WMO OMM

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

Secrétariat
7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tél.: +41 (0) 22 730 81 11
Fax: +41 (0) 22 730 81 81
wmo@wmo.int – public.wmo.int

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

Our ref.:   21136/2022/S/DPS/SWFP   15 September 2022

Annexes: 2 (available in English only)

Subject: Severe Weather Forecasting programme (SWFP)–Southern Africa - Online
                     Training Workshop on Severe Weather and Impact Based Forecasting and
                     Warning Services, 3-7 October 2022

Action required: To nominate three operational forecasters from your Service to attend the
                     subject SWFP online training workshop and convey the nominations to
                     RSMC Pretoria and WMO Secretariat as soon as possible, but no later than
                     26 September 2022

Dear Sir/Madam,

As you might be aware the World Meteorological Organization (WMO) Severe Weather Forecasting programme (SWFP) has been implemented in various sub-regions of the world including Southern Africa. SWFP makes efficient use of the 'cascading forecasting process' with contributions from the Global Data Processing and Forecasting System (GDPFS) Centres. The Numerical Weather Prediction (NWP) outputs are made available from the contributing global centres including World Meteorological Centres (WMCs) and the daily severe weather forecast guidance product is issued to the NMHSs of SWFP participating countries by the relevant Regional Centre(s) in each sub-region. For the NMHSs of 16 countries involved in SWFP-Southern Africa, the guidance product is issued by the Regional Specialized Meteorological Centre (RSMC) Pretoria which is also an RSMC for limited-area NWP deterministic and a WMO Regional Training Centre (RTC).

Capacity development of the operational forecasters and public weather services (PWS) staff of the NMHSs in improving their skills in severe weather and impact-based forecasting through specialized training workshops is a salient feature of SWFP. In this context, RSMC Pretoria in collaboration with WMO and the UK Met Office is organizing a remote online SWFP Regional Training Workshop on Severe Weather and Impact Based Forecasting and Warning Services from 3 to 7 October 2022. The UK Met Office is supporting this training workshop through the Newton Fund. Experts from ECMWF and NOAA/NCEP will also contribute to the workshop.

This online training workshop will consist of three (3) live sessions each day from 3 to 7 October 2022. Last two days of the training will be dedicated to impact-based forecast (IBF) and warning services. Each country will be required to deliver a 5-minute presentation on the progress of the implementation of IBF in their country, if applicable. There are additional online resources that participants are encouraged to make use of following this workshop for further in-depth training and understanding of IBF. The workshop will be conducted in English. An Information Note including training objectives, topics and a provisional program is attached as **Annex-I.**

To: Permanent Representatives of Members with WMO of 16 involved in SWFP-Southern Africa: Angola,
       Botswana, Comoros, Democratic Republic of the Congo, Eswatini, Lesotho, Madagascar, Malawi,
       Mauritius, Mozambique, Namibia, Seychelles, South Africa, United Republic of Tanzania, Zambia
       and Zimbabwe

You are invited to kindly nominate, from your Service, three early career operational forecasters (preferably those currently involved in, or with recent experience in, the delivery of public weather services) to attend the subject online training workshop from 3 to 7 October 2022. Additional participants can also be nominated as feasible to your Service.

Although the nominated forecasters will attend the training remotely, large parts will need to be completed in real-time. The time commitment is expected to be around 25 hours during the week. Therefore, any nomination from your Service will commit to guaranteeing participants will be available to attend all live sessions during the week. Each participant needs to have access to an individual computer or laptop, with a reliable internet connection, which allows streaming of video and sound and participate in practical sessions during the remote training.

A prescribed nomination form is attached as **Annex II.** Its electronic copy is available on WMO Community Platform here: https://community.wmo.int/meetings/swfp-southern-africa-training-workshop-severe-weather-and-impact-based-forecasting-and-warning-services-online-3-7-october-2022

Nomination forms should be completed and returned to the Mr Ezekiel Sebego (Ezekiel.Sebego@weathersa.co.za) and Ms Elizabeth Viljoen (elizabeth.viljoen@weathersa.co.za) at RSMC Pretoria with a copy to Mr Ata HUSSAIN (AHussain@wmo.int) at the WMO Secretariat, at your earliest convenience, **but no later than 26 September 2022.**

I wish to thank you for your continued support to the WMO activities.

Yours faithfully,

Dr Elena Manaenkova
for the Secretary-General

Severe Weather Forecasting programme (SWFP) –Training Workshop on Severe Weather and Impact-based Forecasting and Warning Services for Southern Africa
ONLINE, 3-7 October 2022

Information Note

Training Objectives

To address the capacity building needs of operational forecasters and public weather services (PWS) staff of NMHSs of countries involved in SWFP-Southern Africa. RSMC Pretoria in collaboration with WMO and support from the UK Met Office (through its Newton Fund project), ECMWF and NCEP is organizing an online SWFP training workshop from 3 to 7 October 2022.

This will be achieved through enhancing the participants' capability in;

- Interpretation of Numerical Weather Prediction (NWP), including Ensemble Prediction System (EPS) outputs;
- Nowcasting tools and techniques including use of satellite-based information (e.g. RDT etc) to help with the nowcasting of severe weather;
- Medium-range forecasting tools and techniques;
- Understanding and implementing impact-based forecast and early warning services.

Training Program

The training program has been designed based on responses from SWFP training needs surveys carried out in 2022. Below is the provisional training program for the SWFP online remote training workshop. It may be subject to minor changes in terms of the scheduling of each specific session, however the topics will remain same.

First week of October	Monday 3 October	Tuesday 4 October	Wednesday 5 October	Thursday 6 October	Friday 7 October
Topics to be covered	The Concepts of NWP and EPS; Satellite-based nowcasting; Impact-based Forecast (IBF) and warning services; Case studies in IBF implementation;				
Live Sessions Times (CAT)	09:00-10:30	09:00-10:30	09:00-10:30	09:00-10:30	09:00-10:30
	11:00-12:30	11:00-12:30	11:00-12:30	11:00-12:30	11:00-12:30
	13:00-14:30	13:00-14:30	13:00-14:30	13:00-14:30	13:00-14:30
Live Sessions	**Monday:** Session 1: Opening/Introduction Session 2: Concepts of NWP and EPS Practical session: UKMO products and their website **Tuesday:** Session 1: ECMWF products available for the region, and interpretation & use of Extreme Forecast Index and ENS Meteograms Session 2: NCEP products available for the region, and interpretation and use of various products Practical session: Preparation of weather forecasts				

	Wednesday: Session 1: Use of Satellite for nowcasting Session 2: Use of Satellite for nowcasting Practical session: Use of Satellite for nowcasting **Thursday**: Session 1: Country presentations; Introduction into IBF Session 2: IBF Case studies and lessons learnt from other countries Practical session: Development of disruptive rainfall impact table **Friday:** Session 1: Practical IBF case study Session 2: Practical IBF case study continued Practical session: Practical IBF case study feedback

Live, facilitated sessions from Monday to Friday will be important for giving participants the chance to contextualise and apply theoretical knowledge, and also work together and learn from the experience of their peers. It is therefore mandatory that participants attend all of these sessions. There will be three sessions each day, **session 1** will take place from **09:00 - 10:30 CAT, session 2** will take place from **11:00-12:30 CAT** and **session 3** will be a practical session from **13:00-14:30 CAT** each day.

There is additional online material relating to IBF and warning services that participants will be encouraged to complete following this training for a more in depth understanding of this topic. These details will be shared during the sessions.

Medium of instruction
The training will be delivered in English

Qualification of participants
- Nominated participants must be proficient in English.
- They should be early career operational forecasters with minimum 2 years' experience in weather forecasting including in the delivery of public weather services (PWS).
- They will be required to:
  - attend all live sessions as detailed above, and which will be confirmed with the participants via joining instructions prior to course commencement;
  - complete all prescribed course material on the online learning platform (the intention is to make the online material available in advance of the advertised start date should any delegates wish to make a start at their convenience);
  - provide the course organizers with feedback on the usefulness and effectiveness of the online training immediately following the workshop (WMO will send an online survey for this purpose);
  - actively maintain technical exchanges and communication with the lecturers/ experts, organizers and their peers, both during and after the workshop;
  - carry out case studies on severe weather events observed in participants' countries to apply the knowledge gained, and the techniques learned and to submit case studies within 5 weeks' time after the workshop;

– complete a follow up survey provided by the course organizers (in 3 months' time after the conclusions of the course), reflecting on how knowledge and skills acquired during the training have been applied in their NMHSs.

Lecturers

Experts from the SAWS/RSMC & RTC Pretoria, ECMWF, NOAA/NCEP and the Met Office UK will contribute to the workshop.

Training delivery

The training will be delivered live and online using Microsoft Teams. For this to be effective each delegate will need to have access to an individual computer with a reliable internet connection which allows streaming of video and audio, as well as access to remote servers to complete online self-study modules. If you believe access to, or reliability, of local internet connections may be a barrier to participation please contact RSMC Pretoria representatives as soon as possible to discuss options (contact details are given below in enquiries section).

Places offered

3 participants per NMHS from the countries involved in SWFP-Southern Africa. An NMHS may also nominate additional participants as/if feasible to it.

Deadline for application

The completed prescribed Nomination Form should be returned to the SAWS/RSMC Pretoria with copy to the WMO Secretariat no later than **26 September 2022.**

Enquiries

For any queries or clarification, please contact the following:

- Mr Ezekiel Sebego (ezekiel.sebego@weathersa.co.za) (SAWS/RSMC Pretoria)
- Ms Elizabeth Viljoen (elizabeth.viljoen@weathersa.co.za) (SAWS/RSMC Pretoria)

Ref.: 21136/2022-L6 S/DPS

Annex-II

Severe Weather Forecasting programme (SWFP) – Southern Africa

Online Training Workshop on Severe Weather and Impact Based Forecasting and Warning Services, 3-7 October 2022

PARTICIPANT NOMINATION FORM

(Note: Please nominate three operational forecasters from your Service. Additional participants can also be nominated as feasible to your Service)

The following operational forecasters are nominated from (name of country):   to attend the above captioned SWFP Training Workshop to be held online from 3 to 7 October 2022:

Sr #	Nominees particulars	Participant Contact detail
1.	Name: Date of birth: Gender (Male/Female): Title/Designation: Responsibilities: Qualification: Experience as forecaster: years	E-Mail*: Tel: Mobile:
2.	Name: Date of birth: Gender (Male/Female): Title/Designation: Responsibilities: Qualification: Experience as forecaster: years	E-Mail*: Tel: Mobile:
3.	Name: Date of birth: Gender (Male/Female): Title/Designation: Responsibilities: Qualification: Experience as forecaster: years	E-Mail*: Tel: Mobile:

Please ensure the email address is a direct email for the delegate you are nominating as this will be required to generate the login and provide access to the online learning portal.

The nominating authority hereby confirms that each of the above nominee(s) will have access to a personal computer and/or laptop with good internet connection to ensure smooth streaming of video and sound, as well as connection to remote servers to enable him/her to take part in self-study modules and practical sessions during the online training workshop. It is also confirmed that all nominees from our NMHS will be spared to attend to all live sessions of the training and will be given adequate time as mentioned in the information note (a time commitment of approximately 25 hours week is expected).

Date: Nominating NMHS:

Signature of Director of NMHS (or Permanent Representative): _____

Note: Please complete and submit this nomination form by E-Mail to Ezekiel Sebego (Ezekiel.Sebego@weathersa.co.za) and Ms Elizabeth Viljoen (elizabeth.viljoen@weathersa.co.za) at SAWS/RSMC Pretoria and copy to Ata HUSSAIN (AHussain@wmo.int) at WMO Secretariat as soon as possible, but **no later than 26 September 2022.**