



Republic of Serbia
REPUBLIC HYDROMETEOROLOGICAL SERVICE OF SERBIA



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MODERNIZATION OF THE METEOROLOGICAL AND HYDROLOGICAL STATION NETWORK

RHMSS has initiated the modernization of the hail risk reduction system on the territory covered by the Bukulja radar center.



Modernization of the hail risk reduction system on the territory covered by the Fruska Gora radar center was fully completed in cooperation with the Secretariat for Agriculture, Water Management and Forestry of the Autonomous Province of Vojvodina.

Within the capital project "Construction and equipping of the Valjevo, Uzice, Petrovac, Besnjaja and Krusevac radar centers", construction of the Valjevo radar center is ongoing.

RHMSS implemented the first phase of the capital project "Modernization of the automatic system for the implementation of the hail suppression methodology".

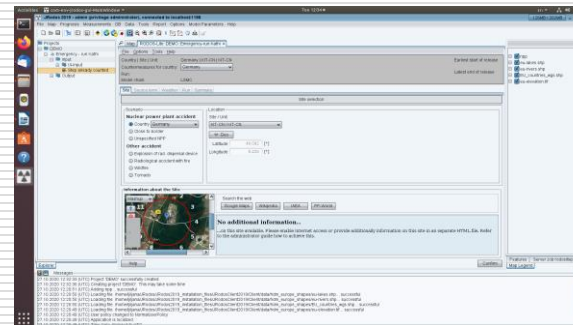
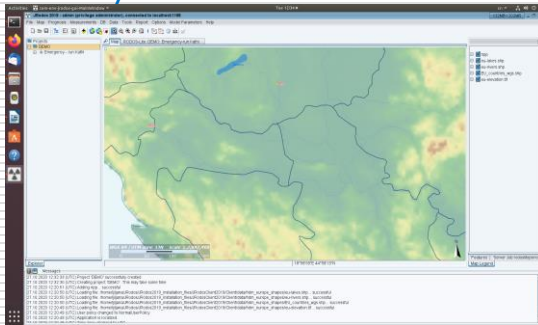
New automatic meteorological stations (AMSs) were installed in Kladovo and Zagubica, and an additional AMS in Kosutnjak.



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Collaboration with the Serbian Radiation and Nuclear Safety and Security Directorate (SRBATOM)

JRODOS is a software used for the simulation of the distribution of radioactive substances. RHMSS and SRBATOM successfully installed JRODOS software on both computers and locations. RHMSS has been providing ECMWF IFS initial conditions for operational running of the software since January 2020.



Collaboration with ECMWF: Migration of the time-critical NMMB model from Cray to Atos TEMS computer

Tasks	Status
Installation of required external and NCEP libraries	Completed
NPS and NMMB compilation	Completed
Basic tests of validity (comparing model results with other platforms)	In progress
Performance tests (comparing performance against CCA/CCB)	In progress
Migration of ecFlow suite and plotting utilities	Not started yet

RECENT NWP ACTIVITIES AND DEVELOPMENTS AT RHSS

Within the WMO SDS-WAS dust programme, RHSS has developed a research line for the implementation of its DREAM dust model by:

- Developing a circumpolar model version;
- Establishing operational forecasts, first of the kind in the community, for dust originating from the Icelandic soil sources (available at <https://sds-was.aemet.es/forecast-products/dust-forecasts/icelandic-dust-forecast>);
- At the UN General Assembly (14 October 2021) the UN Secretary General in his annual report on sand and dust storms impacts reported on RHSS contributions in the modeling of high latitude dust on accelerated melting of the Arctic ice.

High latitude dust impacts:

- Increased cloud formation;
- Snow/ice melting;
- Air quality;
- Global climate change.

RHSS operational Icelandic dust forecast

