



WMO OMM

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

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27 de septiembre de 2017

Anexos: 2 (disponibles en inglés solamente)

Asunto: Curso internacional de formación sobre "El funcionamiento y mantenimiento de los sistemas de radares" (Marmaris, Turquía, 6 a 10 de noviembre de 2017)

Finalidad: Para información y para que se adopten las medidas pertinentes, según proceda, a más tardar el **9 de octubre de 2017**

Estimado señor/Estimada señora:

Cúmpleme informarle de que Turquía acogerá un Curso internacional de formación sobre "El funcionamiento y mantenimiento de los sistemas de radares" del 6 al 10 de noviembre de 2017, el cual se celebrará en el Centro Regional de Formación (CRF) de la Organización Meteorológica Mundial (OMM) en Marmaris (Turquía).

El objetivo del Curso es que los participantes adquieran los principios básicos sobre los radares meteorológicos y aprendan sobre su mantenimiento y funcionamiento. Asimismo, podrán beneficiarse de la experiencia de otros países que utilizan radares operativos.

El Curso, que está destinado a técnicos en meteorología y meteorólogos que operan y mantienen sistemas de radares, se impartirá en inglés. El Servicio Meteorológico Nacional de Turquía eximirá a un solo participante por cada país del pago de la matrícula y le proporcionará alojamiento en régimen de pensión completa (que incluye alojamiento, desayuno, almuerzo y cena) y los traslados locales. Los gastos de viajes internacionales, incluidos los billetes de ida y vuelta y las tarifas de tránsito, correrán a cargo de los propios participantes o de sus respectivos gobiernos. Se adjuntan información sobre el Curso (*Course Information*) y el formulario de designación (*Nomination Form*).

Se ruega a los candidatos interesados que cumplimenten el formulario de designación adjunto, que deberá aprobar el Representante Permanente de su país respectivo, y que lo envíen directamente al CRF de Turquía (a la señora Nur Söğütçüklü, nsogutcuklu@mgm.gov.tr) a más tardar el **9 de octubre de 2017**.

Quisiera expresarle mi agradecimiento por su continuo apoyo a la promoción de los programas y actividades de la OMM.

Le saluda atentamente.

(W. Zhang)
por el Secretario General

A los Representantes Permanentes (o Directores de los Servicios Meteorológicos o Hidrometeorológicos) de los Miembros de la OMM

copias: Asesores hidrológicos de los Representantes Permanentes

Annex I

INTERNATIONAL TRAINING COURSE ON
“Operation and Maintenance of Radar Systems”

06-10 November 2017

Marmaris, TURKEY

GENERAL INFORMATION

Objectives of the Training Course

The aim of the course is for participants to learn the basic principles, maintenance and operations of meteorological radar and to benefit from the experiences of different countries users of an operational radar network.

To watch the atmosphere and the weather phenomena occurred is getting more and more important for the developing world. To be able to meet the meteorological requirements of the developing world, it is very obvious that there is a necessity for the provision of accurate and timely weather observations which will be the essential input of weather forecasts and numerical weather prediction models, research studies on climate and climate change, sustainable development, environment protection, renewable energy sources, etc. All outputs and products of any system are input dependent. So, accuracy, reliability and efficiency of the products of any meteorological study will depend on its input: Observation.

It is vital to observe the weather and to make weather prediction timely especially for severe weather conditions to be able to warn the public in due course. One of the most important and critical instruments developed and offered by the modern technology for observing weather and early warning systems are weather radars. Doppler Weather Radars are some kind of active sensors which can get information about the targets in the atmosphere by using the microwave band of electromagnetic spectrum. It would not be a wrong comment to say that radar is the only and essential sensor which can provide real time and accurate information on hazardous weather phenomena such as strong wind, heavy precipitation and hail in large scale area. Of course the information from hydrometeors in the atmosphere is significant for meteorology, so the other targets sensed by meteorological radars are considered as the targets to be eliminated. A weather radar can supply the information such that intensity, type and movement of meteorological phenomenon with relatively very high spatial and temporal resolution when compared to the other meteorological sensors. That makes the weather radars very important for weather forecasting particularly for nowcasting.

Doppler weather radars are proving to be extremely valuable in providing data of high-resolution in both space and especially in the lower layers of the atmosphere. Doppler radars are used extensively as part of national and increasingly of regional networks, mainly for short range forecasting of severe weather

phenomena. Doppler radar capability is particularly useful of making wind measurements and estimates of rainfall amounts.

This course has been planned to give a general view and information to the trainees about the basic features of Doppler Weather Radars and why and how to operate a Radar and Radar network.

Content

The main topics of the course are listed below:

- Operation principles of Weather Radar
- Information about radar hardware
- Basic maintenance and calibration
- Processing basics in Doppler weather radar systems
- Radar products and operational applications.
- take benefits of experiences from users of an operational weather radar network,
- Basic principles of site selection criteria and design of a radar network

Course Format

The course will consist of theoretical part of group-learning activities, case study, and practical part of on the job training in radar site.

Internet Facilities

Internet will be available. The password will be provided to the participants during the training.

Working Languages of the Course

The Training Course will be conducted in English and all documentation will be in English. No translation/interpretation services will be provided.

Eligibility and Application

This training course is open to all participants from each country and aimed at the meteorologist who studied meteorology, hardware person and good level of English. The candidates will make an application via e-mail to the contact person.

Required Documents for Application

- 1- **Photocopy of passport:** to be submitted with the application form, if you possess your passport which you will carry when entering Turkey for this training. If not, you are requested to submit its photocopy as soon as you obtain it. *Passport photocopy should include the following: Name. Date of Birth. Nationality. Sex. Passport number and Expire date.
- 2- **Nomination letter:** A letter signed by the Permanent Representative from your institution nominating you for the training course.

Training Course- Related Information

The course will be conducted at a hotel in the Marmaris region between 05 and 10 October 2017. The participants will be informed about the exact venue in due time. Due to the facilities at the Hotel, no PCs would be available for the participants. It is strongly recommended to the participants to bring their portable computers.

Travel and Accommodation Arrangements

As the host of the training, TSMS will arrange transportation or the field visits, accommodation and meals throughout the training (05- 10 October 2017) and coffee breaks for participants. TSMS will also cover the tuition fee.

The international travel expenses between Marmaris, Turkey and the home town of the participants will have to be borne by the recipient Members or by other means. Please note that there will be no travel support by TSMS. The nearest international airport to Marmaris is Dalaman International Airport (DLM).

All participants will be responsible for their transfers from Dalaman Airport to Marmaris Centre. There are shuttle bus services between Airport and Marmaris. Please check the web page of the Havas Shuttle Service for detailed information.

<http://www.havas.net/en/OurServices/BusServicesAndCarParkingFacilities/ServicePoints/Pages/Dalaman.aspx>

Please be informed that no per diem and travel costs will be paid and it's expected from participants to cover all of their domestic expenses in their own country (including their domestic travel expenses in their own countries, Visa fees, etc.)

Accommodation and Meal

TSMS will provide full board accommodation, including room, breakfast, lunch, dinner and coffee breaks for one participant from each country. Please note that there will be no per diem allowance payable for the participants.

Insurance

Participants are fully responsible for any expenses in the event of death, illness or injury attributable to the attendance at course and for arranging for such life, health and other form of insurance as they consider appropriate. The participants are highly recommended to make a travel insurance which covers their travel and visit period. TSMS accepts no responsibility for compensation in such events.

Deadline for application

Nomination forms should be sent to the course coordinator before **9 October 2017**.

Course Coordinator

For any information regarding Regional Course and local logistics arrangements, participants may contact with Ms. Nur Sögütçüklü.

Regional Course Coordinator

Ms. Nur Sögütçüklü

External Relations Division

Phone : 0090 312 203 29 24

E-mail: nsogutcuklu@mgm.gov.tr

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Annex II

PARTICIPANT NOMINATION FORM

Ref.: 33889/2017-10 DRA/ETR

1. **FIRST NAME:** _____
2. **FAMILY (LAST) NAME:** _____
3. **TITLE** Mr () Ms () Mrs ()
4. **DATE OF BIRTH:** _____
5. **COUNTRY:** _____
6. **PASSPORT NUMBER:** _____
7. **PASSPORT DATE OF ISSUE AND EXPIRY DATE:**

7. **SERVICE/ORGANIZATION:** _____
8. **OFFICIAL MAILING ADDRESS:** _____

- CITY** _____ **Telephone:** _____ **Mobile:** _____
- Fax:** _____ **E-mail:** _____
9. **ARRIVAL DATE**
Date: _____ **Flight number:** _____ **Time of arrival:** _____
10. **DEPARTURE DATE**
Date: _____ **Flight number:** _____ **Time of departure:** _____
11. **FOOD PREFERENCE :** _____
(such as Vegetarian etc.)

Name and Signature of the Permanent Representative

Date: _____