

Request for Information: RFI-001/22

Request for Information to determine if there are any service providers in the South African market that can provide reliable and timely medium-range weather model forecasts 24x7 for the Southern African domain in order to cater for medium term weather forecast data (1 to 10 days) required for key clients of the South African Weather Service.

Closing Date and Time: 11h00 on 16 September 2022

Non-compulsory information session	
An online, non-compulsory information session will be held for interested parties via MS TEAMS	
Date:	1 September 2022
Time:	11h00 SAST (UTC +2)
MS TEAMS link	Meeting ID: 362 053 235 631 Passcode: FtQA7M

SUBMISSION OF REPSONSES TO THE RFI MUST BE DEPOSITED IN THE BID BOX WHICH IS SITUATED AT:

South African Weather Service
Eco Glades Block 1B
Cnr. Olievenhoutbosch and Ribbon Grass Streets
Centurion, 0157

ENQUIRIES:

Any clarification regarding the meaning or interpretation of the document or any aspect concerning the submission is to be requested **in writing** from:

SCM: Acquisition Department South African Weather Service Email: RFQ@weathersa.co.za

1 PURPOSE

This Request for Information (RFI) issued by the South African Weather Service (SAWS) is solely to conduct a market analysis to determine if there are any service providers in the South African market that can provide reliable and timely medium-range weather model forecasts 24x7 for the Southern African domain in order to cater for medium term weather forecast data (1 to 10 days) required for key clients of SAWS.

2 INTRODUCTION

The South African Weather Service (SAWS) is a public entity of the Department of Forestry, Fisheries and the Environment (DFFE) and derives its mandate from the South African Weather Service Act (No 8 of 2001 as amended). The public entity is listed as a Schedule 3A Public Entity in terms of the Public Finance Management Act (PFMA).

SAWS is tasked with providing timely and accurate scientific data in the field of meteorology to the broader South African society: a combination of both public good and commercial services. The organisation plays a vital role in South African public life, not just as a provider of key services, but also in empowering citizens to adapt the effects of the ever-changing weather.

3 BACKGROUND

For many years, every region in South Africa has either experienced some form of drought and water shortages resulting in water restrictions, or experienced severe weather activity resulting in flooding and impacts on the safety of life and property. A reliable supply of medium range (1-10 days) weather forecast data is required to protect human health, livelihoods, economic development and the environment as well as for key clients and partners, which is essential for the future development of South Africa. **Medium range weather forecast data is essential to, among other providing a longer lead time for the issuing of warnings for severe weather events such the KZN floods and the consequent loss of life.**

SAWS therefore requires information from relevant service providers who can provide reliable and timely medium range weather model forecasts 24x7 for the Southern African domain in order to cater for medium term weather forecast data (1 to 10 days) required by key clients from SAWS in order to meet contractual obligations between the parties. Skilful medium range forecasts are required for environmental services such as the monitoring of climate change and the forecasting of floods, air pollution and wildfires. Providing access to a wide range of impact-related environmental applications and services, such as forecasting flood risk as evidenced in the recent severe weather experienced in KwaZulu Natal and air quality and can assist SAWS to prepare stakeholders ahead of severe weather events.

4 OBJECTIVE OF THE REQUEST FOR INFORMATION

- 4.1 The objective of the RFI is to conduct a market analysis to determine if there are service providers in South Africa who can provide the services below. Service providers responding to this RFI must in their response, provide evidence demonstrating their ability to render the following services and provide evidence of current clients in South Africa.
- 4.2 The provision of the following numerical weather prediction model output variables of the specified time and spatial resolution:

SINGLE LEVEL:

High-resolution 10-day forecast

Analysis times: 00, 12 UTC

Resolution: 0.125° or less

Time-steps: hourly from 0 to 90, 3-hourly from 93 to 144 and 6-hourly from 150 to 240

Domain coverage: 0 to -40S and 5 to 60E

Output Parameters:

- 10 metre U wind component
- 10 metre V wind component
- 2 metre dewpoint temperature
- 2 metre temperature
- Convective Available Potential Energy
- Convective Precipitation
- High Cloud Cover
- Low Cloud Cover
- Medium Cloud Cover
- Mean Sea Level Pressure
- Total Snowfall
- Skin Temperature
- Surface Pressure
- Total Cloud Cover
- Total Precipitation
- Land-Sea Mask
- Topography
- Boundary Layer Height
- Cloud Base Height
- Direct Solar Radiation
- Evaporation
- Surface Solar Radiation Downwards

- Sea Surface Temperature
- Soil Temperature (0-7 cm)
- Sea ice cover/fraction
- Ozone
- Surface runoff
- UV at surface
- Visibility

PRESSURE LEVELS (hPa):

High-resolution 10-day forecast

Analysis times: 00, 12 UTC

Resolution: 0.125° or less

Time-steps: hourly from 0 to 90, 3-hourly from 93 to 144 and 6-hourly from 150 to 240

Domain coverage: 0 to -40S and 5 to 60E

All parameter on pressure levels: 50, 70, 100 to 300 by 50, 400, 500, 700, 850, 950, 1000

Output Parameters:

- Relative Humidity
- Temperature
- U wind component
- V wind component
- Geopotential Height

MARINE FORECASTS:

High-resolution 10-day forecast

Analysis times: 00, 12 UTC

Resolution: 0.25° or less

Time-steps: 0 to 90, 3-hourly from 93 to 144 and 6-hourly from 150 to 240

Area: -20W to 80E and 0 to -80S

ENSEMBLE FORECASTS:

Include control member and all perturbed members

High-resolution 10-day forecast

Analysis times: 00, 12 UTC

Resolution: 0.2° or less

Time-steps: 3-hourly from 0 to 144 and 6-hourly from 150 to 360

Domain coverage: 0 to -40S and 5 to 60E

Parameters

- Convective Precipitation
- Total Precipitation
- 2 metre dewpoint temperature

- 2 metre temperature
- Total cloud cover
- Visibility

5 COSTS FOR RESPONDING TO THE RFI

The costs incurred by a service provider in respect of the attendance of any briefing or presentation meetings or costs incurred in preparing and submitting a response to this RFI will be borne by the individual / organisation responding to this RFI. SAWS shall in no way be liable to reimburse any individual / organisation for such costs incurred.

6 SUBMISSION OF RESPONSES

Submission of responses to this RFI must be deposited before the closing date and time in the bid box of the South African Weather Service which is situated at the entrance foyer of the SAWS head office at:

Eco Glades Block 1B
Cnr. Olievenhoutbosch and Ribbon Grass Streets
Centurion, 0157

Responses must be submitted in a sealed envelope with the following information on the outside of the envelope:

- RFI number: RFI-001/22
- Closing Date: 16 September 2022 at 11h00
- Name of service provider e.g. XYZ Enterprises CC
- Contact Person e.g. J. Doe
- Contact number e.g. 012 555 5555

7 ENQUIRIES

Any clarification required regarding the meaning or interpretation of the document or any aspect concerning the submission is to be requested **in writing** from:

The Acquisition Administrator
South African Weather Service
Email: rfg@weathersa.co.za