|  |
| --- |
| 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 2012PROVISIONAL 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
 | PDPDES |
|  |  |  |
|  | 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 SLESES |
| **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
 |  |
|  |  |  |
| **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 |  |
|  |  |
|  |  |  |
| **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 |  |
|  |  |
|  |  |  |
| **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 |  |
|  |  |  |
| **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