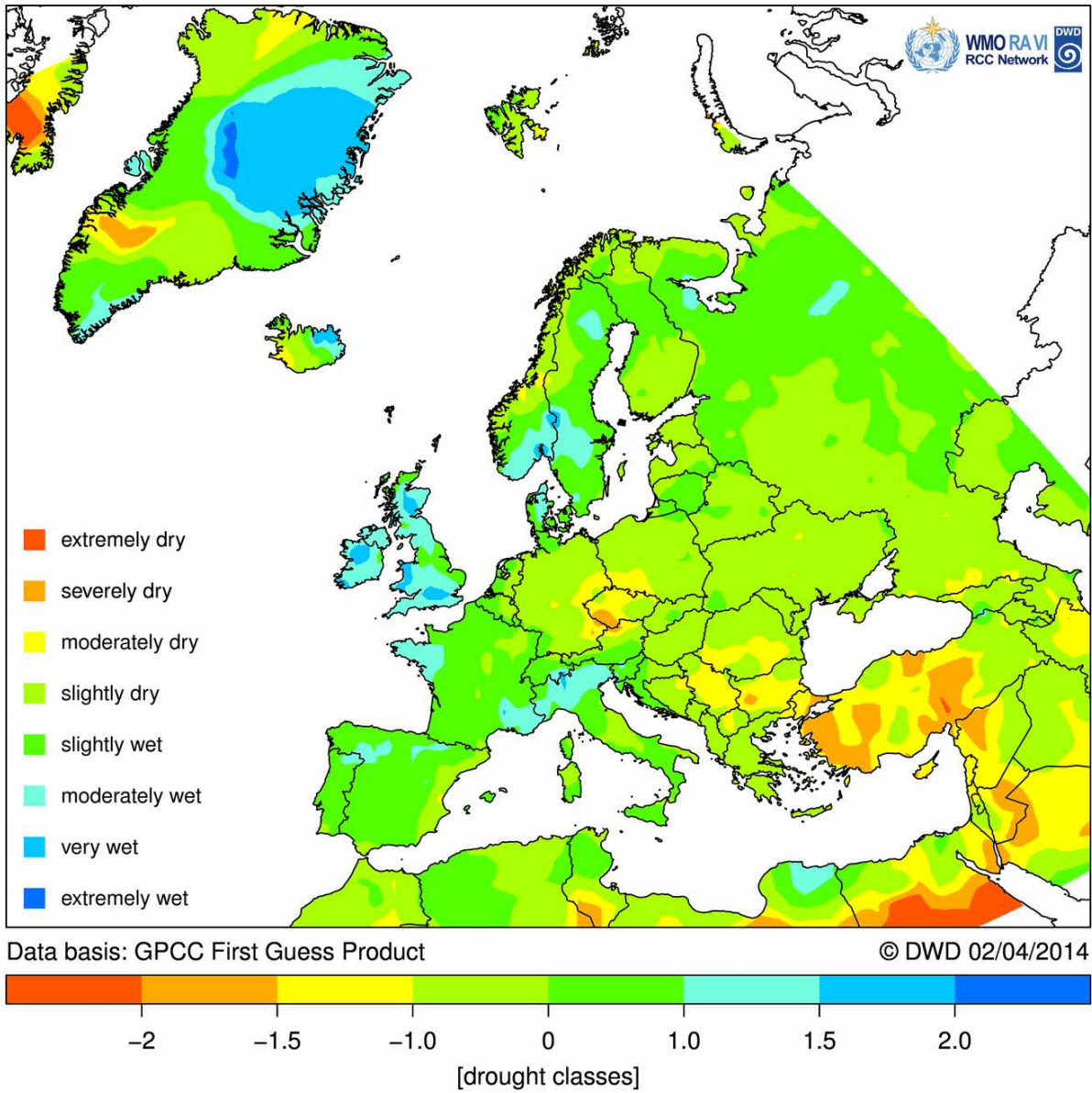


Anomaly of the maximum of consecutive dry days in winter 2014 (source: RCC-CD, ECA&D)



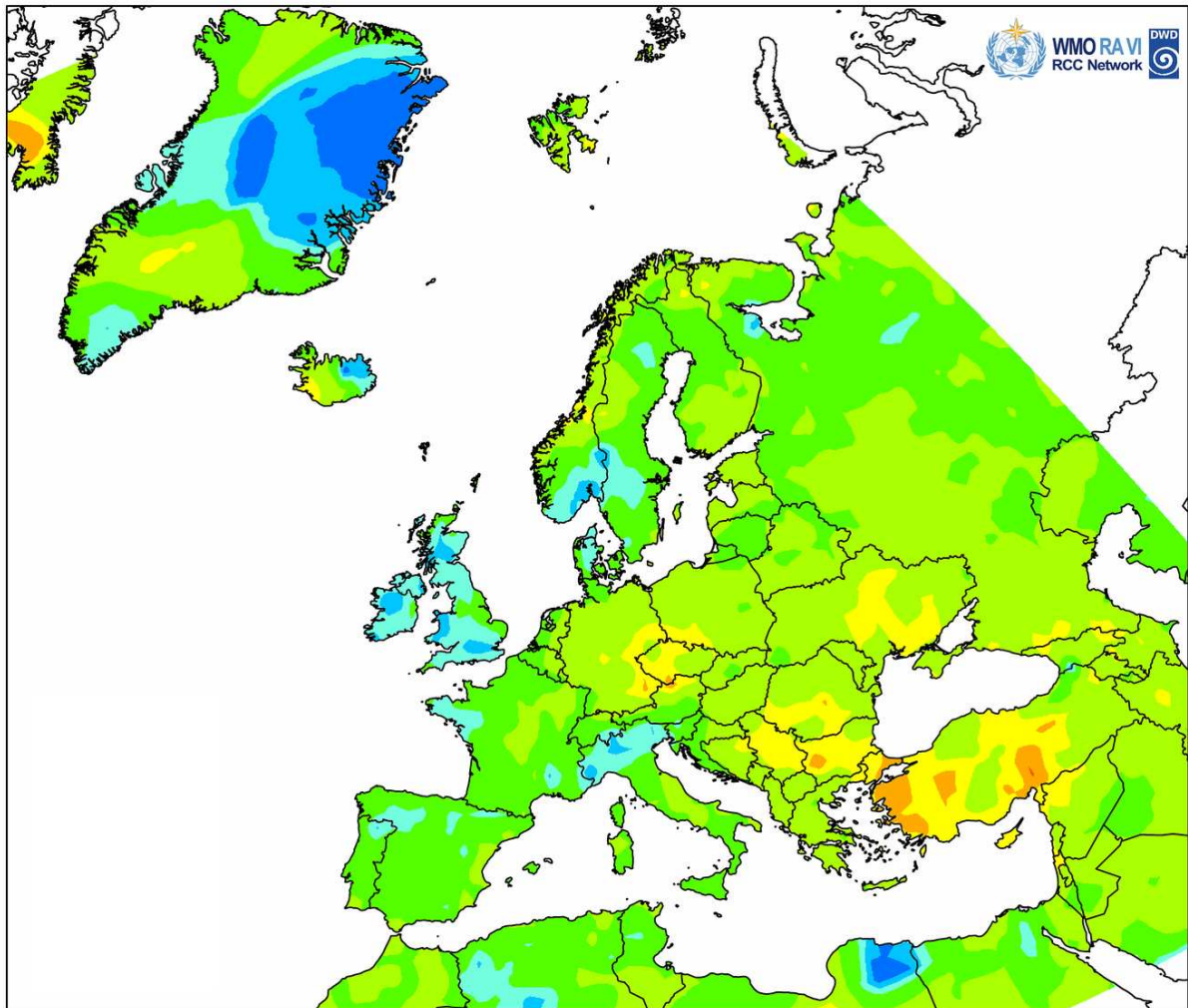
Anomaly of the 3-month SPI in winter 2014 (source: RCC-CD, ECA&D)

DWD Standardized Precipitation Index Winter 2013/14



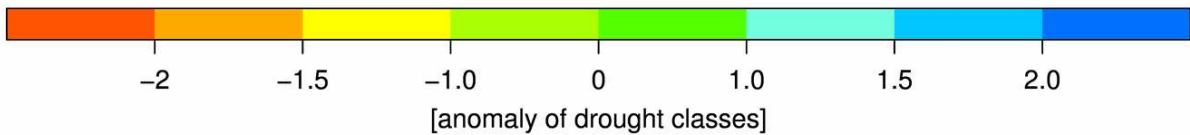
Map of mean seasonal drought index (SPI, modified by DWD) Europe DJF 2014

Anomaly of DWD Standardized Precipitation Index Winter 2013/14 (reference period 1961–1990)



Data basis: GPCC First Guess Product

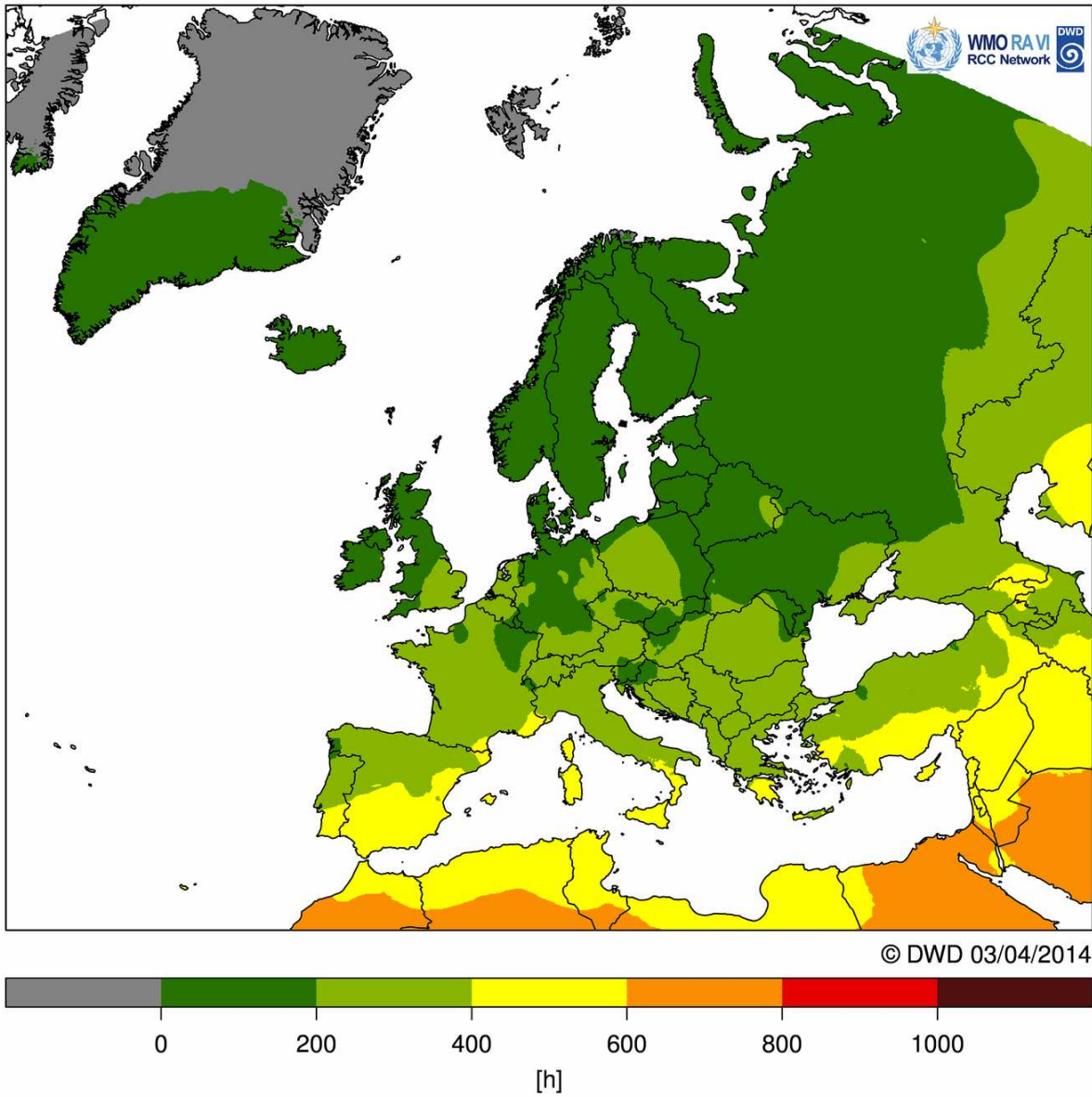
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Map of anomaly of mean seasonal drought index (SPI, modified by DWD) Europe DJF 2014

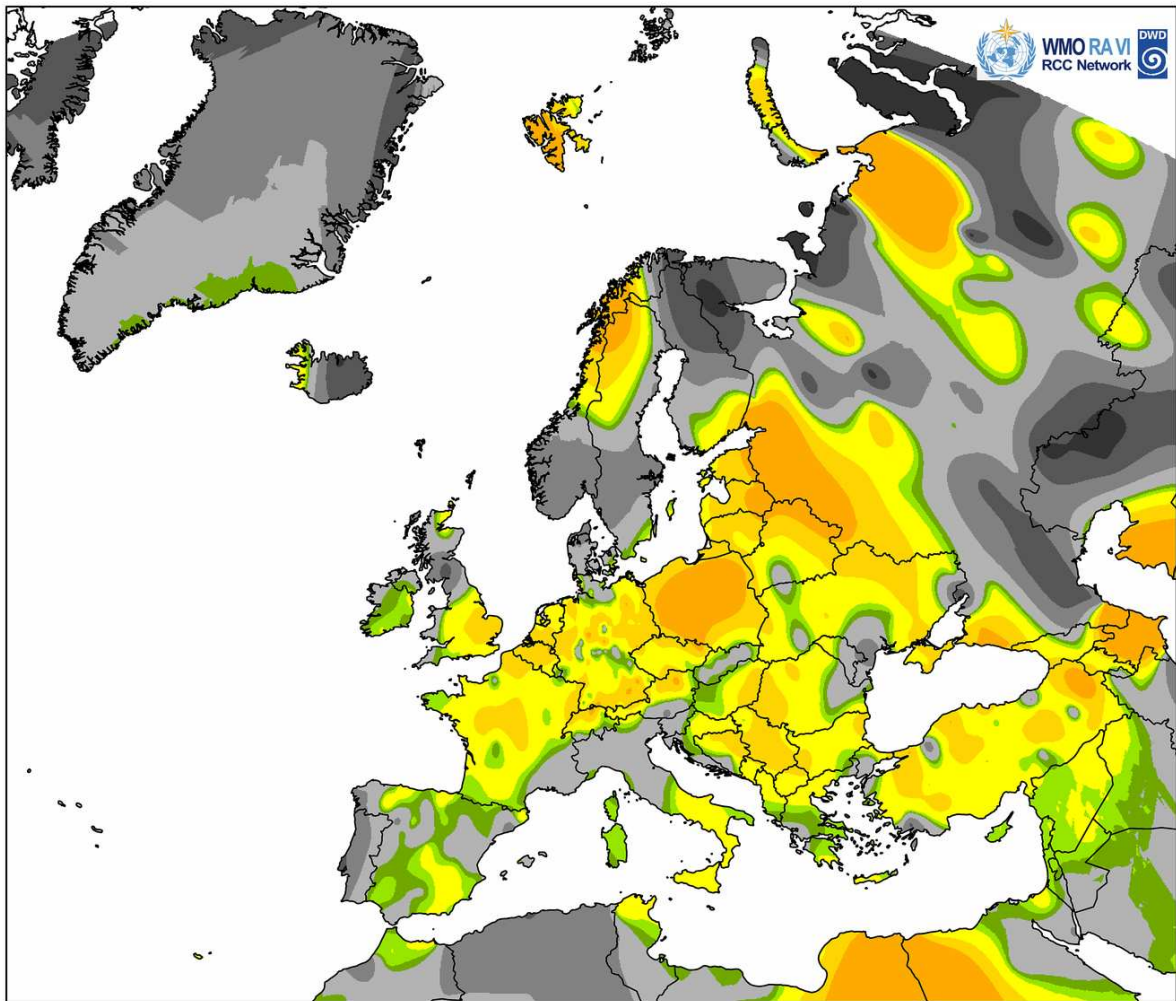
Sunshine Duration and Cloud Cover:

Sunshine Duration Winter 2013/14

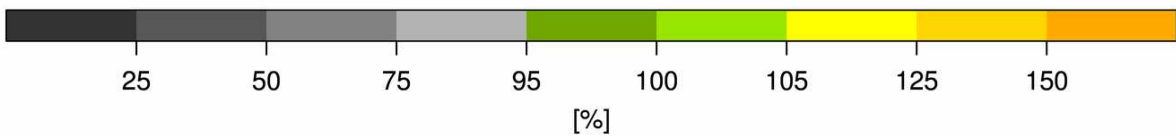


Map of seasonal Sunshine Duration Europe DJF 2014

Relative Anomaly of Sunshine Duration Winter 2013/14 (reference period 1961–1990)



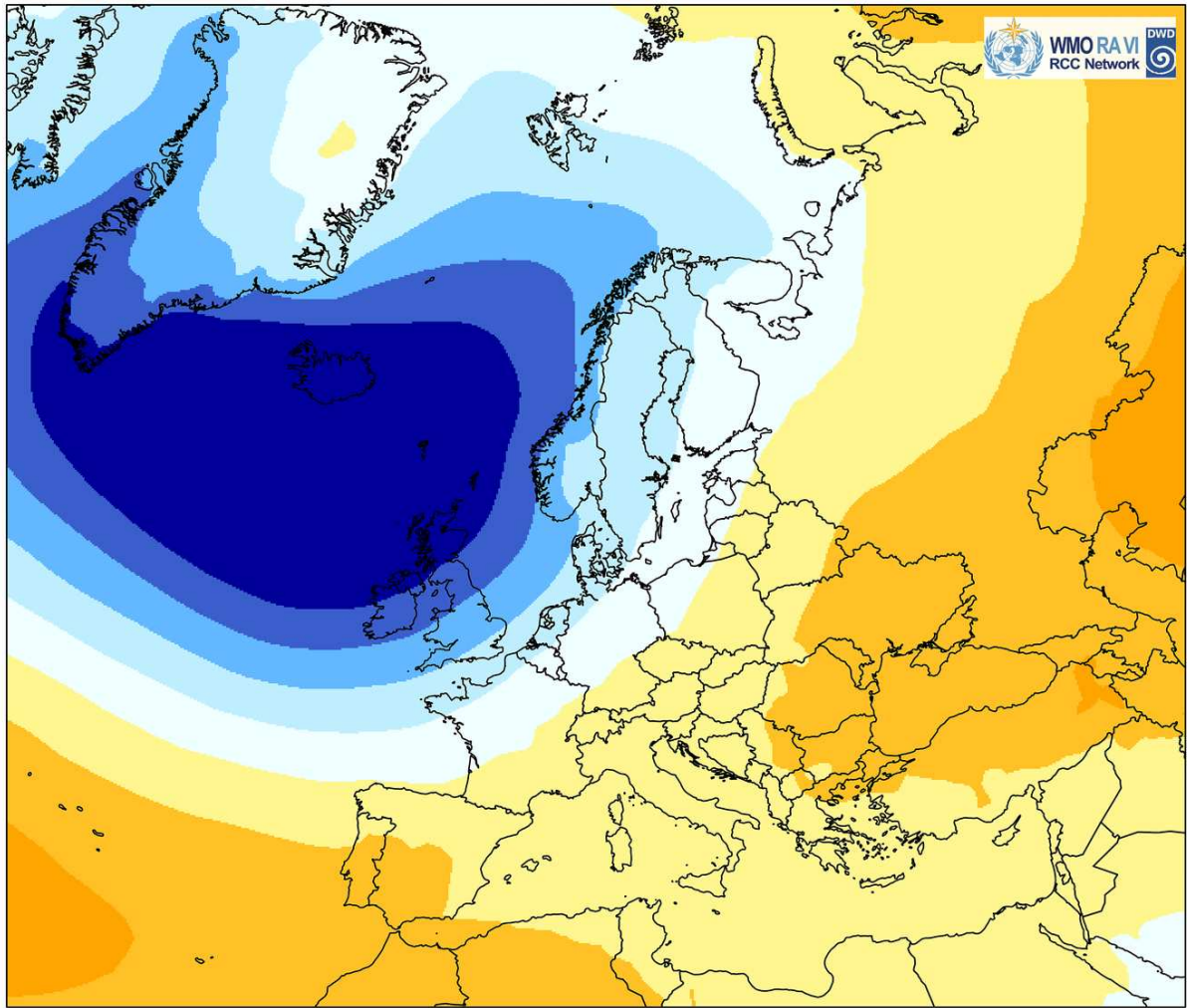
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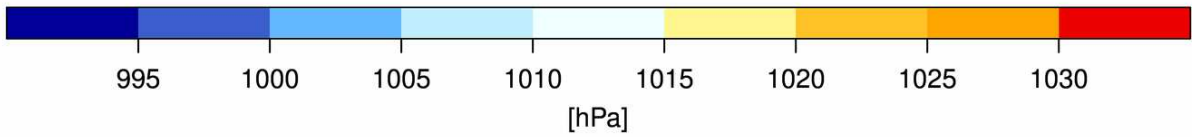
Map of seasonal Sunshine Duration Anomaly (Percentage) Europe DJF 2014

Air Pressure (surface):

Mean Sea Level Pressure Winter 2013/14

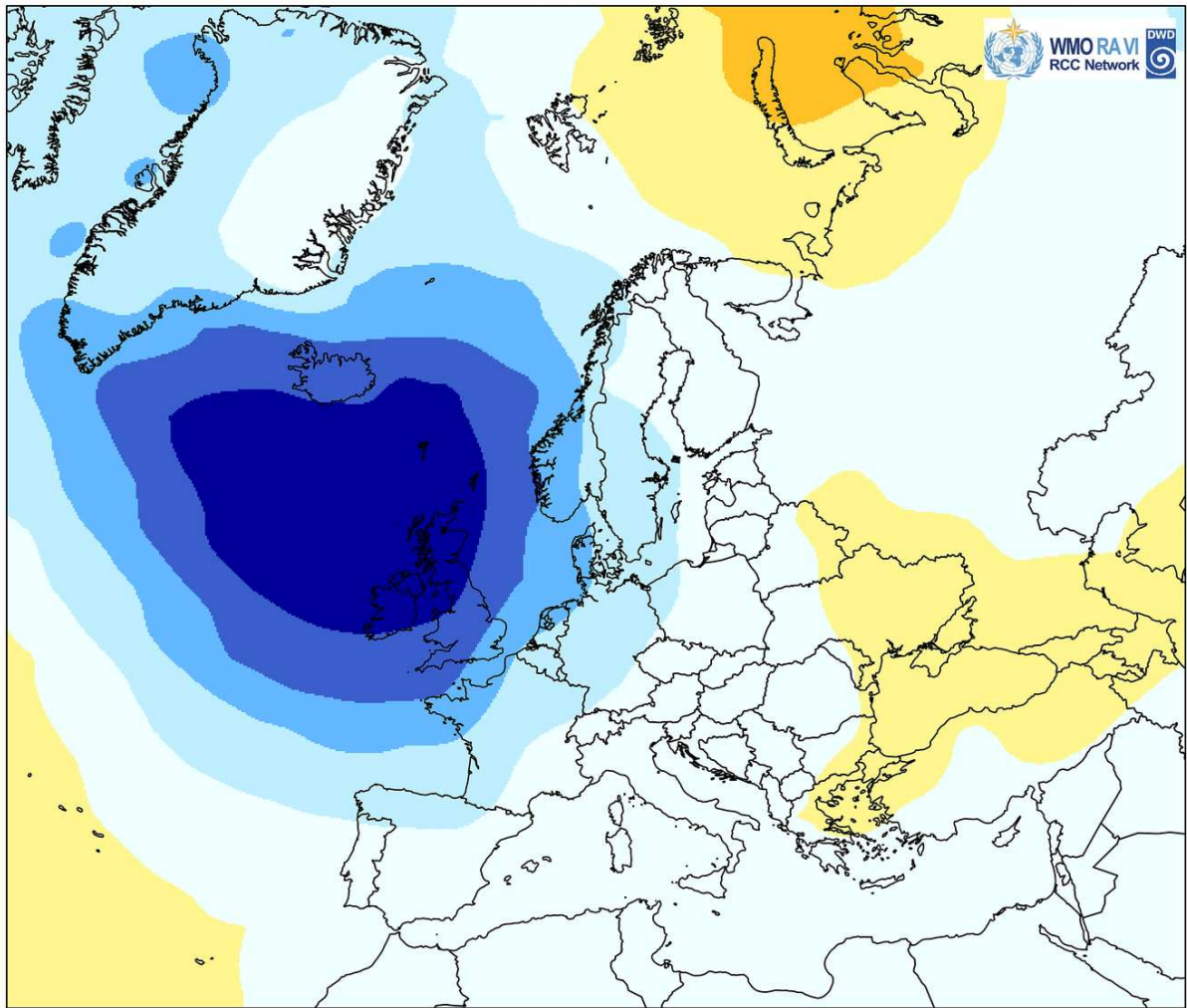


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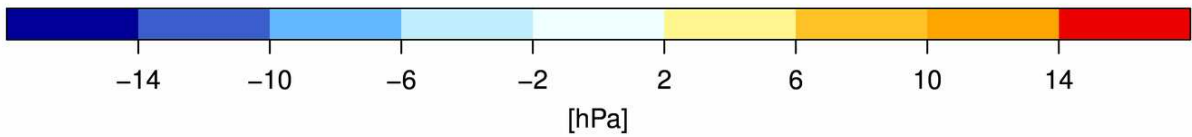


Mean of Sea Level Air Pressure DJF 2014

Anomaly of Sea Level Pressure Winter 2013/14 (reference period 1961–1990)



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Anomalies of the mean Sea Level Air Pressure DJF 2014

Extremes Values:

Data source: The RCC-CD-node: <http://www.ecad.eu>

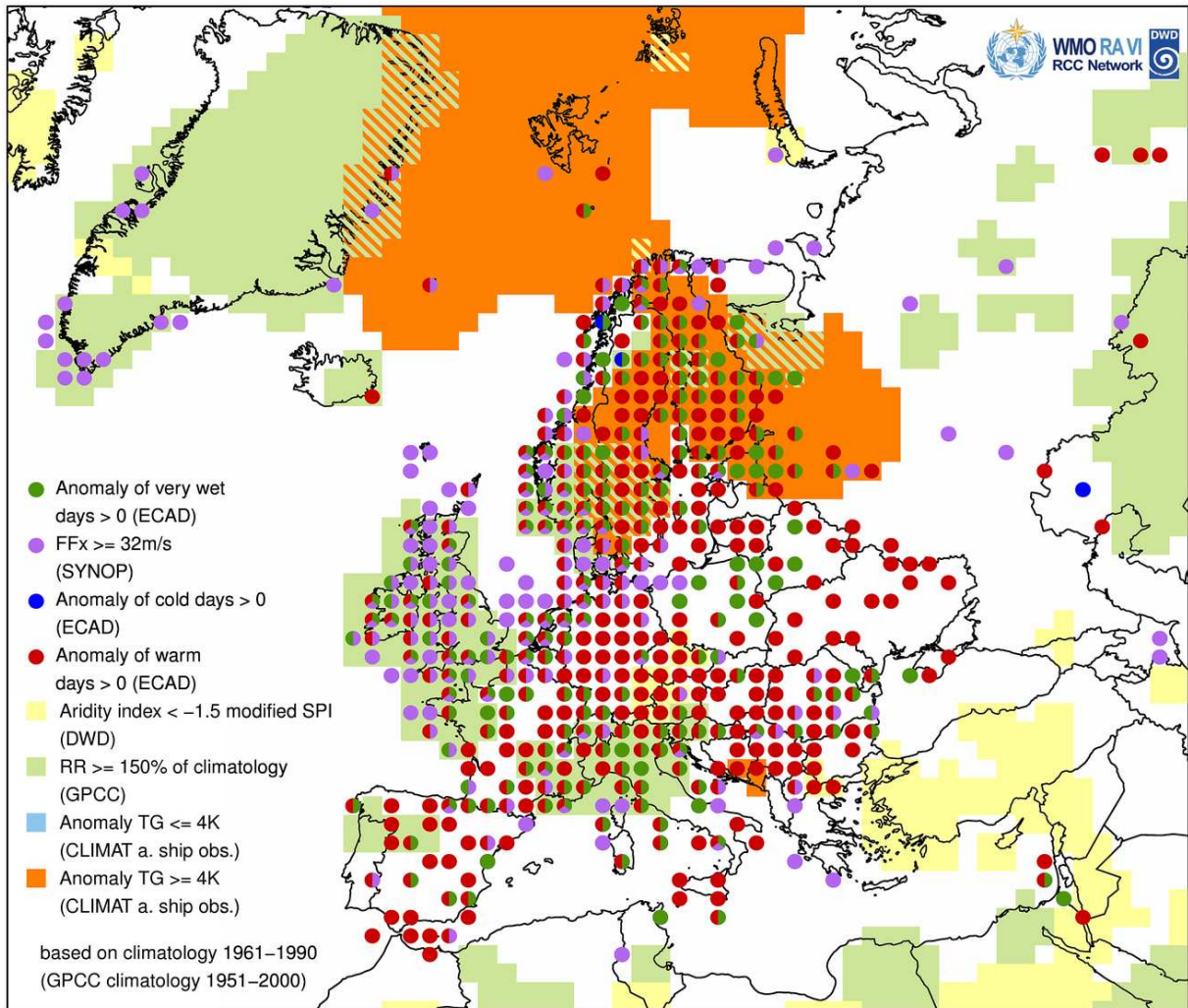
RX1d: highest 24 hours total (in mm), RX5d: highest 120 hours total (in mm), RR10: highest number of days with heavy precipitation (>10 mm/d), RR20: highest number of days with very heavy precipitation (>20 mm/d), TN: lowest mean minimum temperature (° C), TNN: lowest absolute minimum temperature (° C), TX: highest mean maximum temperature (° C), TXX: highest absolute maximum temperature (° C)
 *: value corrected according to NMHSs report, may still be preliminary

Country	RX1d [mm]	RX5d [mm]	RR10 [days]	RR20 [days]	TN [°C]	TNN [°C]	TX [°C]	TXX [°C]
Austria	56.0	64.7	18	3	-10.6	-20.3	7.4	19.3
Bosnia and Herzegovina	42.8	80.5	4	-	-4.0	-16.6	8.6	19.9
Belgium	81.0	113.3	9	1	1.3	-2.8	9.0	14.9
Bulgaria	47.0	90.1	4	1	-1.5	-18.0	11.0	25.1
Belarus	24.3	31.9	2	0	-4.8	-26.1	1.9	11.5
Switzerland	80.0	159.2	26	16	-10.9	-23.5	8.2	17.1
Cyprus	30.0	38.6	5	1	-	-	-	-
Czech Republic	34.7	50.0	4	1	-	-20.6	-	15.1
Germany	53.3	85.4	15	4	-10.5	-17.6	9.3	19.5
Denmark	-	-	-	-	1.5	-8.4	6.1	11.2
Algeria	-	-	-	-	5.9	-0.9	21.6	30.1
Estonia	13.0	41.8	2	0	-4.6	-24.1	2.3	9.0
Canar. Island	-	-	-	-	-	6.1	21.5	26.9
Spain	177.7	308.1	34	18	-1.7	-7.3	19.0	27.2
Finland	22.6	46.0	6	1	-14.7	-39.8	1.3	8.4
France	90.0	194.0	17	9	-2.0	-8.3	15.4	22.6
United Kingdom	50.0	110.6	34	15	2.4	-4.9	10.2	15.1
Greenland	-	-	-	-	-22.3	-34.5	-13.9	-0.3
Greece	36.0	61.5	13	4	8.9	5.5	16.8	23.9
Croatia	89.0	261.7	23	13	-1.6	-12.1	15.7	20.4
Hungary	21.0	60.3	3	0	-0.5	-14.4	6.9	17.7
Ireland	37.0	100.0	36	12	3.2	-4.3	9.8	15.4
Israel	30.2	41.2	11	4	6.5	0.6	23.4	32.5
Iceland	-	-	-	-	-1.2	-12.9	3.0	11.6
Italy	181.0	209.0	20	13	-10.7	-19.8	17.8	26.1
Kyrgyzstan	-	-	-	-	-7.0	-20.5	2.3	18.0
Kazakhstan	-	-	-	-	-19.0	-37.3	0.0	14.9
Liechtenstein	-	-	-	-	1.0	-2.9	8.2	17.1
Lithuania	25.4	42.2	4	0	-3.5	-20.0	2.2	9.0
Luxembourg	31.3	64.3	4	0	1.2	-3.2	6.2	12.3
Latvia	18.0	44.2	3	0	-4.4	-22.8	2.1	10.5
Moldova	18.0	35.3	3	0	-3.0	-20.8	1.5	13.1
Netherlands	89.2	165.8	11	2	2.3	-6.0	9.0	14.7
Norway	214.0	245.7	46	29	-16.9	-41.9	7.6	16.3
Poland	23.0	47.9	3	0	-3.4	-22.6	7.1	14.1
Portugal	-	-	-	-	-	-	9.6	15.2
Romania	61.6	175.6	4	1	-9.2	-25.8	8.2	20.0
Serbia	31.0	101.5	4	1	-4.4	-14.3	10.0	23.9
Russian Federation	32.0	46.6	4	1	-21.0	-41.5	2.6	16.1
Sweden	34.0	65.0	7	3	-18.8	-42.6	5.1	11.7
Slovenia	103.2	190.5	23	17	-6.7	-14.2	7.4	18.0
Slovakia	23.9	42.9	5	0	-3.6	-18.8	6.6	14.5
Tajikistan	-	-	-	-	-2.1	-17.5	8.7	19.6
Turkey	-	-	-	-	-7.4	-14.4	17.4	24.1
Ukraine	45.0	67.6	5	1	-5.4	-26.0	5.6	21.2
Uzbekistan	-	-	-	-	-9.6	-27.0	9.7	24.0

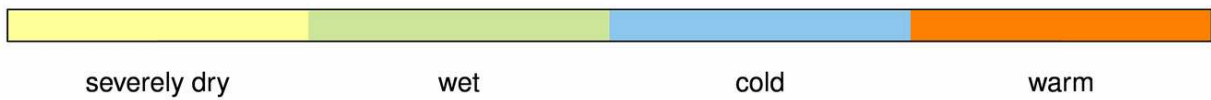
Climate Extremes and Severe Weather Events:

Map of Climate Extremes and Events of the Season:

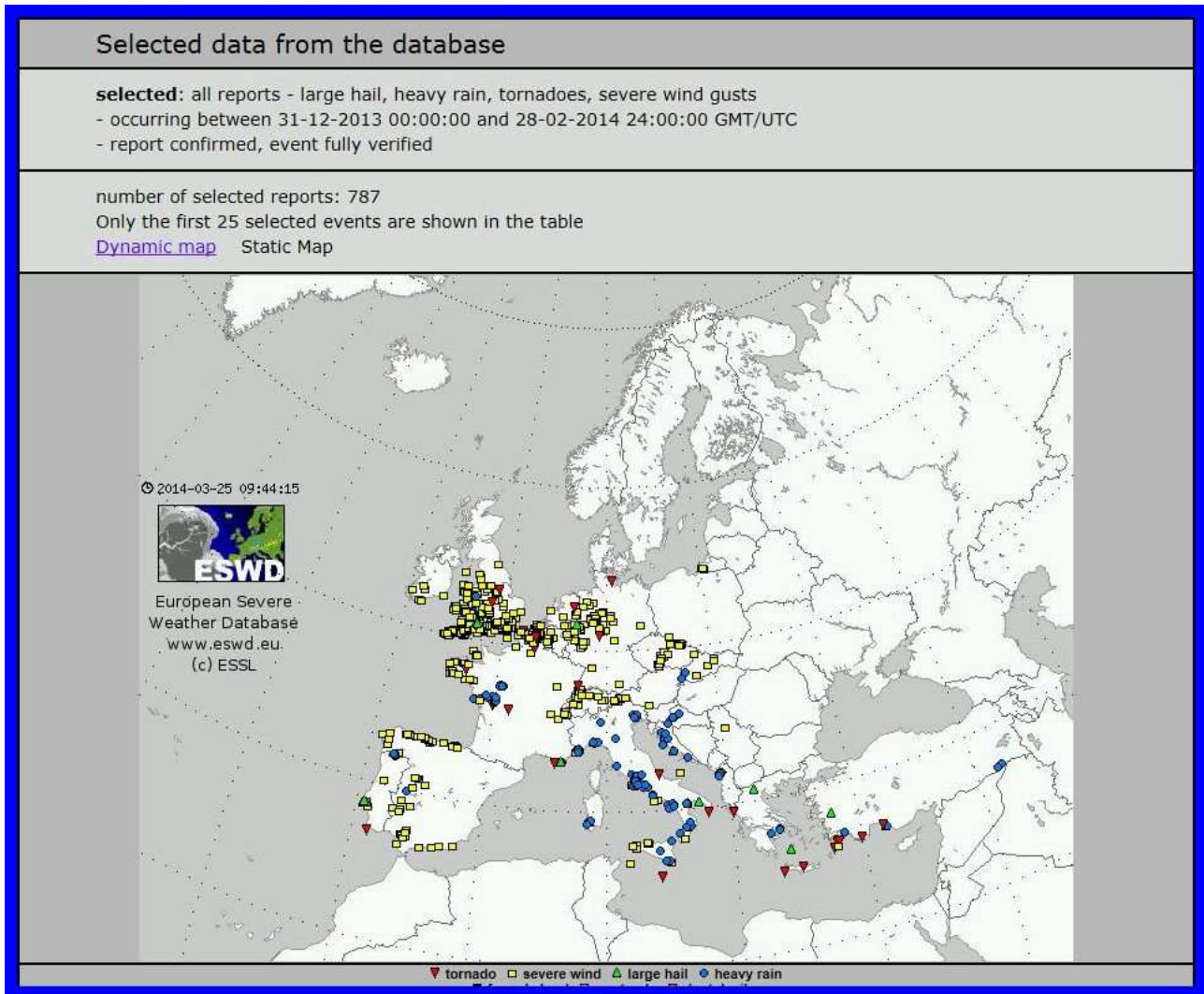
Event map Winter 2013/14



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Map of selected Severe Weather Events of the Season (voluntary reports):



Map of reported Severe Weather Events of the Season, Source: <http://esssl.org/cgi-bin/eswd/eswd.cgi>

Web-available seasonal summaries in RA VI:

[Air temperature anomalies and Precipitation amounts for Croatia in Winter 2013/2014](#)

[Vejret i Danmark - vinteren 2013-2014](#)

[Bilan de l'hiver 2013-2014 \(France\)](#)

[The weather in Germany in the winter 2013/14](#)

[ZHMS\(Montenegro\): Analiza temperature vazduha i količine padavina za zimu 2013/2014](#)

[KNMI: Seizoenoverzicht Winter 2013-2014 \(december, januari, februari\): Uitzonderlijk zacht, zonnig en aan de droge kant](#)

[Vintersesongen : desember 2013 - februar 2014 \(Norway\)](#)

[MONTHLY CLIMATE MONITORING BULLETIN WINTER 2013- 2014 \(DECEMBER 2013-FEBRUARY 2014\) \(Poland\)](#)

[Klimabulletin Winter 2013/14 \(Switzerland\)](#)

[Winter 2013/14 \(United Kingdom\)](#)

[ZAMG,PressRelease 25.2.2014: Zweitwärmster winter der Messgeschichte](#)

[IPMA: Boletim Climatológico Sazonal - Inverno 2013-2014](#)

[DMI,Nyheder, Danmarks 5. varmeste vinter var nedbørrig og solfattig](#)

[IMS: Dry winter 2013/2014 in Israel, as well available under <http://www.dwd.de/rcc-cm>:](#)

[WMO: News, 24 March 2014: Meteorological summer/winter sees many extremes](#)

[SMHU, Bulletin a Klimatologia-Slovenska republika, February 2014 - contains a summary of winter 2013/2014](#)

References:

(Links to Analyses of Extreme Climate Events or special papers of interest)

[RCC-CM: Monthly Bulletins on the climate in WMO RA VI - Europe and Middle East for December 2013 and January and February 2014](#)

[IMS: Significant weather event December 2013 ,as well available under <http://www.dwd.de/rcc-cm>:](#)

[DWD, Presse, Hintergrundberichte: 5./6.Dezember 2013: Orkantief XAVER über Nordeuropa vom 5. bis 7. Dezember 2013](#)

[KNMI: Zware storm op 5 december](#)

[MeteoFrance 05/12/2013: Tempête Xaver au nord de l'Europe](#)

[DMI:Fem storme i stødet](#)

[DWD, Presse, Hintergrundberichte: 04.Februar 2014: Viel Schnee in den Südalpen - Hochwasser in Italien Ende Januar/ Anfang Februar 2014](#)

[ARSO, Ljubljana, 9.1.2014: Obilne padavine 4. in 5. januarja 2014](#)

[ARSO, Ljubljana, 23.1.2014: Obilne padavine od 17. do 19. januarja 2014](#)

[ARSO, Ljubljana, 24.1.2014: Zelo milo vreme od 20. decembra 2013 do 23. januarja 2014](#)

[ARSO, Ljubljana, 28.3.2014: Sneg, led in padavine od 30. januarja do 7. februarja 2014](#)

[DWD, Presse, Hintergrundberichte: 04.Februar 2014: Sturmflut an der europäischen Atlantikküste Februar 2014](#)

[DWD, Presse, Hintergrundberichte: 13.Februar 2014: Sturm und Regen in Westeuropa im Februar 2014](#)

[UK Met Office: Winter storms, December 2013 to January 2014](#)

[UK Met Office: Winter storms, January to February 2014](#)

[ZAMG, 01.02.2014: Extreme Schneemengen in Süd-Österreich](#)

[IPMA 2014-02-11: Informacao mai detalhada sobre a temperstade STEPHANIE](#)

Main URLs:

(URLs of used data and further information)

RCC-CM <http://www.dwd.de/rcc-cm>

RCC-CD (ECA&D): <http://www.ecad.eu>

GPCC: <http://gpcc.dwd.de>

ESWD: <http://essl-org/cgi-bin/eswd/eswd.cgi>