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Analysis of atmospheric circulation changes over the Adriatic coast in warm period 1981-2010.

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In the last decade it was observed that the period of relatively dry weather on the Adriatic coast was extended at the end of August and September. So the analysis of the atmospheric circulation over the Adriatic coast from June to September for the period 1981-2010 was done. There are seven main upper atmospheric circulations patterns: upper atmospheric ridge, non-gradient field, front side of the ridge, upper through, back side of the upper through or north-west stream, west-stream, front side of upper through or south-west stream. First three types are connected with relatively dry and warm weather. North-west stream brings cold air with local showers or thunderstorms. West stream is characterized by moderate temperatures and precipitation amount, while south-west stream and upper through usually cause more precipitation. Analysis showed that recently non-gradient field and upper ridge appeared also in July and September, which was not very common before. These possible changes of circulation can be connected to more frequent dry and hot weather that causes drought, higher forest fire risk etc.