



MINISTRY OF ENVIRONMENT,
WATERS AND FORESTS

NATIONAL METEOROLOGICAL ADMINISTRATION



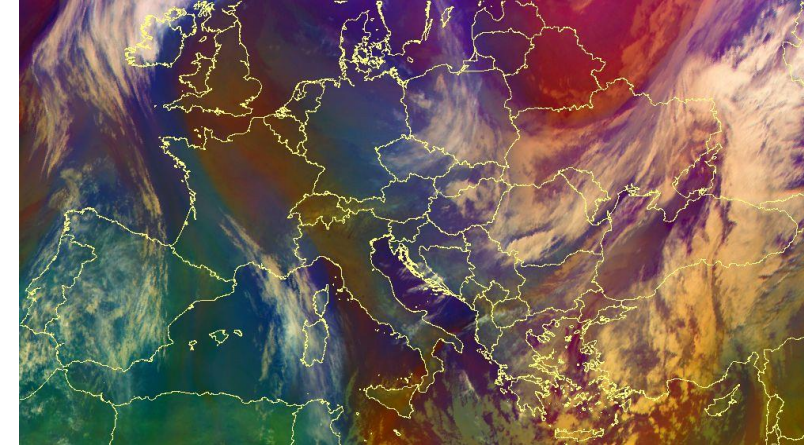
19th SESSION OF INFORMAL CONFERENCE OF SOUTH-EAST EUROPEAN NMHSs DIRECTORS

Brief Activity Report of the National
Meteorological Administration of Romania
(NMAR) 2021

COD ROȘU

Fenomene vizate: temperaturi extreme și disconfort termic deosebit de accentuat
Interval de valabilitate: 24 și 25 iunie
Zone afectate: județele Caraș-Severin, Timiș, Arad, Bihor, Satu Mare, Sălaj și Maramureș

Joi și vineri (24 și 25 iunie) în județele Caraș-Severin, Timiș, Arad, Bihor, Satu Mare, Sălaj și Maramureș se vor înregistra temperaturi maxime extreme, comparabile cu recordurile absolute ale perioadei. Acestea vor fi cuprinse între 39 și 41 de grade, iar în nord-vest între 35 și 38 de grade. În cursul nopții valorile termice nu vor coborî, în general, sub 20...24 de grade.



National Meteorological Observation Network of Romania

- 166 automatic weather meteorological stations (MAWS)
- 68 weather stations integrating a special program of agrometeorological measurements – soil moisture and phenological data (winter wheat, maize, sunflower, rape, fruit trees and vineyards)
- 7 Doppler radars: 5 WRS-98D (S-band) and 2 EEC and Gematronik (C-band)
- 11 weather stations integrating a special program in the mountain area with high avalanche risk

METEOROLOGICAL NETWORK



AGROMETEOROLOGICAL NETWORK



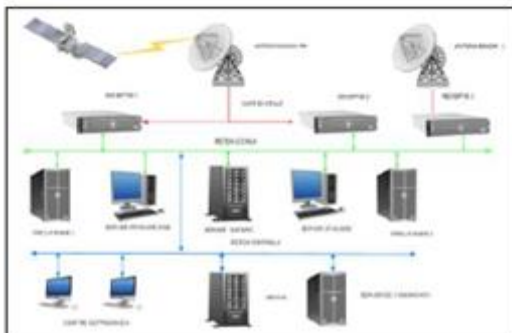
RADAR NETWORK



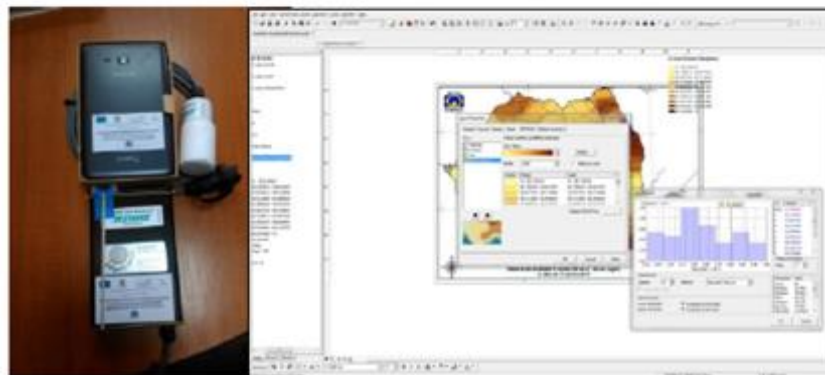
NIVOLOGICAL NETWORK



SATELLITE RECEPTION SYSTEM



SOIL MOISTURE MONITORING SYSTEM



NATIONAL WEATHER FORECASTING CENTRE



Modernization of the infrastructure for monitoring and warning for severe hydro-meteorological phenomena in order to ensure the protection of life and property

LARGE INFRASTRUCTURE OPERATIONAL PROGRAMME (LIOP) 2014 - 2020

Priority Axis 5 - Promoting *climate change* adaptation, risk prevention and management

Specific Objective 5.1 – Reducing the effects and damages on the population caused by the natural phenomena associated with the main risks accentuated by the climatic changes, mainly of floods and coastal erosion.

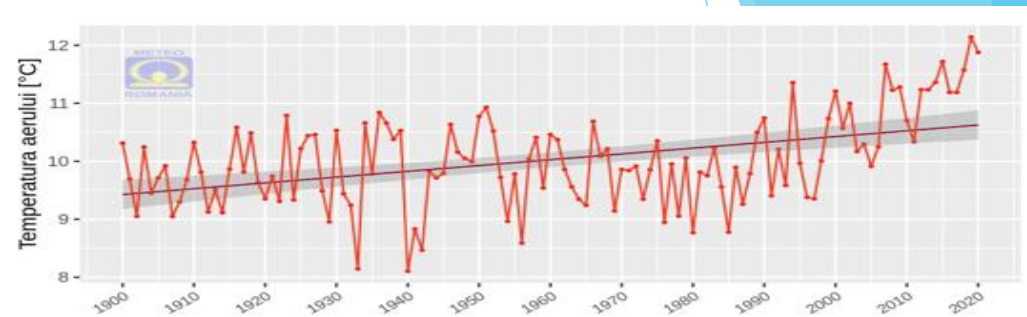
Objectives:

1. Modernizing of the meteorological radar network (7 Doppler S-band, dual- polarimetric);
2. Modernizing of the lightning detection network;
3. Modernizing of the communications infrastructure and improving of the National Meteorological Administration's IT system performance;
4. Extending modernization of the national automatic weather stations network (80 AWSs);
5. System for receiving, processing, visualizing, archiving and disseminating data from meteorological and atmospheric surveillance satellites;
6. System for receiving, processing, archiving and disseminating data from the Copernicus Sentinel-1, Sentinel-2, and Sentinel-3 satellites able to monitor the areas affected by disasters or crisis situations on the national territory;
7. Setting up of the Regional Agrometeorological Centre for WMO Regional Association VI (Europe)

Total Project Objectives: 50 Mill. Euro

Experts from the National Meteorological Administration are involved in the implementation **of research projects funded by national and international bodies**, such as the Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI), ERA-NET Consortium “European Research Area for Climate Services” (ERA4CS), ECMWF Copernicus Procurement or European Space Agency.

Evolution of the average annual temperature between 1900–2020 and the associated linear trend.



Participation in international programs and projects

- ECMWF Weather and climate information for tourism (2020-2021)
- H2020, FACCE JPI Developing resilience and tolerance of crop resource use efficiency to climate change and air pollution (2019-2022)
Overall objective: To define which multi-stress combinations (e.g. pollution (aerosol and ozone), drought, high temperatures, low soil fertility) are most likely to adversely affect crop resource use efficiency, crop growth, development, and yield.
- H2020 Caroline Herschel Framework Partnership on Copernicus User Uptake (2018-2023)
- **EUMETSAT Satellite Application Facility on Support to Nowcasting for the 3rd Continuous Development & Operational Phase (NWC SAF CDOP-3) 2017 - 2022**
- EUMETSAT NMA funded project - first participation of NMA as a consortium member in an EUMETSAT Satellite Application Facility; *Overall objective:* Provide software to generate day-1 products for the new EUMETSAT programmes MTG-I and EPS-SG, ensuring a continuity of service between current and future satellites and extending it by the use of innovative new EUMETSAT sensors
- **ESA project: CCI+ Phase 1 - New ECVS, Land Surface Temperature (LST_CCI) (2019-2022) NMA task: User Case Study focussed on inter-comparison and integrated use of LST in urban climate studies**