

Research Briefing

Office for Nuclear Regulation Expert Panel on Natural Hazards: sub-panel on meteorological and coastal flood hazards

Criteria for research briefings and key words and phrases



Criteria for research considered

Demonstration of a scientifically or academically rigorous process having been applied

ONR considers it important that an adequate scientifically or academically rigorous process has been applied to the research that is considered and may influence the development of the TAG on External Hazards¹. The application of such a process demonstrates that the research has been scrutinised by experts in their respective fields and found to be sufficiently robust for publication.

An adequate scientific or academic process is considered to comprise of the following:

- Adherence to recognised community standards including, but not limited to:
 - Appropriate citations to the broader literature
 - Claims are supported by evidence
 - Uses recognised methods and good practice
 - Clarity of language
- Subject to peer-review;
- Published in a journal that meets recognised evaluation standards;
- Identifiable via reputable scientific or academic search engines / databases.

¹ NS-TAST-GD-013 Revision 8:

Key Words and Phrases

The list of key words and phrases for the research themes relevant to ONR's Meteorological and Coastal Flooding sub-panel are provided below. The key words and phrases are used to identify relevant research papers for inclusion in the Research Briefing. As appropriate, the list of key words and phrases will be reviewed to ensure that it remains fit-for-purpose. Any changes to the list between individual Research Briefings will be highlighted.

Flooding:

- River / fluvial flooding
- Pluvial flooding
- Extreme rainfall
- Storms
- Storm surge
- Atmospheric rivers
- Compound flooding
- Atmosphere-Ocean modes
- Atlantic meridional oscillation
- Arctic oscillation
- Pacific decadal oscillation
- North Atlantic oscillation
- Tsunami

Climate change and climate variability:

- Climate change
- Past climate
- Climatic variability
- Climate predictions
- Climate impact
- Climate extreme
- Historic climate change
- Atlantic meridional overturning circulation (AMOC)
- Arctic amplification
- Combination events
- Storm tracks
- Jet stream

Sea-Level Rise:

- Sea level rise (Sea-level rise)
- Coastal inundation
- Ice sheets
- Storm surge
- Greenland ice sheet
- Antarctic ice sheet

Climate Models:

- Climate models
- Global climate models (GCMs)
- Climate model uncertainty
- Coupled Model Intercomparison Project Phase 5 (CMIP5)
- Coupled Model Intercomparison Project Phase 6 (CMIP6)
- UK Climate Projections 2018 (UKCP18)
- H++
- Convective storms
- Convection permitting model
- Regional climate models
- Local projections
- Climate sensitivity
- Equilibrium climate sensitivity
- Transient climate response

Other Meteorological Hazards:

- Heat waves
- Extreme temperature
- Extreme enthalpy
- Storminess