#### **WMO OMM**



World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация

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عدد المر فقات:

حلقة عمل متقدمة بشأن "الإنذارات بالأحوال الجوية والتصدي لطوارئ ظواهر الطقس الخطرة"، مركز التدريب الإقليمي، بيت داغان، إسرائيل، 10-20 كانون الأول/ ديسمبر 2018

الموضوع:

الإجراء المطلوب: للعلم واتخاذ الإجراء الملائم، حسب الاقتضاء

تحية طيبة وبعد،

إلى:

يسرني أن أبلغكم أن مركز التدريب الإقليمي (RTC) ببيت داغان سيعقد، بالتعاون مع الوكالة الإسرائيلية للتعاون الإنمائي الدولي (MASHAV)، ومعهد الأرصاد الجوية الفنلندي (FMI)، ودائرة الأرصاد الجوية بالمملكة المتحدة، والمهيئة الوطنية لإدارة الطوارئ بإسرائيل، حلقة عمل تدريبية متقدمة بشأن "الإنذارات بالأحوال الجوية والتصدي لطوارئ ظواهر الطقس الخطرة" في مركز التدريب الإقليمي (RTC) ببيت داغان، إسرائيل، في الفترة 10-20 كانون الأول/ ديسمبر 2018.

وتستهدف حلقة العمل المذكورة فئتين من العاملين هما: العاملون في مجالي الأرصاد الجوية/ الهيدرولوجيا بالمرافق الوطنية للأرصاد الجوية والهيدرولوجيا (NMHSs)، والعاملون المهنيون في هيئات إدارة الطوارئ. والهدف من حلقة العمل هو تحسين قدرات المشاركين على إعداد إنذارات بالظواهر الجوية الهيدرولوجية القاسية، واستكشاف ممارسات المراقبة الموصى بها، والتنبؤ بظواهر الطقس القاسي وإبلاغ هذه التنبؤات (بما في ذلك شدة الظواهر وجوانب عدم اليقين التي تنطوي عليها)، وتحسين فهم الآثار المحتمل أن تترتب على الطقس القاسي، والمعلومات اللازم توفيرها لقيام السلطات المسؤولة عن الحماية المدنية/ إدارة الطوارئ، والسكان بشكل عام، باتخاذ القرارات في خضم هذه الظواهر. والمواضيع التي ستتناولها هذه الحلقة تتماشى مع إطار الكفاءات اللازمة للمتنبئين في الخدمات العامة في مجال الطقس (PWS)، حسبما أقرت لجنة النظم الأساسية (CBS) التابعة للمنظمة (WMO). وستجري فعاليات حلقة العمل بالإنكليزية. وترد في المرفق الأول معلومات تفصيلية بشأن حلقة العمل، بما في ذلك شروط وإجراءات طلب المشاركة.

وستقدم حكومة إسرائيل منحاً دراسية لمقدمي الطلبات من البلدان النامية، تغطي مصاريف السكن وجميع الوجبات (الغرفة الواحدة يتقاسمها شخصان) أثناء مدة حلقة العمل، إلى جانب الرسوم الدراسية وتكاليف النقل. غير أن تلك المنح لا تغطى تكاليف السفر الجوي إلى إسرائيل ومنها أو مصاريف الجيب.

الممثلين الدائمين لأعضاء المنظمة (أو مديري مرافق الأرصاد الجوية أو الأرصاد الجوية الهيدرولوجية)

ويرجى من المرشحين المهتمين استيفاء "استمارة طلب المشاركة" الخاصة بحلقة العمل (المرفق الثاني) ويرجى من المرشحين المهتمين استيفاء "استمارة طلب المشاركة" الخاصة بحلقة العمل (المرفق الثاني) وإعادتها مباشرة إلى مركز التدريب الإقليمي (RTC Bet-Dagan, Israel Meteorological Service, ببيت داغان: P.O. 25 Bet-Dagan 50250 Israel والموتاني البريد الإلكتروني الأتيين: rmtc@ims.gov.ii وعلى عنواني البريد الإلكتروني الأتيين: P.O. 25 Bet-Dagan 50250 Israel في موعد لا يتجاوز 15 أيلول/ سبتمبر 2018.

وأود أن أعرب عن تقديري لدعمكم المستمر لتعزيز برامج المنظمة (WMO) وأنشطتها.

وتفضلوا بقبول فائق الاحترام،

(إ. ماناينكوفا)







World Meteorological Organisation









# Advanced Workshop on Meteorological Warnings and Emergency Response to Hazardous Weather Events Shefayim, Israel 10 – 20 December 2018

## 1. Introduction

The IMS/WMO RTC Bet Dagan of the Israel Meteorological Service, in cooperation with Israel's Agency for International Development Cooperation (Mashav), has provided training at a post-graduate level since 1967. Several thousands of participants from all over the world, mainly from developing countries, have taken advantage of the opportunities provided by our RTC to study the application of meteorology to various national sectors.

The topics of this workshop are in accordance with the concept of public weather services (PWS), where disaster risk reduction practices (DRR) play a major role, and in line with the competency framework for PWS forecasters as endorsed by the Commission of Basic Systems (CBS).

Each year, the impacts of severe hydro-meteorological events around the world give rise to multiple casualties and significant damage to property and infrastructure, with adverse economic consequences for communities that can persist for many years. Many of these severe events can be well forecasted, and accurate warning information could be disseminated in a timely fashion by the responsible National Meteorological and Hydrological Service (NMHS). Unfortunately, even when there is an understanding of what the weather might be, there is often a lack of understanding of what the weather might do. Thus, for significant impact on the safety of the population, the NMHS should not only master the production of warnings of severe hydro-meteorological events, but also pursue the understanding of their potential impacts and the uncertainties involved. Furthermore, sometimes there are communication gaps between the NMHSs and the emergency authorities which might cause the emergency authorities not to be fully aware of the abilities and limitations of the NMHSs in producing real time and near real time warnings, and might cause the meteorologists not realize the information needed in the decision making process. Thus, an important aim of this course is to enhance the collaboration between the NMHSs' experts and the civil protection agencies experts.

This workshop is a result of a joint effort of the Israeli Meteorological Service (IMS), Israel's National Emergency Management Authority (NEMA), the Finnish Meteorological Institute (FMI) and the U.K. Met office.

The workshop's curriculum will include a combination of classroom lectures, exercises, demonstrations, field trips and round-table discussions.

## 2. Workshop Objectives

- To discuss the possible effects of severe weather events on different sectors
- To demonstrate modern techniques for issuing weather warnings, their dissemination and verification
- To discuss ways to improve the collaboration between the different key players in DRR and to promote risk-informed decisions
- To asses, via case studies, different approaches of emergency authorities to DRM
- To Strengthen impact-based forecasts and risk-based warning services
- To develop possible Countries' preparedness frameworks for Weather Emergency Management

# 3. Learning Outcomes

## After the workshop, participants will be able:

For NMHSs Personnel:

- To understand possible impacts of severe weather and the information needed by emergency managers in order to prepare and in order to react properly to the forecasted event
- To characterize or build modern warning and dissemination systems
- To appreciate the importance of the common alert protocol (CAP) and to understand the way it should be used in alert dissemination
- To adjust the warning system attributes according to international and national requirements
- To realize the importance of real time continuous communications with the civil protection agencies and the public before and during an high impact weather event
- To create and improve the verification and validation of warnings

For Emergency Management Authorities:

- To realize the abilities and limitations of modern hydro-meteorological tools and the information that can be received from the NMHSs before and during high impact weather event
- To realize the characteristics of modern weather warning and dissemination systems, including the importance of the common alert protocol (CAP)
- To realize the importance of real time continuous communications with the NMHSs and the public before and during an high impact weather event
- To incorporate weather information into the DRM practices

# 4. Main Workshop Content:

## **Forecasts, Detection and Warning**

- Impacts of severe weather events and the role of the Warnings system
- Warning types, Multi-Hazard warning systems
- International requirements and recommended practices
- Setting thresholds for warnings (including impact based)
- Modern forecaster Tools for the forecasting and monitoring hazardous hydrometeorological events and timely issue of warnings

### **Dissemination and Communication**

- Vulnerability and Risk
- Adjusting the Communication Channel to the user needs
- Methods and technologies for warning provision and dissemination
- Common Alert Protocol (CAP)

## Incorpration of the NMHS information into the DRM cycle

- Needed hydro-meteorological information in the DRM cycle (Prevention-Preparedness-Response-Recovery)
- Collaboration between the key players before and during a severe event
- Importance of follow ups and operational debriefs
- Warnings verification as a tool for building credibility and continuous improvement

# 5. Participation cost

The airfare cost should be covered by the participant, by his/her employer, or by the granting institution. The total cost of lodging at full board for single in a double room during the duration of the workshop, including tuition fees and field trips transportation will amount to app. 270\$ per day (incl. insurance). Total for the whole period is 2970\$.

# 6. Scholarships

Scholarships, covering accommodations at full board (two persons per room) during the duration of the workshop, tuition fees and field trip transportation will be provided for participants from developing countries, by the Government of Israel – MASHAV – Israel's Agency for International Development Cooperation. These scholarships would be provided in accordance with MASHAV's requirements and Procedures.

#### 7. Audience

The advanced workshop is designed primarily for two populations:

- Meteorological/hydrological staff of NMHSs engaged and interested in preparing, issuing and disseminating warnings, as well as creating a warning system.
- Professional officers of Emergency Management Authorities making use of the hydro-meteorological warnings for decision making before and during severe weather event.

The mixture of these two populations will enhance the knowledge and awareness for Common Extreme Weather and Emergency Management issues.

# 8. Language

The workshop will be held in English. A working knowledge of English is mandatory. As a mandatory part of the acceptance procedure, all relevant candidates will have to be interviewed by local representatives of MASHAV in their countries.

## 9. Training Staff

Senior staff of the IMS/WMO RTC Bet Dagan, expert participants from the Finnish Meteorological Institute (FMI) and the U.K. Meteorological Office (Met Office), having extensive knowledge and experience in Meteorology and Climatology, will conduct the workshop. Invited guest lecturers will also participate in providing and sharing their knowledge and experience in specific fields of expertise, especially from the Israeli National Emergency Management Authority (NEMA), and from different Israeli governmental organizations and Emergency Management Authorities.

## 10. Visa Information

Most of the participants will require a visa in order to enter Israel. For additional information - http://mfa.gov.il/MFA/ConsularServices/Pages/Visas.aspx

The required time for obtaining a visa varies from country to country, but might take up to a few weeks. For participants flying through other countries, an additional entrance visa for these countries may be required.

# 11. Registration

Interested candidates are requested to complete the attached Participant Application Form for the workshop and return it directly to RTC Bet-Dagan, Israel Meteorological Service, P.O. 25 Bet-Dagan 5025001 Israel, to rmtc@ims.gov.il or to milshteina@ims.gov.il not later than the **15 September 2018**.















## **Annex II**

## **ADVANCED WORKSHOP ON**

# **Meteorological Warnings**

# and Emergency Response to Hazardous Weather Events

SHEFAYIM, ISRAEL

10 -20 December 2018

## **APPLICATION FORM**

1.	Country :			_	
	Title: Mr/Ms/Miss/Dr/Prof/				
3.	First Name (Given) :				
	FAMILY NAME (SURNAME) :				
	E-mail :				
მ.	Telephone:				
	Fax No:				
3.	Official Address:				_
	Date of Birth:				
	). Nationality:				
11.	. Gender	:   Female	☐ Male		

12. What other WMO courses have you attended in the last 5 years? :				
Place:	Date:			
Signature of the Candidate:				
Statement by the Permanente Representative was elected for this course.	with WMO on why this nominee should be			
Signature of the Permanente Representative wi	ith WMO			
To be completed and returned as soon as possi than 15 September 2018 to:	ble to the Organization Committee <b>not later</b>			
Mr. Giora. G. H. Gershtein,				
IMS/WMO RTC Bet Dagan, Bet Dagan 50250, POB 25, Israel				
E-mail: milshteina@ims.gov.il; rmtc@ims.go	ov.il;			
Phone: +97239403179; Mob: +972050621209	9			

For these willing to receive a scholarship from MASHAV, please attach the filled in

MASHAV Application Form. The Form can be found here:

http://mfa.gov.il/MFA/mashav/Courses/Documents/ENGLISH-Application%20Form-Updated.pdf