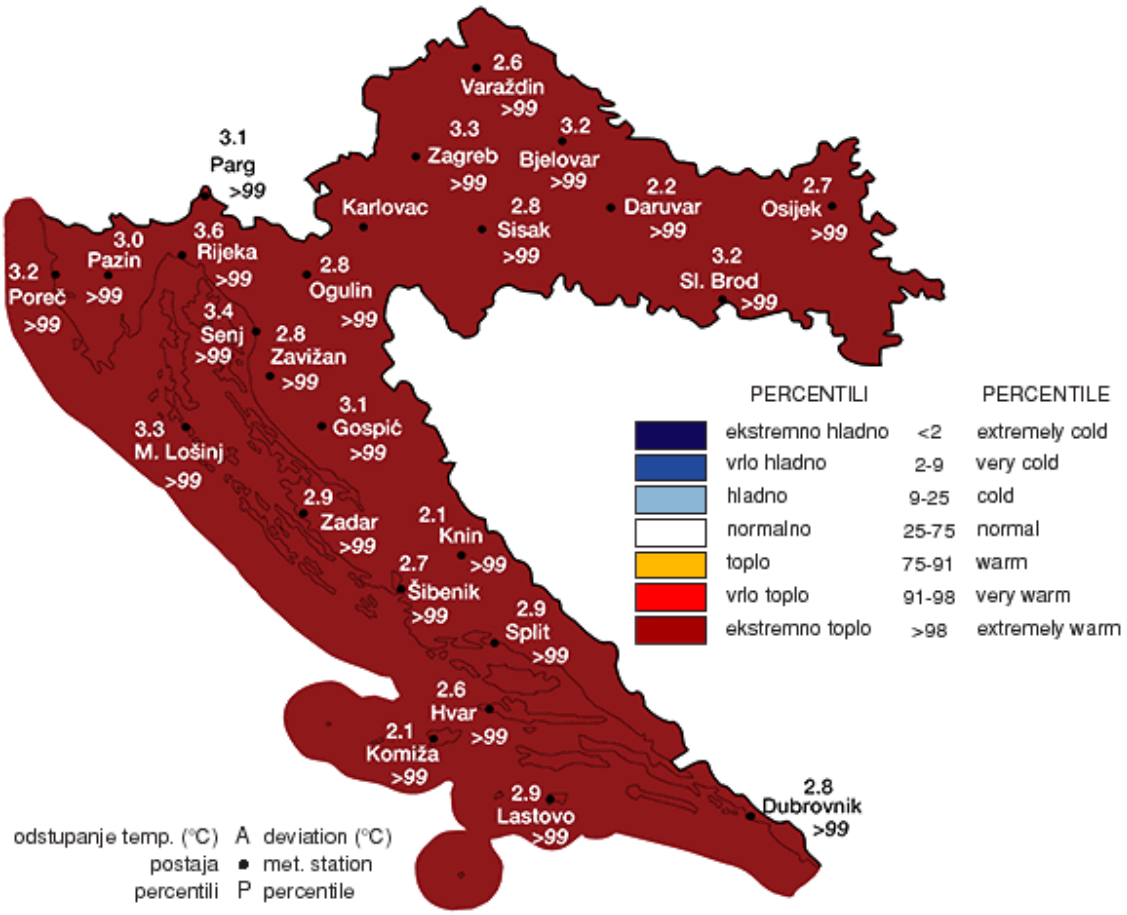
Climate Report for Croatia for summer 2015

Air temperature anomalies for Croatia in summer 2015

Average air temperature on seasonal scale (summer) throughout Croatia were above the multi-annual avrage (1961-1990). Corresponding air temperature anomalies for summer 2015 (June, July, August) were within the range from 2.1°C to 3.6°C.

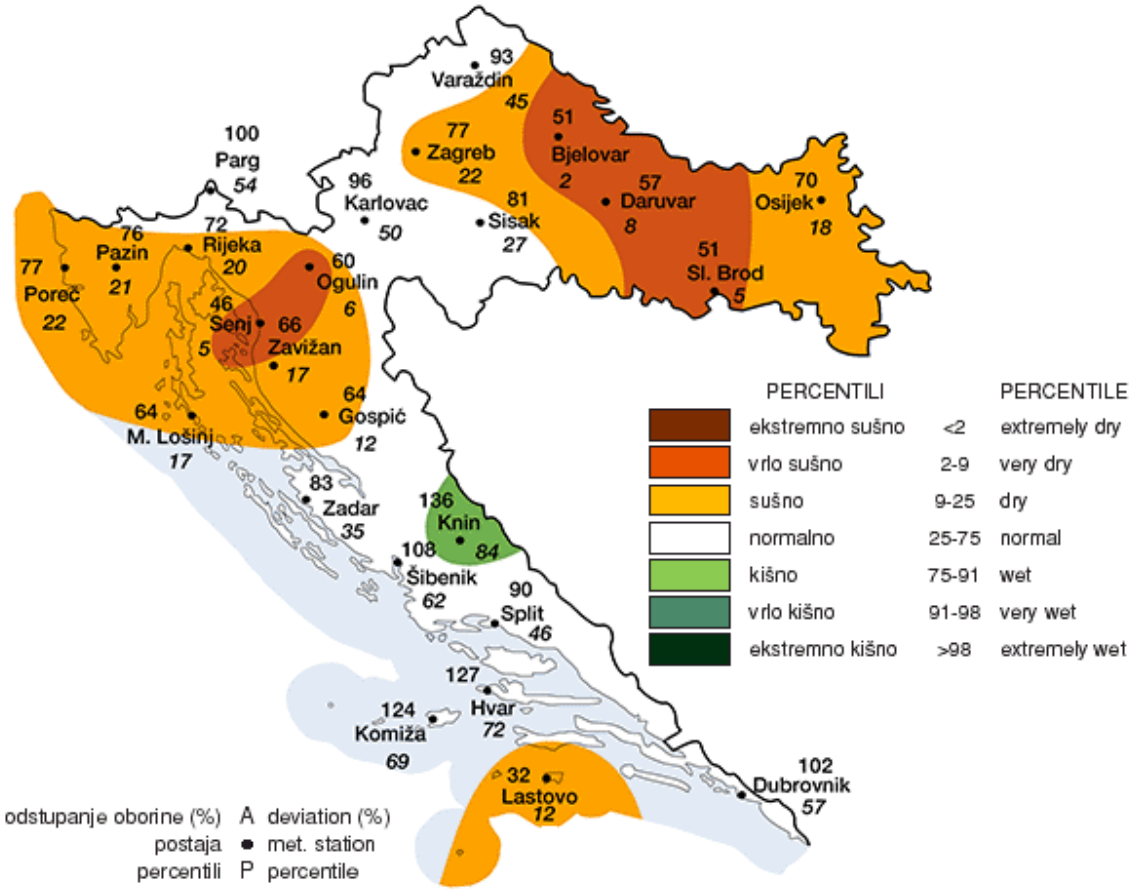
According to percentile ranks and classification ratings, thermal conditions in Croatia for summer 2015 have been described by dominant category **extremely warm** (whole Croatia).



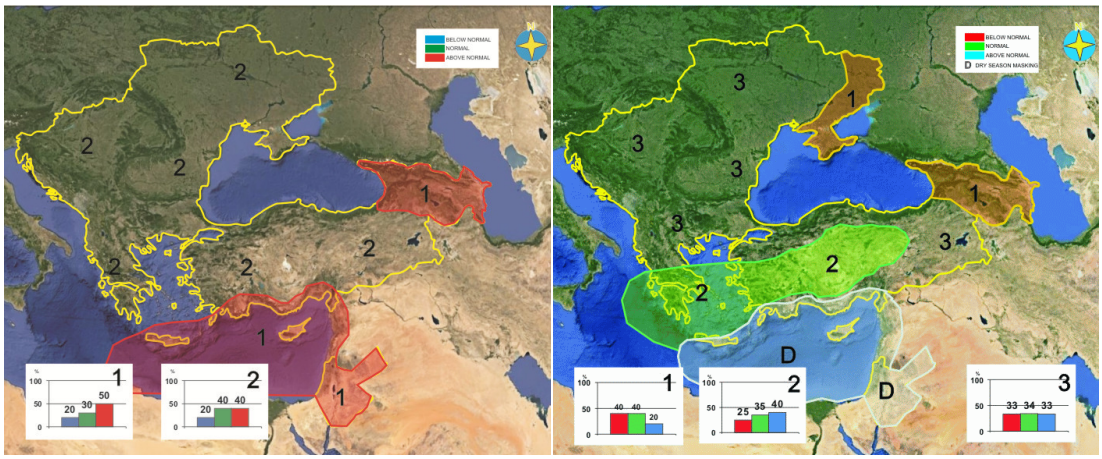
Precipitation amounts for Croatia in summer 2015

An analysis of precipitation amounts for summer 2015 given in percentages (%) of 1961-1990 average, shows that these precipitation amounts in Croatia were mainly below the average with the exception of Parg where precipitation amount was on par with the average while on several meteorological stations (Dubrovnik, Hvar, Komiža, Knin and Šibenik) mentioned average was exceeded. Corresponding precipitation amounts for summer 2015 were within the range from 32% to 136% of multi-annual average for this season.

According to percentile ranks and classification ratings, precipitation amounts for summer 2015 have been described by the following categories: **very dry** (wider area of Senj and Ogulin as well as part of Central and Eastern Croatia), **dry** (part of Central and Eastern Croatia as well as part of the Northern and Southern Adriatic), **wet** (wider area of Knin) and **normal** (the remaining part of Croatia).



SEECOF-13 CLIMATE OUTLOOK VALIDATION



Graphical presentation of the 2015 summer temperature (left) and precipitation (right) outlook.

Air temperature anomalies for Croatia in summer 2015

According to the SEECOF-13 climate outlook, for all Croatian teritory, there were chance for warmer than normal summer season. Probability for exceeding the average summer season temperature was 40%.

The summer season in Croatia according to multi-annual average 1961-1990 was for the whole teritory above normal (within the range from 2.1°C to 3.6°C). In relation to the multi-annual average 1981-2010, the warmer anomaly is slightly lower a bit less, within the range from 1.9° to 2.5°C for the 5 biggest SYNOP stations in Croatia (Zagreb, Osijek, Gospić, Rijeka and Split). We can conclude that the outlook was correct.

Precipitation amounts for Croatia in summer 2015

According to the SEECOF-13 climate outlook, the precipitation all over Croatia had no preference for any climate defined categories, with an equal probability of all three terciles.

The actual precipitation amounts were mainly below thirty-year average 1961-1990 in continental part of Croatia, in the mountainous part, in Istra and in the northern Adriatic. Along the central and south Adriatic coast the actual precipitation amounts were mainly normal with exception of small part of hinterland of Dalmatia where average amounts were exceeded.

It is difficult to say if the outlook was satisfying because outlook for the summer 2015 indicated approximately equal probabilities for below-, near- or above- normal conditions in whole Croatia, and as we can see all three categories appeared.

Country	Seasonal temperature (JJA)		Seasonal precipitation (JJA)		High Impact Events
	Observed	SEECOF-13 climate outlook for temperature	Observed	SEECOF-13 climate outlook for precipitation	
Croatia	**Above normal**	**Above to near normal** (20,40,40)	**Above normal** (wider area of Knin, Dalmatian hinterland) **Normal** (Along the central and south Adriatic, the NW part of continental part and south part of mountainous Croatia) **Below normal** (the east and the central part of continental Croatia, the mountainous part, Istra, the northern Adriatic Sea and part of Southern Adriatic – islands)	**No predictive signal** (33,34,33)	**Summer 2015** was extremely warm in the entire Croatia. Five heat waves were observed. The first one was relatively short (10-14 June). Two heat waves were registered in July and two more in the August, from which two were long lasting and intense – the first from 12 to 22 June and the second from 5 to 14 August. Some apsolute daily maxima of temperature were observed. For exampel, in Split (central Adriatic) the daily maximum temperature above 30°C (hot day) was observed during the whole July. In all three months convective related severe weather phenomena (thunderstorms, hail, heavy rains, flash floods, waterspouts) were observed mostly all over Croatia. There

					were rare in June and July and much more common in August.