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| Severe Weather Forecasting Demonstration Project SWFDP - Southern Africa Training Workshop on Severe Weather Forecasting and Public Weather and Warning Services Regional Training Centre PretoriaPretoria, South Africa November 2013PROVISIONAL PROGRAMME for GDPFS (Week 1: 11 – 16 November 2013) |
| **Day 1: Monday 11 November** |
| 0900-1030 | **OPENING AND INTRODUCTION** |  |
| Opening, Welcome and Introduction |  |
| WMO activities and global SWFDP programme, Purpose of this workshop |  |
| **1030-1100** | ***Coffee break*** |  |
| 1100-1200 | **SWPFD-Southern Africa** |  |
| SWFDP-SA: * SWFDP Phase 4 concepts
 | EP  |
| RSMC Pretoria Products: * Webpage demonstration: layout and access to different systems used in this course
* Daily guidance products
 | ES  |
| **1200-1400** | ***Collection of per diems, Lunch break*** |  |
| 1400-1700(*Coffee break: 1530-1545)* | **GLOBAL MODELLING: Description of models and their products for SWFDP-SA** |  |
| Numerical Weather Prediction Process* Basics: data assimilation, resolution, physical parameterisation
 | SL |
| Numerical Weather Prediction Process* Strengths and weaknesses of ECMWF, products on the RSMC website
* Strengths and weaknesses of MOGREPS, products on the RSMC website
* Strengths and weaknesses of NCEP, products on the RSMC website
 | ES |
| **Day 2: Tuesday 12 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **REGIONAL MODELLING: Overview** |  |
| Concepts of limited area modelling:* Overview: Scientific and Operational aspects, boundary conditions, topography
* Application in the UM-SA12 in Southern Africa
* UM SA12 products: availability, strengths, weaknesses
* Météo-France Aladin-Réunion products: availability
 | SLSLESES |
| **ENSEMBLE PREDICTION SYSTEMS (EPS) AND PROBABILISTIC FORECASTING** |  |
| General concepts* Uncertainty – why do we need EPS?
* Deterministic vs probabilistic forecasting
* Basics of EPS: scientific basis, operational production
 | SL |
| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | Operational use of EPS vs deterministic forecasts - Practical* Forecaster decision-making process blending EPS and deterministic (LAM) forecasts
* Using EPS/deterministic forecasts for severe weather forecasting
* Quantitative Precipitation Forecasts (QPF) and Probabilistic QPF (PQPF)
 | ES |
|  | Cocktail for all participants at Schoongezich at 1730 for 1800 |  |
| **Day 3: Wednesday 13 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **NOWCASTING** |  |
| Nowcasting: Basics* Satellite Basics
* Red-Green-Blue combinations of MSG
* Satellite based precipitation estimation – the Hydroestimator
 | EdC |
| Nowcasting: using MSG products available to SWFDP* Satellite based instability indices (GII/RII/CII)
* Using MSG to identify and track convection (Nowcasting SAF – RDT)
 | EdC |
| Nowcasting: Other products* Hail forecasts using NWP
 | MG |
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| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | Combining NWP, satellite, conceptual models in forecasting* Hands-on practical: Preparation of country forecasts, discussion
 | LS |
| **Day 4: Thursday 14 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **FORECAST VERIFICATION** |  |
| Verification overview:* Concepts
* Methods
* Guidance forecast verification (Stephanie Landman)
 | LW |
| Verification practical session  | LW |
| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | Verification practical session  | LW |
| Hands-on practical: Preparation of country forecasts, discussion | ES |
| **Day 5: Friday 15 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **GENERAL TOPICS - Seminar** |  |
| * SWFDP Training concepts – RTC Pretoria (Winifred Jordaan)
* Severe Weather case study (Flavio Monjane)
* Regional forecaster collaboration during tropical cyclone Irina (Ezekiel Sebego)
* Regional Flash Flood Guidance System: progress (Eugene Poolman)
* Post processing of model output made simple (Stephanie Landman)
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| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | **SWFDP-Southern Africa: Discussion** |  |
| Regional Subproject Implementation Plan (RSIP) discussion* Overview, Annexes
* Reports
* Future plans
 | All |
|  | Completion of workshop questionnaire | Participants |

EP Eugene Poolman

LW Laurie Wilson
ES Ezekiel Sebego

EdC Estelle de Coning

WJ Winifred Jordaan

SL Stephanie Landman

MG Morne Gijben

LS Lee-ann Simpson