



Evolution of flood forecasting in France

Joël Hoffman

SCHAPI (Service Central d'Hydrométéorologie et d'Appui à la Prévision des Inondations), Toulouse, France

The Vigicrues network produces flood warnings since 2006. Since then, numerous evolutions were brought, among them the four following:

- ZIP or potential flooded zones:

Several scenarios of floods computed in advance allow to translate in real time the forecasts of water heights at given hydrometric stations into impacts. These scenarios are geomatics layers defining the hazard. For a watercourse link and a given station, various scenarios of flood are produced, starting from the first overflow to major floods. In mid-2018, 360 hydrometric stations have at least one scenario.

- Display of forecasts

The regional flood forecast centres (FFC) compute quantitative forecasts. Until now, they were available on Vigicrues website only in written form. Now, the FFCs have the possibility to plot their forecasts on the graph of the station, in the continuity of the already available observations. This will be gradually spread to the whole production of forecasts in FFCs.

- A shared database for flood marks:

This national flood marks database aims to be the common receptacle for the existing or future sets of flood marks, playing a role of national reference table for all types of events (river floods, storm surges, overflowing of groundwater, etc.). Built on a Web collaborative platform, it is opened to the actors of flood risk prevention. In mid-2018, the database contains more than 40 000 marks.

- Vigicrues Flash:

Vigicrues Flash is a free service which addresses the mayors and the prefects. It allows them to be warned about a risk of floods within the next hours on certain streams of their territory not covered by the vigilance system. The subscribed crisis actors receive a message (SMS, email) indicating a risk of strong or very strong floods. Watercourse links integrated into the service must fulfill criteria of eligibility (30000 km of rivers in March 2018).