18th SESSION OF THE INFORMAL CONFERENCE OF SOUTH-EAST EUROPEAN NMHSs DIRECTORS (ICSEED-18)

TEL AVIV, ISRAEL
4th November 2019

General information about Meteorological & Hydrological products issued by IGEWE.

INSTITUTI I GJEOSHKENCAVE, ENERGJISE, UJIT & MJEDISIT

INTRODUCTION

- The Institute of Geosciences, Energy, Water and Environment (IGEWE) is a national research institution part of Polytechnic University of Tirana.

- IGEWE is composed of four main departments: Water Economy, Climate and Environment, Seismology and Geology.

- National Centre for Forecast and Monitoring of Natural hazards was established in July of 2011 in IGEWE. The center was funded by Italian Civil Protection under the Program for Prediction, Prevention and Mitigation of Forest Fires and Flood risk in Albania.

- The Centre is an operational unit within IGEWE, responsible to forecast different types of natural hazards such as: floods, flash floods and landslides susceptibility, forest fires, snowstorms, fog, cold and heat waves, hail, Saharan dust, etc. Every day the Centre publishes a bulletin at 12:00, describing the natural hazards for the next 48 hours including maps.

INTRODUCTION

- 276 Total

- 122   HYDROLOGICAL
- 154   METEOROLOGICAL

AUTOMATIC TOTAL 49

- 25 HYDROLOGICAL AND 24 METEOROLOGICAL

MANUAL TOTAL 227

- 97 HYDROLOGICAL AND 130 METEOROLOGICAL

AUTOMATIC STATIONS

- IGEWE has a total of 49 automatic stations, 40 of them were installed under the umbrella of South Eastern Europe Disaster Risk Mitigation and Adaption Program (SEE-DRMAP) framework of the World Bank (WB), and started to operate in 2013.

- The rest, 9 automatic stations, were installed under the framework of the project GIZ Climate Change Adaption in the Western Balkans, and started to operate in 2014.

- The measured parameters are: water level/dam level, total precipitation, air temperature, air humidity, air pressure, wind speed and direction, snow depth, solar radiation, soil humidity, soil temperature, evaporation, CO_2, leaf wetness and sea level.

21-Puke

Total Rain Today	0 mm
Rain Intensity	0 mm/min
Air Temperature	15.3 C
Relative Humidity	54 %
Air Pressure	1013 mBar
Wind Direction	248 Deg
Wind Speed	3.2 m/s
Leaf Weakness	0 %
Evaporation	0 mm
Soil Temp -20	20 C
Soil Temp -50	20 C
Soil Temp -05	20 C
Wind Speed Zaxis	3.4 m/s
CO2 Content	0 ppm
H2O Content	0 g/m3
Terrain Humidity -05	0 %VWC
Terrain Humidity -20	0 %VWC
Terrain Humidi	
Rx BER GSM	
Rx GSM Signal Level	30 dBm
Global Radiation	0 W/mq
Numero Allarmi	0
Quality Level	0 %
Ora aggiornamento	19/03/2013 11.00.00

Consulta Digitali

4-B Curri

Total Rain Today	0 mm
Rain Intensity	0 mm/min
Air Temperature	30.1 C
Relative Humidity	30 %
Air Pressure	982 mBar
Wind Direction	88 Deg
Wind Speed	0.6 m/s
Tensione Batteria	13.63 Vdc
Rx BER GSM	0.14 %
Rx GSM Signal Level	-57 dBm
Numero Allarmi	5
Quality Level	87 %
Ora aggiornamento	26/04/2013 12.02.

Consulta Digitali

4

16

Meteorological stations

World Bank Project

49-Mifol

Total Rain Today	0 mm
Rain Intensity	0 mm/min
River Level	9.15 m
Tensione Batteria	13.76 Vdc
Rx BER GSM	0.14 %
Rx GSM Signal Level	-63 dBm
Numero Allarmi	2
Quality Level	34 %
Ora aggiornamento	26/04/2013 10.15.59

Consulta Digitali

16

Marine stations

18-Durres

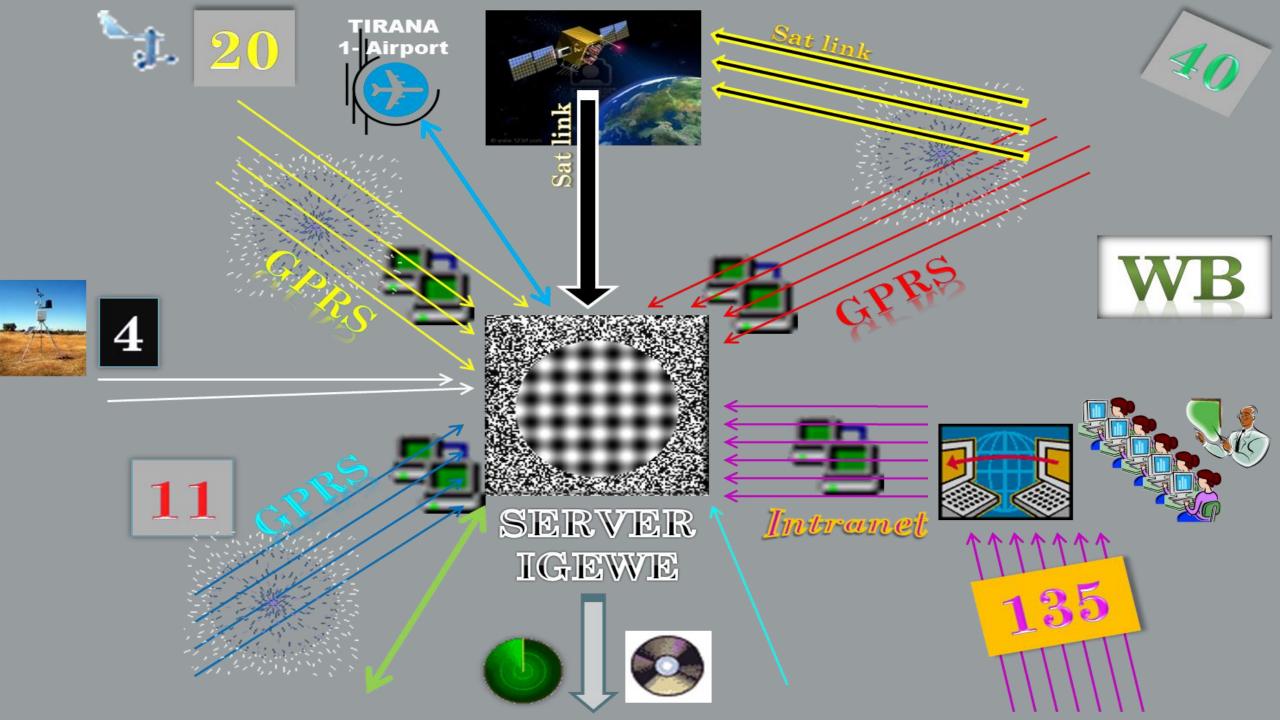|	
Total Rain Today	0 mm
Rain Intensity	0 mm/min
Air Temperature	20.8 C
Relative Humidity	71 %
Air Pressure	1018 mBar
Wind Direction	291 Deg
Wind Speed	5.7 m/s
Tide Sea	-3.83 m
Tensione Batteria	13.83 Vdc
Rx BER GSM	0.14 %
Rx GSM Signal Level	-51 dBm
Global Radiation	923 W/mq
Numero Allarmi	5
Quality Level	89 %
Ora aggiornamento	26/04/2013 12.19.03

Consulta Digitali

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Data Transmission
&
Digitalization

TOOLS & MODELS

- EFAS: European Flood Awareness System, is platform managed by European Commission and Albania is member. The tool contains the results of a macro distributed hydrological forecasting model LISFLOOD in European scale feed with ECMWF weather forecasts and others. The platform provides two type of alerts: river and flash flooding.

- SEEFFGS: South East Europe Flash Floods Guidance System is a platform which displays the results of the hydrological model Flash Floods Guidance System from Hydrological Research Centre of San Diego, USA. This model was implemented with the support of WMO and USAID/OFDA.

- DEWETRA: Is an operations platform from CIMA Foundation which displays different products such as: Satellite rainfall estimates TRMM, weather forecast COSMO I7, model for forest fires RISICO and Drin River Flood Proof hydrological forecasting model.

OBJECTIVES

1. Design and establishment of an integrated environmental monitoring system that impact in their dispersion, warning extreme events.
2. Improvement of on-line data collection system, establishment of environmental data base, linage of historical and operational archives.
3. Transmission of environmental information to the governmental and public administration, the weather sensitive branches of economy, society and electronic media especially in extreme events cases.
4. Improvement of public awareness on environmental aspects.
5. Integrated studies o the impact of environmental elements on different field of economy.

OBJECTIVES

- To develop/implement capacities and projects for Data Base Management.

- To develop/implement capacities and projects for Data Quality control and Homogenization.

- To develop/implement capacities and projects related to GIS and mapping capacities and linked to Data Base Management.

- To implement a specific Data Base Management System.

- To give solutions to efficiently digitized the entire hardcopy of hydro-meteorological archive and to semi- automatize actual manual data.

- To implement new flood forecasting models in other Albanian rivers.

- (Drini river we are using PanthaiRei model).

- Any investment in the field of meteorology and hydrology compared to the benefit to the economy and the country as a whole will amount to:

$$1 : 20$$

- Of course, if the investments are made in the right way and respecting the technical scientific standards of WMO.

Thank you !

www.geo.edu.al