

<p>15:30 – 15:45 COFFEE BREAK</p> <p>– 18:00</p>	<ul style="list-style-type: none"> ○ ECMWF Extreme Forecast Index (EFI), EPSgrams (Davies) 50 min ○ MOGREPS system and outputs (Davies) 50 min ○ Incl. access demo: MOGREPS, ECMWF (Davies) 25 min <p>Use of Probabilistic Predictions</p> <ul style="list-style-type: none"> ○ Uses of NWP “deterministic” with EPS products (Davies) 50 min ○ Probabilistic forecasting at SAWS/RSMC Pretoria (Sebego) 50 min
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Wednesday 20/10

<p>9:00 –</p> <p>10:30 – 10:45 COFFEE BREAK</p>	<p>Discussion: Forcing mechanisms and the development of Severe Weather in the region</p> <ul style="list-style-type: none"> ○ Using NWP to diagnose synoptic scale forcing (led by Davies) 45 min <p>Application of NWP products to Severe Weather (medium-range to short-range)</p> <ul style="list-style-type: none"> ○ NWP and EPS products (Davies) 45 min <ul style="list-style-type: none"> ▪ Using NWP and other weather information to prepare probabilistic forecasts; ▪ Quantitative Precipitation Forecasts (QPF); ○ Specific products (diagnosis of deep convection): K-Index, Total Totals Index, Lifted Index, Vertical Velocity, CAPE, Precipitable water, Theta-e, CIN (Davies) 45 min ○ Detecting and monitoring hazardous weather (KMD/RSMC Nairobi) 60 min <ul style="list-style-type: none"> ▪ Ensemble forecasts and their use, in particular in the preparation of severe weather forecasts ▪ Use of probabilities for forecasts of severe weather; ▪ Knowledge of climatology
12:30 – 14:00	LUNCH
<p>15:30 – 15:45 COFFEE BREAK</p> <p>– 18:00</p>	<p>Verification</p> <ul style="list-style-type: none"> ○ Introduction to verifying forecasts and warnings (Jones) 60 min ○ Verification tasks and interpretation of results (Jones) 60 min <p>Statistical adaptation of NWP products</p> <ul style="list-style-type: none"> ○ Statistical Post-processing NWP outputs (Jones) 65 min ○ Experience with statistical adaptation (KMD, Kabelwa/Waniha - TMA) 20 min (each)

Thursday 21/10

<p>9:00 –</p> <p>10:30 – 10:45 COFFEE BREAK</p>	<p>Severe weather - Case study</p> <ul style="list-style-type: none"> ○ Introduction: A forecast process for the forecasting of severe weather (Davies) 70 min ○ Hands-on session (all, led by Davies, KMD/RSMC Nairobi) 85 min The Best practice for SW forecasting: Case study work 1– Use of NWP and EPS products for forecasting severe weather. Practicality: Best use of Global Models: deterministic and EPS, Diagnostic tools for Severe weather forecasting, early warnings, best use of LAM models, best use of products from the RSMC, priority tasks of the forecasters ○ 2 Reports on the case study (2 participants) 20 min (each)
12:30 – 14:00	LUNCH
<p>15:30 – 15:45 COFFEE BREAK</p> <p>– 18:00</p>	<p>Nowcasting using MSG 1 (Sebego) 105 min</p> <ul style="list-style-type: none"> ○ Introduction to using MSG in Nowcasting ○ Satellite basics ○ Case studies/examples of convection using single channels and channel differences as well as RGB combinations <p>Nowcasting of Severe Weather (KMD, Habiba/Hamza - TMA, Gezahegn - Ethiopia) 30 min (each)</p> <ul style="list-style-type: none"> ○ Use of observations: Reports, Radars, Satellites, Lightning detection ○ Short-range forecasting, warning services, and verification

Friday 22/10

<p>9:00 – 10:30 – 10:45 COFFEE BREAK</p>	<p>Nowcasting using MSG 2 (Sebego) 195 min</p> <ul style="list-style-type: none"> ○ HE principles/uses/examples ○ GII/RII principles/uses/examples ○ CII principles/uses/examples
<p>12:30 – 14:00</p>	<p style="text-align: center;">LUNCH</p>
<p>15:30 – 15:45 COFFEE BREAK – 18:00</p>	<p>Nowcasting - Case study</p> <ul style="list-style-type: none"> ○ Introduction: Nowcasting of severe weather (Sebego) 90 min ○ Hands-on session (all, led by Sebego, KMD/RSMC Nairobi) 95 min The Best practice for SW nowcasting: Case study work 2– Use of NWP products and observations for short-range forecasting, including nowcasting, severe weather. Practicality: Best use of MSG, best use of products from the RSMC, priority tasks of the forecasters ○ 2 Reports on the case study (2 participants) 20 min (each)
<p style="text-align: center;">Saturday 23/10</p>	
<p>9:00 – 10:30 – 10:45 COFFEE BREAK</p>	<p>Implementing in the Region the Severe Weather Demonstration Project</p> <ul style="list-style-type: none"> ○ Management, schedule feed-back and organization (WMO Sec, and other lecturers) <p>Discussion (All) Panel with all the lecturers – Exchanges, discussion, conclusions and recommendations Complete WMO Training Workshop Questionnaire (GDPFS)</p> <p>Closing remarks (All)</p>
<p>13:00</p>	<p style="text-align: center;">CLOSURE</p>

Course Director and lecturer: **Mohamed Matitu (TMA)**
WMO Secretariat and lecturers: **Peter Chen and Alice Soares**
Invited lecturer: **Paul Davies (Met Office UK)**
Invited lecturer: **Ezekiel Sebego (SAWS, South Africa)**
Invited lecturer: **Richard Jones (Consultant)**
Invited lecturers: **Ms. Habiba Mtongori, Dr. Hamza Kabelwa, Dr. Pascal Waniha -TMA**
participants: **Vincent Sakwa - KMD/RSMC Nairobi**
participants: **Angola, Ethiopia**