

## Progress report

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### 1. General Scope of the Project SC G01

The project SC G01 between Vanuatu Meteorology and Geo-Hazard Department (VMGD) and Meteo France International (MFI) consists in supplying, delivering and installing an Integrated Weather Forecasting System.

This phase of the project was focused on software installation, configuration and training of VMGD staff.

### 2. Project actions already carried out

This progress report is based on item 2.1 of the contract SC G01 "Scope of Work Needed for the Installation of Integrated Weather Forecasting System (IWFS) in Vanuatu".

1. Shipment/ handling/ packaging/ air freight must be handled by the supplier	100%
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Shipment of hardware was made in October 2016 by sea freight.



*Packing in Toulouse France before shipment*



*Arrival at VMGD Port-Vila Office*



*Crate opening before site installation*

2.	Customize the operational applications and systems in accordance to the VMGD REQUIREMENTS through data flow and user needs: <ul style="list-style-type: none"> <li>• Integrated end users requirements</li> <li>• Intergrated software and configured hardware</li> </ul>	100%
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This action was made in several phases.

➔ **Site survey**

Mr Eric Gerardin, during his visit at VMGD office, has performed a site survey with the assistance of Yves Magliulo and Rémy Sironneau from Toulouse by skype.

- **Session N°1 on 17<sup>th</sup> November 2016**  
Presentation of the survey objectives and the expected information in order to customize the MeteoFactory® operational application
- **Session N°2 on 24<sup>th</sup> November 2016**  
First system demonstration and discussions about modifications requested by VMGD.
- **Session N°3 on 29<sup>th</sup> November 2016**  
Final debriefing of the survey and additional feedback from VMGD.



*Skype session N°2 on 24<sup>th</sup> November*



*Site Survey by Mr Eric Gerardin*

Thanks to this survey, VMGD and MFI agreed on the following outcomes, listed below by order of priority for the VMGD:

- Improve the quality of existing VMGD bulletins
- Implement a new warning map for Vanuatu
- Automate the message dissemination
- Automate the website update

#### ⇒ Factory engineering and remote validation by VMGD

Between December 2016 and February 2017, MFI has worked on system customization. Interface, forecast locations, warning parameters, dataflow and all others software parameters were tuned according to VMGD requirements.

In order to secure the incoming installation of MeteoFactory® scheduled by end of February, 2 skype sessions has been organized with VMGD in order to allow the VMGD to give his final feedback before application deployment. MFI also gave access to the system prior site installation.

- **Skype session N°1 on 17<sup>th</sup> January 2017**

During this session MFI gave a demonstration of the first MeteoFactory® VMGD configuration. Based on that VMGD was allowed to provide additional feedback and request to MFI.

- **Open access for VMGD staff to the MeteoFactory® on 3<sup>th</sup> February 2017**

Thanks to this access VMGD was able to test more deeply the system and the customization done by MFI.

- **Skype session N°2 on 13<sup>th</sup> February 2017**

This last session before site installation and training was mainly focused on final requests and tuning.

<p>Suppliers must:</p> <p>3.</p> <ul style="list-style-type: none"> <li>• Install, test and commission hardware and software</li> <li>• Test/validate and assists the weather products according to VMGD standards</li> <li>• System backup and installation report</li> <li>• On job training</li> </ul>	100%
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#### ⇒ Install, test and commission hardware and software

#### ⇒ System backup and installation report

#### ⇒ On job training

Mr Eric Gerardin has performed all these actions during his mission at Port-Vila between 12<sup>th</sup> November 2016 and 01<sup>st</sup> December 2016.

Hereby some pictures of the infrastructure installation:



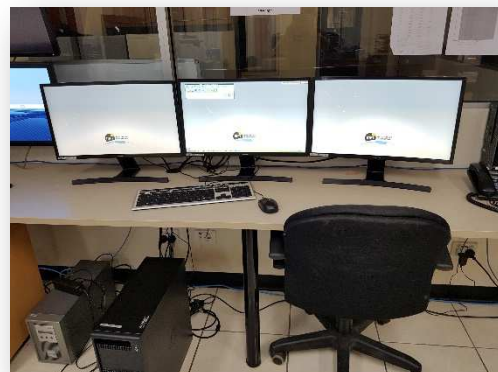
*Cabinet during the installation*



*Cabinet installed and ready for the site acceptance validation*



*One of the two MeteoFactory® Designer position*



*Synergie forecast system with link for opening MeteoFactory® interface*

Following this technical installation, Mr Gerardin has performed training on system administration and backup from 22th November until 28th November 2016.

➔ **Test/validate and assists the weather products according to VMGD standards**

Mr Yves Magliulo has performed this action during his mission in Port Vila from 20<sup>th</sup> February to 2<sup>nd</sup> march 2017.

Following examples of weather products are the result of his work with VMGD Staff:

**Weather Forecast Summary : PORT VILA**  
issued at 02/03/2017 14:02 pm

**SEVERE WEATHER WARNING**  
Severe Weather Warning for Vanuatu issued by the Meteorology and Geo-Hazards Department, Port Vila valid from 05:00 am to 05:pm Wednesday, February 22, 2017  
A Marine strong wind warning is current over the Channel and Southern waters. E/SE winds 2025 knots with rough seas to 2.5 meters. Moderate to heavy southeast swells expected over Channel and Southern waters.

**WEATHER CONDITION for Friday 03**  
Morning: Cloudy  
Afternoon: Mostly Sunny  
Evening: Isolated Showers  
Sunrise: 05:46 Sunset: 18:11

**WEATHER CONDITION for Saturday 04**  
Morning: Showers  
Afternoon: Showers, possible thunder  
Evening: Partly Cloudy  
Sunrise: 05:46 Sunset: 18:10

**TEMPERATURE**  
Morning: 23°C  
Afternoon: 33°C  
Evening: 28°C  
Night: 30°C

**HUMIDITY**  
Morning: 75%  
Afternoon: 80%  
Evening: 70%  
Night: 75%

**WIND**  
Morning: 40-50 km/h  
Evening: 5-10 km/h

**MARINE FORECAST INFORMATION - Northern Waters**  
Issued at Thursday 02 Mar 01:01 am

**MARINE WARNING**  
WARNINGS WATCHES ADVISORIES No Warnings  
Central islands. Meanwhile a high-pressure over south New Zealand with light pressure gradient over southern Vanuatu.

**Forecast**  
E/SE winds 2025 knots with rough seas to 2.5 meters. Moderate to heavy southeast swells expected over Channel and Southern waters.

**FORECAST NEXT 48h**

	03/03/17				04/03/17			
	05h	11h	17h	23h	05h	11h	17h	23h
<b>WIND</b>	Direction: [Icons]							
	Speed (kt): 5, 2, 5, 5, 4, 2, 3, 3							
	Light 4 - 10 kt							
<b>SEA STATE</b>	Direction: [Icons]							
	Significant Height (m): 1.0, 1.0, 1.0, 1.0, 0.8, 1.0, 0.8, 0.8							
	Light to moderate seas to 1m							
<b>WEATHER</b>	[Icons]							
	Temperature (°C): 28°C, 29°C, 28°C, 29°C							

Attention: gusts can exceed 1.5 times the average wind speed, and maximum waves can reach 1.5 to 2 times the significant height.

City Weather Forecast Summary (1 for each city)

Weather Forecast Summary (1 for each marine area)

**MARINE WARNING, issued at Thursday 02 Mar 12:26 local time**

**PARAMETER**  
STRONG WIND

**WARNING LEGEND**  
WARNINGS : TAKE ACTION  
WATCHES : Be prepared  
ADVISORIES : Be Aware  
No Warnings

**REPORT**  
Central islands. Meanwhile a high-pressure over south New Zealand with light pressure gradient over southern Vanuatu.  
**Forecast**  
E/SE winds 2025 knots with rough seas to 2.5 meters. Moderate to heavy southeast swells expected over Channel and Southern waters.

Marine Warning

**Weather Bulletin issued by the Vanuatu Meteorology and Geo-Hazards Department, Port Vila at 12:29 pm, Thursday March 02 2017**

**Synoptic Chart**  
A trough near west of Vanuatu. Meanwhile a high-pressure over Tasman Sea with light pressure gradient south of Vanuatu.

**Satellite Images**  
Latest satellite (IR/VIS) imagery including a six-hour loop indicates few, scattered, broken and overcast of low to high-level clouds about parts of Central and Northern islands. While elsewhere few, scatter to broken low to mid-level clouds. Few CB is evident about central and Northern islands. Latest METAR and Synoptic observations correlate with the imagery.

**Models**  
The trough mentioned above is expected to move slowly southwest and expected over Southern group on Friday till Sunday next week. A low pressure will develop along the mentioned trough on Friday over Southern group and expected to remain in that area for one or two days. The high-pressure mentioned above would remain east of New Zealand till Sunday as it will merge with another high pressure later on Friday and be expected over North of New Zealand on Monday. The third high pressure next Tuesday.

**Outlook for the next 7 days**  
Isolated rain about part of Central, showers about Southern islands, trending later to isolated showers with possibility of isolated thunder about the group, elsewhere partly cloudy with chances of light showers. Cloudy condition with isolated showers about the group expected tomorrow and Friday. Showers about the group with isolated rain at times over Northern and Southern islands expected on Saturday until Wednesday next week. A Marine strong wind warning is current over the Channel and Southern waters. Light to moderate east southeast winds about Southern group while elsewhere east northeast winds. Maximum temperature range from 21°C down south to 25°C up north. Maximum temperature range from 30°C down south to 32°C up north.

Bulletin High Seas et Forecast Policy

4.	<p>Onsite training of VMGD staff for operation and administration of IWFS. Training will include:</p> <ul style="list-style-type: none"> <li>• All forecasters and</li> <li>• ICT/Engineering staff</li> <li>• Director/Manager Forecast to manage the operation and the ICT/Engineering to ensure that the normal operation of the IWFS must always be operational/function.</li> </ul>	80%
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Mr Gerardin has performed the technical part of this action during his training from 22th November until 28th November 2016.

Later on Mr Yves Magliulo performed more operational and organizational training during his mission in Port-Vila From 20th February until 2nd march 2017.

We also provide two days of workshop with a New Caledonia Meteo France forecaster : Mr Julien Leduc, who have a very good knowledge of local climate specificities.

These 3 missions allowed the project to cover a large range of topics both operational and technical matters.



*Site acceptance test session*



*On the job training with VMGD forecaster's staff*



*End of training ceremony*



*End of Mr Leduc Workshop*



***Final debriefing by Mr Gibson (VMGD DG)***

5.	<p>All equipment to have full warranty for 12 months beginning on date of commissioning:</p> <ul style="list-style-type: none"> <li>Any malfunction of the IWFS, Manager Forecast/Manager ICT/Engineering to provide report and submit to Director for any replacement within warranty period.</li> </ul>	100%
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### 3. Remaining actions till project completion

➔ **One forecaster training session remaining schedule around May or June.**

The most relevant profile for performing this training is a Météo France forecaster from New Caledonia office. Actually, they have good skills on Synergie and MeteoFactory® software combine with a very good experience of regional climate specificities. However, due to the cyclone season which occurred at the beginning of this year, forecast from Meteo France New Caledonia are not available before May. That is why this session has been postponed around May or June.