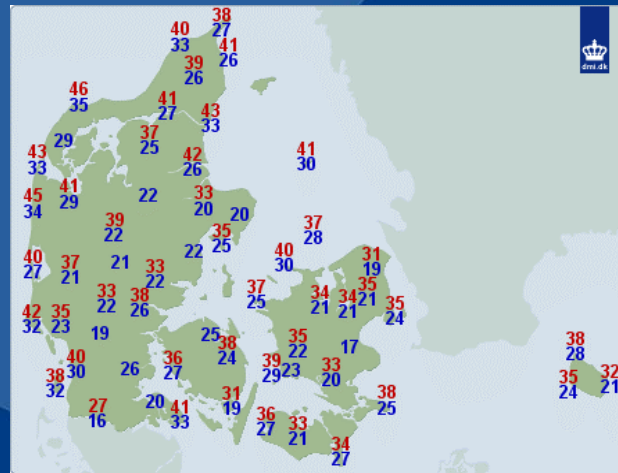
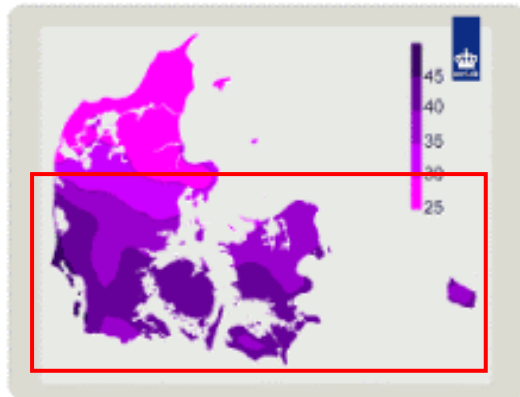


Severe storms in Denmark 1999 and 2005



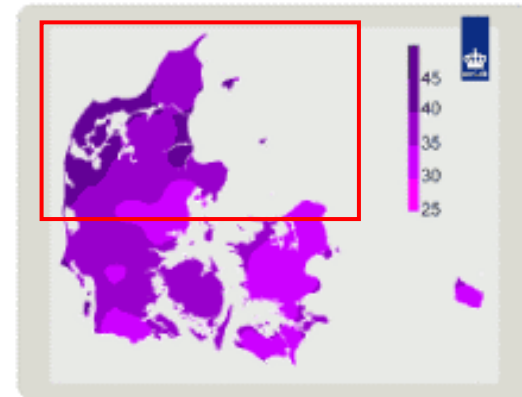
Did we learn our lessons?

3rd December 1999

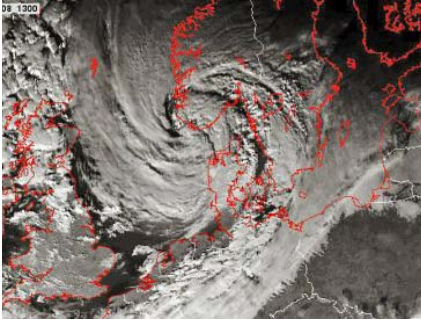


- Worst hurricane in 100 years
- Affected the entire country
- Highest wind speeds in southern parts
- 7 persons killed
- 350.000 hurricane-related damages
- 440.000 households without power
- Material damages: 1.100 million Euro

8th January 2005

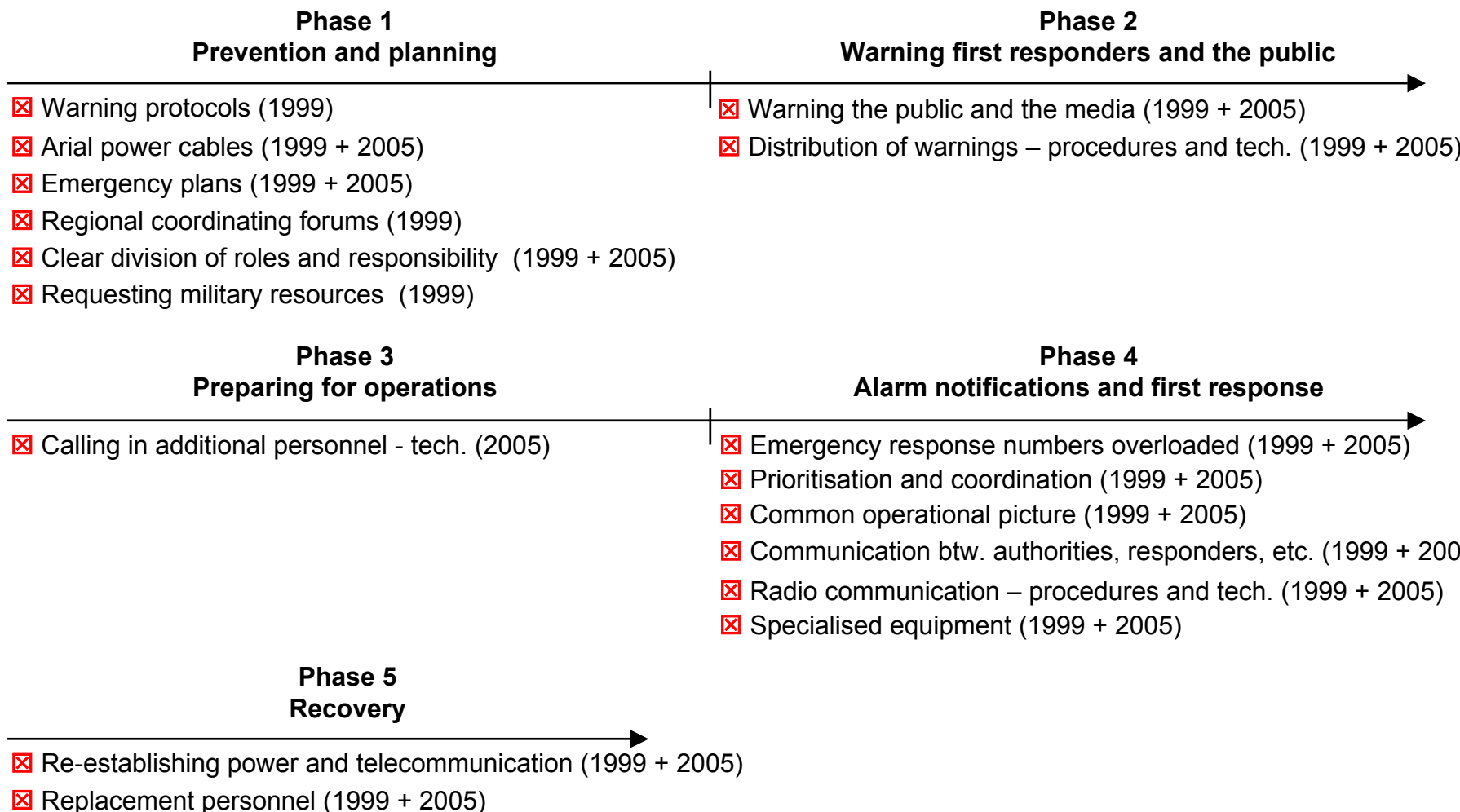


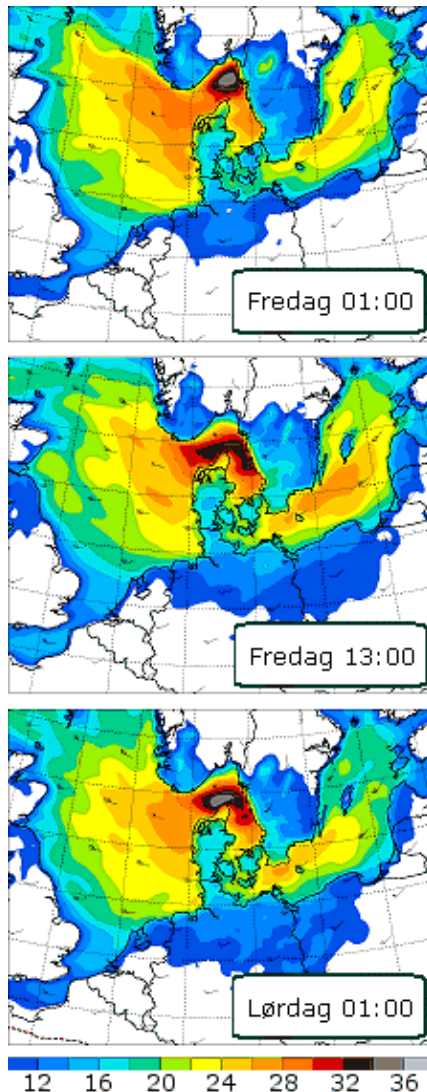
- One of the 10 worst hurricanes in 100 years
- Affected the entire country
- Highest wind speeds in northern parts
- 4 persons killed
- 200.000 hurricane-related damages
- 200.000 households without power
- Material damages: 500 million Euro



- **Broad-based effort**
 - Many different organisations (state/local/private) engaged across the entire country at the same time
- **Well prepared**
 - Most of the involved organisations had their emergency plans and procedures in place
 - Some had taken steps to mitigate the effects
- **Good overall response**
 - Keeping loss of human lives low, and material damages at a reasonable level
- **Effective repairs and recovery**
 - Society quickly brought back to normal

☒ = deficiencies





- Experience
 - More sense of urgency among the responders
 - Better idea of what to expect
- Warnings
 - Earlier and more precise warnings from the Danish Meteorological Institute (DMI)
 - Formal warning protocol between DMI, Police and DEMA
- Regional Coordination Forums
 - Improved conditions for inter-agency coordination, mutual assistance and exchange of information
- Preventive measures
 - Fewer damages to the power grid due to burial of power cables
- Luck
 - The hurricane in 2005 was not as severe as in 1999

Recommendations (2005)

No.	Recommendations	Status
1	Review internal procedures for distribution of warnings	▶
2	Review cross-cutting procedures for distribution of warnings	▶
3	Review internal procedures for calling in additional personnel	✓
4	Prepare internal crisis communication strategies and SOPs	▶
5	Improve methods to warn the public (not only relying on radio and TV)	▶
6	Increase the use of official emergency messages directly from the authorities to the public	?
7	Improve early warnings from public transport providers to the passengers about possible discontinuations	✓
8	Discuss how to improve the media's coverage of emergencies	▶
9	Improve the public's ability to inform the authorities about non-critical situations	✓
10	Raise awareness about the need for emergency power supply if dependent on uninterrupted power supply	▶
11	Raise the farming industry's awareness about the need for emergency power supply	▶
12	Establish criteria for prioritisation of power grid repairs and load shedding	▶
13	Improve the power companies' information to their customers about repair schedules etc.	✓
14	Improve the ability to communicate btw. authorities, responders etc.	▶
15	Evaluate the general lessons learned from the regional coordination forums	✓
16	Review the public transport providers' emergency plans about discontinuations	✓
17	Review internal emergency plans to ensure the necessary capabilities are available	▶
18	Remind local first responders that they must report their assistances to DEMA's central database	✓
19	Develop and improve DEMA's capabilities database	▶
20	Develop a generic lessons learned methodology	▶

✓ = completed ▶ = in progress ■ = not started ? = no information about status

- Information to the public
 - The public understands the seriousness of the situation
 - Information provided by the authorities and the media is coherent and useful
- Power outages
 - All those critically dependent on uninterrupted power supply have emergency power generators/UPS
 - Adequate and timely information from power companies
 - Prioritized reparation of the power grid
- Transport
 - No abandoned people at bus stops and train stations if/when public transport is discontinued
- Coordination Forums
 - All relevant ad hoc participants are present in the coordination forums