## 

## CLIMATOLOGICAL ANALIZYS OF SEASON

**SUMMER** 2013



Canadair on Jablanica lake



The average seasonal air temperature during the climatological summer 2013th year (June 1, 2013. - 31 August 2013. ) ranged from 10.0°C to 25.7°C to Bjelasnica in Mostar. Temperature departures from normal for the summer , which refers to the period (1961-1990) were in all cells positive and ranged from 1.1°C to Ivan saddle to 2.6°C in Zenica. According to percentile temperature values are classified as a category of very warm and extremely warm . Mean monthly temperature in June of 2013 years were higher than the long term average . Temperature deviations from the average values ranged from 0.4°C in the Ivan saddle to 2.0 oC in Zenica. Month of July 2013 was warmer than the long-term mean July temperature relating to the period (1961-1990) . Deviations in July ranged from 0.9°C to Ivan saddle to 2.7°C in Gradacac . In August, average monthly temperatures were considerably higher than the average temperature . Variation in temperature in August 2013 in relation to the long series ranged from 2.0°C to Ivan saddle to 3.6°C in Zenica.

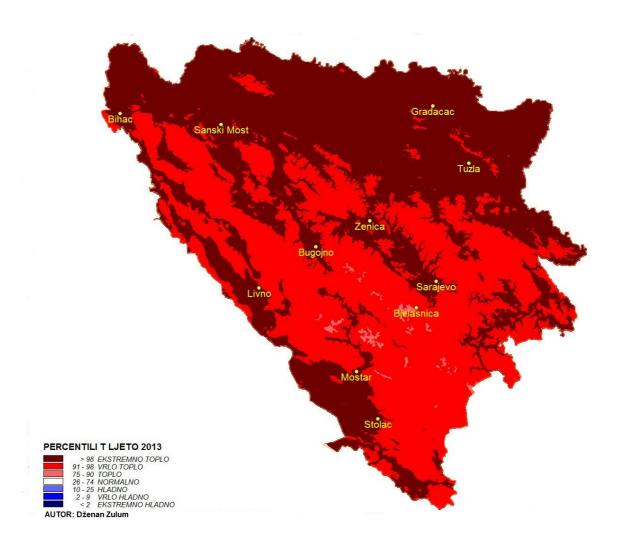
Extremely warm months were recorded in June 2013 in Bugojno and Zenica on July MS Livno and extremely hot in August was in Bihac , Bugojno , Drvar Gradačac, Livno , Mostar, Sarajevo , Sanski Most, Stolac and Zenica.

| STATION    | TEMPEI         | RATURE      | STATION     | TEMPERATURE    |             |  |
|------------|----------------|-------------|-------------|----------------|-------------|--|
|            | anomalies (°C) | percentiles | STATION     | anomalies (°C) | percentiles |  |
| Bihać      | 1,8            | 100         | Livno       | 2,3            | 100         |  |
| Bjelašnica | 1,3            | 92          | Mostar      | 2,3            | 100         |  |
| Bugojno    | 2,5            | 100         | Sarajevo    | 2,0            | 100         |  |
| Drvar      | 1,8            | 100         | Sanski Most | 1,7            | 100         |  |
| Gradačac   | 2,5            | 100         | Stolac      | 2,1            | 100         |  |
| Ivan Sedlo | 1,1            | 92          | Tuzla       | 1,7            | 100         |  |
|            |                |             | Zenica      | 2,6            | 100         |  |

Absolute maximums are exceeded during July in Bugojno, in August of Bihac, Livno and Drvar. In Zenica in July reiterated the absolute maximum out 1988th Year of 40.4°C.

| STANICE | The former absolute<br>maximum <sup>O</sup> C | date       | New absolute<br>maximum <sup>O</sup> C | date       |  |
|---------|---|------------|--|------------|--|
| Bugojno | 39,3  | 04.07.2000 | 39,0                                   | 29.07.2013 |  |
| Bihać   | 40,0  | 22.08.2012 | 42,0                                   | 08.08.2013 |  |
| Drvar   | 38,4  | 13.08.1988 | 39,3                                   | 08.08.2013 |  |
| Livno   | 37,6  | 24.08.2007 | 38,2                                   | 08.08.2013 |  |

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Deviations high temperature days period in June compared to the average values were negative in the first and third decade. During July, the first and third decades were warmer and the second decade was depending on which part of Bosnia and Herzegovina observing colder, warmer or within the limits of the average. In August the average temperature deviations days period temperatures were positive in all three decades. The biggest positive decade-temperature deviations from the average values were recorded during the first week in August and the largest negative deviations were registered in the first decade of June.

|          | Ø1~# |      | Ø 'Ê# |     |     | ° 0 <u>E</u> 0 1 – # |     |     |     |
|----------|------|------|-------|-----|-----|----------------------|-----|-----|-----|
| Bihać    | -0,7 | 4,7  | -1,0  | 1,2 | 0,3 | 4,3                  | 4,9 | 1,7 | 0,9 |
| Gradačac | -1,8 | 5,7  | 0,1   | 2,2 | 1,4 | 5,2                  | 6,4 | 2,9 | 0,9 |
| Livno    | -0,3 | 4,7  | 0,3   | 3,0 | 0,7 | 4,1                  | 5,4 | 3,0 | 1,4 |
| Mostar   | -1,0 | -1,0 | 0,3   | 1,9 | 0,7 | 3,8                  | 5,1 | 3,1 | 1,7 |
| Sarajevo | -0,3 | -0,3 | -0,1  | 0,7 | 0,0 | 3,8                  | 5,0 | 3,4 | 1,2 |
| Tuzla    | -1,1 | 4,3  | -0,5  | 1,2 | 0,0 | 3,5                  | 4,8 | 2,8 | 0,7 |

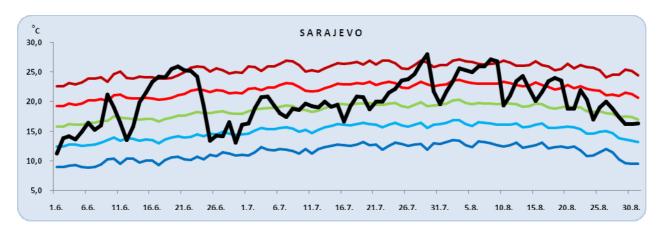
Deviations high value temperature days period to six stations can be found in the table.

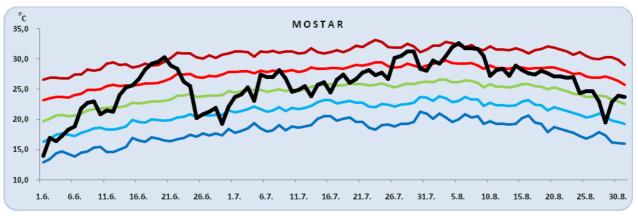
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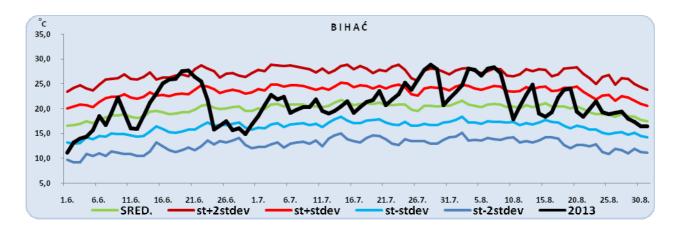
| STANICA     | Ex   | tremely hot da | ays    | Extremely cold days |      |        |  |
|-------------|------|----------------|--------|---------------------|------|--------|--|
| STANICA     | juni | juli           | august | juni                | juli | august |  |
| Bihać       | 2    | 3              | 3      | 0                   | 0    | 0      |  |
| Bjelašnica  | 3    | 1              | 3      | 0                   | 0    | 0      |  |
| Livno       | 0    | 0              | 3      | 0                   | 0    | 0      |  |
| Mostar      | 3    | 0              | 1      | 0                   | 0    | 0      |  |
| Sarajevo    | 5    | 1              | 2      | 0                   | 0    | 0      |  |
| Sanski Most | 3    | 2              | 1      | 0                   | 0    | 0      |  |
| Tuzla       | 0    | 1              | 0      | 0                   | 0    | 0      |  |

Number of extremely hot and extremely cold days per month during the sumer 2013th year.

| STATION    | PRECIPI                    | TATION      | STATION     | PRECIPITATION |             |  |
|------------|----------------------------|-------------|-------------|---------------|-------------|--|
|            | anomalies (%) <sup>1</sup> | percentiles | STATION     | anomalies (%) | percentiles |  |
| Bihać      | 59,5                       | 5           | Livno       | 94,8          | 46          |  |
| Bjelašnica | 89,4                       | 38          | Mostar      | 70,8          | 24          |  |
| Bugojno    | 65,6                       | 18          | Sarajevo    | 53,4          | 2           |  |
| Drvar      | 69,9                       | 19          | Sanski Most | 56,2          | 5           |  |
| Gradačac   | 57,9                       | 10          | Stolac      | 118,4         | 82          |  |
| Ivan Sedlo | 63,9                       | 10          | Tuzla       | 57,3          | 11          |  |
|            |                            |             | Zenica      | 63,3          | 18          |  |

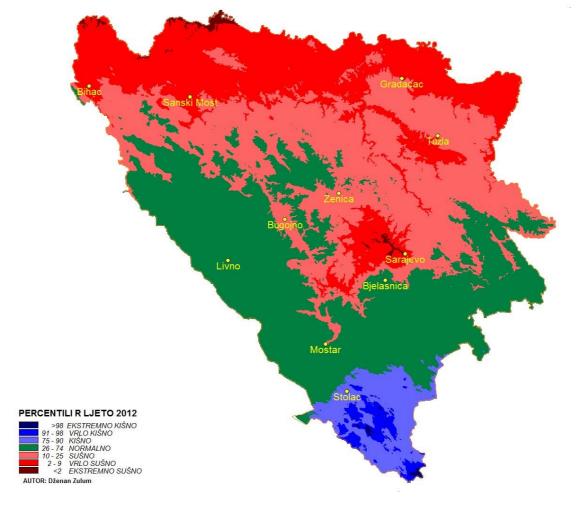




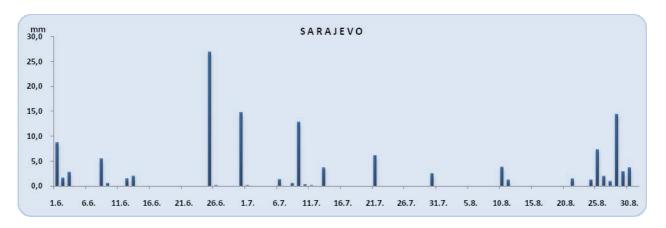


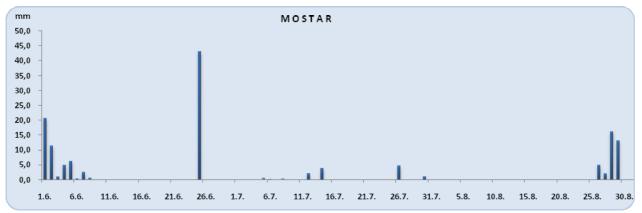
Total rainfall during the summer 2013th year were below year average. The exception seems MS Stolac on where they measured higher amounts of rainfall compared to average values for the same period. Total rainfall ranged from 129.2 l/m2 in Sarajevo to 262.6 / m2 on Bjelasnica. Deviation from the average amount of precipitation ranged from 53.4% in Sarajevo to 118.4% in Stolac. By percentage precipitations are classified as a category is very arid, dry and normal.

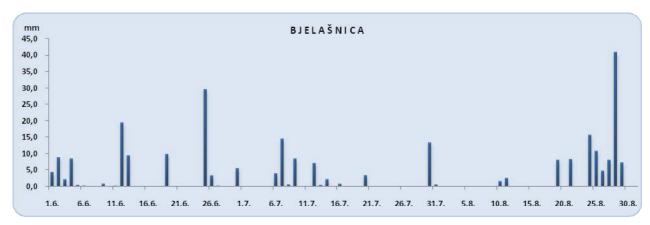
Rainfall during the three months were lower than the average sum in addition to MS Mostar and Stolac in June and Bjelasnica in August 2013th year, where the measured rainfall was higher than the average amount for the same period observed.

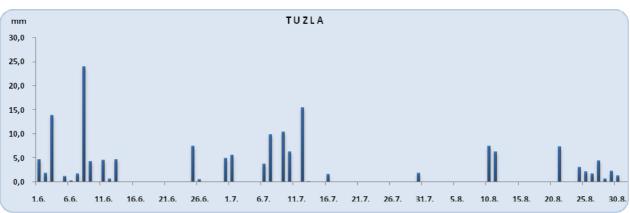


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**Daily rainfall amounts** 

<sup>1</sup> rainfall compared to average

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