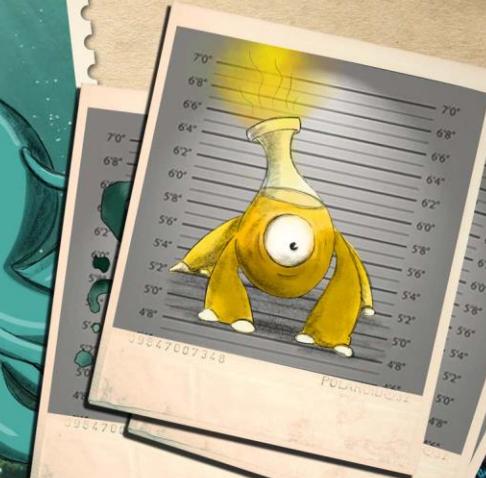




## Mission #1

Complete the profiling kit to obtain a cadet badge and access to archive files.



Mission 1 consists of 3 steps

Mission #1

## CHALLENGE 1

Who are the pollu-criminals and what are their usual behaviour?





I didn't see him sinking. His relative density must be lower than that of water.



My tests showed that he was not present in water. His solubility is certainly low.



No doubt he was present in the air. He therefore has a high saturation vapour pressure.



Mission #1

## CHALLENGE 2: Team 1

What are their complex behaviours?



Mission #1

## CHALLENGE 2: Team 2

What are their complex behaviours?



**MAIN BEHAVIOUR F**



- ✓ Lower relative density than water
- ✓ **Very low to medium** solubility
- ✓ **Low to high** vapour pressure



**MAIN BEHAVIOUR F**



- ✓ Lower relative density than water
- ✓ **Very low** solubility
- ✓ **Low** vapour pressure



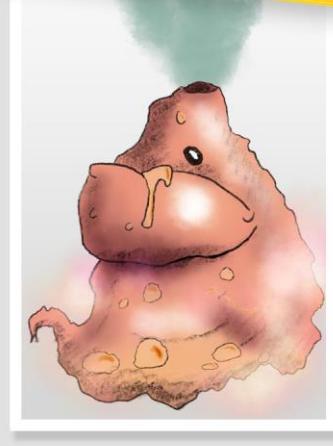
**MAIN BEHAVIOUR E**



- ✓ Lower relative density than water
- ✓ **Medium** solubility
- ✓ **High** vapour pressure



**MAIN BEHAVIOUR D**



- ✓ Lower relative density than water
- ✓ **High** solubility
- ✓ **Very high** vapour pressure





## MAIN BEHAVIOUR D

- ✓ Lower relative density than water
- ✓ **High** solubility
- ✓ **Very low to high** vapour pressure





FED

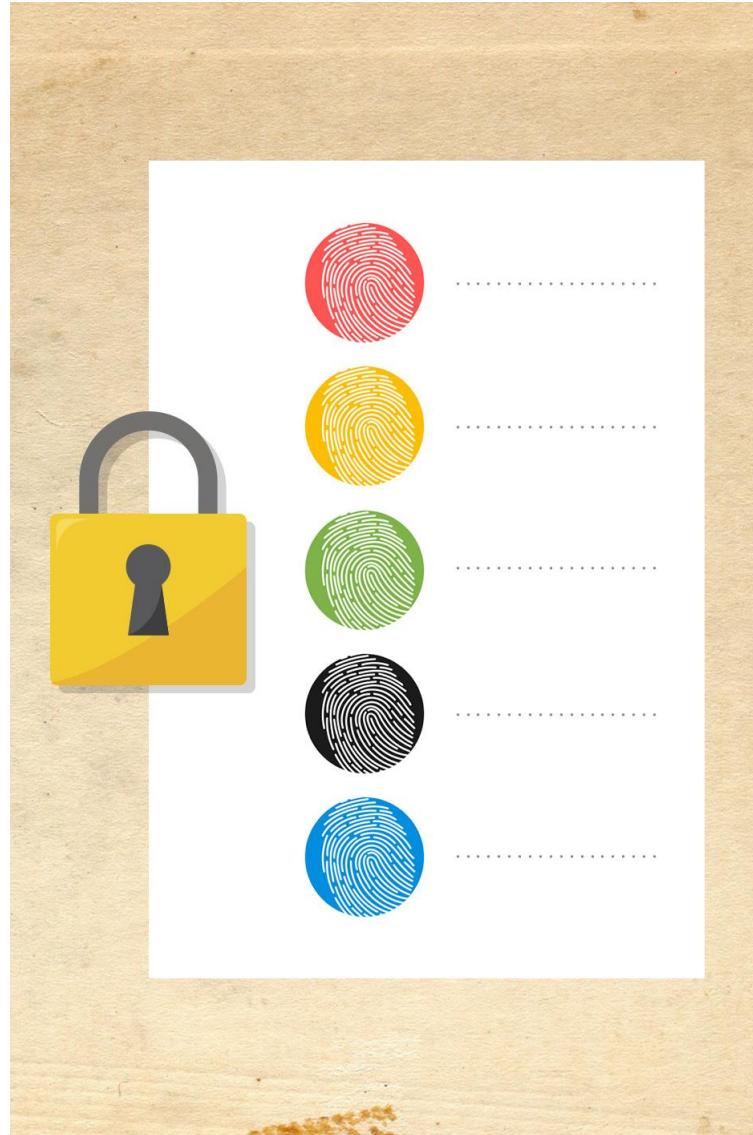
DE

ED

D

F

The code is composed of letters and numbers



**MAIN BEHAVIOUR S**



✓ Higher relative density than water  
✓ Low solubility



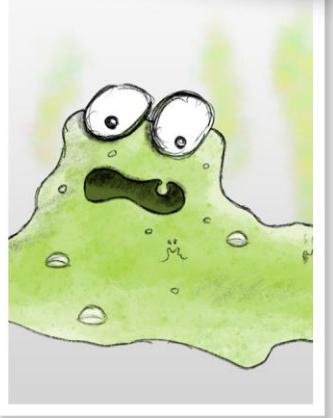
**MAIN BEHAVIOUR S**



- ✓ Higher relative density than water
- ✓ **Very low** solubility



**MAIN BEHAVIOUR F**



- ✓ Lower relative density than water
- ✓ **Very low** solubility
- ✓ **Low to high vapour** pressure



**MAIN BEHAVIOUR F**



- ✓ Lower relative density than water
- ✓ **Very low to medium** solubility
- ✓ Low vapour pressure

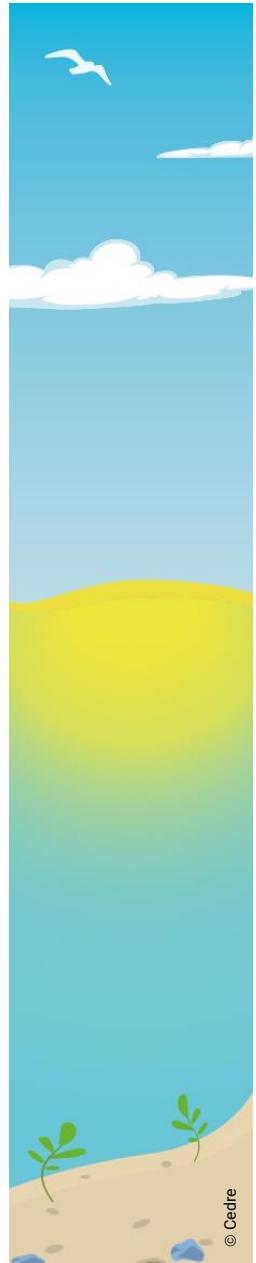
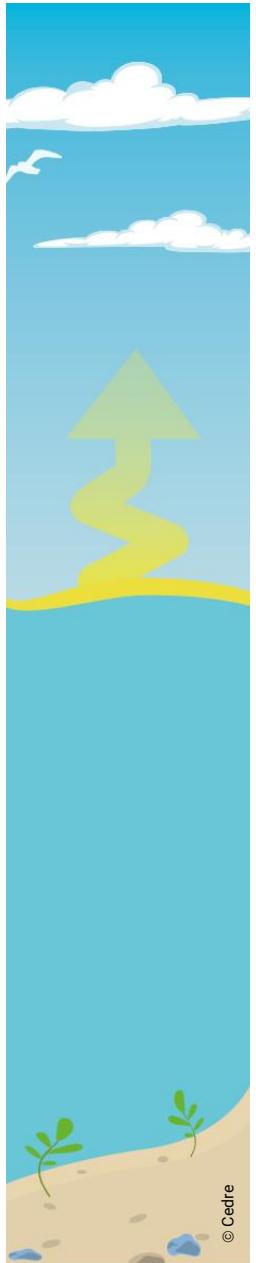
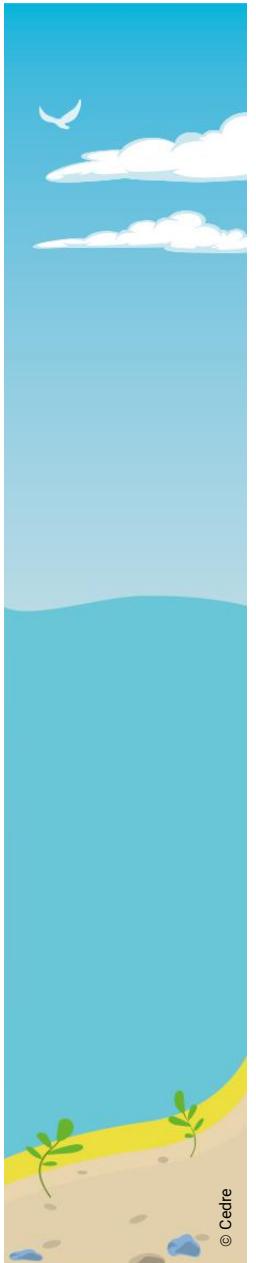




## MAIN BEHAVIOUR E

- ✓ Lower relative density than water
- ✓ **Very low** solubility
- ✓ **High vapour** pressure





E

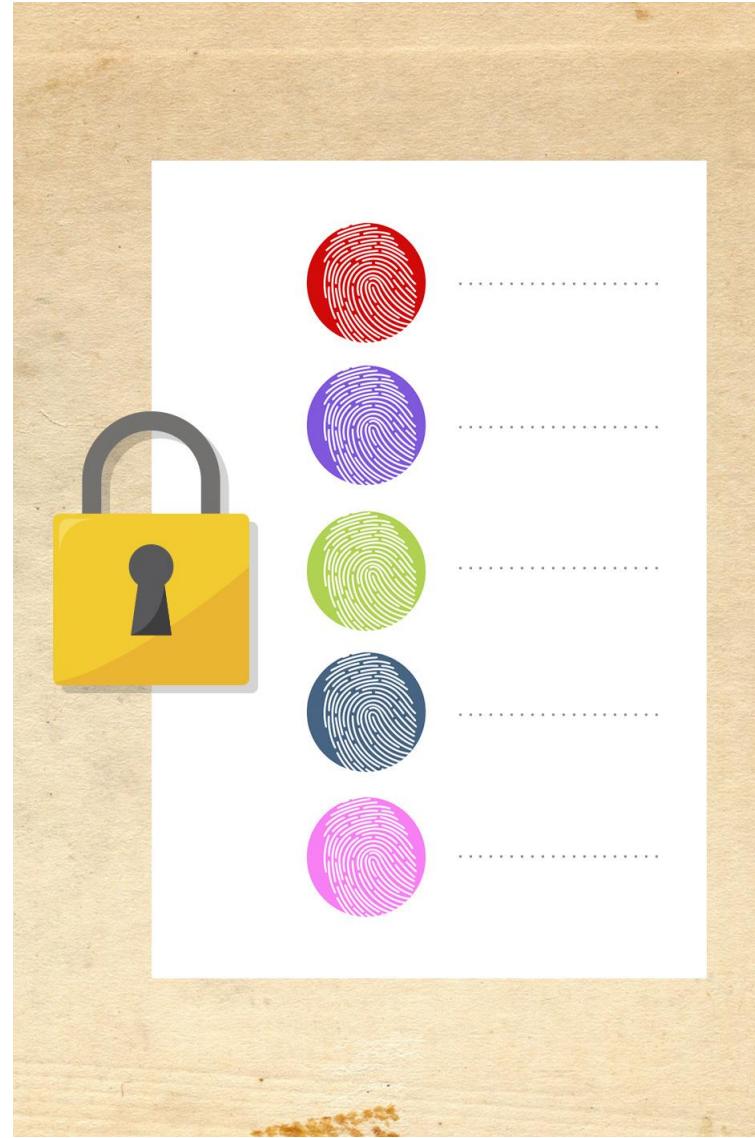
S

FE

FD

SD

The code is composed of letters and numbers



Mission #1

## CHALLENGE 3

What are the pollu-criminals modus operandi and what threats do they pose?



## Crime scene from POLLU-CRIME 2

During a transfer of 8,000 pollu-criminals of the acids gang, the chemical tanker BLUA sank in the Bay of Biscay, on a seabed of 4,600 to 4,800 metres, about 120 nautical miles north of La Coruña. The pollu-criminals managed to escape.

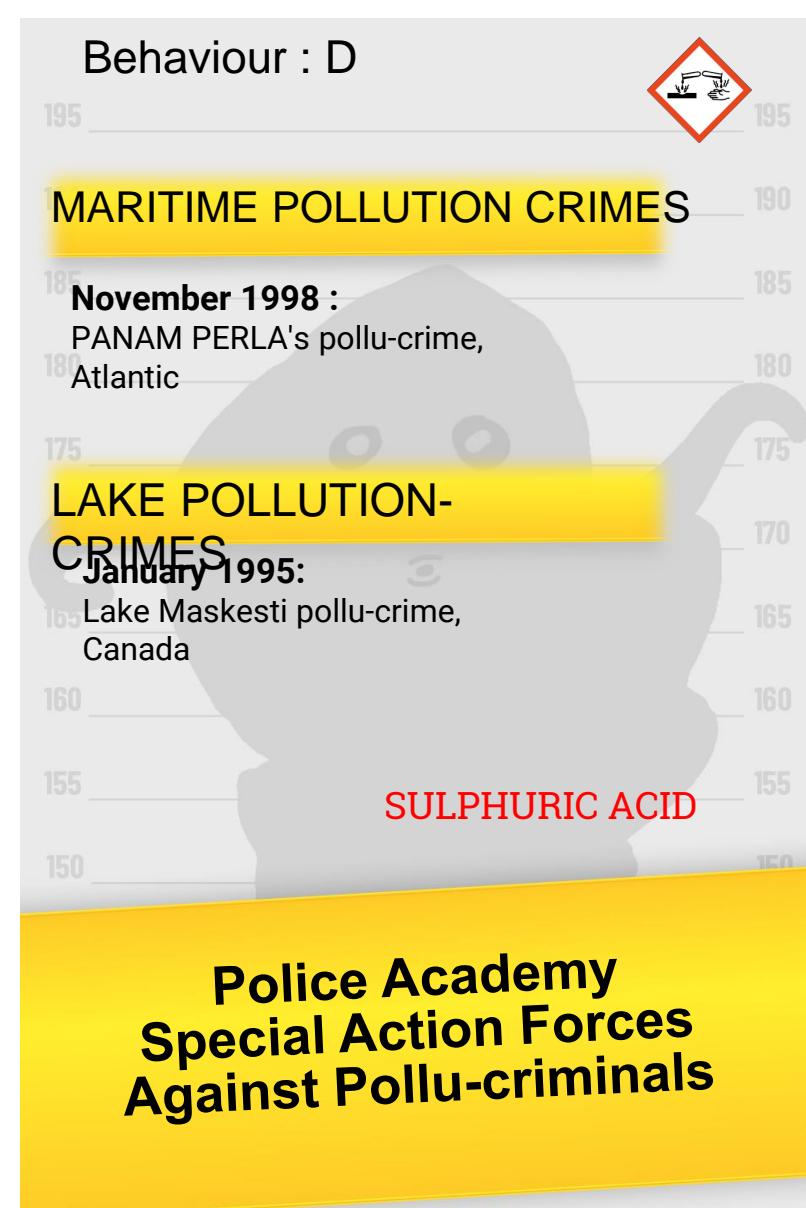
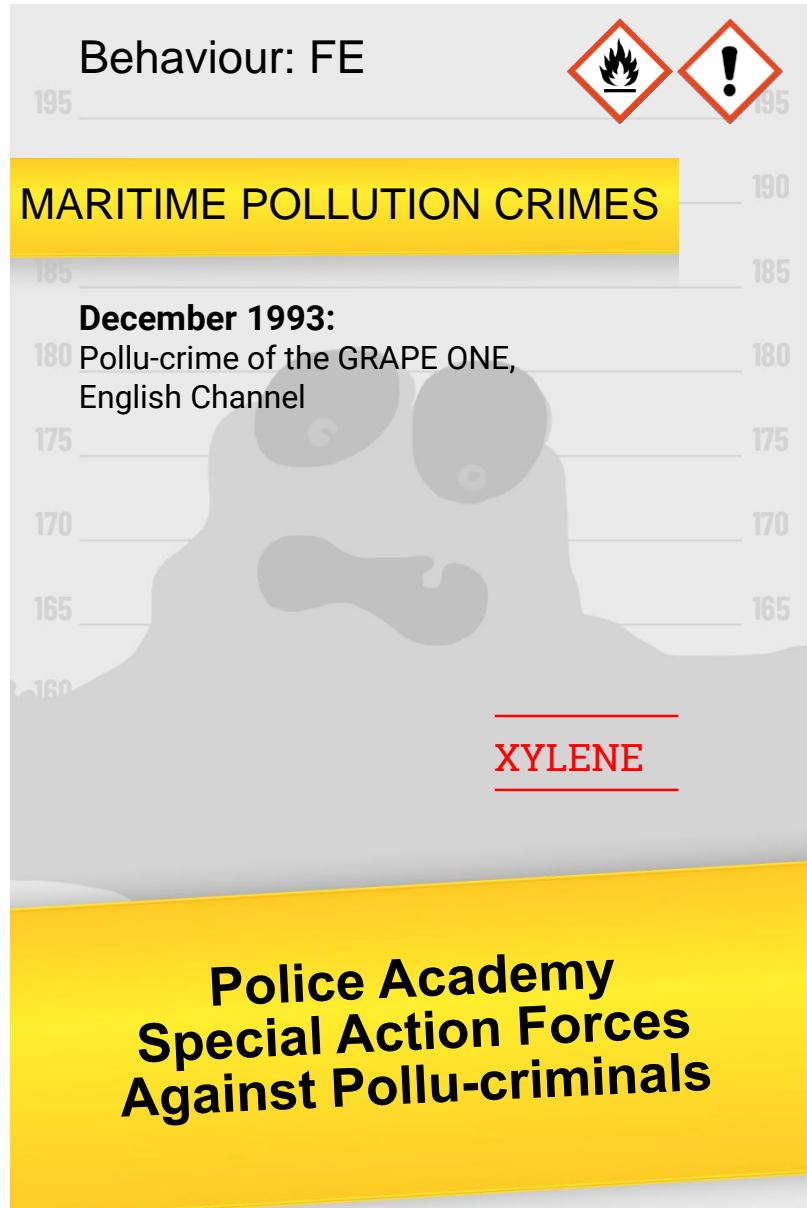


## Crime scene from POLLU-CRIME 1

While carrying out a transfer of 118 pollu-criminals, the container ship DENARIA, which had just left the port, ran aground 100 metres from the shore.

Amongst these pollu-criminals, the aromatics gang took advantage of the disturbance and managed to escape dangerously towards the city.





# HAZARD PICTOGRAMS

## Physical hazards

Explosive  
Unstable substances



## Human health hazards

Acute Toxicity



Flammable



Health hazard



Oxidising



Gas under pressure



## Environmental hazards

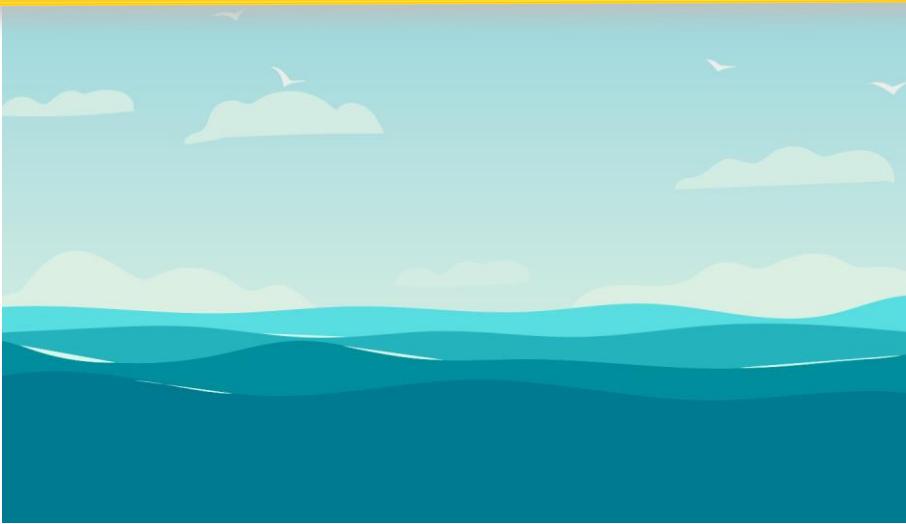
Hazardous to the  
aquatic environment



Corrosive



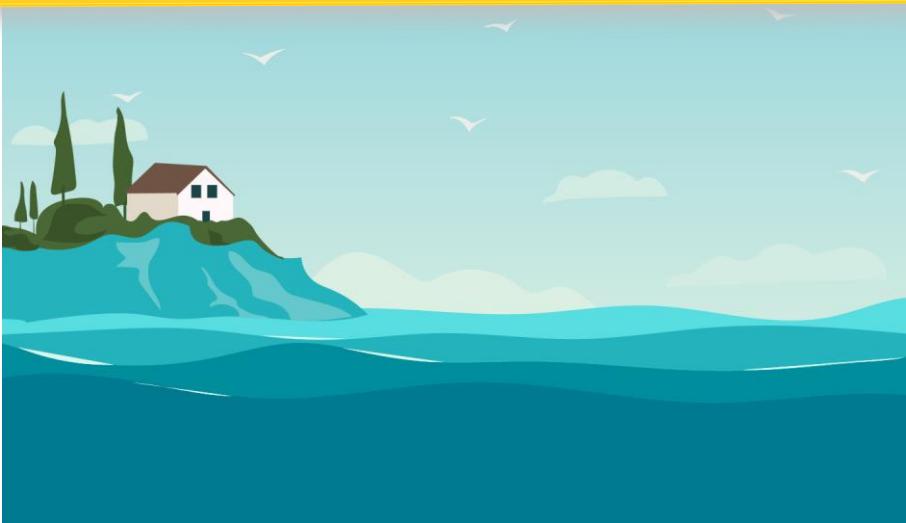
POLLU-CRIME SCENE : Open sea



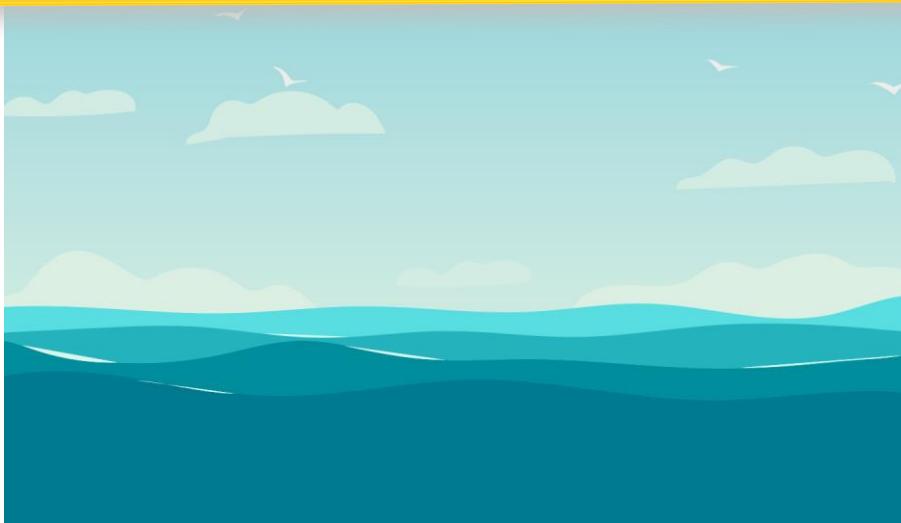
POLLU-CRIME SCENE : Harbour



POLLU-CRIME SCENE : Coastline



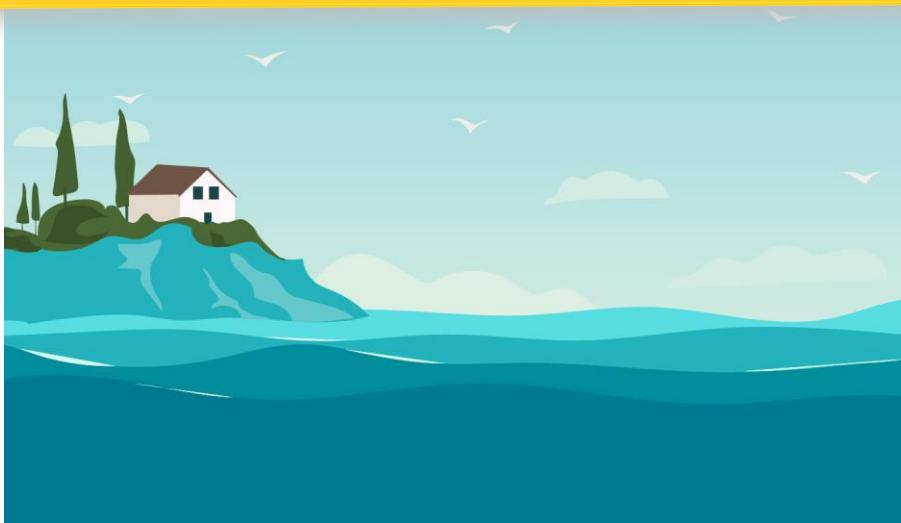
POLLU-CRIME SCENE : Open sea



POLLU-CRIME SCENE : Harbour



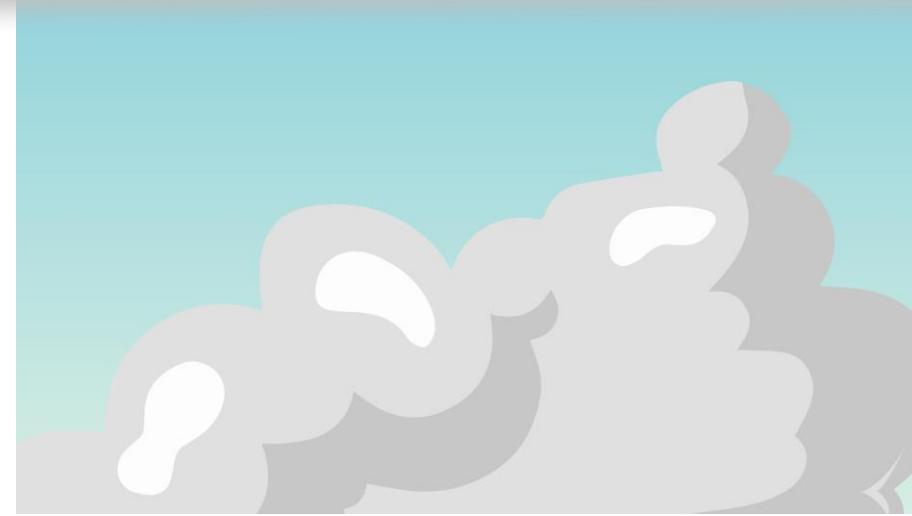
POLLU-CRIME SCENE : Coastline



HAZARD : Flammable cloud or explosion



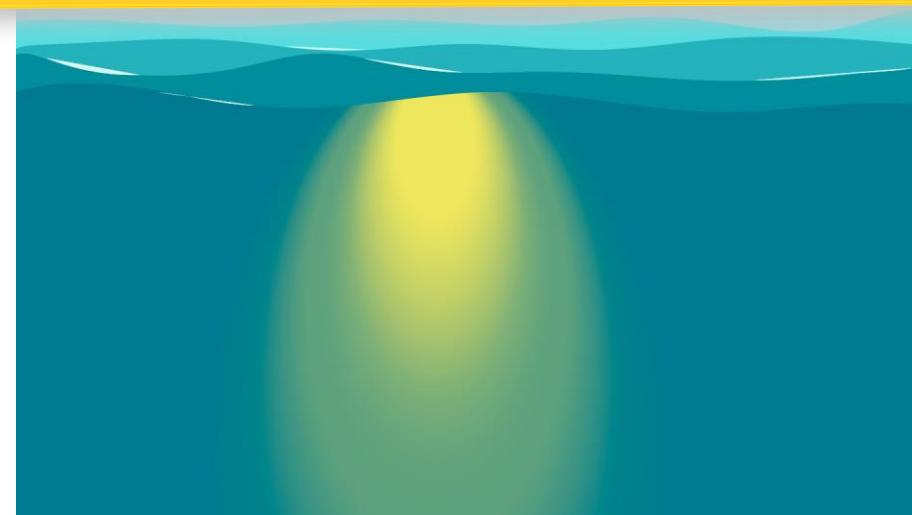
HAZARD : Toxic cloud



HAZARD : Flammable or explosive slick



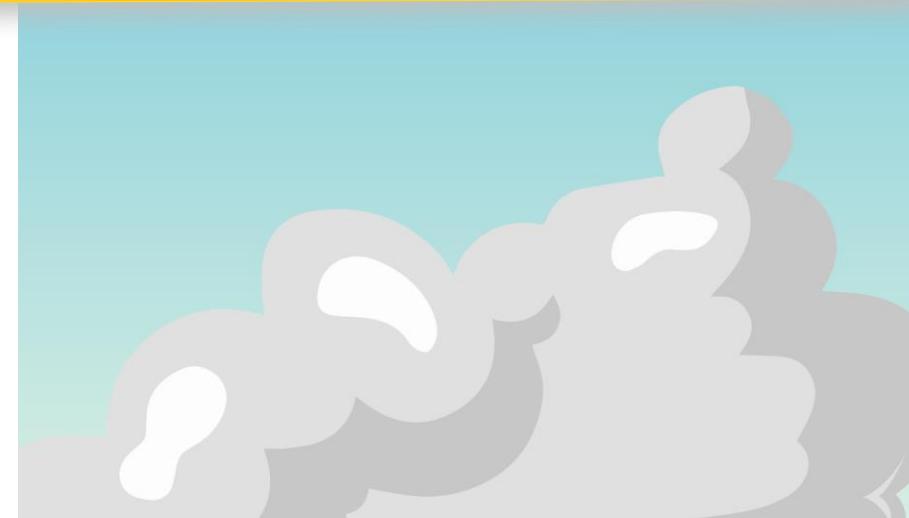
HAZARD : Polluted water column



HAZARD : Flammable cloud or explosion



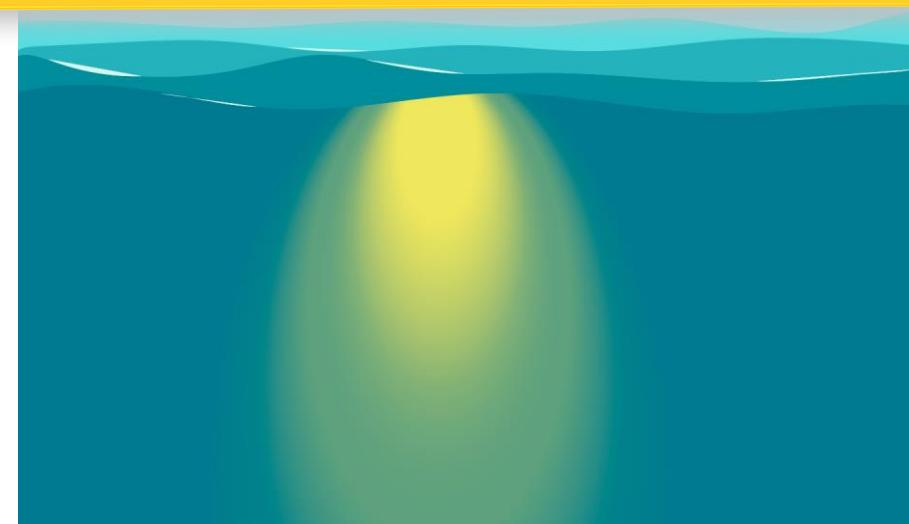
HAZARD : Toxic cloud



HAZARD : Flammable or explosive slick



HAZARD : Polluted water column



Impacts on human health :  
Coastal population



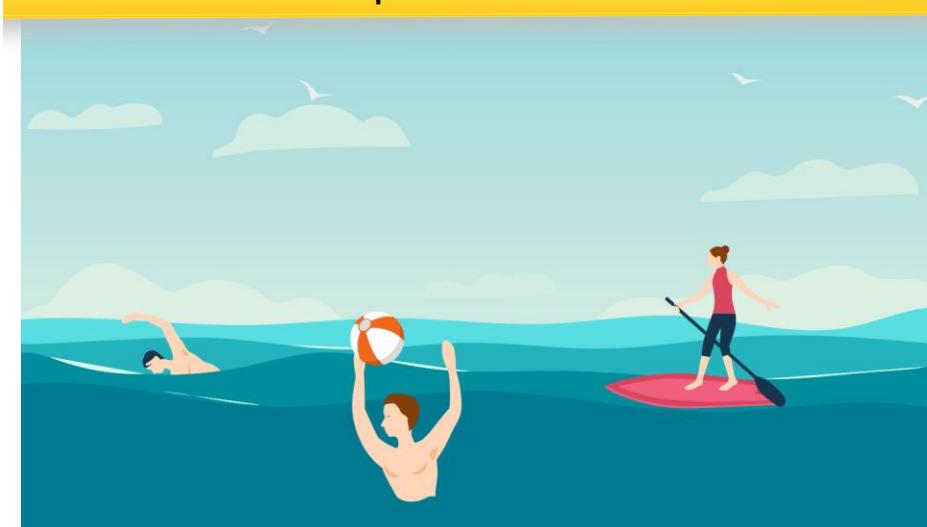
Environmental impact



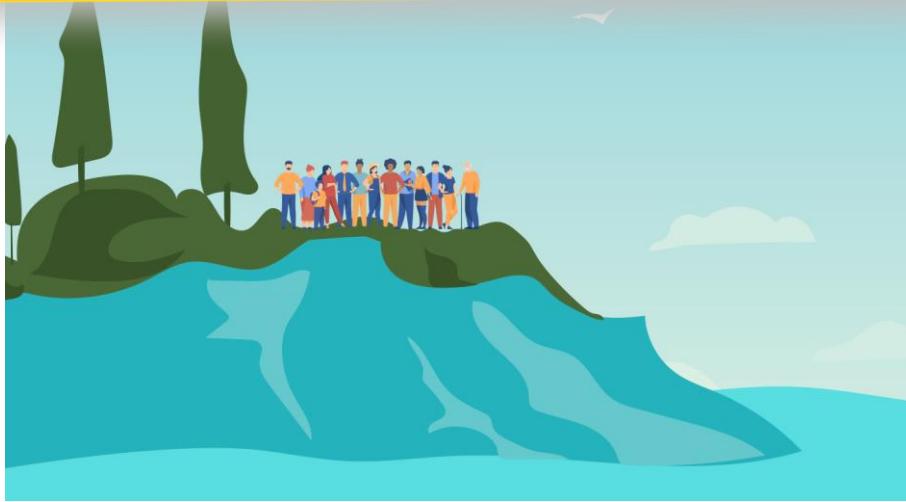
Economic impact : Fishing activities



Economic impact : Tourism activities



Impacts on human health :  
Coastal population



Environmental impact



Economic impact : Fishing activities



Economic impact : Tourism activities



Impacts on human health :  
First responders



Impacts on human health :  
First responders



# NEWS FROM THE SEA

- DAILY COASTAL NEWS - ENVIRONMENT - RESEARCH - MARINE WEATHER

N° 20385 - MONDAY

## THE POLLU-CRIMINAL GANG HAS STRUCK AGAIN !

During its docking procedure in the harbour of Hamburg (Germany), the German chemical tanker Naé 2 collided with a container ship.

The accident did not damage the internal structure of the ship, but a weakness in the ventilation system allowed some of the 960 acid gang pollu-criminals to escape.

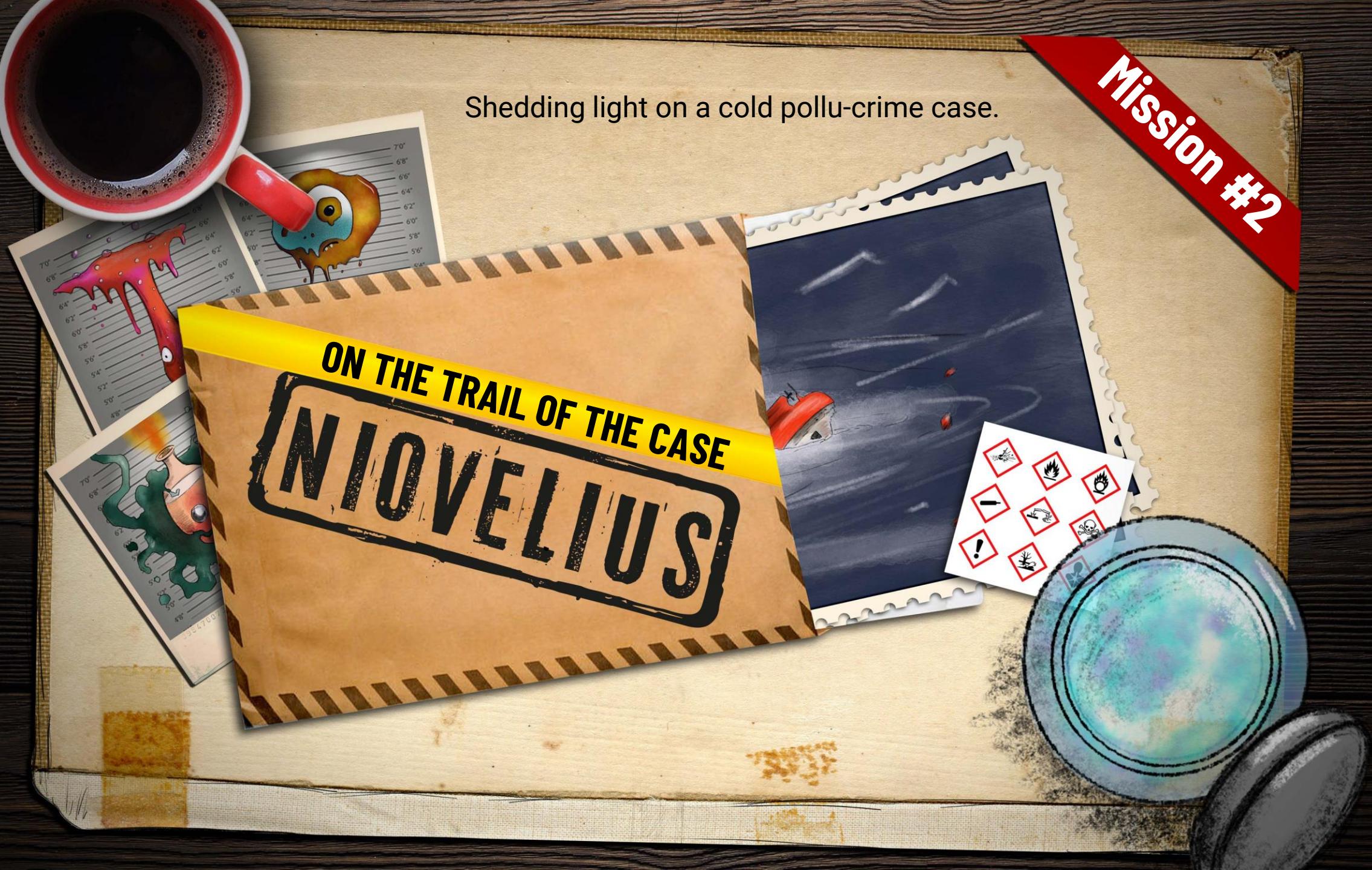
Eleven crew members were affected by the toxic and corrosive fumes and had to be hospitalised.



Mission #2

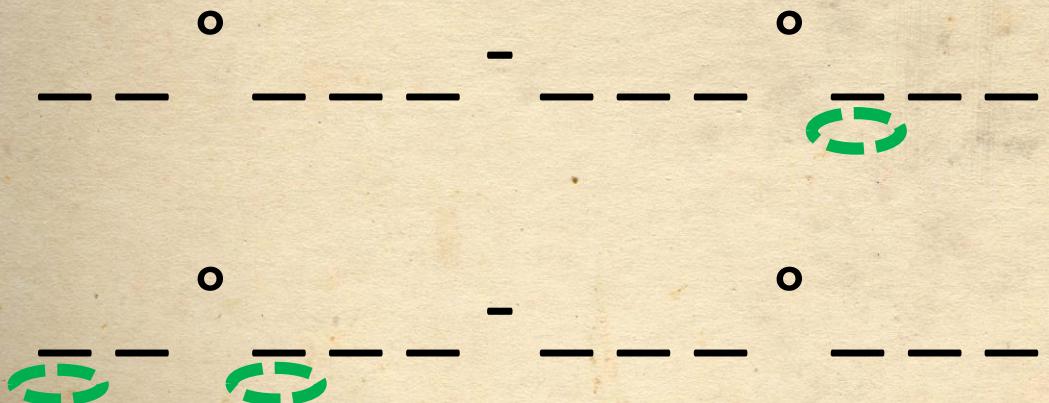
Shedding light on a cold pollu-crime case.

ON THE TRAIL OF THE CASE  
**NIOVELIUS**

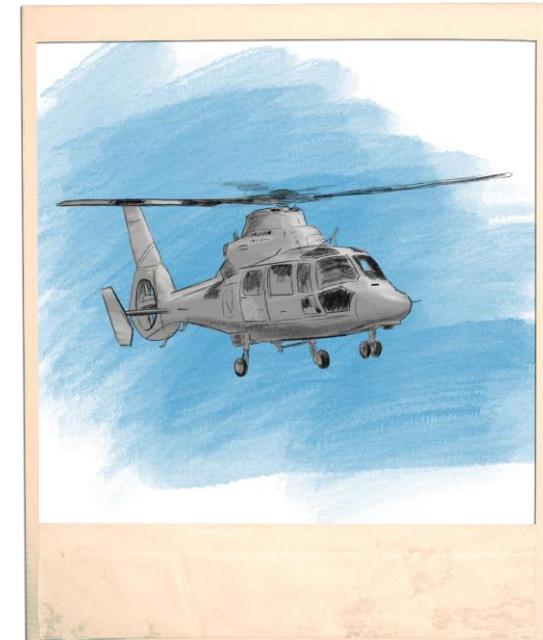
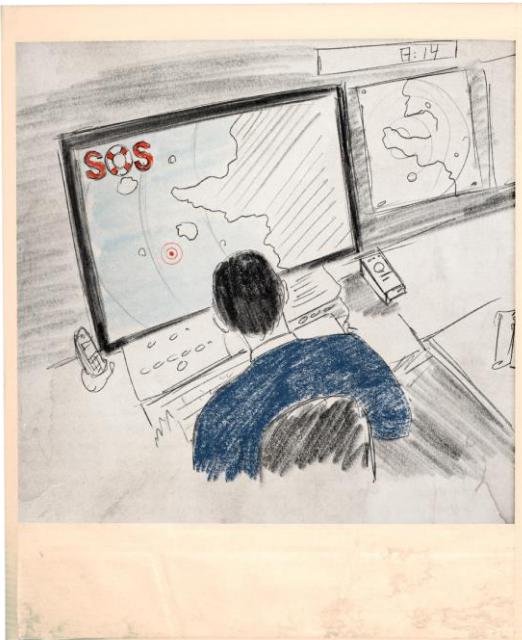
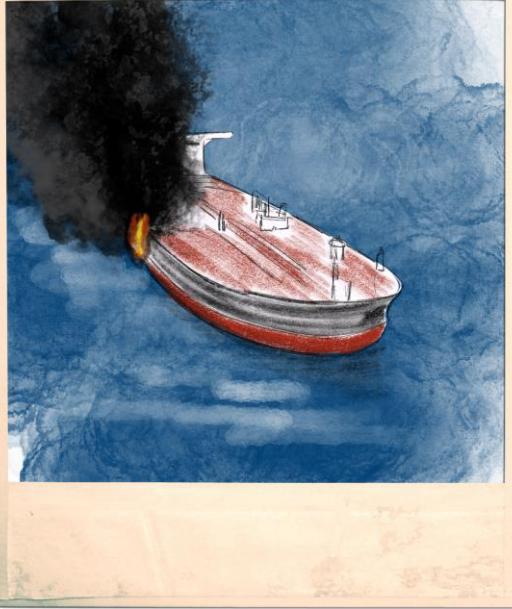




- The investigators at the time protected the archived file.  
They left only a simple document...



ARMINES – IMT MINES ALES



ARMINES – IMT MINES ALES

