

# 1978-2020 : story of a Météo France forecaster, Bernard Roulet

## Introduction

Like in Meteorology, singular moments happen in life where everything can shift in one direction or the other. That kind of moment happened to me in winter 1977. I was a student in Special Mathematics Class at Champollion Lycée in Grenoble. During a lesson with the intimidating mathematics teacher, someone knocked at the door: a man brought information leaflets about the School of Meteorology. The teacher declared: “no one here is interested in this entrance exam!” Indeed, he prepared his students to more prestigious schools. I had only few seconds to decide or not to defy the professor’s assertion but I had the intuition that Meteorology could please me. So I raised my hand and declared: “sorry, I am interested”.

## Meteorological School Fort de Saint-Cyr 1978-1981

A great advantage of being admitted to the French School of Meteorology is that you are paid during your schooling because you are considered a probationary official. My first investments were Italian motorbikes!

During the third year of schooling, I did my thesis work in Grenoble (Centre d’Etude de la Neige). The subject was forecast of precipitations over the Alps by principal component analysis and linear regression. The poor resolution of models did not allow then to take into account the effects of relief.

## Military Service 1981-1983

Once I obtained my degree, I had to do my military service. I got the opportunity to work for 16 months as an international volunteer in Vanuatu (South Pacific). Former French-English Condominium of New-Hebrides, the country had just gained independence. The staff included native people, one



▲ Images 1 comments: these images of motorbikes are dedicated to my Swiss biker friend Andre-Charles Letestu

English director, two French forecasters (including me) and one Australian maintenance manager. The latter had a lot to do to keep in operating condition an old facsimile where we got few charts and bad satellite images. With these limited resources, I tried to apply my tropical meteorological courses to make accurate forecasts. Fortunately cyclone activity remained weak with only one tropical depression over the archipelago. One anecdote I remember: we were talking in the forecast room when the soil began to strongly shake. The director said: “Maybe we should go out?”. The British composure is not a legend!



▲ Image 2 comments: one amazing place in Vanuatu, Yasur Volcano in Tanna Isle

## Aviation Forecaster 1983-1987

Back from overseas, I was appointed to Strasbourg as aeronautical forecaster for military reconnaissance aircraft: good schooling for forecasting low levels conditions! One year later, I was back to Paris at the central aeronautical office. At this time, Paris was not yet a too expansive town. I lived in the twelfth arrondissement and I used to go to rock concerts at the mythical Bains-Douches Hall.

## Caribbean period 1987-1992

I had the opportunity to be appointed in Martinique where I tried to improve the forecasting, especially around activity of tropical waves by studying their

interactions with tropical upper level troughs. Two major events occurred during my stay. First, category 4 Hurricane Hugo crossed Guadeloupe on the 17<sup>th</sup> of September 1989 destroying the meteorological radar and electricity power. Martinique was only affected by hurricane tidal surge and we could supply the Guadeloupe forecasting centre with what they needed. The second event was tropical storm Klaus that affected Martinique on the 3<sup>rd</sup> of October 1990. We followed for several days a strong tropical wave approaching Martinique. When taking my shift at midday, I immediately noticed that the wind turned to southwest: a low was deepening west of Martinique! Barely enough time to change all bulletins, huge amounts of rain occurred suddenly and water began to come into the forecast room (308 mm in 12 hours at Lamentin airport). An aircraft send by NHC Miami reported



▲ Images 3: diploma of NHC course and Hurricane Committee in Belize City.

that system had reached tropical storm stage. No added staff were available because all roads were flooded and with only one other colleague, we kept working paddling in 10 cm of water in spite of the electric shock hazard.

In March 1991, I attended a training course at the NHC Miami: great memory of kindness and competence of American colleagues. Following that, I participated on Hurricane Committee in Belize. During a free day, we went on trip to visit a Mayan temple inland and hired a local taxi. Sitting at the “death place” near the driver, I realized that the car’s break system was not working properly in a steep descent and prepared myself for an imminent crash...but by a miracle, there was an escape road down the descent!

## Toulouse period 1993-2020

When I came back from Martinique, the central forecast service had moved from Paris to Toulouse so I found a forecaster position then became chief forecaster. During this long period, developments



▲ Image 5: visit of Ms Bachelot minister of environment in 2002 with Mr Besson director of Meteo-France

were continuous in terms of numerical models or organization. To follow all these changes, I recommend the lecture of the comprehensive book written by Mr Pascal Burckel who was Chief Forecaster at the regional centre of Strasbourg.

Following storms Lothar and Martin in 1999, Mr Jean Coiffier (Meteo France) and Manfred Kurz set up WGCEF. I was the second representative of Meteo France after Ms Brigitte Benech. I only have good memories in mind from our annual sessions with various presentations that expanded our own practices, not to mention counting the friendly relations between representatives.

Another consequence of these two major storms was a rebuild of the warning system in France with creation of a four colour coded vigilance system. That vigilance system promoted by Frank Kroonenberg (KNMI) was gradually adopted by all European Meteorological Services and integrated in Meteoalarm.

Friendship is in my opinion very important in forecasting teams because you must work in total confidence with your colleagues. Solidarity is essential in good times (good forecast) as bad times (difficult forecast). In Toulouse we were lucky to be close to the Pyrenees, numerous forecasters are practicing mountain hikers and that is a good way to exercise solidarity.

◀ Image 4: book cover of Pascal Burckel



*Images 6: summer hiking  
(chiefs forecaster A. Mougel,  
J.P. Tonnelier, H. Brunet),  
winter ski touring  
(forecasters C. Viel, B. Gillet-Chaulet),  
ski touring towards Pico Aneto  
(B. Roulet)*

## Conclusion

Even if you do like your job, shift work makes a forecaster a fellow a little out of step with the rest of the population. As one grows older, night shifts are becoming more and more difficult. Therefore it is the good time for me to retire at the same time as my wife.

I have full confidence that new generations of forecasters will take up the challenges of forecast in the next years.