Institute of Hydrometeorology and Seismology

of Montenegro

HMZCG

- Institute of Hydrometeorology and Seismology of Montenegro is formed recently, following the Government decision (Decree on the organization and manner of work of public administration, No.5, from 23.01.2012.), by merging Hydrometeorological Institute and Seismological Observatory.

Government of Montenegro
SEISMOLOGICAL OBSERVATORY
81000 Podgorica, R. Burića 2
Montenegro, P.O.Box. 196
Tel. (382) (20) 648-146, 609-000, fax: 648-146
http:// www.seismo.co.me

Government of Montenegro
HYDROMETEOROLOGICAL INSTITUTE
81000 Podgorica, IV proleterske
Phone . (382) 20 655 183, Fax. 655 197
http://www.meteo.co.me

- Responsibilities and activities of both institutions, now under the same name, have remained unchanged.

Organization scheme

ZAVOD ZA HIDROMETEOROLOGIJU I SEIZMOLOGIJU

SEKTOR ZA PROGNOZU VREMENA I METEOROLOŠKI MONITORING	ODSJEK ZA ANALIZU I PROGNOZU VREMENA	Grupa za prognozu vremena i numeričke modele
	ODSJEK ZA METEOROLOŠKI MONITORING	Područne jedinice Grupa za satelitsku i radarsku meteorologiju
SEKTOR ZA METEOROLOGIJU	ODSJEK ZA KLIMATOLOGIJU	
	ODSJEK ZA PRIMIJENJENU METEOROLOGIJU	
SEKTOR ZA HIDROLOGIJU	ODSJEK MREŽE HIDROLOŠKIH STANICA	Grupa za hidrometrijska mjerenja i obradu
	ODSJEK ZA HIDROLOŠKE ANALIZE	
SEKTOR ZA ISPITIVANJE KVALITETA VODE I VAZDUHA	ODSJEK ZA KVALITET VAZDUHA	
	ODSJEK ZA KVALITET VODA	
SEKTOR ZA HIDROGRAFIJU I OKEANOGRAFIJU	ODSJEK ZA HIDROGRAFIJU	
	ODSJEK ZA OKEANOGRAFIJU I MAREOGRAFIJU	
SEKTOR ZA SEIZMOLOGIJU	ODSJEK ZA INSTRUMENTALNU I INŽINJERSKU SEIZMOLOGIJU	
	ODSJEK ZA ANALIZU I OBRADU SEIZMOLOŠKIH PODATAKA	

ODJELJENJE ZA HIDROMETEOROLOŠKI I SEIZMOLOŠKI INFORMACIONI SISTEM I ODRŽAVANJE

SLUŽBA ZA OPŠTE POSLOVE I FINANSIJE

ODJELJENJE ZA INFORMISANJE I MEĐUNARODNU SARADNJU

Kancelarija za pravne poslove

Kancelarija za računovodstveno-finansijske poslove

www.meteo.co.me; www.seismo.co.me

❖ The main guidelines of IHMS work are:

- RELIABITILY
- ACCURACY
- REAL-TIME INFORMATION
- PROFESIONALITY

Sector for weather forecast and meteorological observations

Consist of:

- Department for weather analysis and forecast
- Department for numerical, satellite and radar meteorology
- Department for meteorological observation system
- Group for instruments and methods of meteorological observations

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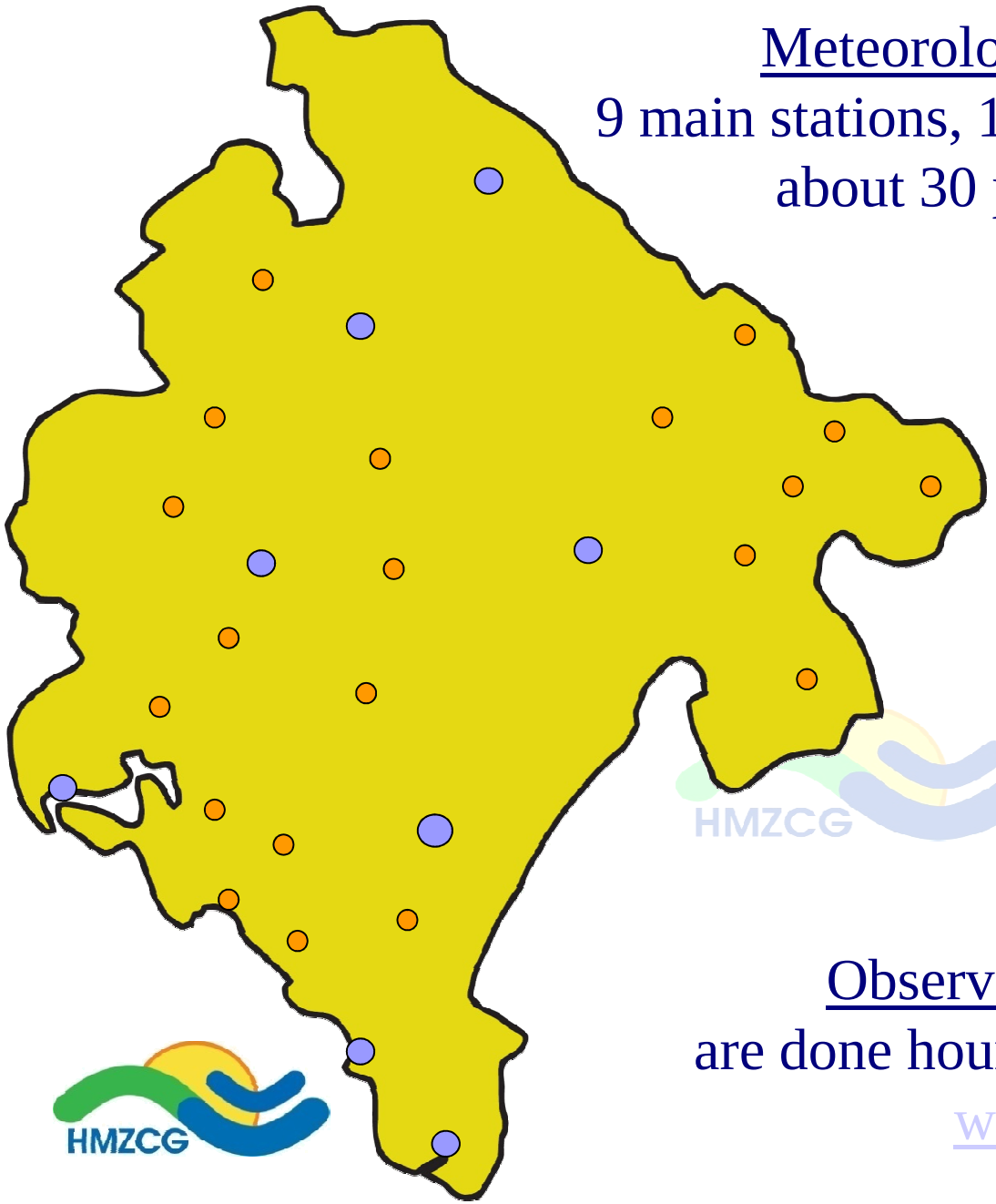


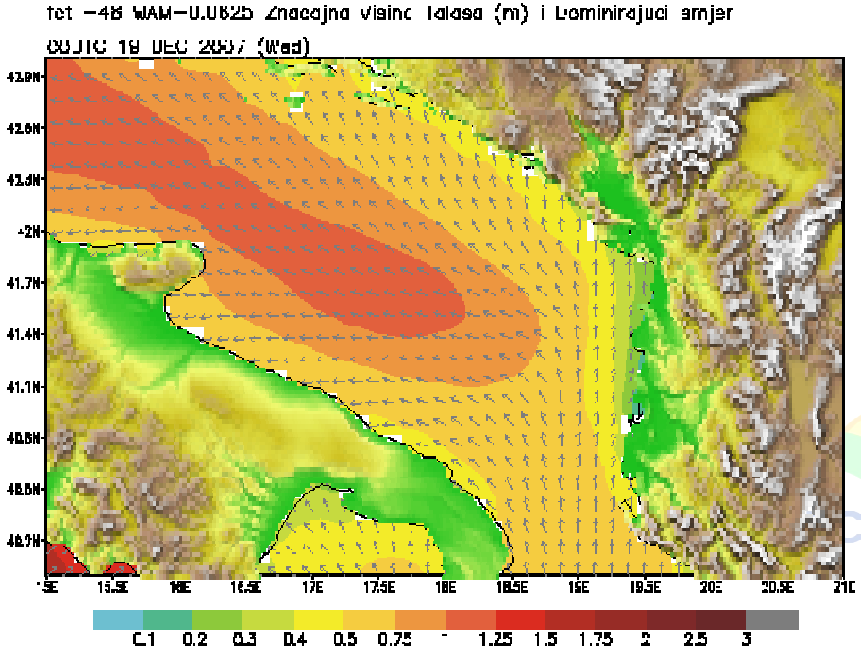
Meteorological station network:
9 main stations, 15 climatological stations and about 30 precipitation stations.

MAIN STATIONS

ULCINJ
BAR
H.NOVI
PODGORICA
NIKŠIĆ
KOLAŠIN
ŽABLJAK
PLJEVLJA
CETINJE

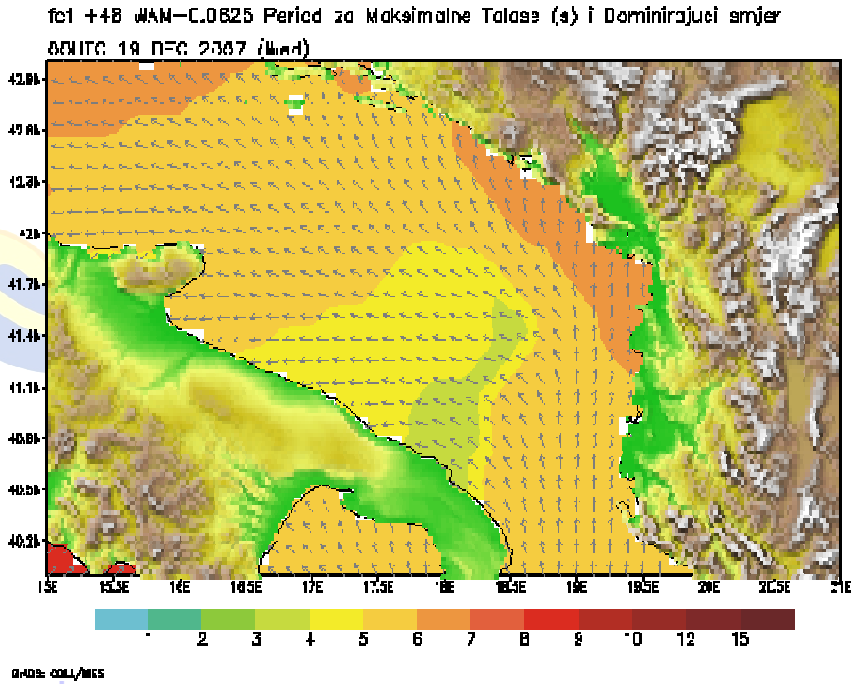
Observations on main stations
are done hourly, and data are available on
www.meteo.co.me.

❖ Within Department for numerical, satellite and radar meteorology in operative use are the following models: NMM-HIRES, WRFNMM, WAM, EtaDREAM,



Wave forecast

Wave duration forecast



www.meteo.co.me; www.seismo.co.me

Sector of applied meteorology

Consist of:

- Department for climatology and technical meteorology
- Department for agrometeorology

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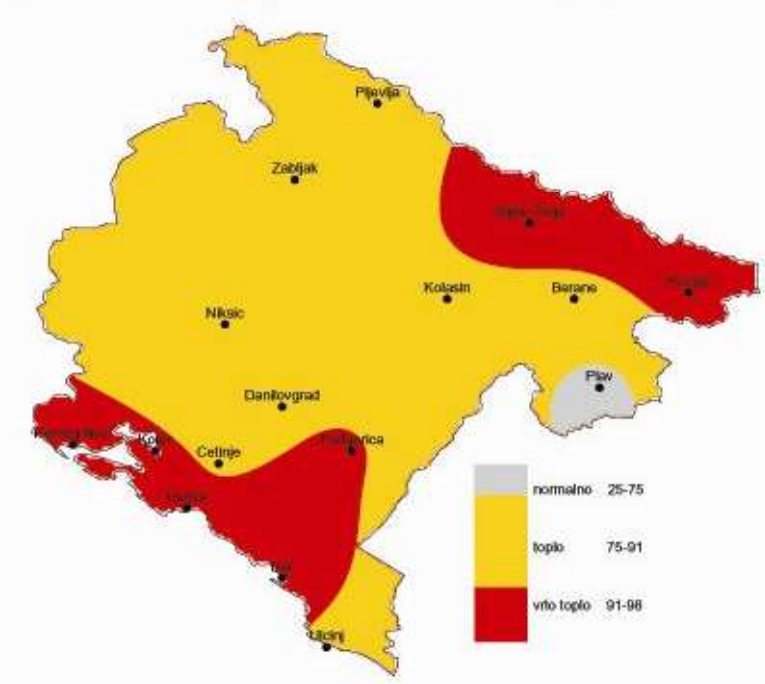
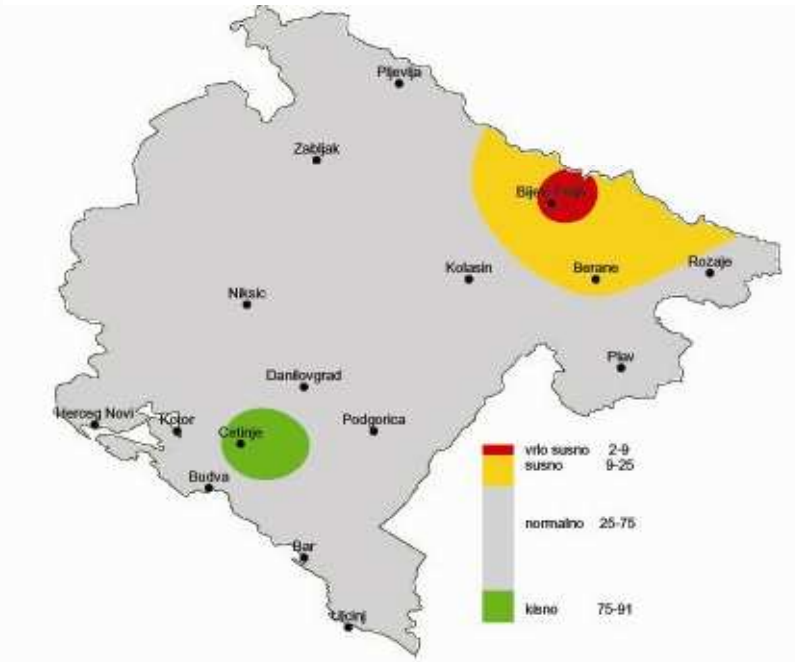
❖ Department for climatology is following the anomalies and deviation of climatological and meteorological parameters, and produces monthly, seasonal and annual reports.



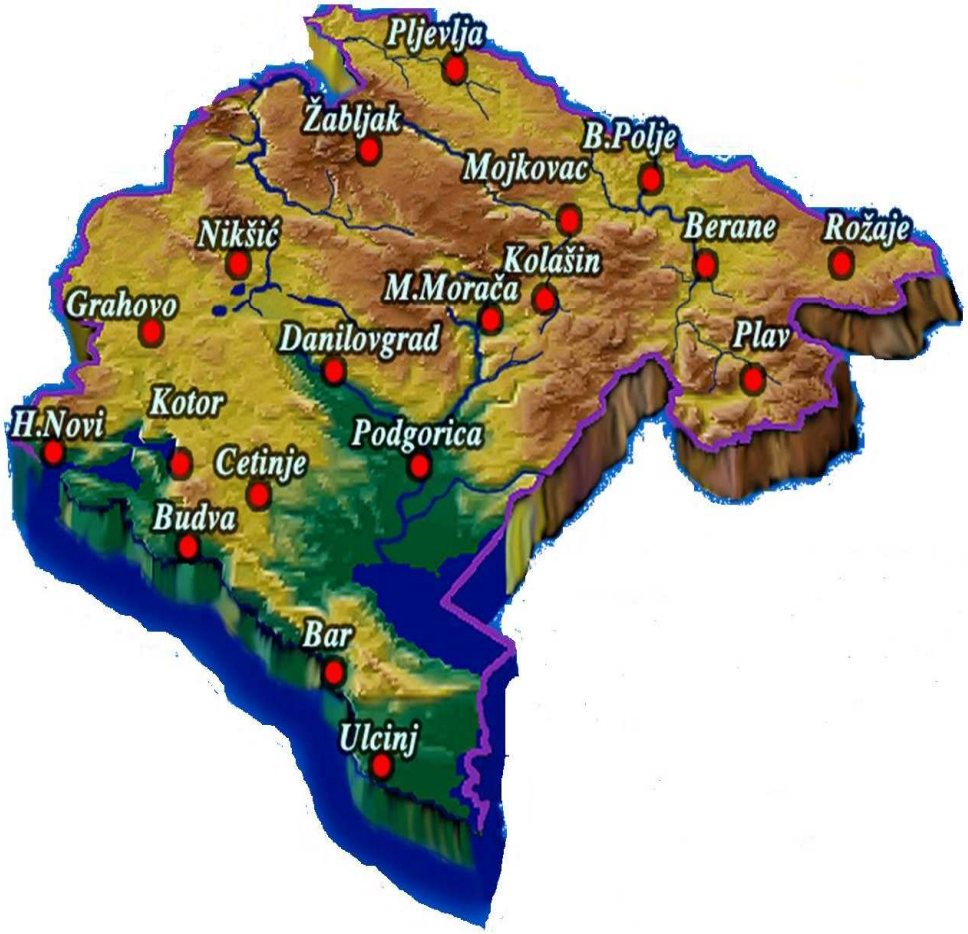
Percentile distribution of air T, spring 2012.



Percentile distribution of precipitation quantity , Spring 2012.

www.meteo..co.me; www.seismo.co.me

❖ Agrometeorological station network for phenological observations



www.meteo.co.me; www.seismo.co.me

Sector of Hydrology

Consist of:

- Department for hydrological station network
- Department for water balance
- Group for ground waters
- Group for instruments and measurements

❖ Hydrological station network for hydrometric measurements

1	Plavnica
2	Ckla
3	Brodska njiva
4	Fraskanjel
5	Međuriječje
6	Pernica
7	Zlatica
8	Podgorica - M
9	Podgorica - R
10	Trgaj
11	Gornje polje
12	Nikšić
13	Duklov most
14	Dučice
15	Rošca
16	Danilovgrad
17	Vranjske njive
18	Šasko jezero
19	Nudo

1	Rožaje
2	Bać
3	D.Vusanje
4	Gusinje
5	Plavsko jezero
6	Plav
7	Meteh
8	Murino
9	Andrijevica - Lim
10	Andrijevica – Zlor.
11	Berane
12	Ravna rijeka
13	Bijelo Polje
14	Gubavač
15	Dobrakovo
16	Crna poljana
17	Trebaljevo
18	Mojkovac
19	Bistrica
20	Brštanovica
21	Timar
22	Bijela
23	Šavnik
24	Duži
25	Ribnjak
26	Ćirovići
27	Pljevlja
29	Zabrđe
28	Gradac
30	Biogradsko jezero
31	Crno jezero - malo
32	Crno jezero – vel.

❖ Certain number of hydrological stations on main rivers in the Adriatic and Black Sea catchments are automatic, with on-line data available on www.meteo.co.me.

www.meteo.co.me; www.seismo.co.me

Sector for analysis of water and air quality

Consist of:

- Department for air quality
- Department for water quality

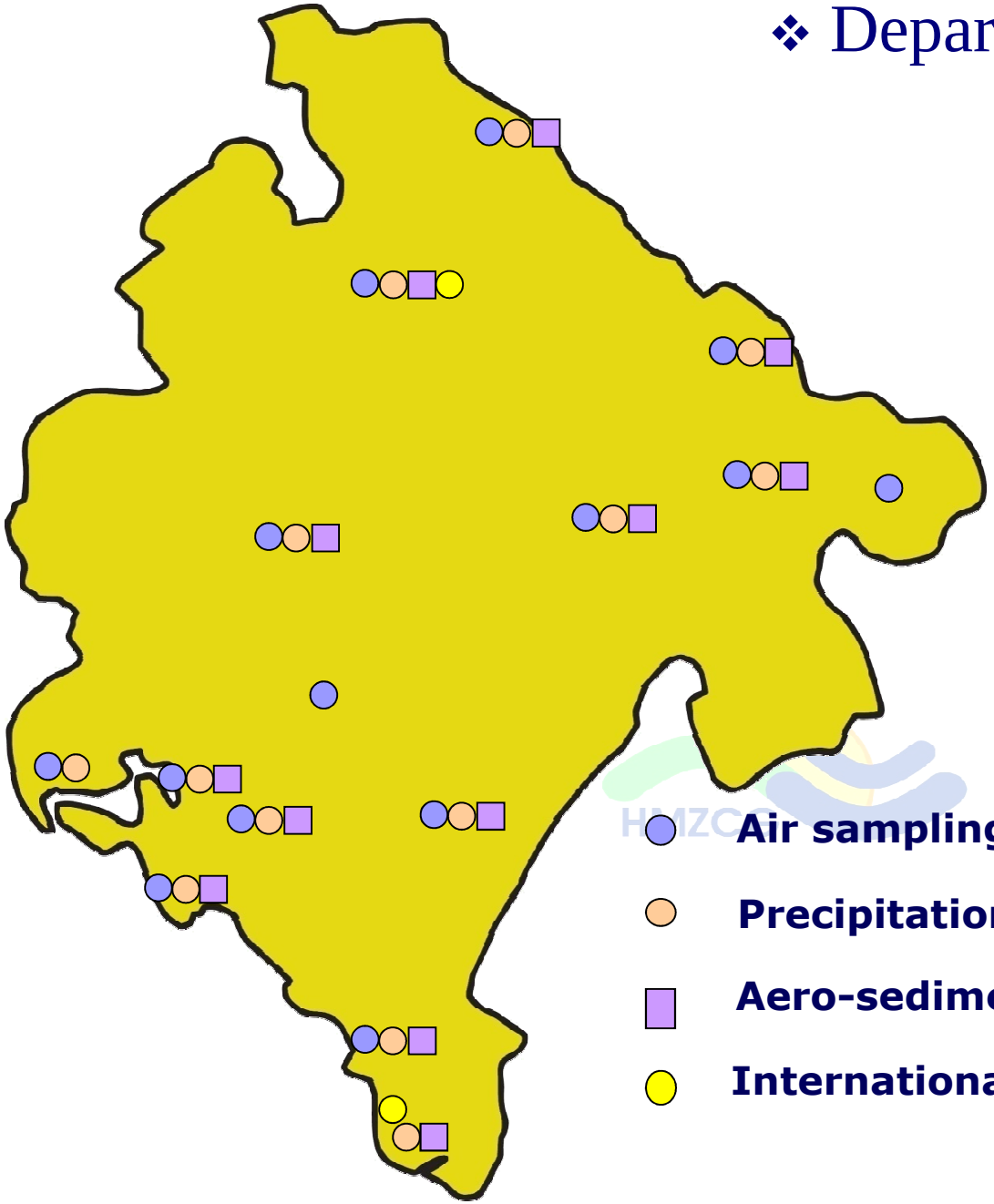
IHMS Laboratory is accredited according to MEST ISO/IEC 17 025 by the Accreditation Authority of Montenegro (17.12.2010.)

www.meteo.co.me, www.seismo.co.me

❖ Within Department for water quality are analyzed numerous physico-chemical, microbiological and saprobiological parameters:

On 13 rivers, 3 lakes, profiles of coastal sea and 9 profiles for analysis of ground waters of Zetska plain.

❖ Department for air quality



Air sampling (24 h sample)

Precipitation sampling (24 h sample)

Aero-sediment sampling (monthly)

International programmes

Sector of
Hydrography and Oceanography

Consist of:

- Department of Hydrography
- Department of Oceanography

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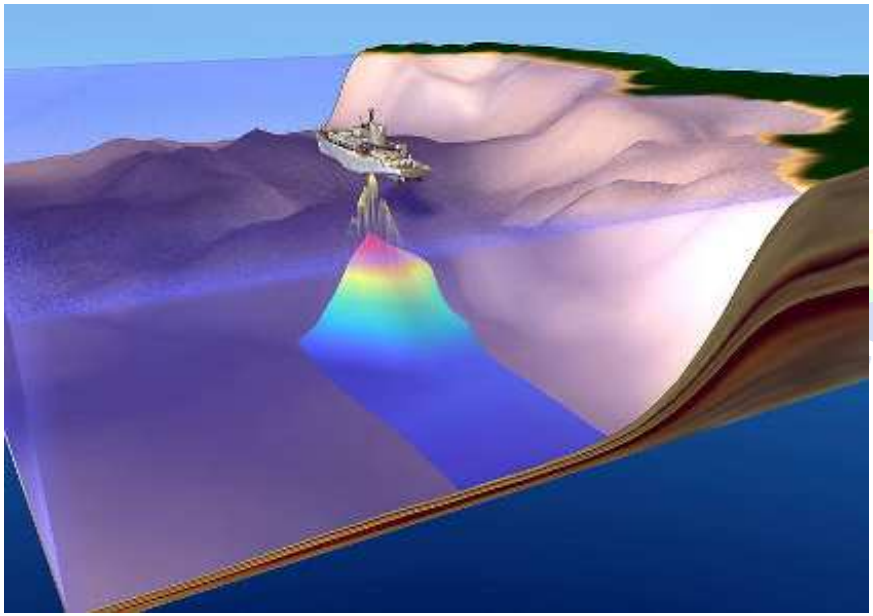
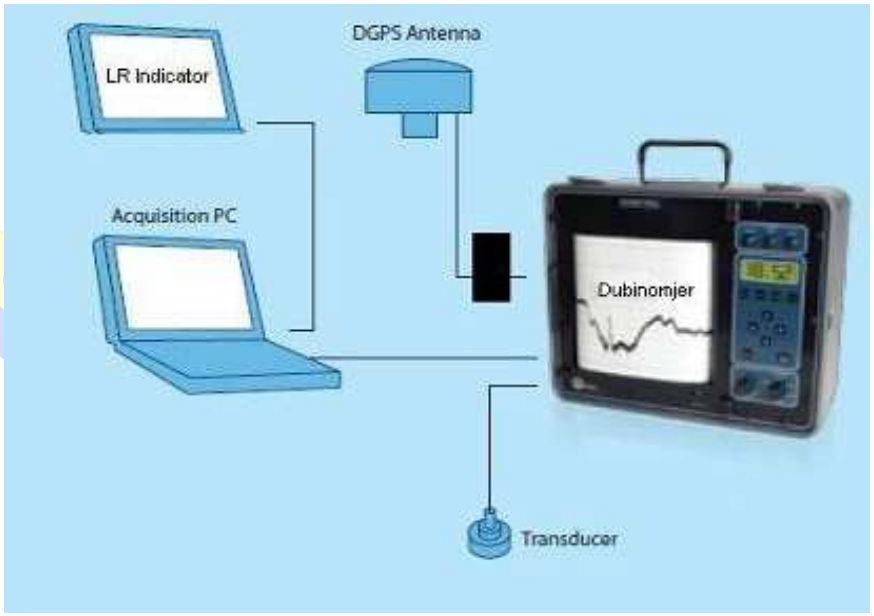
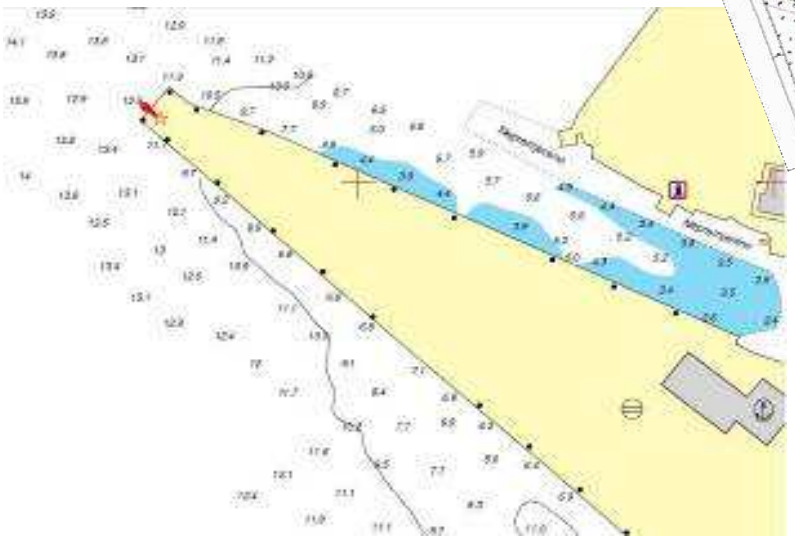
- Sector of Hydrography and Oceanography has professional equipment and software for bathymetric surveys, permanent mareograph stations in Kotor and Bar, hydrographic vessels…





First
navigation chart
of
Bokokotorska Bay
with national
symbol

R 1:25 000



Sector of Seismology

Consist of:

- Department for instrumental and engineering seismology
- Department for seismic data analysis and processing

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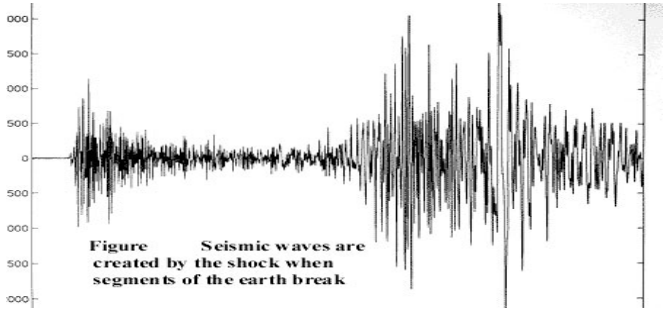
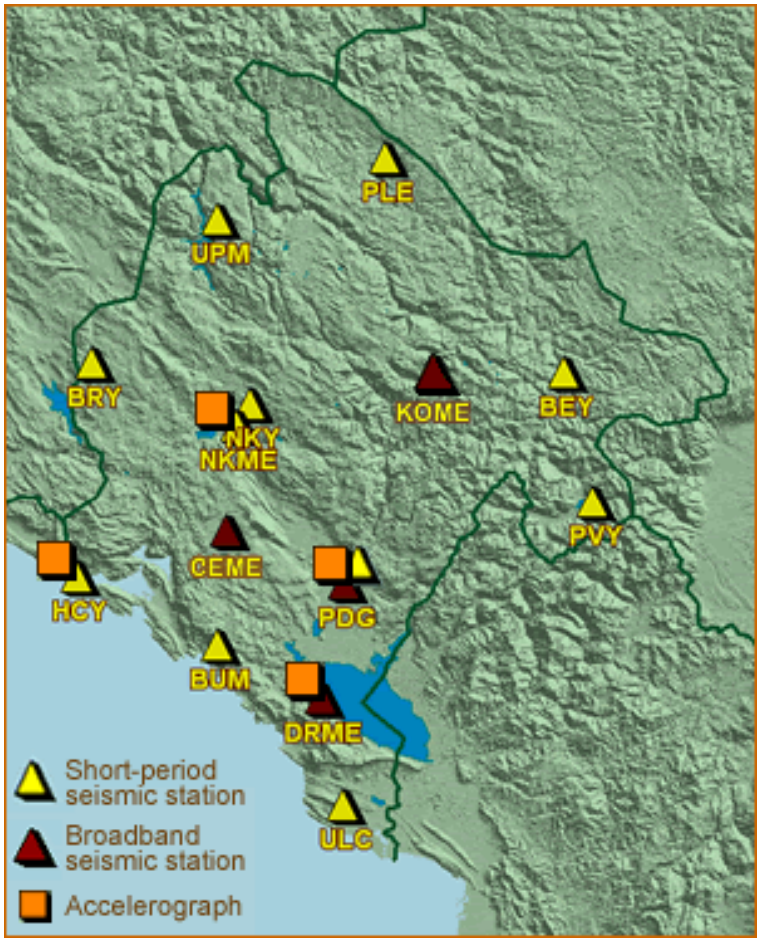


- Montenegro Seismological Observatory was founded on 1st of May 1960 with a main task of seismic monitoring of the Montenegro territory and studying the physics of earthquake phenomena.

- In case of earthquake occurrence in Montenegro or in the wider region, this Sector makes urgent processing of recorded data and publishes it in several minutes.
- On a yearly basis are published seismological bulletin, covering information about all recorded earthquakes on the Montenegro territory, surrounding areas and stronger shocks in the whole World.

❖Seismic and Accelerometric Network of Montenegro



- Sector operates the seismic network consisting of 10 short-period stations and 4 broadband stations.

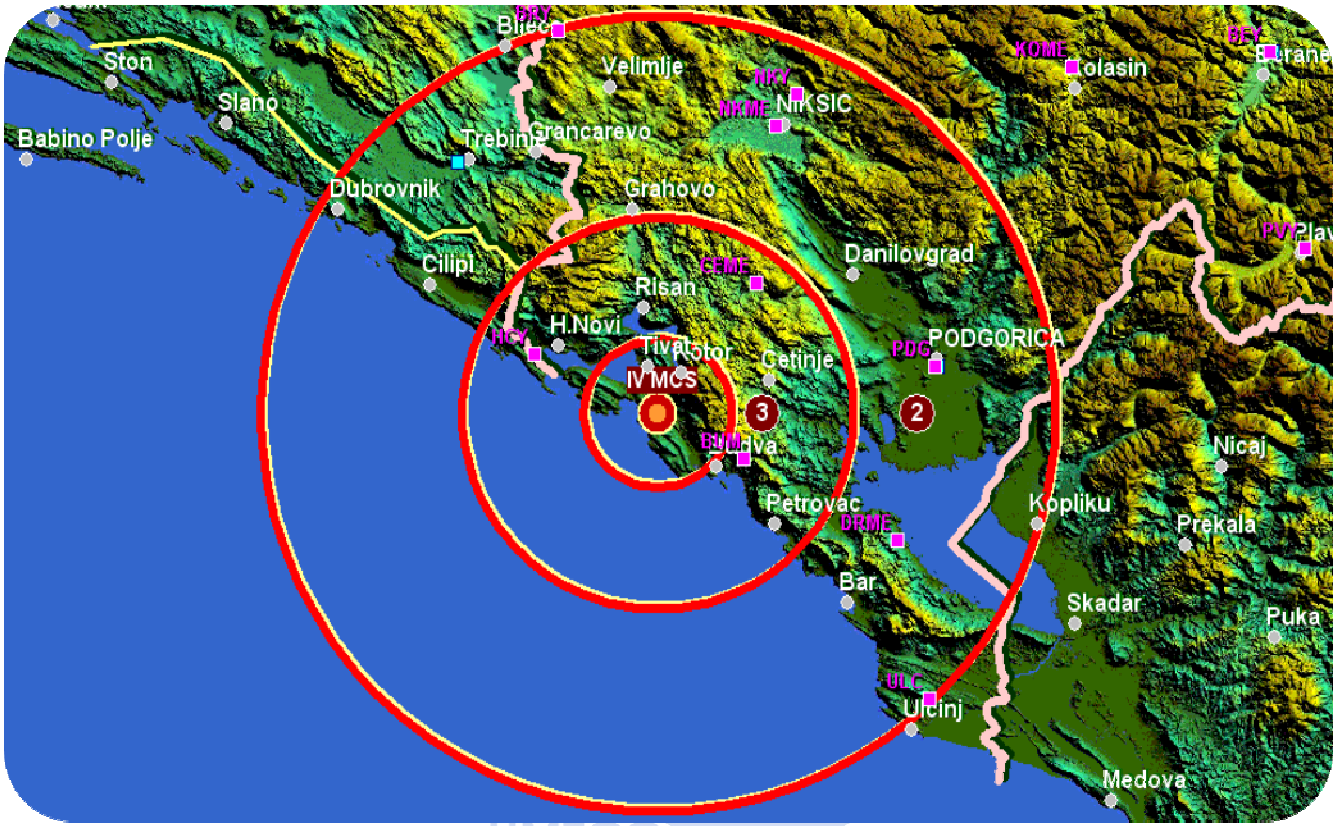
❖Geodynamic Network of Montenegro (MEPOS)

Distribution of the MEPOS and MontePos GPS stations

❖Sector is in the process of establishing the Geodynamic network of Montenegro (MEPOS).

❖The first GPS station – Martinićko Gostilje (GMME), is installed at the end of October 2008.

Last stronger earthquake



Date: **3. November 2012.** Time: **9:06 h**
Richter magnitude ML = **3.0**
Epicenter intensity: **IV-V level of MCS scale**
Depth of seismic focus: **12 km**
WGS coordinates of epicenter: **42.365N, 18.728E**
Epicenter position: **5 km west of Radanovića**

Contacts:

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Seismology

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