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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 Pretoria Pretoria, South Africa  November 2012 PROVISIONAL PROGRAMME for GDPFS(Week 1: 12 – 17 November 2012) | | | |
| **Day 1: Monday 12 November** | | | |
| 0900-1030 | **OPENING AND INTRODUCTION** |  | |
| Official opening , Welcome and Introduction | MM | |
| 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 | PD | |
| 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 | PD  PD  ES | |
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|  | Cocktail for all participants at Schoongezich at 1730 for 1800 |  | |
| **Day 2: Tuesday 13 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 | PD  SL  ES  ES | |
| **ENSEMBLE PREDICTION SYSTEMS (EPS) AND PROBABILISTIC FORECASTING** |  | |
| General concepts   * Uncertainty – why do we need EPS? * Deterministic vs probabilistic forecasting | SL | |
| **1230-1400** | ***Lunch break*** |  | |
| 1400-1730  (*Coffee break: 1530-1545)* | EPS Operational Systems   * Basics of EPS: scientific basis, operational production * ECMWF system and products: Extreme Forecasting Index, EPS grams, swell products * MOGREPS system and products * NCEP EPS products | PD | |
| Operational use of EPS vs deterministic forecasts   * 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) | PD | |
| **Day 3: Wednesday 14 November** | | | |
| 0900-1230  (*Coffee break: 1030-1045)* | **NOWCASTING** |  | |
| Nowcasting: Basics   * Introduction to using MSG in Nowcasting * Satellite basics * Rainfall estimation: Hydro Estimator | EdC | |
| Nowcasting: using MSG products available to SWFDP   * GII/RII * CII * Accumulation, tracks, etc? |  | |
| Nowcasting: Other products   * Lightning |  | |
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| **1230-1400** | ***Lunch break*** |  | |
| 1400-1730  (*Coffee break: 1530-1545)* | Combining NWP, satellite, conceptual models in forecasting   * Concepts and examples * Structures approach to analyse products and prepare forecasts | PD | |
| Hands-on practical: Preparation of country forecasts, discussion |  | |
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| **Day 4: Thursday 15 November** | | | |
| 0900-1230  (*Coffee break: 1030-1045)* | **FORECAST VERIFICATION** |  | |
| Verification overview:   * Concepts * Methods | SL | |
| Verification practical session |  | |
| **1230-1400** | ***Lunch break*** |  | |
| 1400-1730  (*Coffee break: 1530-1545)* | Hands-on practical: Preparation of country forecasts, discussion |  | |
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| **Day 5: Friday 16 November** | | | |
| 0900-1230  (*Coffee break: 1030-1045)* | **TRAINING** | |  |
| SWFDP Training concepts   * Back-in-office training * Distance learning methodology (COMET, ASMET) * SATREP-Online | | WJ |
| Scientific Seminars   * Seasonal Forecasting: using global ensemble systems (Cobus Olivier) * Regional Flash Flood Guidance System: progress and examples (Eugene Poolman) * Post processing of model output made simple (Stephanie Landman) * Regional forecaster collaboration during tropical cyclone Irina (Ezekiel Sebego) | |  |
| 1200 | SATREP-Online Live Session (Jannie Stander, Venetia Phakula) | | JS, VP |
| **1230-1400** | ***Lunch break*** | |  |
| 1400-1730  (*Coffee break: 1530-1545)* | Scientific Seminars continue | |  |
| Hands-on practical: Preparation of country forecasts, discussion | |  |
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| **Day 6: Saturday 17 November** | | | |
| 0900-1230  (*Coffee break: 1030-1045)* | **SWFDP-Southern Africa: Discussion** |  | |
| Regional Subproject Implementation Plan (RSIP) discussion   * Overview, Annexes * Reports * Future plans | EP | |
| Group discussion on RSIP | All | |
| Short country presentation on progress of SWFDP in each country:   * Operational implementation and use of products * Training of other forecasters * What can and need to be done to enhance in-country application | Participants | |
| Completion of workshop questionnaire | Participants | |
| **CLOSING REMARKS** |  | |

PD Paul Davies

EP Eugene Poolman  
ES Ezekiel Sebego

EdC Estelle de Coning

WJ Winifred Jordaan

MM Mark Majodina

SL Stephanie Landman