

**SWFDP-SARFFGS National Implementation Plan  
Workshop  
16-21 JANUARY 2017  
Mbabane, SWAZILAND**

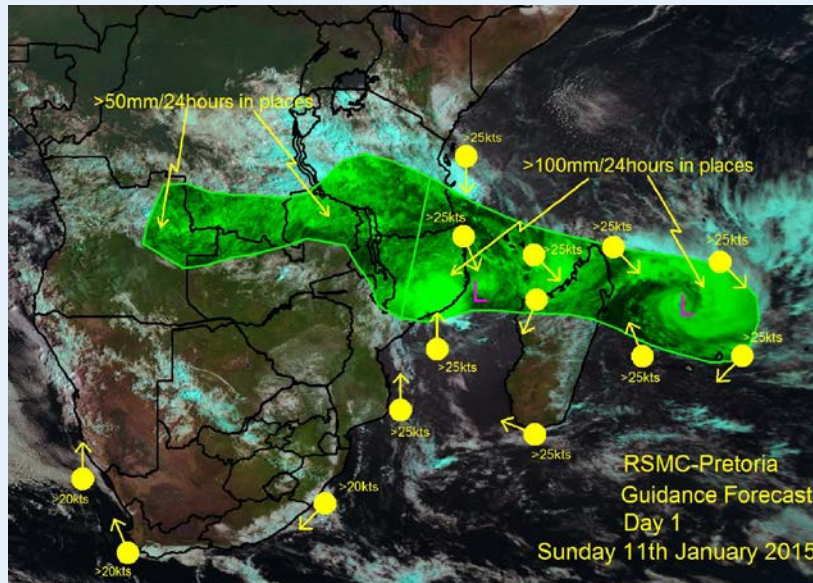
**Ezekiel K. Sebego  
RSMC Pretoria**

# PURPOSE

**TO ILLUSTRATE THE POTENTIAL FOR SWFDP AND SARFFGS TO WORK TOGETHER – RSMC PRETORIA**

# CURRENT OPERATIONAL STATUS OF RSMC PRETORIA FOR SWFDP

# CURRENT



- Guidance for rainfall >50, 100 and 150mm in 24hours
- Surface winds >20kts
- Total seas > 2m
- Severe thunderstorms
- Extreme temperatures (too high/too low)
- Guidance issued for up to 5days ahead

RISK	Heavy Rain				Strong Winds			
	No risk	Low risk	Medium risk	High risk	No risk	Low risk	Medium risk	High risk
Angola		NE			X			
Botswana	X				X			
DRC		S			X			
Comoros				X				X
Lesotho	X				X			
Madagascar				N				X
Malawi				X	X			
Mauritius				X				X
Mozambique				N				Central + N coasts
Namibia	X							Ext S coast
Seychelles	X							SW+SE isles
South Africa	X							W + E coasts
Swaziland	X				X			
Tanzania		S						Coast and isles
Zambia			NE		X			
Zimbabwe	X				X			

# FUTURE OPERATIONAL STATUS OF RSMC PRETORIA FOR SWFDP

# FUTURE

- **QPF from RSMC to input into SARFFGS**
- **6 Hourly QPF for first 1.5 days**
- **Threshold to be decided**
- **12:00Z-18:00Z, 18:00Z-24:00Z, 00:00Z-06:00Z and 06:00Z-12:00Z**
- **Days 2-5 to remain as currently**
- **Provision for other SWFDP parameters (wind, waves, snow and temperatures)**

# Developments needed

- **forecaster tool**
- **Upgrade of the current RSMC website to accommodate new products**
- **Development and/or improvement for archiving of products.**

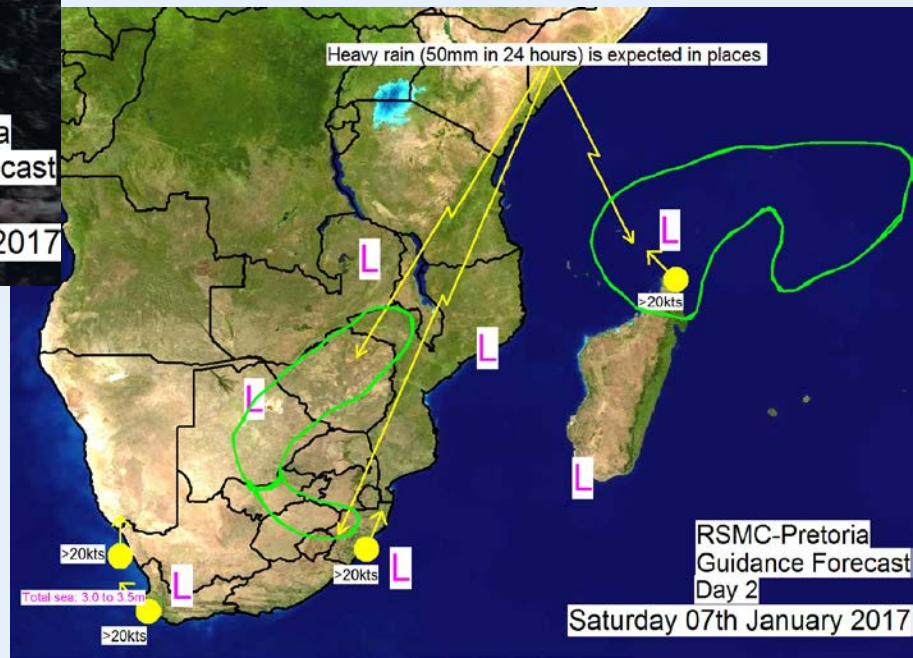
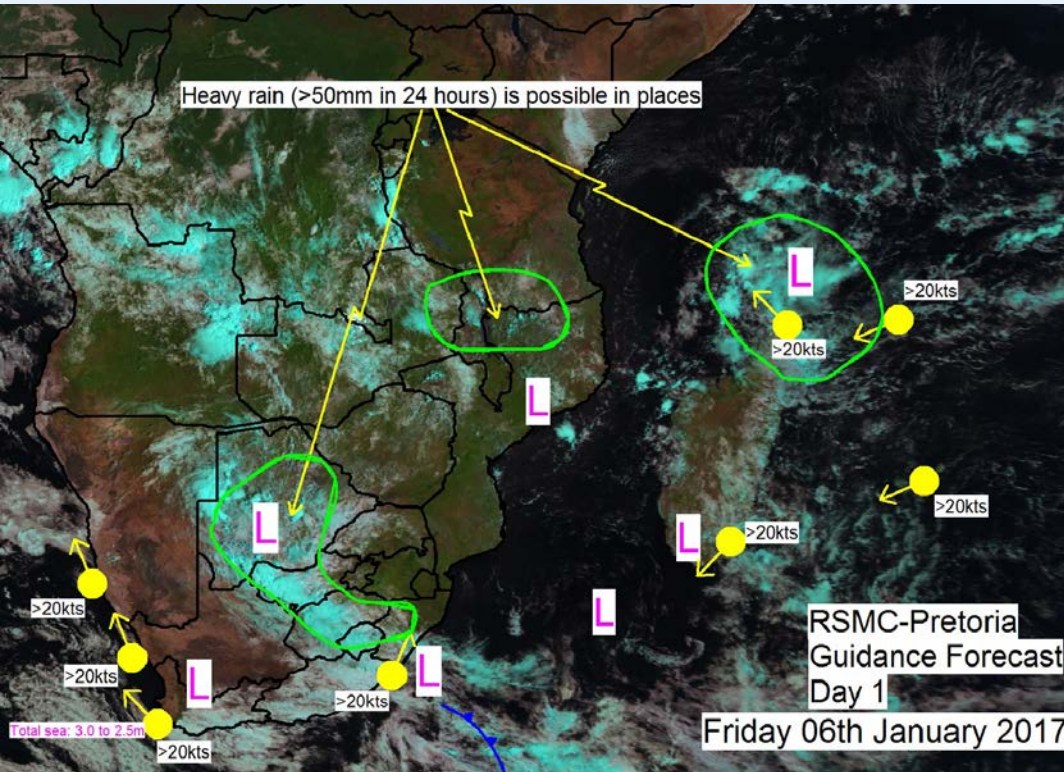
# Case of 06 January 2017

- A combination of a tropical and westerly lows brought widespread rains over southern parts of the sub-continent from 5 January
- Heavy rains continued over E RSA and S Botswana for the whole weekend
- This lead to flooding n places over these countries



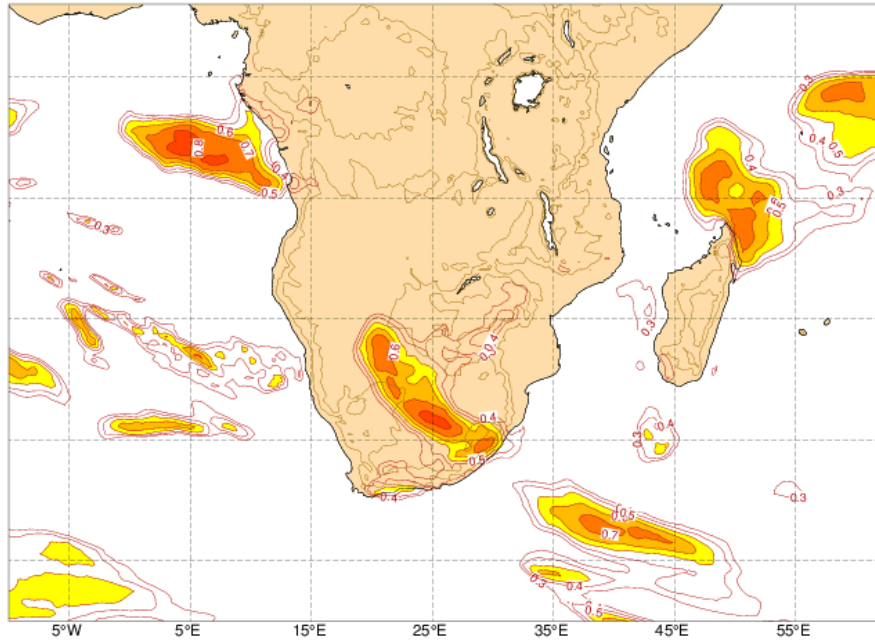


# RSMC GUIDANCE

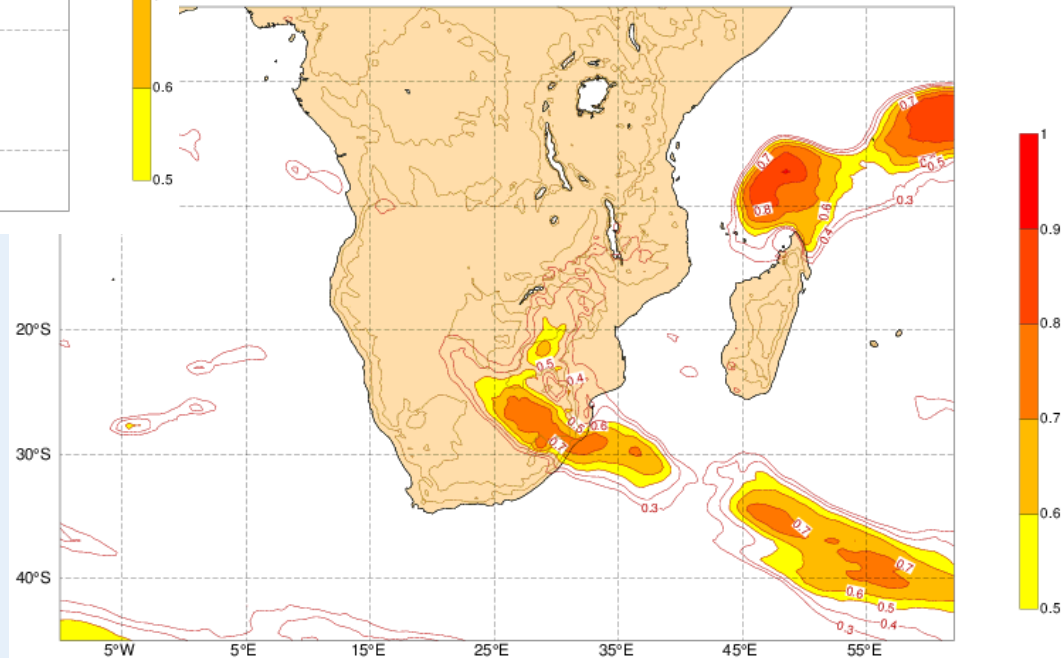


# Overview of NWP

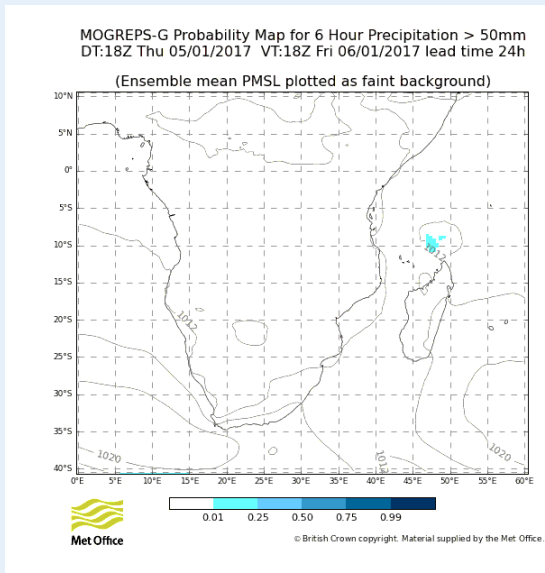
Thu 05 January 2017 12UTC @ECMWF Extreme forecast index t+12-36 VT: Fri 06 January 2017 00UTC-Sat 07 January 2017 00UTC  
Total precipitation index



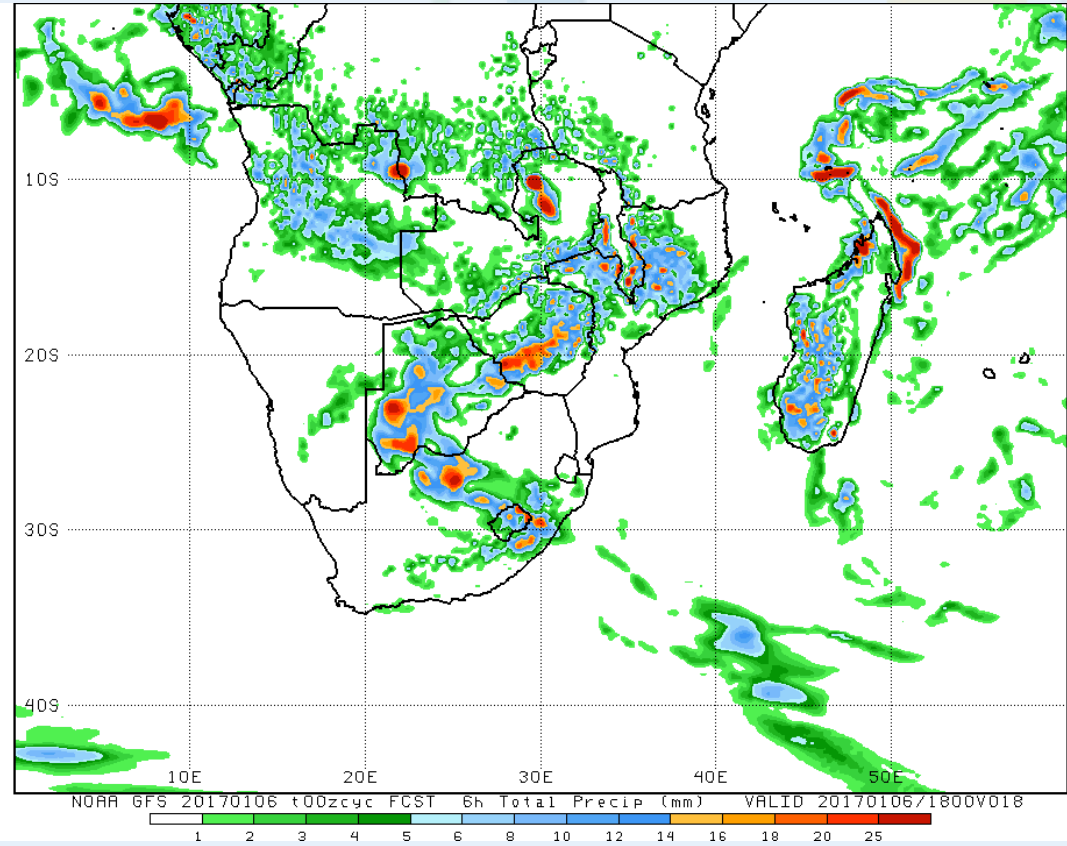
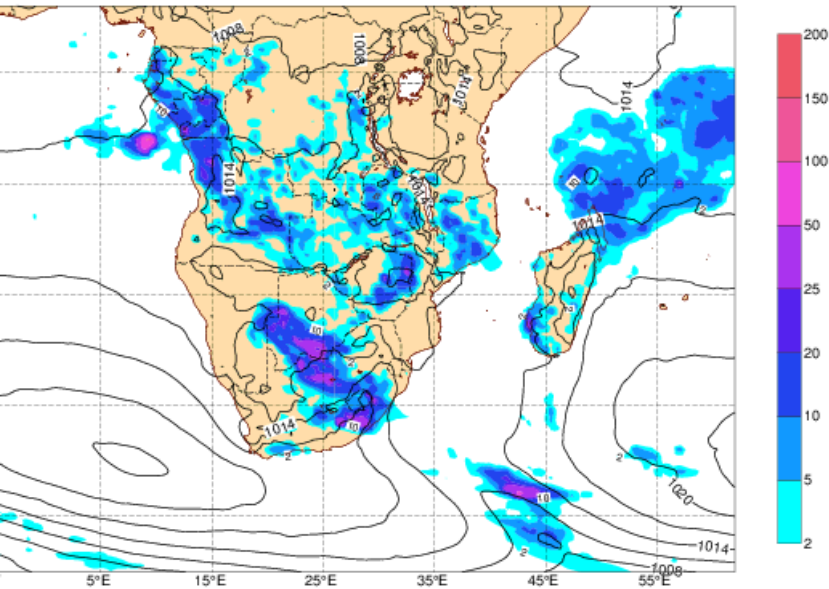
2017 12UTC @ECMWF Extreme forecast index t+36-60 VT: Sat 07 January 2017 00UTC-Sun 08 January 2017 00UTC  
n index





# 12:00Z – 18:00

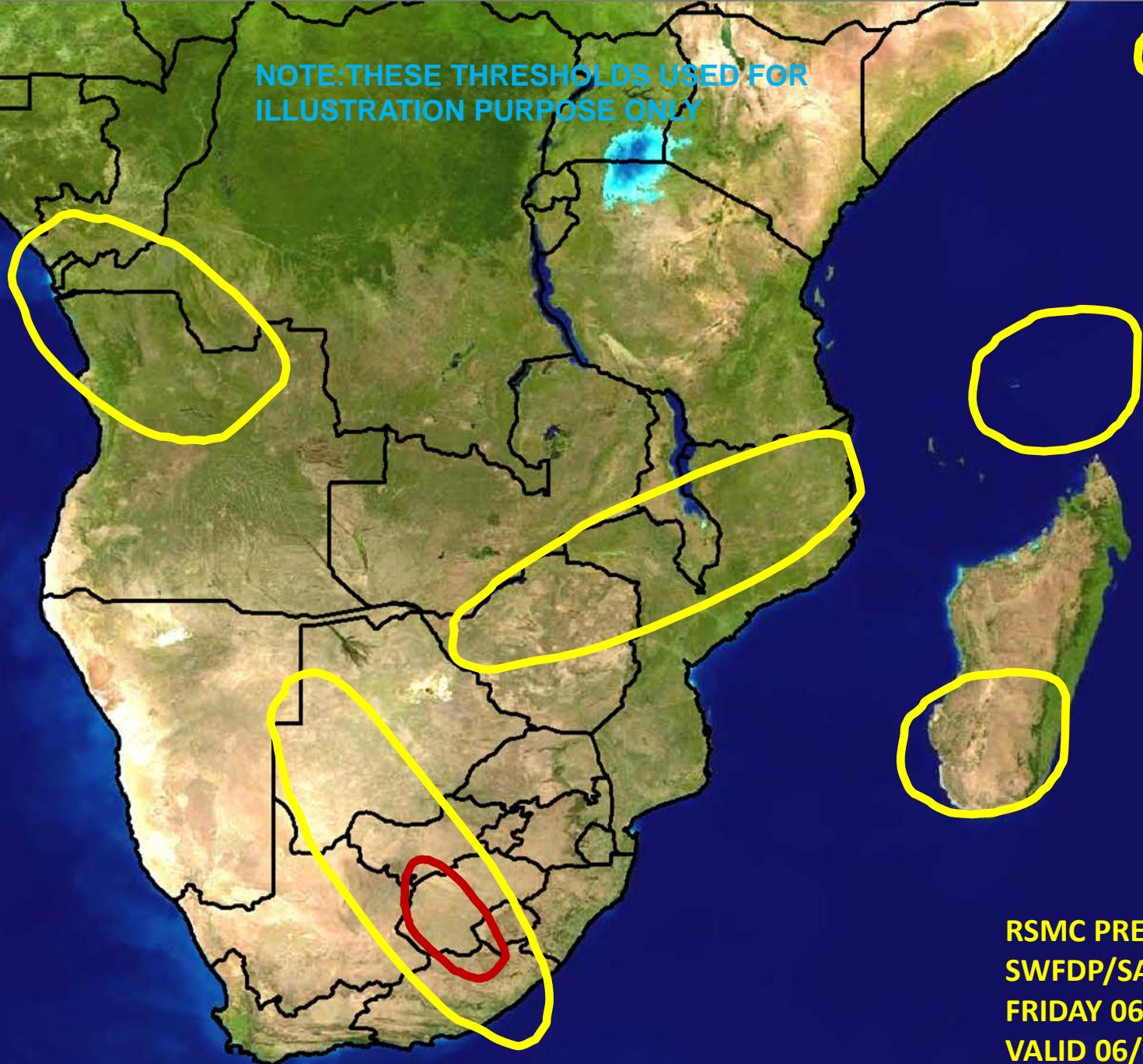


05 January 2017 1200 UTC ECMWF t+30 VT: Friday 06 January 2017 1800 UTC  
a) and Predp (mm) since last 6 h



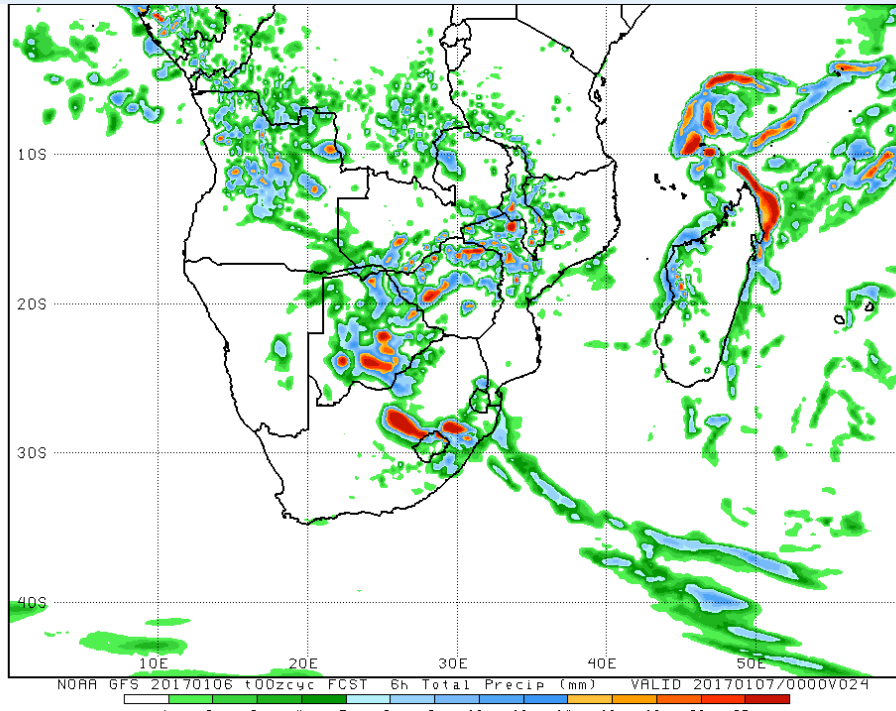
NOTE: THESE THRESHOLDS USED FOR ILLUSTRATION PURPOSE ONLY

 =20mm/6h  
 =50mm/6h

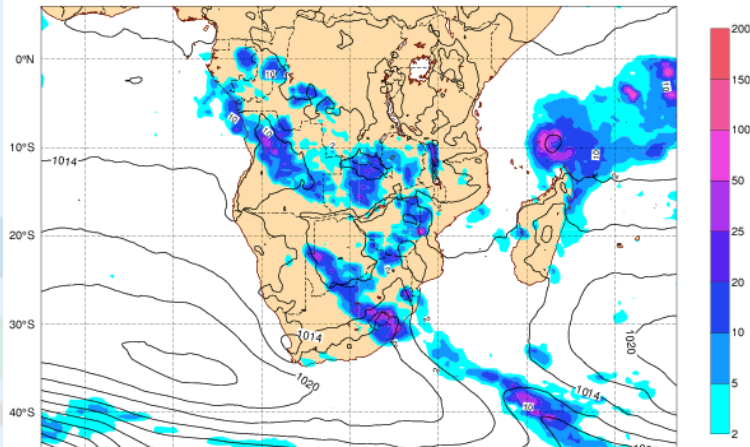


RSMC PRETORIA  
SWFDP/SARFFGS GUIDANCE  
FRIDAY 06 JANUARY 2017  
VALID 06/01/17 12:00Z – 18:00Z

# 18:00Z – 24:00Z

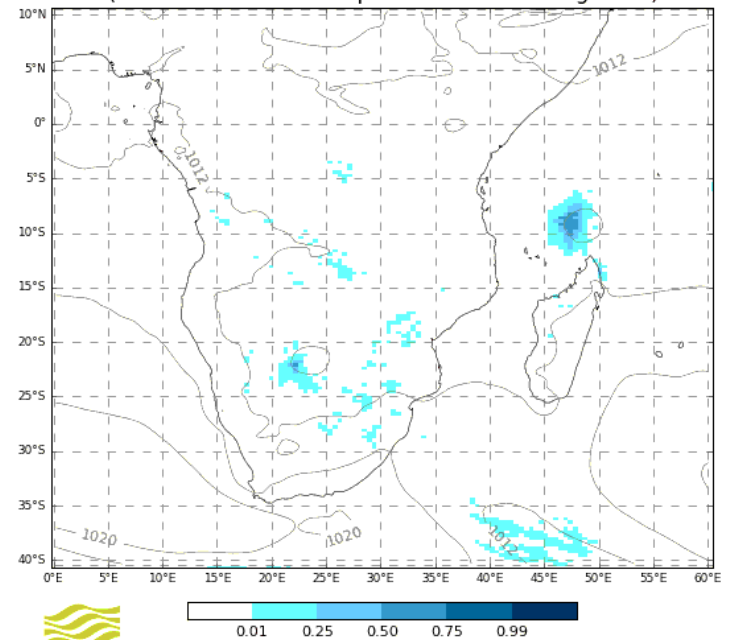


Friday 06 January 2017 0000 UTC ECMWF t+24 VT: Saturday 07 January 2017 0000 UTC  
MSLP (hPa) and Precip (mm) since last 6 h

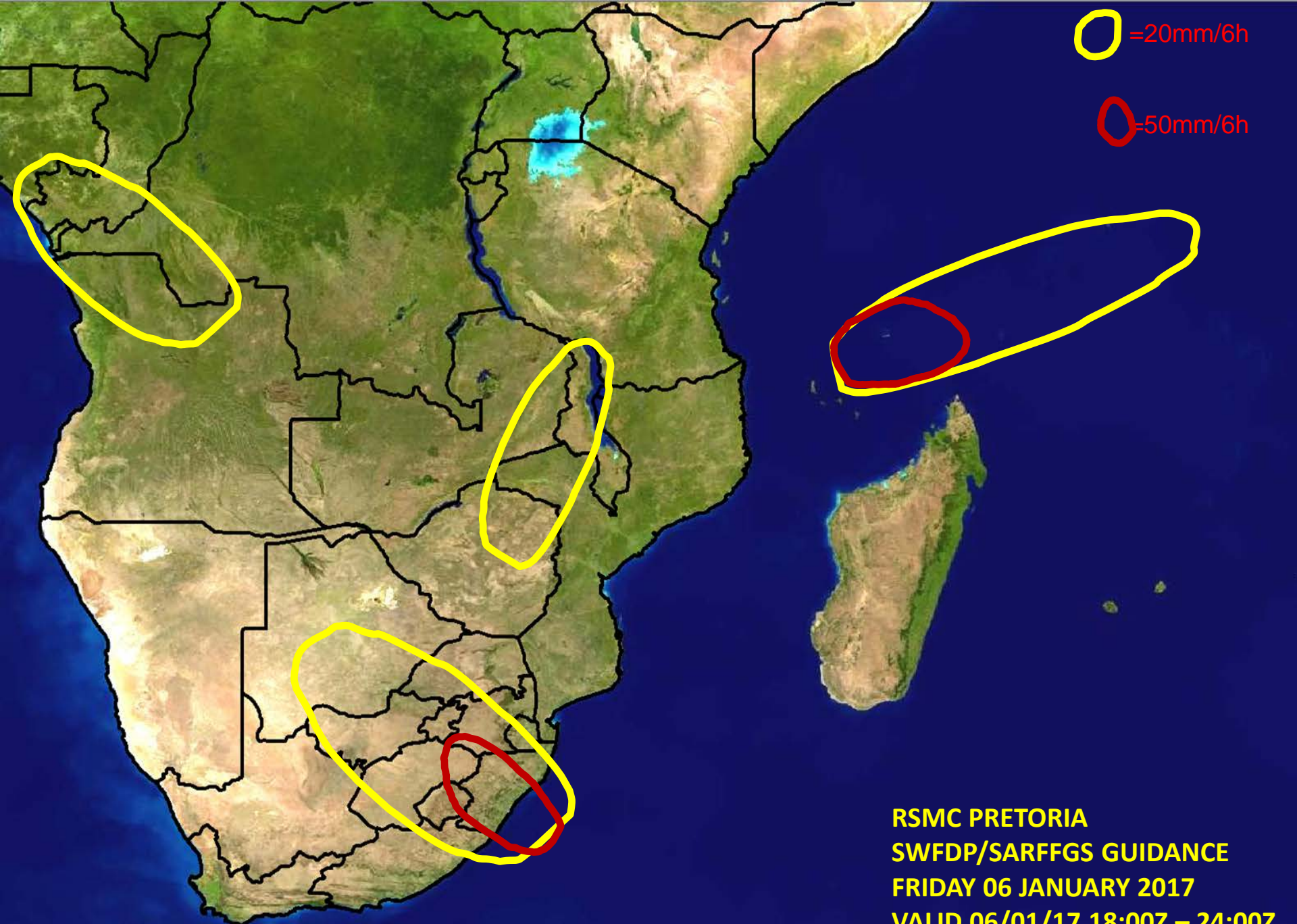



MOGREPS-G Probability Map for 6 Hour Precipitation > 25mm  
DT:00Z Fri 06/01/2017 VT:00Z Sat 07/01/2017 lead time 24h

(Ensemble mean PMSL plotted as faint background)



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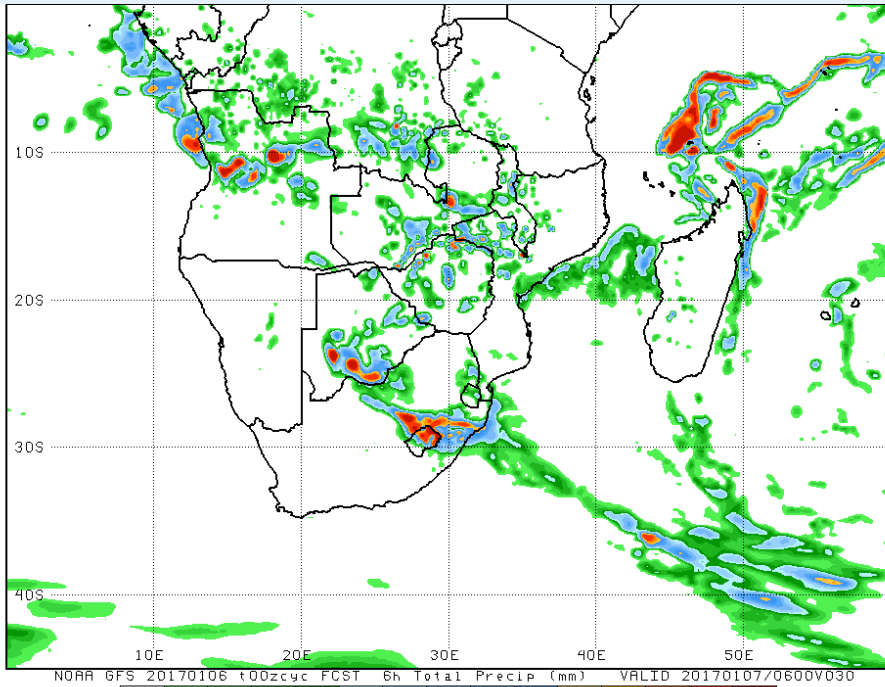


 =20mm/6h

 =50mm/6h

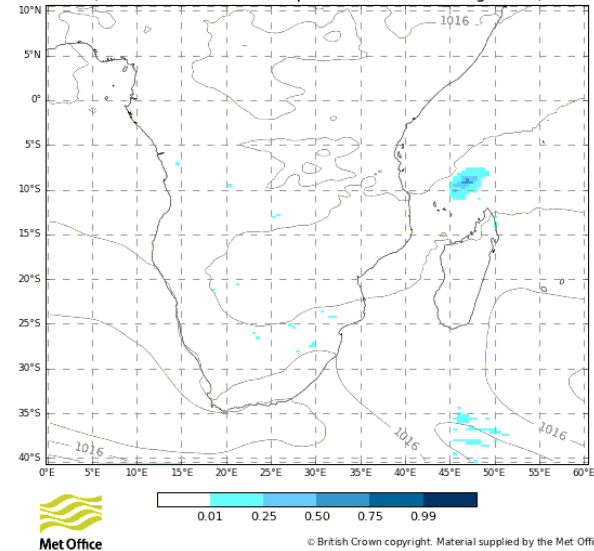
**RSMC PRETORIA  
SWFDP/SARFFGS GUIDANCE  
FRIDAY 06 JANUARY 2017  
VALID 06/01/17 18:00Z – 24:00Z**

# 00:00Z – 06:00Z

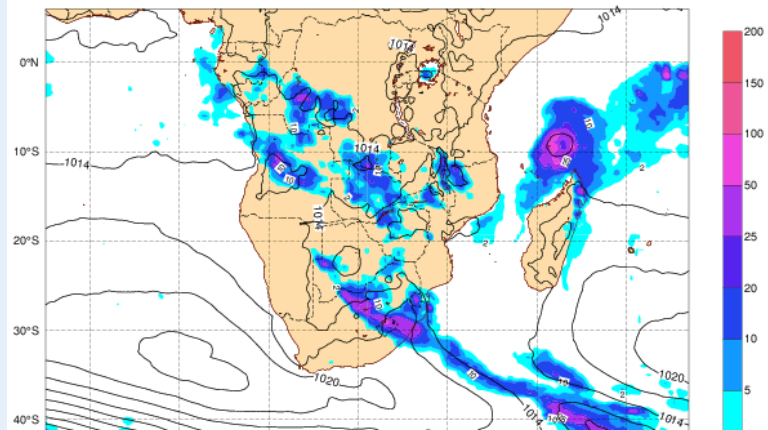




MOGREPS-G Probability Map for 6 Hour Precipitation > 50mm  
DT:18Z Thu 05/01/2017 VT:06Z Sat 07/01/2017 lead time 36h

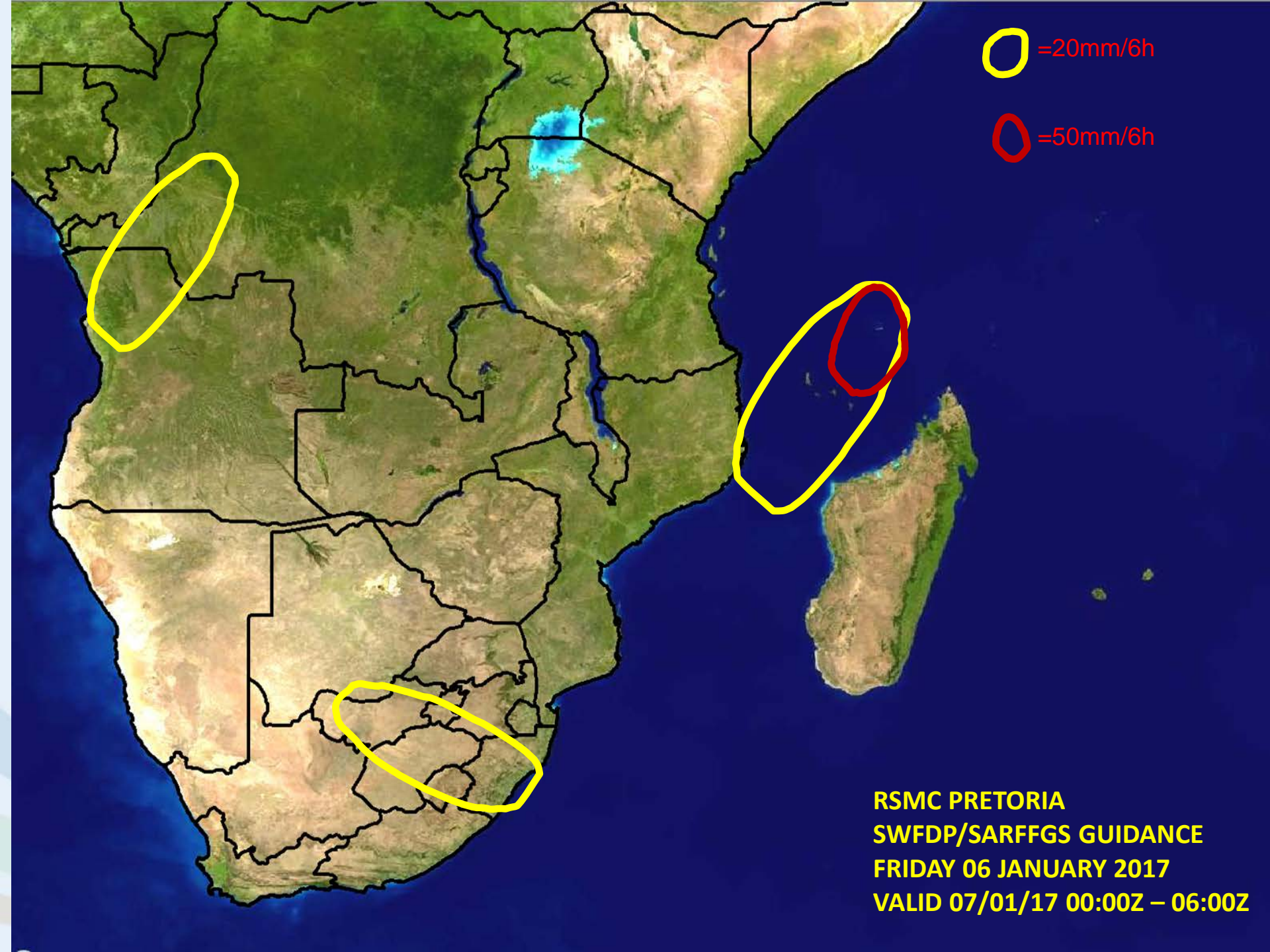
(Ensemble mean PMSL plotted as faint background)



Friday 06 January 2017 0000 UTC ECMWF t+30 VT: Saturday 07 January 2017 0600 UTC  
MSLP (hPa) and Precip (mm) since last 6 h



 =20mm/6h  
 =50mm/6h



**RSMC PRETORIA  
SWFDP/SARFFGS GUIDANCE  
FRIDAY 06 JANUARY 2017  
VALID 07/01/17 00:00Z – 06:00Z**

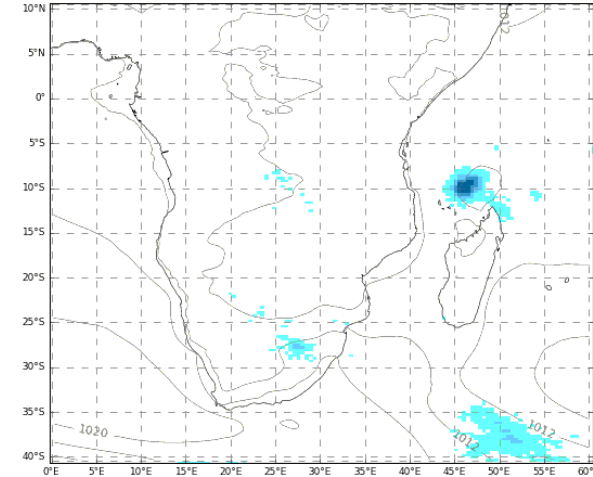


# 06:00Z – 12:00Z

**EXTREM**

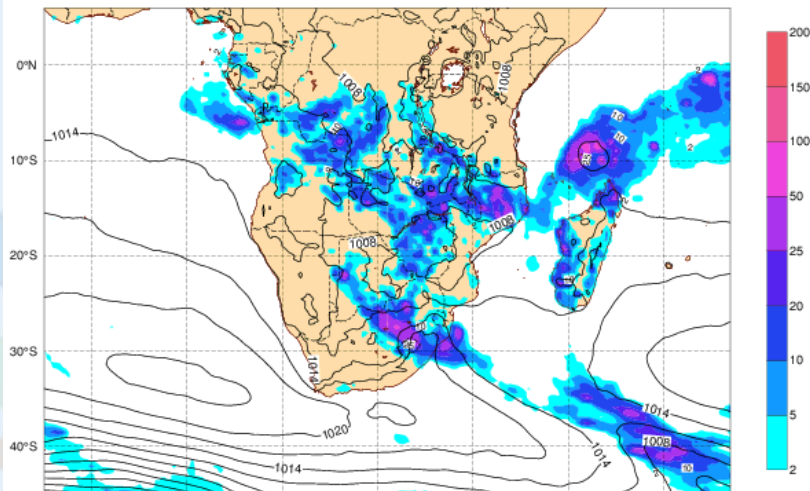
MOGREPS-G Probability Map for 6 Hour Precipitation > 25mm  
DT:00Z Fri 06/01/2017 VT:12Z Sat 07/01/2017 lead time 36h

(Ensemble mean PMSL plotted as faint background)

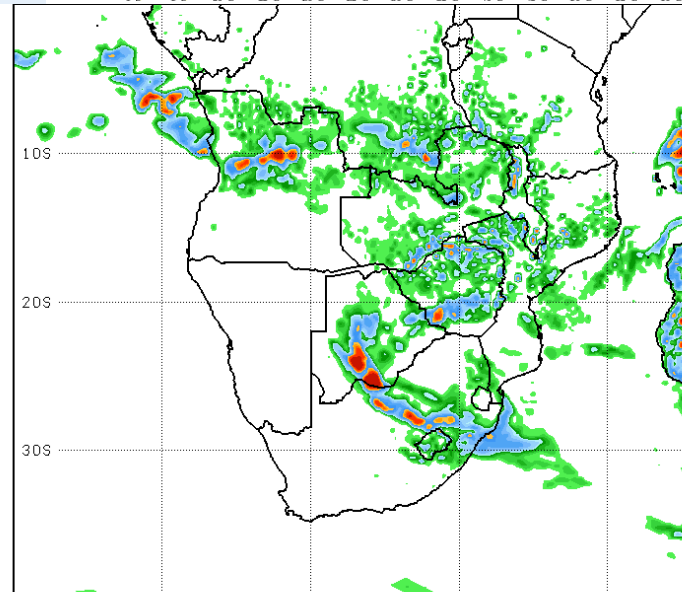


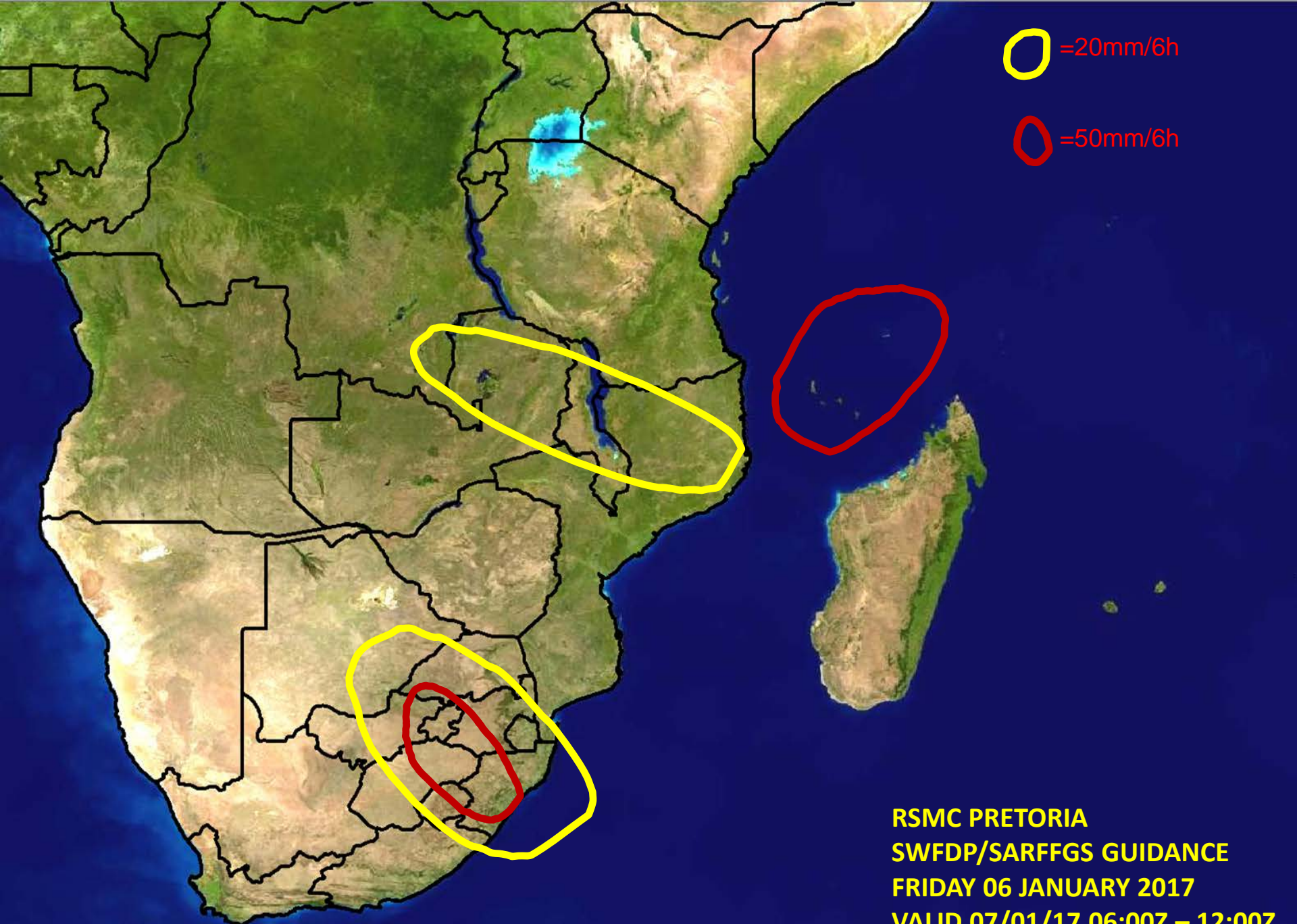
**FRIDAY**



Friday 06 January 2017 0000 UTC ECMWF t+36 VT: Saturday 07 January 2017 1200 UTC  
MSLP (hPa) and Precip (mm) since last 6 h



**SATUR**





 =20mm/6h  
 =50mm/6h

**RSMC PRETORIA  
SWFDP/SARFFGS GUIDANCE  
FRIDAY 06 JANUARY 2017  
VALID 07/01/17 06:00Z – 12:00Z**

# Conclusions

- **SWFDP and SARFFGS can be twinned**
- **Some developments needed in order to use SWFDP output as input into SARFFGS**
- **Will also benefits SWFDP countries not participating in SARFFGS**



**END**