



2nd Meeting of Road Executives Network 28 May 2024, Vienna, Austria



FBIH Road Network Key Facts

JP Ceste FBiH d.o.o. Sarajevo is the manager of the main road network of the Federation of Bosnia and Herzegovina (Law on Roads of the FBiH)

Main Road Network in the FBiH – Figures*

Length - 2.468,373 km

Main Roads - 29

Roads Sections - 255 (148 main and 107 opposite direction)

* BIP JPCFBiH database_05/07/2024

- ▶ Given the managed road category, the application of the ITS is quite limited (i.e. public roads mainly with one carriageway, two traffic lanes, two-way traffic with permitted connection and construction in the road reserve).

Implemented Systems



RWIS

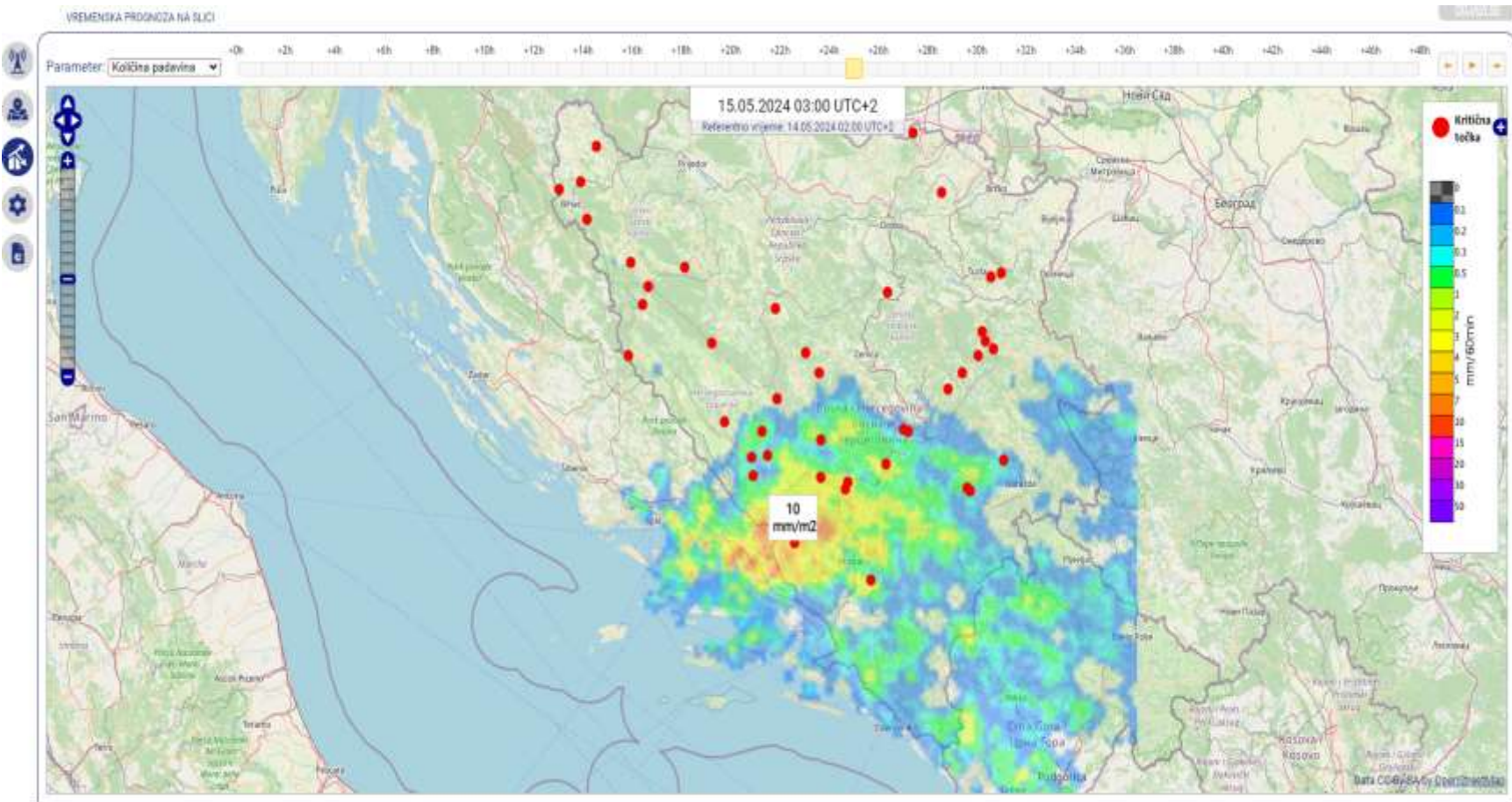
Road Weather Information System

JP Ceste FBiH has established RWIS - a system for early warning of weather conditions with built-in 16 road meteorological stations (CMS) and a forecast model supplied by FHMZ. The data is used to the greatest extent for the needs of routine maintenance - winter service.

The system can be further improved with the installation of new CMSs and analysis of the forecast model, which is currently of insufficient resolution, as well as by adding variables, i.e. traffic lighting devices.

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Traffic Management in the tunnels

- ▶ As part of the implementation of the contracts for the construction/reconstruction of the tunnels, i. e. Karaula, Crnaja, Vranduk and Zaba, the procurement of equipment and installation of systems inside the tunnels was carried out, for monitoring traffic and responding to incidents in accordance with Directive 2004/54/EC.
- ▶ Currently, 4 local monitoring centers are operational, located next to the structures themselves. The establishment of the fifth local control center is planned to follow the construction of the Novi tunnel in Mostar.
- ▶ To improve the System, the management is planned to be from the single center. By centralizing traffic management in the tunnels, maintenance costs would be significantly reduced, while at the same time management and data access would be facilitated.



Traffic Light Devices Management

- ▶ JP Ceste FBiH manages 42 traffic light devices on the main road network. Out of 42 devices, 28 have been connected to the remote control system so far.
- ▶ The connection of the device with the control center or mobile controller is realized via the GSM network. This enables insight into the operation of each device with a failure report too. Also, it is possible to change the operating mode, as well as remotely reset traffic light devices, if necessary.
- ▶ The plan is to connect the remaining traffic devices, which will finally allow us quick diagnostics, identification of failure, as well as faster interventions and repairs.

Map

Overview

Device types shown

ITC3

ITC2

Area	Type
☐ bosanski	✓
☐ Bosanski	✓
☐ Cadin	✓
☐ Goražde	✓
☐ Gornji Vh	✓
☐ Gračanica	✓
☐ Jajce	✓
☐ Kalitunar	✓
☐ Kiseljak	✓
☐ Lukavac	✓
☐ Neum	✓
☐ Odrak	✓
☐ Puličavo	✓
☐ Stolac	✓
☐ Žrnica	✓
☐ Bara-Šip	✓
☐ Drvar	✓
☐ Kalesija	✓
☐ Kolo-Te	✓
☐ Konjic	✓
☐ Mostar	✓
☐ Mostar	✓
☐ Orašje M	✓
☐ Šimn Han	✓
☐ Srebrenik	✓
☐ Travnik	✓
☐ Travnik	✓

Map: Roadmap

Item information

General information

Device type: ITC3

Status: ✓

Name: Travnik-Hotel

IP: 10.83.1.234

MAC: 48-4B-FD-51-2A-9E

Added on: 2023-04-24 10:58:22

Last updated: 2024-05-14 13:50:27

Heartbeat interval: 300 s

Notifications: ✓

Comment: No comments

ITC information

Last update: 2024-05-14 05:00:34

Plan: 1

Plan source: Clock

Situation: 0

Control mode: Priority

Ring 1, sig: Control

Ring 1, relay:

Load information

Active alarms

Detection data

13:49

Future challenges

Establishment of the WIM system in the Federation of Bosnia and Herzegovina

- ▶ For preventive protection of the existing road network, and for the analysis of the actual load on individual road sections, it is necessary to have load data (i.e. total weight and axle load).
- ▶ The trend of growth in the total volume and quantity of transported goods in road traffic in recent years has resulted in the appearance of more frequent damage to pavement. The consequence – the deterioration of pavement structures and the reduction of the level of service on the main road network in Bosnia and Herzegovina. One of the main causes of damage and the progressive deterioration of pavement structures is the overall excessive weight and axle overload.
- ▶ JP Ceste FBiH has equipment for checking roughness and deflection. However, in order to assess the complete condition, it is necessary to know the actual axle load so that the proposed rehabilitation/reconstruction measures are adequate.

Monitoring of landslides and buildings

- ▶ The problem of slope stability is one of the biggest problems in road construction and maintenance. The stability of slopes and embankments is particularly challenging in complex geological and geo-morphological conditions, as on the road network in the FBIH. The occurrence of landslides and subsidences being result of instability and soil disbalance is a problem with harmful impact to maintenance and road users.
- ▶ In order to timely detect and prevent the potential danger of such phenomena, it is necessary to carry out a continuous monitoring. The locations of registered and rehabilitated landslides or subsidence shall be suggested for monitoring, as well as structures that may be a risk to the road network and its use.

Closing remarks

- ▶ With the aim of a more modern approach to the management of public roads, JP Ceste FBiH will continue to invest in the development of existing and the establishment of new ITSs, connect the implemented with the new systems, as well as continue the training of its employees from all departments.
- ▶ Furthermore, JP Ceste FBiH established a department that, among other things, is responsible for collection and analysis of data from the aforementioned and numerous other systems.

Thank you!