

The 2021 floods in the province of Liège (BE)

Facts and findings

Lessons for an integrated flood risk management

*International water security symposium:
Flood, bank erosion and driftwood management
Valkenburg aan de Geul, 23/06/2022*

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Presentation

- **By training Civil Ingenieur & PhD in Political Science :**
- **Professor at University Liege (BE)** in public administration and policy evaluation
- **My research center SPIRAL** : specialised in risk governance, technological development, and emergency planning
- **Septembre – Decembre 2021** : work as partner with STUCKY (CH) for the Walloon Minister in charge of infrastructure to report on
 - the management of the July floods, particularly in terms of coordination and information
 - The reforms necessary for a better risk management

... the Swiss experts also needed some help from a confirmed specialist to understand the complexity of the system of public organisation in federal Belgium.

I. Risk management : Hazard identification, prevention, planification in the Vesdre



Flood risk management plan (in line with the European Directive 2007/60/CE)

“In spite of small flood areas, the Vesdre sub-catchment area (SBH) has more than 5'000 inhabitants in a flood zone at Tr 25 years with the highest density of habitat of the district, for this scenario (865 inhab./km² floodable at Tr 25 years). The populations appear to be highly exposed to flooding on the entire section of the Vesdre downstream of Trooz, up to Chênée. “

Recommendations (2022-2027) :

- Prevention: no communication on these risk in the administration nor the general public; no consideration of water management in all types of projects ; construction projects in flood zones are not forbidden
- Protection: better plan maintenance of waterways, organise retention facilities
- Preparation: Emergency services do not integrate the flood risk in their risk analysis ➔ no plan, nor training in this issue

But these plans (PGRI) are not legally binding.

Flood risk management at the municipal level : *very little "risk" culture*

Little investment in "emergency planning"

Little emergency planning specific to the "Flood" risk: local risks, updating of plans

Little investment in the specific skills and competences of the local emergency coordinator and emergency services;

Little investment in communication with the general public

Reservoir dams are not included in the list of critical infrastructures; There is no framework for safety and control by an external authority of the regional dams; dams managers are not included in emergency planning

II. Crisis management

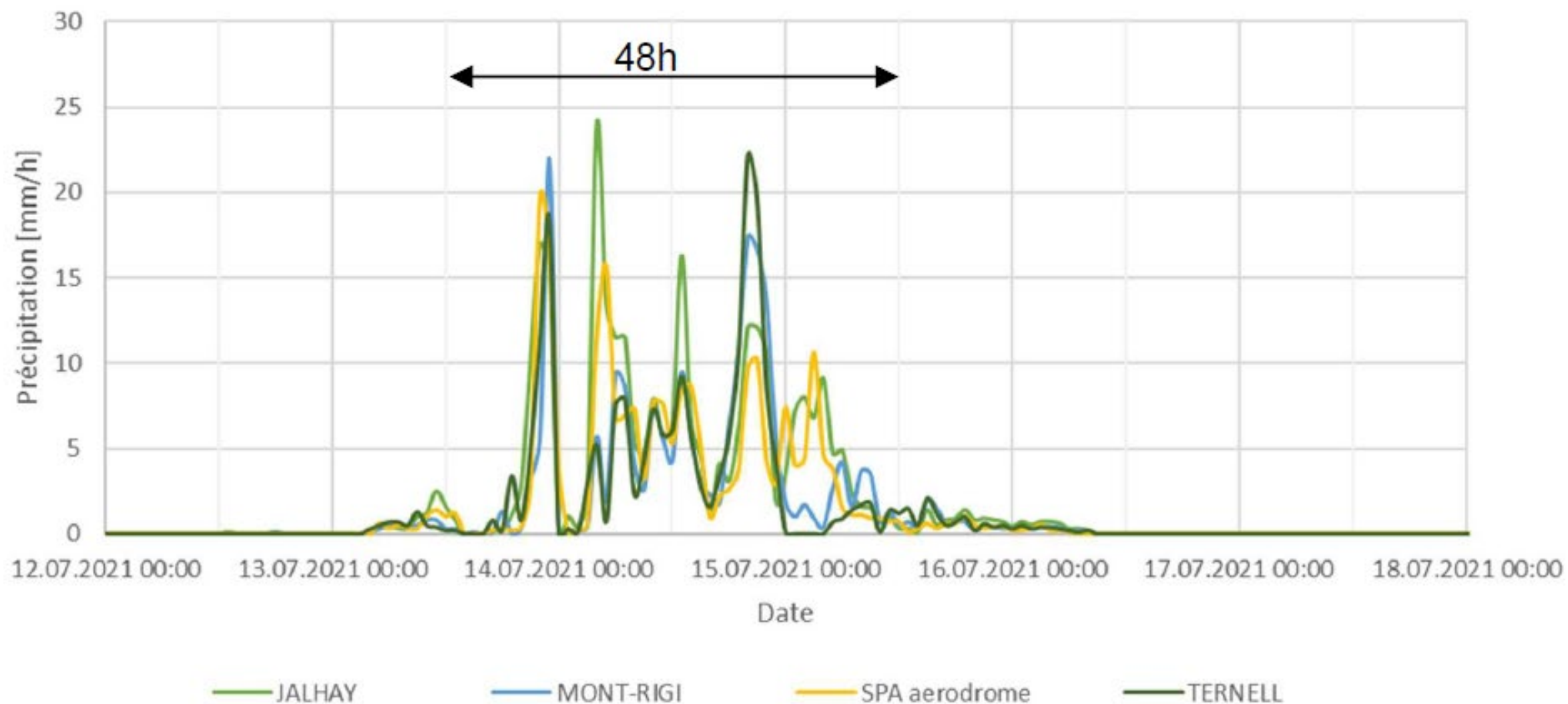
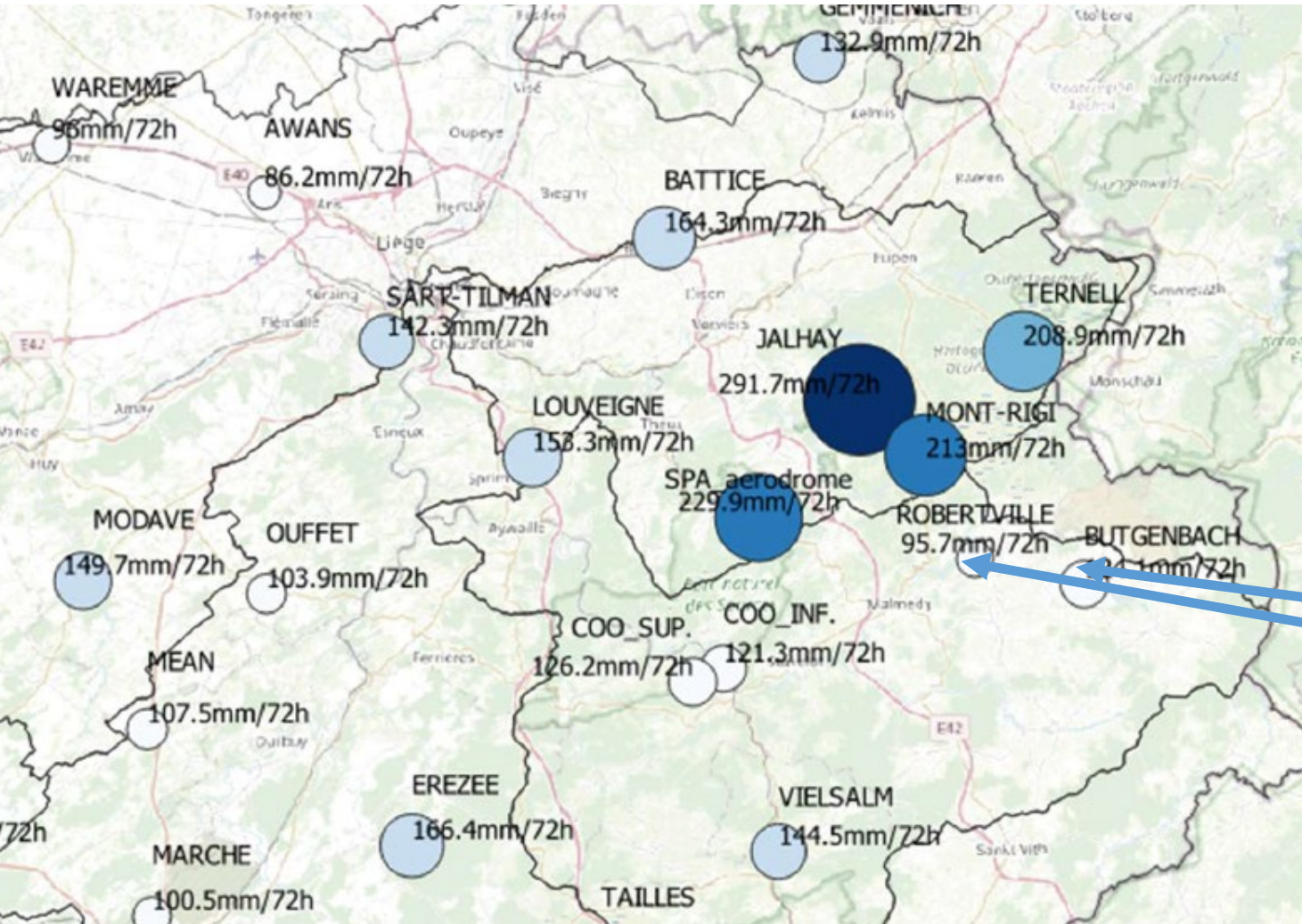


Figure 5-3: Hyétographes de l'événement de précipitation de juillet 2021.

II. Crisis management



Jalhay :

194 In 24h

275 In 48h

291 In 72h

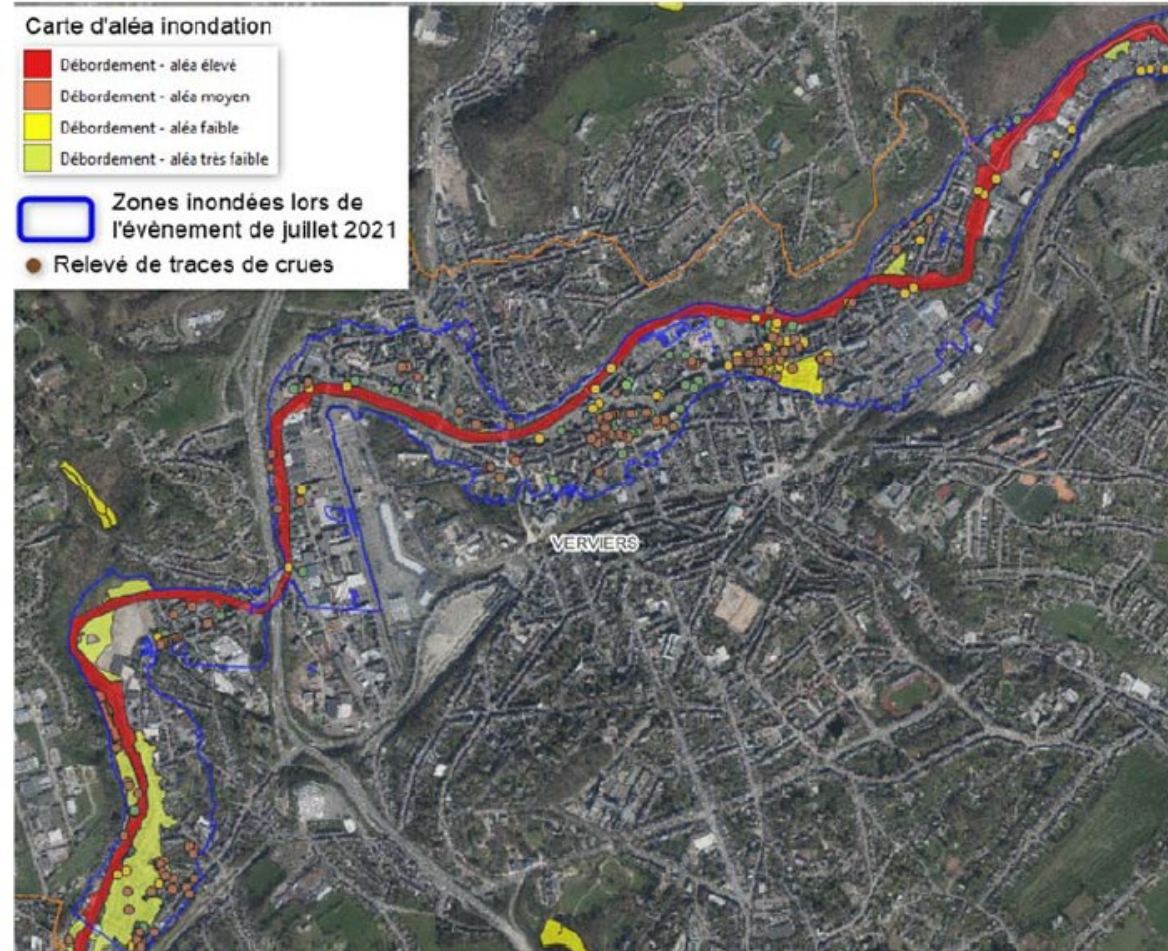
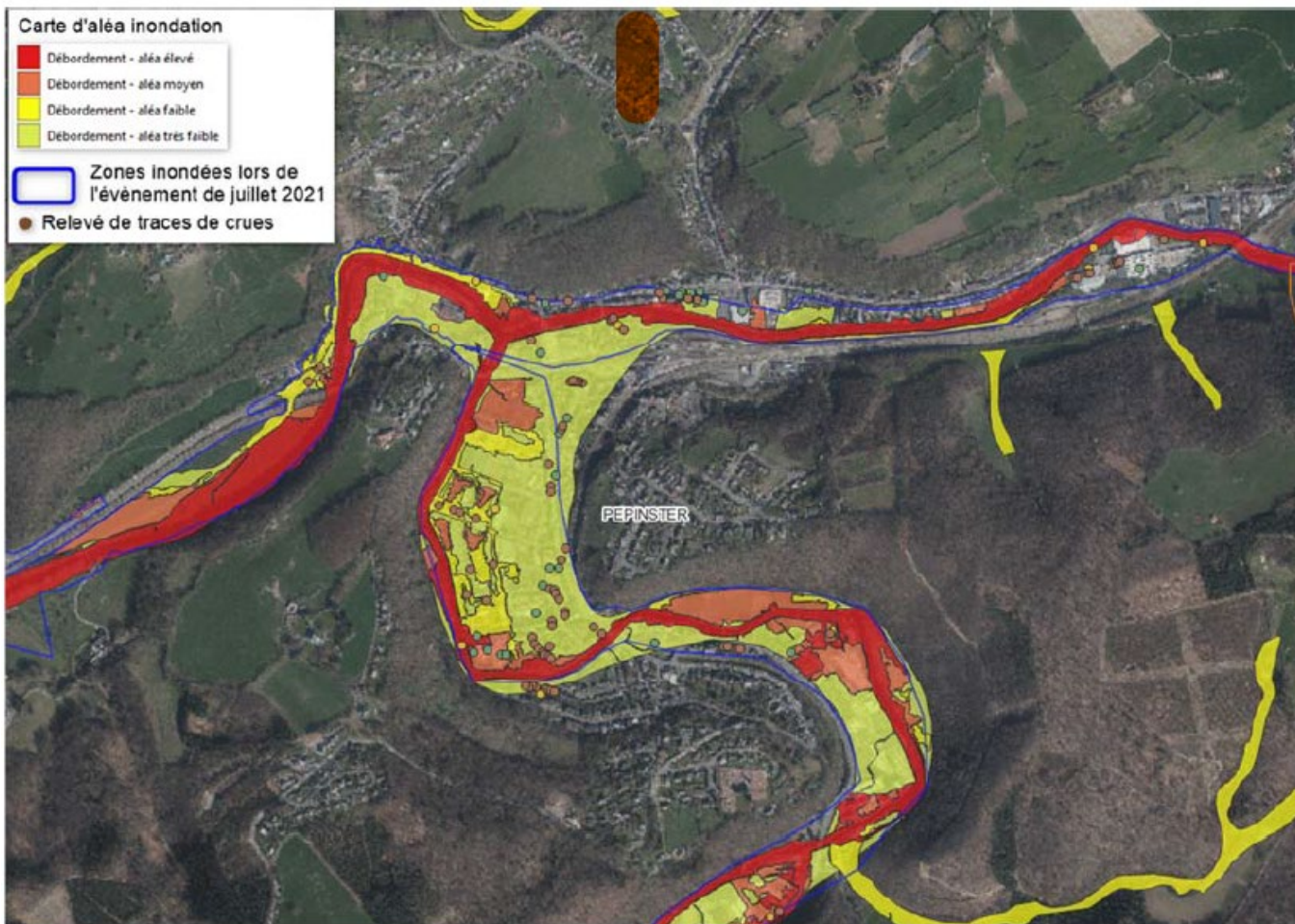
Barrage

Runoff water first threatened the villages

II. Crisis management



Pepinster :
More than
500 m³/sec



From vigilance to alarm :

Quality of communication in the alarm system (between federal, regional, local services)

Lack of communication between actors & networks at the beginning of the event

How to facilitate awareness to get out of the "1993 crisis" model? Everyone has a tendency to "normalize crises" rather than to be prepared for the unforeseeable

From crisis management to disaster management :

Rapid saturation of response services (disaster mode) → work in degraded mode for the services

No PC-Ops, no separation between strategic and operational discussions (eg. Managing reservoir dams ?)

→ Problematic functioning of crisis cells (local or provincial)

Crisis communication problems D5 : not enough equipment, nor competences for using the communication tools; little mobilization of social networks (in and out communication)

→ Little information for strategic management

Some points of attention

- Old symptom : **“Emergency planning has never been the core activity of most government systems: this kind of activity consumes resources but without political gain.”** (Boin)
- New thinking : **"Thinking of crises no longer as clearly identified accidents in a globally stable and controlled world, but rather as the central engine of worlds increasingly traversed by unpredictability, discontinuity and chaos"** (Lagadec)
- **How to develop a global approach based on a continuous learning process to ultimately improve society's resilience, i.e. its ability to adapt to the challenges preceding and following a disaster ?**

➔ **Communication and participation of the population:**

Participation to mobilize contextual intelligence and local knowledge

Communication to give meaning to the events and measures taken (trust & support)

Volunteering : mobilizing skills distributed on the territory

Thank you for your attention !

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