IPA/2012/290-552 Project:
“Building resilience to disasters in Western Balkans and Turkey”
(funded by the European Commission DG Enlargement and implemented jointly by WMO and UNISDR)

On-the-job training on Severe Weather Forecasting and Warnings
Scheduled in 3 stages: September 2012, April 2013 and May 2013
Bucharest, Romania

INFORMATION NOTE FOR PARTICIPANTS
ON THE TRAINING ARRANGEMENTS

Background

The IPA/2012/290-552 Multi-beneficiary Project: “Building resilience to disasters in Western Balkans and Turkey” has been approved by the European Commission Directorate General for Enlargement for joint implementation by the UNISDR and the WMO, for a period of 24 months (May 2012 – May 2014).

The project is part of the EC DG Enlargement Instrument for Pre-accession Assistance (IPA) Programme for the Western Balkans and Turkey.

The overall objective of the project is to reduce vulnerability of IPA beneficiary countries to disasters caused by natural hazards in line with the Hyogo Framework for Action and increase their resilience to climate change. The direct beneficiaries are the national authorities in charge for the disaster risk reduction and disaster risk management and the National Meteorological and Hydrological Services of Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia, Kosovo (under UNSCR 1244/99), the former Yugoslav Republic of Macedonia and Turkey.

The project activities are grouped in eight Work Packages, out of which four are to be implemented under WMO management.

On-the-job training activity targets the forecasters from all IPA beneficiaries and is planned within the Sub-task 4.1 which aims at Enhancement of severe weather forecasting capabilities of IPA beneficiaries in support of Early Warning Systems: advanced training for meteorological forecasters required for 24/7 operations.

Dates and venue

The Training activity is scheduled in 3 stages, as follows:
1. The first stage – for 3-21 September 2012.
2. The second stage – for 8-26 April 2013, and

It will be hosted by the National Meteorological Administration of Romania due to the existence of excellent operational and technical facilities as well as the rich experience in dealing with severe
weather forecasting and warnings. These conditions will allow the trainees to get hands-on experience with modern technology, utilization of state-of-the art forecasting and nowcasting methods and learn about the operational procedures used in providing services for disaster risk management. Romania was also considered as a suitable place for the training due to the similar climate conditions as those in the project region, that would allow the trainees to use the knowledge and experience gained directly at their own Hydrometeorological Services.

The Training Format & the Training Coordinator / Focal Point

The Training activity is scheduled in 3 stages, as follows:
4. The first stage – for 3-21 September 2012.
5. The second stage – for 8-26 April 2013, and

The training is considered to be useful for the forecasters of all project beneficiaries, which are supposed to be grouped by 2-3 trainees for each stage.

As the training programme is scheduled over 3 week’s period, various activities will take place.

The training will be led by Dr Sorin Burcea, Head of the Nowcasting Laboratory of the National Meteorological Administration of Romania

1st week

During the first week the trainees will learn about the principles of Nowcasting based on remote sensing, obs. data and NWP. This will include the following topics:

- Synoptic and mesoscale meteorology
- Types of mesoscale circulations
- Cyclogenesis
- Atmospheric fronts
- Particular mesoscale circulations (e.g., sea breeze)
- Identification of mesoscale convective systems

- Severe convection
- Conceptual models used to forecast severe storms
- Doppler weather radar basic principles
- Benefits and limitations of radar measurements
- Weather radar data analysis
- Radar rainfall estimation
- Interpretation of Doppler velocity data
- Severe thunderstorm signature in radar and satellite data
- Use of NWP in the forecast process
- Use of meteorological satellite data in nowcasting
- Use of lightning information in nowcasting

2nd week

During the second week, the trainees will assist the nowcasting forecasters within National Center of Forecasting. In this time, they will become familiar with the tools we use to forecast severe storms and with the process of issuing warnings.
During this activity, they will have the opportunity to apply some of the knowledge gathered during the "theory" classes.

Shortly, this week the trainees will perform real-time operational activity that will help them to develop nowcasting competencies.

3rd week

The last week of the training programme is dedicated to a project that the trainees need to develop.

This can be a severe case study or a project in which they would adapt the procedures used in Romania to the reality of their own metservice.

Requirements to the trainees

The trainees are required:

- to have basic knowledge on synoptic and mesoscale meteorology, convection, radar and satellite meteorology,
- to prepare a presentation that will include general information on the NMS they represent, on the specific tasks and responsibilities they have at their working place, trainings they have had lately, if a nowcasting activity is included in the forecast process at their NMS, technical equipment used for forecasting, and other relevant information.

This information will act as an overview of the skills for radar and thunderstorm nowcasting.

Electricity connections:

220 V

Entry requirements

Entry visa is required for some countries. For more info please visit the website of the Romanian Ministry of Foreign Affairs: www.mae.ro

Hotel reservation

The National Meteorological Administration of Romania has made block reservation of single rooms, with breakfast included, in a hotel located not far from the training venue:

EURO HOTELS INTERNATIONAL *** (Triumf area)
32-34, Maresal Averescu Bd., sector 1, 011455, Bucharest
Tel: +40 21 224 5496
+40 21 224 5497
Fax: +40 21 224 5554
www.euro-hotels.ro
Tariff: 45 Euro/night/person (breakfast included)

Location: 10 minute walk to the nearest bus stop, close to the Arch of Triumph and the Herastrau Park

Note: Upon request, NMA will make the reservations for the trainees after receiving their arrival/departure date/times (the trainees are kindly asked to announce cancellation 48 hrs prior the entry date)

* No credit card is requested to guarantee booking
Meals

The breakfasts will be available in the hotel, lunch can be served in the NMA’s canteen and the dinners would be available in city restaurants. Please see below a short list of restaurants:

– close to the training venue:
  
  • Baneasa Shopping Centre

-close to the hotel:

  • Club 41 (41, Clucerului Street),
  
  • Perfetto Restaurant (60, Ion Mihalache Blvd. (1 May Square))
  
  • Bistro Oliviers Restaurant (19, Clucerului Street)
  
  • Casa Elisabeta Restaurant (63, Neculce Ion Street)

Local transportation

Public transportation in Bucharest is well organized by trams and buses:

Magnetic cards are for use in buses, trams, trolley buses, underground and 783 express bus. For buses, trams and trolley buses one trip is 1,30 lei, for the underground and the express bus, the
price is a little bit higher (2 lei and 3.5, respectively). These cards can be bought from dedicated kiosks (“RATB”), generally located near the main bus stops.

Directions

**HOW TO REACH EURO HOTELS INTERNATIONAL FROM THE AIRPORT**

**By bus (quite easy!):**

Once in the hall of the “Arrivals” building, go downstairs, at the ground floor, by using the escalator. Near the exit door, you will readily see the bus-stop indicator for EXPRESS BUS no. 783 and the ticket kiosk, where you can buy the necessary magnetic travel cards. The price for one card is 7 lei / 2 trips and it has to be validated on the machines near the doors.

The succession interval of bus 783 is around 15 minutes. The last bus is scheduled to leave the airport at around 22:30.

You will have to ask the driver to make a stop at bus-stop “ARCUL DE TRIUMF” (marked on the map with…) As you approach that bus stop, you may see a large monument in front of you, the Arch of Triumph, (“Arcul de Triumf”) If the get off the bus before crossing the square with the monument in its centre, then walk on the left-hand side of Blvd A. Averescu, till you reach Euro Hotels International (marked on the map.)

If the bus stops and you get off after crossing the square, you have to walk backwards to the Arch of Triumph square. Then turn slightly to the left and walk briefly in a semi-circle, till you reach Blvd. A Averescu. Walk the left-hand sign of Blvd. Averescu, till you reach Euro Hotels International (marked on the map).

**HOW TO REACH THE NATIONAL METEOROLOGICAL ADMINISTRATION FROM EURO HOTELS INTERNATIONAL**

As you exit the hotel, you walk on Blvd. A. Averescu towards the Arch of Triumph square. Then you encircle the square and you reach a bus stop at the entrance in a park. That bus stop is across the road, from the place you had got off when coming from the airport. That is a stop for more busses, of which you must get on bus no. 783. After you validate your magnetic card, ask the driver to make a stop at “Institutul Meteorologic” bus stop. If you take bus 131 or 335, you will get off at “Baneasa Airport” and take bus 301, from the same place, up to “Institutul Meteorologic” bus stop.

As you get off, cross the road, walk briefly ahead, under the bridge, and make another cross. You will see, in front of you, the buildings of the National Meteorological Administration.

**Note:** The hotel, lunches, as well as the bus tickets for the public transport during the training period will be paid directly through the National Meteorological Administration of Romania from the project budget.

**Pocket money**

The participants will receive from the project budget a lump sum to cover the round-trip travel, the dinners, the lunches during the weekends or the days-off and other eventual costs, during the training period.

**Currency**

The Romanian currency is the LEU. The LEU underwent denomination on 1 July 2005, when four zeroes were cut from its former value. At present, the official exchange rate is around 4.30 Lei for 1 €. Private exchange offices operate slightly different rates.
At the airport, we advice you to exchange only a small amount of money (10 Euros or so), especially for local travel tickets. When you reach the exit hall of the airport, you will notice guiding panels, showing you the way to the exchange office. There are also ATMs for currency exchange operations.

**Info on local climate**

Mean air temperature in Bucharest: 12,6°C (April), 17,7°C (May), 18,9°C (September)

Maximum air temperature in Bucharest: 34,4°C (April), 36,6°C (May), 39,6°C (September)

Mean precipitation amounts in Bucharest: 46,8 l/m² (April), 70,1 l/m² (May), 44,8 l/m² (September)

For any further local information, please contact:

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