Climate Report for Croatia for Winter 2014/2015

► Air temperature anomalies for Croatia in winter 2014/2015

During the winter 2014/2015 the average winter air temperatures (December, January, February) were above the multi-annual average (1961-1990). Corresponding air temperature anomalies for the winter 2014/2015 were within the range from 0.5°C to 2.7°C.

According to percentile ranks and classification ratings, thermal conditions in Croatia for the winter 2014/2015 have been classified by following categories: **normal** (Zavižan), **very warm** (part of Northern Croatia as well as part of the Northern and Middle Adriatic) and **warm** (the remaining part of Croatia).



▶ Precipitation amounts for Croatia in winter 2014/2015

An analysis of the precipitation amounts for the winter 2014/2015 expressed as percentages (%) of 1961-1990 average, shows that these precipitation amounts were mainly above the average. Corresponding precipitation amounts for the winter 2014/2015 were within the range from 71% to 225% of multi-annual average for this season.

According to percentile ranks and classification ratings, the precipitation amounts for the winter 2014/2015 have been described by following categories: **normal** (part of the Northern Adriatic and part of Northwestern Croatia as well as the wider area of Knin and Split), **very wet** (wider area of Sisak and Šibenik), **extremely wet** (Hvar) and **wet** (the remaining part of Croatia).



SEECOF-12 CLIMATE OUTLOOK VALIDATION

• Air temperature anomalies for Croatia in winter 2014/2015

According to the SEECOF-12 climate outlook, for all Croatian teritory, there were chance for near normal or warmer than normal winter season. Probability for exceeding the average winter season temperature was 40%.

The winter season in Croatia according to multi-annual average 1961-1990 was almost for all teritoty above normal. In relation to the multi-annual average 1981-2010, the warmer anomaly is a bit less, with the anomalies range from 0.8° to 2.1°C for the 5 biggest stations in Croatia (Zagreb, Osijek, Gospić, Rijeka and Split). We can conclude that the outlook was satisfyingly correct.

• Precipitation amounts for Croatia in winter 2014/2015

According to the SEECOF-12 climate outlook, the precipitation along the Adriatic coast and belonging hinterland was forecasted to be near and above average (35% and 40% respectively). In the remaining part of Croatia the precipitation had no preference for any climate defined categories, with an equal probability of all three terciles.

The actual precipitation amounts were mainly above thirty-year average 1961-1990, especially along the central and south Adriatic Sea with belonging coast, the mountainous part and mainly better part of continental Croatia. Taking into account that the newer climatology 1981-2010 is generally similar or little bit drier than the older one, we can say that the positive anomaly along the central and south Adriatic Sea with belonging coast is even more pronounced and the outlook was satisfying. We must emphasize that the signal for wet conditions in the central and eastern continental part of Croatia was missed. Apart from that, we can conclude that the forecast was relatively satisfying.

	Seasonal temperature (DJF)		Seasonal precipitation (DIF)		
Country	Observed	SEECOF-12 climate outlook for temperature	Observed	SEECOF-12 climate outlook for precipitation	High Impact Events
Croatia	Normal to Above normal	Above normal	Above normal Normal (in the North Adriatic, hinterland of the Central Adriatic and the westernmost part of continental Croatia)	Normal or above normal (the Adriatic Sea and belonging hinterland) No predictive signal (continental part of Croatia)	In December , apsolute monthly maximum (since 1981) of temperature was recorded in Makarska (Dalmatia); Tmax=21°C, on 3 rd of December. Very low minimum temperatures were recorded on 30 th and 31 st December all over Croatia – the lowest temperature was mesured in Slatina (east continental part) on 31 st December (-21°C). Apsolute daily maximum of rain (since 1894) was recorded on islad Hvar (Dalmatia) on 3 rd December – 142,3mm/24h. Significant accumulations of rain (132 mm) were recorded from 4 th to 6 th December in Sibenik (Dalmatia). These days many floods and demages were recorded too. On 28 th and 29 th December heavy snowfall was recorded over continental part of Croatia – snow cover was between 10 and 50 cm high. During December a few "episodes" with gale force wind were recorded. Mean wind speed at Adriatic coast (mostly bora, NE wind) was aroud 24 m/s, and gusts up to 45 m/s (on 9 th and 10 th December, and from 28 th to 31 st December). In the mountains area, together with heavy snow, wind coused a lot of demages and traffic interruptions.

		Extreme weather conditions in January were connected mostly to precipitation and wind. On 11 th January gale force bora (NE wind) was recorded in Dalmatia. Mean wind speed was between 17 and 25 m/s, and gusts were up to 40 m/s at station Split and up to 30 m/s in Dubrovnik. Strong wind coused demolition of trees, other demages and maritime traffic interruptions (ships, ferries and catamarans). On 18 th and 19 th January heavy rain was recorded in Dalmatia. On 19 th January apsolute daily maximum of rain (since 1997) was recorded in Metkovic (hinterland of Dalmatia) – 125mm/24 h. At same time gale force SE wind coused maritime traffic interruptions. Mean wind speed were between 17 and 25 m/s, gusts from 35 m/s (Dubrovnik) to 42 m/s (Prevlaka, South Adriatic). On 20 th January thunderstorm with hail hits south Adriatic, especially Dubrovnik, where hail kept on the streets. On 29 th and 30 th January heavy rain was recorded over North Adriatic (up to 60 mm/24 h) and heavy snowfall in Gorski kotar (mountainous part) – new snow cover from 5 to 25 cm. A difficulties in traffic between inland and North Adriatic were noticed. At the same time gale force S
		difficulties in traffic between inland and North Adriatic were noticed. At the same time gale force S and SW wind were recorded in
		and Sw wind were recorded in Dalmatia. Mean wind speed was up to 20 m/s from Split to Dubrovnik, and gusts were from 23 to 33 m/s. Again maritime

		traffic was interrupted and a lots of boardwalk was flooded (Split, Sibenik).
		Le Fahmony heavy
		In February neavy
		wind were recorded
		On 5^{th} and 6^{th} Fubruary heavy
		snowfall was recorded over
		mountainous and west part of
		Croatia. New snow cover was
		between 20 and 55 cm high, and
		together with strong and stormy
		NE wind (gusts up to 20 m/s)
		coused difficulties in traffic.
		Very windy was also at North
		Adriatic, where mean wind
		speed at Krk bridge was 38 m/s
		and gusts was 63 m/s. Traffic
		between inland and coast and all
		Over Centrel Adrietic gale fores
		SE wind (Split gusts up to 33
		m/s) was recorded
		Heavy snowfall was recorded
		also over north Croatia on 7 th
		February with 10 to 30 cm of
		new snow cover. On 9th
		February the highest amount of
		snow was recorded since the
		beginig of measurements (2003)
		at station Begovo Razdolje in
		mountanious part -155 cm.
		On 9 and 10 February gale
		recorded in Dalmatia (Split
		mean wind speed up to 24 m/s
		gusts up to 43 m/s) with
		maritime traffic interruptions,
		demolitions of trees and a lot of
		demages in olive groves.
		On 22^{nd} and 23^{rd} February
		heavy rain and gale force wind
		was recorded. Apsolute daily
		maximum of rain was
		recorded:
		- in Mali Losinj (North

		Adriatic)(since 1961) – 61,9
		mm/24h
		- in Bozava (North
		Adriatic)(since 1997) –
		54mm/24h
		- in Split airport (Central
		Adriatic)(since 1081) 68
		mm/24h
		in Lastava (South
		- III Lastovo (South
		Adriatic)(since 1948) – 65
		mm/24h
		At North Adriatic mean speed
		wind of bora was around 20
		m/s, and gusts were up to 35
		m/s. At the same time gale force
		SE wind was recorded in
		Dalmatia. Interuptions of traffic
		was frequent.
		On 26 th February due tu heavy
		rain and melting of snow floods
		in western continental part was
		m western continental part was
		alagad
		ciosed.