Establishing NWP capabilities in African Small Island States (SIDs)

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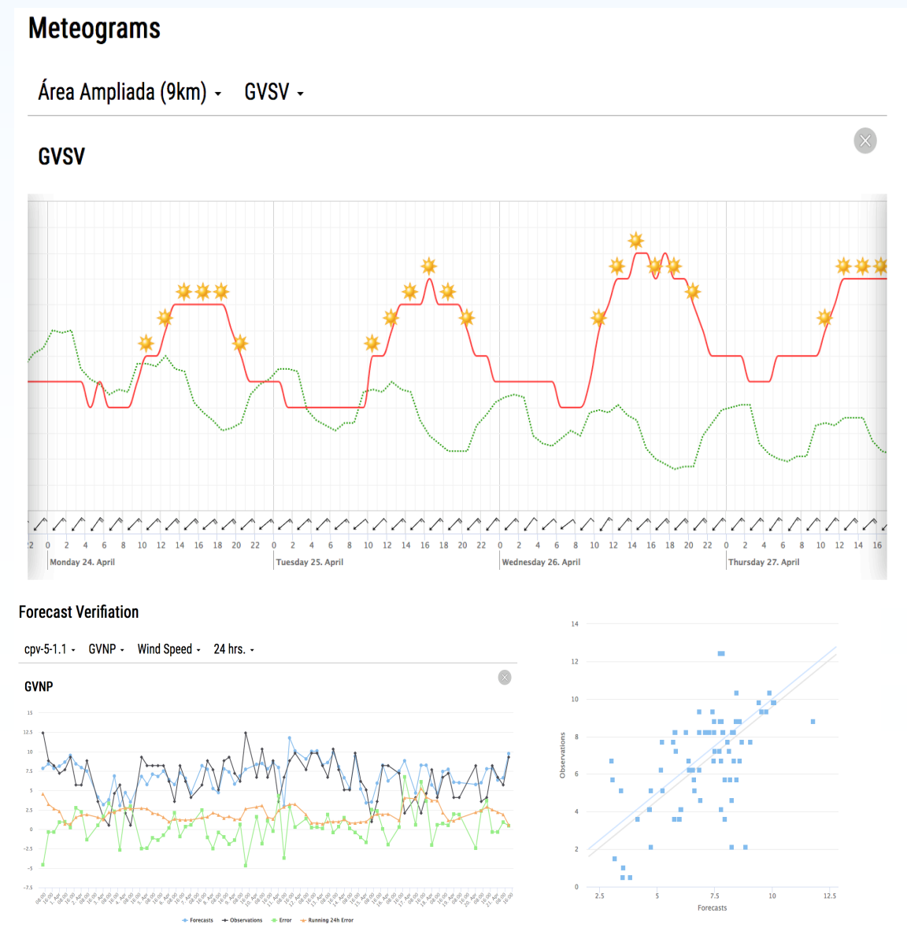
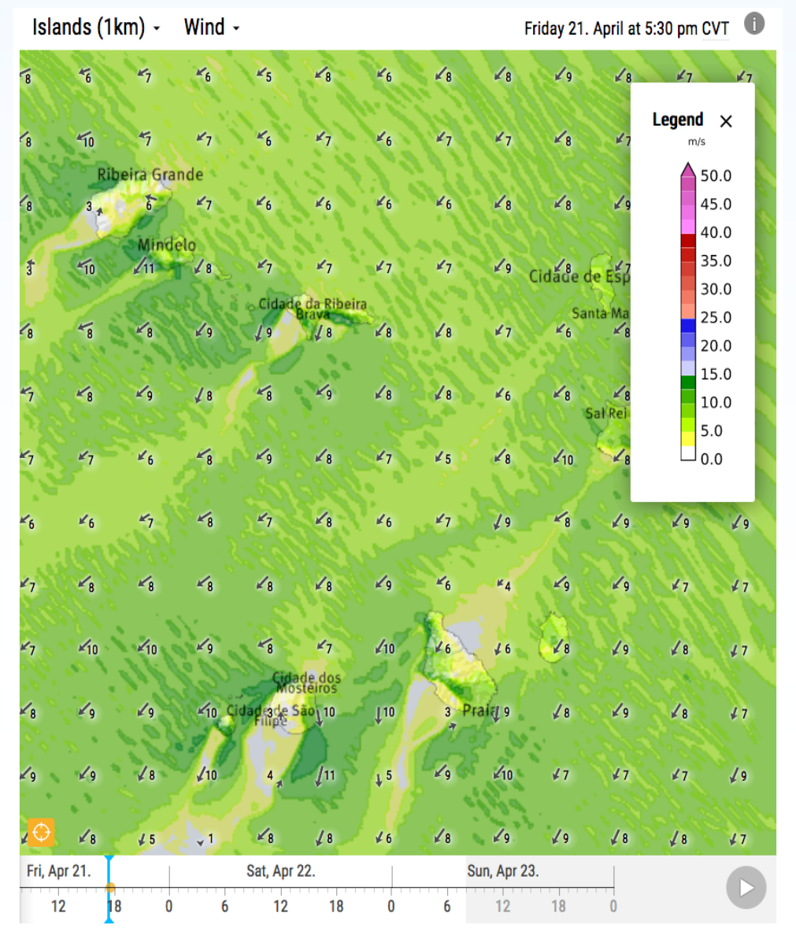
Íslenskar orkurannsóknir (ÍSOR), in collaboration with Belgingur Ltd. and the United Nations Economic Commission for Africa3 (UNECA) signed a Letter of Agreement (LoA) in 2015 regarding collaboration in the *"Establishing Operational Capacity for Building, Deploying and Using Numerical Weather and Seasonal Prediction Systems in Small Island States in Africa (SIDs)"* project.

The specific objectives of the collaboration were the following:

- Build capacity of National Meteorological and Hydrology Services (NMHS) staff on the use of the WRF atmospheric model for weather and seasonal forecasting, interpretation of model results, and the use of observations to verify and improve model simulations.
- Establish a platform for integrating short to medium range weather forecasts, as well as seasonal forecasts, into already existing infrastructure at NMHS and Regional Climate Centres.
- Improve understanding of existing model results and forecast verification, for improving decision-making on the time scale of days to weeks.

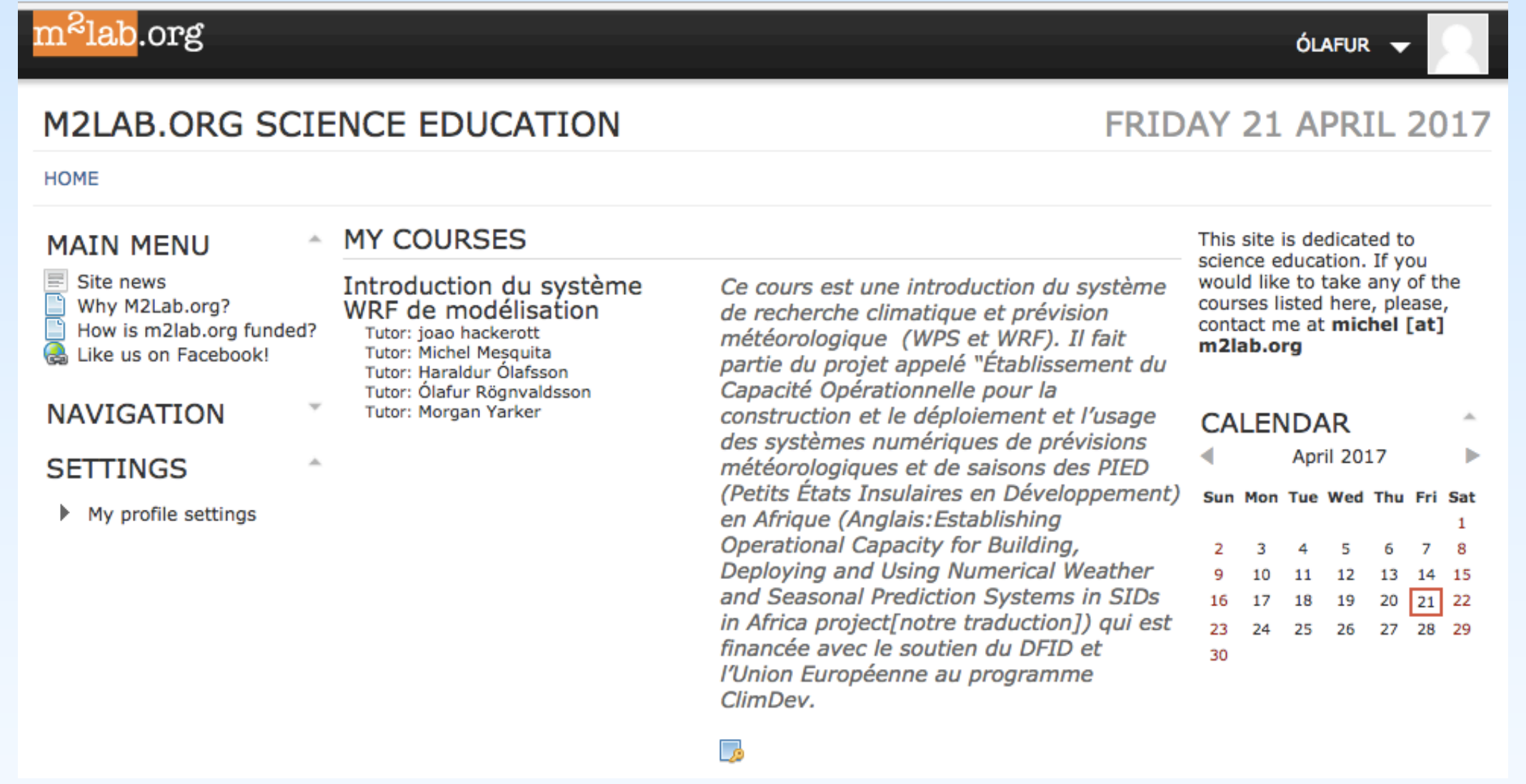




To meet these challenges the operational Weather On Demand (WOD) forecasting system, developed by Belgingur, has been installed in Cabo Verde and the Seychelles. The system is also being deployed for the Pan-Africa region, with forecasts being disseminated to collaborating NMHSs.

Indian Ocean African Island
Operational NWP and EWS Workshop
held in Seychelles as from the 23-26 February 2016
USAID
ACPC
DFID

As part of the project three workshops have been organized, combining academic lectures and hands-on training. One of these was held in the Seychelles in February 2016.



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Ce cours est une introduction du système de recherche climatique et prévision météorologique (WPS et WRF). Il fait partie du projet appelé "Établissement du Capacité Opérationnelle pour la construction et le déploiement et l'usage des systèmes numériques de prévisions météorologiques et de saisons des PIED (Petits États Insulaires en Développement) en Afrique (Anglais:Establishing Operational Capacity for Building, Deploying and Using Numerical Weather and Seasonal Prediction Systems in SIDs in Africa project[notre traduction]) qui est financée avec le soutien du DFID et l'Union Européenne au programme ClimDev.

This site is dedicated to science education. If you would like to take any of the courses listed here, please, contact me at **michel [at] m2lab.org**

CALENDAR
April 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

As part of the capacity building, a tri-lingual online course describing the fundamentals of atmospheric modeling was developed.

The first workshop was held in Cabo Verde in the aftermath of the CAT1 hurricane Fred that passed the islands in early September 2015.

An enjoyable side-project to the Cabo Verde workshop was the distribution of forty chess sets, donated by members of the Icelandic Met. Office Beer Society.

Workshop on Numerical Weather Prediction Systems and Seasonal Forecast for SIDS

The event brought together scientists from Cabo Verde, Guinea-Bissau, São Tomé and Principe, as well as Gambia, Iceland, Mexico, Senegal, and USA. Lectures where given on atmospheric physics and flow in complex terrain, tropical meteorology, climate change and seasonal forecasting and the WRF-Chem atmospheric model among other subjects.

In retrospect, the workshop schedule did not sufficiently take into account the varied background of attendees, some of whom had limited experience with atmospheric models and modeling techniques. This limited some of the participants from being able to take full advantage of the advanced material being presented in the lectures.

To tackle these shortcomings, the second workshop, held in the Seychelles in February 2016, was organized in a different manner. First, it was preceded by the previously described online tutorial, where participants could familiarize themselves with the fundamental concepts of atmospheric modeling. Secondly, the workshop itself lasted longer and each day was split into morning lectures and hands-on exercises in the afternoon. This resulted in greater involvement and overall satisfaction of participants.

Similar technique was used in the third and last workshop, which was integrated with the CR4D conference held in Addis Ababa in February 2017.

The WOD system was introduced to conference participants and a number of lectures were given, the main focus being on forecast verification and the use of WOD for energy applications.

In March 2017 experts from UNECA and Belgingur assisted IT personnel from INMG with the installation, and final preparation of the WOD system in Cabo Verde.

The project was funded with the support of DFID and the European Union to the ClimDev work programme