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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 2014PROVISIONAL PROGRAMME for GDPFS (Week 1: 3 – 7 November 2014) |
| **Day 1: Monday 3 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: * Latest developments for Southern Africa
 | 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 Access Demo* ECMWF, products on the RSMC website
* MOGREPS, products on the RSMC website
* NCEP, products on the RSMC website
 | ES |
|  | Cocktail for all participants at Schoongezich at 1800 for 1830 |  |
| **Day 2: Tuesday 4 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, introduction to upgrade
* 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, clustering
 | 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 |
| **Day 3: Wednesday 5 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **NOWCASTING** |  |
| Nowcasting:* Improved observation of real time events
* Improved lead time of convective events
* Improved indication of where systems are moving towards
 | EdC |
| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | How does this work in practice? | EdC |
| **Day 4: Thursday 6 November** |
| 0900-1230(*Coffee break: 1030-1045)* | Live weather forecasting practical in small groups:* Nowcasting, feedback to larger group
* Days 1-5 forecasting practical in small groups, feedback to larger group
 | ES, EdC, SL |
| **1230-1400** | ***Lunch break*** |  |
| 1400-1730(*Coffee break: 1530-1545)* | * Nowcasting validation
 | ES, EdC, SL |
| **Day 5: Friday 7 November** |
| 0900-1230(*Coffee break: 1030-1045)* | **FORECAST VERIFICATION** |  |
| Verification overview:* Concepts
* Methods
* Guidance forecast verification (Stephanie Landman)
 | LW |
| **1230-1400** | ***Lunch break*** |  |
| 1400-1600(*Coffee break: 1530-1545)* | Verification practical session  | LW |
| 1600-1700 | Conclusion of Week 1, Completion of workshop questionnaire | Participants |

ES Ezekiel Sebego

EdC Estelle de Coning

LW Laurie Wilson

WJ Winifred Jordaan

SL Stephanie Landman

MG Morne Gijben

EP Eugene Poolman