

High water factsheets

Quick to read and to draft

Lessons learned from the expert inspections or the flood defenses expert (test)

Why factsheets?

The knowledge and experience obtained from exercises in the Netherlands is essential for our work. Cooperation between experts from the international water sector takes place, among other things, by observing each other in action during crises and exercises. By doing so, the Netherlands is better prepared for a water threat that the country has never experienced before.

Unfortunately, the knowledge and experience remains mainly with the deployed expert (inspector or flood defense adviser). Only a few Dutch experts actually travel abroad when a high water or crisis situation occurs (Louisiana, England, Houston, Elbe). Most don't get the chance to gain this 'real deal experience'. The lessons learned from these experiences should be shared more widely within our sector in the Netherlands.

The High Water Factsheet standardizes evaluations after exercises or missions. It safeguards the essence of the lessons learned with minimal effort. The factsheet can be read and draft quickly, for example on a plane on the way back from a mission. By better recording and securing the lessons learned, training, exercises (Educate, Train, Practice), emergency plans, manuals and guidelines can be improved. In this way we contribute to the dissemination and safeguarding of knowledge and make sure we are better prepared for the 'real deal'.

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Close a breach with Chinook and bigbags

N°

2019-05



Describe the challenge, the situation and the context:
(Where, Who, What, Why, How, When)

In the past, a Chinook helicopter has often been used to close a breach. A Chinook releases bigbags or sandbags into a breach or damaged area to seal or reinforce this area. However, due to limited knowledge, unloading these bags can unintentionally worsen the situation. For example, dropping the bags from a great height can cause vibrations, and dropping the bags in the wrong location can actually increase the problem.

During floods in June 2019 in Wainfleet, England, a flood defense expert from the Environment Agency was present in the Chinook to provide precise directions to operating personnel in the Chinook.

What did you learn and why is it important:

A flood defense expert advises the Airforce team in the Chinook and flies along when the measure is carried out. The flood defense expert should also warn the pilot in the briefing. This prevents the pilot from dropping the material from too great a height with the risk of the collapse of the flood defense.

Cold phase:

Flood Defense Expert ensures that a flood defense expert is added to the Defense (Airforce) protocol 'Breach closing protocol' and emergency plan. Possibly, a landing location near the water board's office is reserved.

Warm phase:

Flood defense expert ensures that he / she can always join the Chinook. Possibly he/she is already present at airbase. Flood defense expert advises pilot in the Chinook on breaching with bigbags. This makes it possible to better deal with unexpected situations or to avoid unintentionally aggravating the situation due to the pilot's lack of knowledge.

Recovery phase:

See Warm phase

Event characteristics

Subject of lesson learned:	Applying emergency measures, closing a breach
Contact person:	Anco van den Heuvel
Mission or exercise name:	Dike breach Wainfleet UK, 16-6-2019
Relevant publication with hyperlink:	1 Current strength 2019 (1 Actuele sterkte 2019)

Cold phase

Warm phase

Recovery phase



Figure 1: Chinook is used to close a breach using big bags, Wainfleet 2019

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Figure 2: Deployment of Chinook helicopter in dike breach Wainfleet, 2019



Figure 3: Deployment of Chinook helicopter in dyke breach Wainfleet, 2019



Figure 4: Deployment of Chinook helicopter in dyke breach Wainfleet, 2019



Figure 5: Deployment of Chinook helicopter in dyke breach Wainfleet, 2019