|  |  |  |  |
| --- | --- | --- | --- |
| 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 2013 PROVISIONAL 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 | | SL  SL  ES  ES |
| **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 |
|  |  | |  |
| **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) |  | |
| **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