



Maritime & Coastguard Agency

Climate Change Adaptation Report
Update

July 2015

Executive Summary

The Maritime and Coastguard Agency (MCA) was asked by the Department for Environment, Food and Rural Affairs (DEFRA) to provide a voluntary report on the Adaptation to Climate Change in the last round of reporting that ended in 2012.

A copy of our initial report can be found by following the link below: <http://webarchive.nationalarchives.gov.uk/20130123162956/http://archive.defra.gov.uk/environment/climate/documents/adapt-reports/11public-bodies/pbs-maritime-coastguard.pdf>.

DEFRA then requested that the MCA produce a second voluntary report on the progress they have made with their adaptation to climate change and to evaluate that progress. This updated report should therefore, be read in conjunction with the initial report.

This report answers many of the questions asked in the Climate Change Adaptation Reporting Power – How to report your progress in planning for climate change, provided by DEFRA. It also highlights that climate change has had a direct impact on MCA sites, functions and staff since the last round of reporting. Many business as usual plans and protocols have been, and continue to be, invoked in order to mitigate the risks the Agency faces.

Much of the initial report remains valid in terms of risks and adaptation actions. There has been progress to make estates more resilient and less susceptible to the risks extremes of weather pose.

Climate Change risks will continue to be reviewed as is appropriate and proportionate to the business and risk portfolio.

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Glossary

BCC	Business Continuity Community
BCP	Business Continuity Plan
CE	Chief Executive
CRO	Coastguard Rescue Officer
CRT	Coastguard Rescue Team
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
MCA	Maritime and Coastguard Agency
NMOC	National Maritime Operations Centre
OCE	Office of the Chief Executive
PFD	Personal Floatation Device
RNLI	Royal National Lifeboat Institution
SAR-H	Search and Rescue Helicopters.
UKCP09	Climate Projections (2009 Report)

1.0 Understanding Climate Risk

1.1 How has your understanding of climate risks, impacts and their effects on your organisation and stakeholders advanced since your first round report?

The Maritime and Coastguards Agency's understanding of climate impacts and effects has been felt first hand since the last round of adaptation to climate change reports. In 2013, for example, a storm surge affected our site in Crosby near Liverpool where some storage containers were lifted across the car park and our building sustained roof damage. Another example is our Beverly site where, in the winter of 2014, the sheer volume of snowfall made access to the building extremely difficult.

Our understanding of the risks of climate change has developed to include the risk to our staff at home rather than just the sites and staff at work. During flooding incidents over the past few years we have noted that whilst our own buildings may not have been directly affected, the ability of our staff to get to work from their homes has been impeded. Some staff members also experienced flooding of their homes which impacted their ability to work.

1.2 What climate change evidence or research have you used to better understand the implications for organisation functions?

As well as joining the many DEFRA-sponsored workshops that the Maritime and Coastguard Agency has been invited to attend, we have used the Met Office UK Climate Projections website and the ADAPTME toolkit, UK Climate Projections Briefing Report and associated guidebooks.

To understand the implications for the Maritime and Coastguard Agency, we have discussed the impacts of climate change and the practical responses we could implement within the Business Continuity Community. This community allows every site and function to have a representative and enables us to capture information across the UK.

1.3 Has your understanding of thresholds of climate impacts advanced to better pinpoint organisational vulnerability? If so, how?

We have not identified any particular thresholds that would impact on our ability to provide services to the public or the shipping industry. In the event of extremes of weather, we have Business Continuity Plans covering each function for each site that would come into operation in the event of an extreme climate change incident.

1.4 How have you developed your quantified assessment and analysis or risk likelihood and impacts?

The identified risks and factors that affect them as set out in our 2011 voluntary report remain valid. We have not developed this assessment further.

2.0 Understanding uncertainties

2.1 What uncertainties remain in monitoring and evaluating climate risks to your organisations functions?

The identified uncertainties as set out in our 2011 voluntary report remain valid when evaluating our risks to climate change.

2.2 What new uncertainties have come to light?

No further uncertainties have come to light.

2.3 What further implications do uncertainties have on action your organisation has taken or plans to take?

Other than acknowledging the uncertainties stated in our first voluntary report there are no implications on action that the Maritime and Coastguard Agency has taken, or plans to take, in the future.

2.4 What progress have you made to address information gaps?

We have not made progress to address information gaps. Priority and resource has been given to practically addressing the effects climate change is having on our sites and in protecting our assets for the future.

3.0 Details of actions: implemented and new

3.1 Table of actions: implemented actions

Summary of actions (as set out in first round report)	Timescale over which actions were planned	Progress on implementation of actions	Assessment of extent to which actions have mitigated risk	Benefits/challenges experienced
Continually review BCPs with the BCC.	Each plan is reviewed at least annually.	We have established a BCC within the MCA representing all sites and functions which regularly reviews the adequacy of all BCPs, including preparedness for and response to climate change. After a plan is invoked an assessment is made on what went well and what could be improved. This leads to valid BCPs for future incidents	Learning from experience has allowed forward planning enabling us to be better prepared ahead of extreme incidents. For example grit is laid ahead of snowstorms, Sand bags are positioned where required ahead of a flood.	By having a community each site or function can learn from each other. What went well can be replicated, what didn't work can be a lesson learnt across the Agency. We have been able to build into plans the non-availability of key staff in the event of extreme weather conditions affecting their ability to get to work.
Adaptation to Climate Change virtual group created to review developments and offer assurances and recommendations to the CE.	This virtual group will meet when required as determined by the Head of the OCE or when requested to explore matters of climate change by the CE.	Since our initial report this group has not been required to meet. The development of the BCC has been a better investment of time and resources as we can identify and adapt to the direct effects of Climate Change.	As the virtual group has not been required to meet it has not mitigated risk. It is however a team that can assemble if necessary or requested.	This group has not met since the first report from us in 2011.
Refresh adaptation report.	We proposed to refresh this plan, the risks and the mitigating action every 5 years. The initial report was created in 2011 so we were expecting to refresh this report in 2016.	As we have been asked to provide an update to the Adaptation to Climate Change Report we submitted in 2011 this will become our refreshed plan. We will therefore reassess this plan in 2020.	As part of business as usual and the creation of the BCC we have been able to mitigate the impact of climate change on our sites and staff around the UK.	N/A.

3.2 Table of actions: new actions

Further or new actions planned	Risks addressed by action	Timescale for new/further actions planned
<p>Acquisition and implementation of the NMOC since the last report in 2011.</p>	<p>This site was specifically designed with resilience in mind and can withstand extremes of weather and many other technical and environmental threats. It is in-land, reducing our susceptibility to flooding generally and, if necessary, can take national control of all Coastguard functions. We can relocate work from a site that may be affected by extremes of weather to another station anywhere around the UK.</p>	<p>This acquisition was a long term investment.</p>
<p>We have taken on responsibility for the full provision of the SAR - H services that also supports in-land operations such as mountain rescue. This is managed under a civilian contract.</p>	<p>The contractor is responsible for providing a service that takes into account the environmental and sustainability risks of the aircrafts themselves and the basing arrangements. As per our tender the contractor must ensure that a service can continue to be provided in the event of lightning, extremes of rainfall, snow, icing, heat and turbulence.</p>	<p>This responsibility is for the foreseeable future.</p>
<p>Although not an action set out in the original report of 2011 the Cranfield assessors suggested we identify the risks our radio sites face.</p>	<p>Radio sites by definition are placed on high ground instantly reducing the risk of flooding. All Radio sites have lightening and power surge protection. If for any reason a radio site does fail we have tried and tested continuity arrangements that can be put in place to mitigate this risk.</p>	<p>N/A.</p>
<p>Our Coastguard Rescue Team needs are continually reviewed. There are clear operational protocols and we have trained Coastguard Rescue Officers to provide support or to conduct water rescues at the coast; those skills will only be deployed in-land where they are the most appropriate local resource after the RNLI, Fire and Rescue Service or Police.</p>	<p>Whilst it is more likely that HM Coastguard local resources will provide a support functions to other services in the form of delivery of drinking water or the transportation of key staff in our fleet of 4x4 vehicles we still continually assess the equipment needs of our teams. Since the last report more than 300 volunteer CRTs are equipped with a water rescue capability including drysuits, PFDs, throwlines and floatation collars for stretchers.</p>	<p>The assessment of our CRTs is continually reviewed to enable our volunteers to work in the safest way possible with the equipment they need to do the job at hand.</p>

4.0 Addressing barriers and understanding interdependencies

4.1 Where you've identified interdependencies, how have these assisted or hindered actions to address climate risk?

In our last report we identified no known interdependencies. We are still of the opinion that the risks identified for the Agency are largely viewed as independent. We will reassess interdependencies that may arise when this report is refreshed in five years' time.

4.2 What were the main barriers to implementing adaption actions and why?

Similarly with interdependencies the barriers to adaptation remain the same. No further barriers have been identified

Our agreed funding period as stated in the last report has now ended and the Department for Transport will need to make further savings with the upcoming spending review. This is likely to mean that any additional funding that the Agency may wish to apply for to adapt to climate change may be harder to achieve. As an Agency we would need to put forward a strong justification for the expenditure.

5.0 Monitoring and evaluating

5.1 How effectively has consideration of climate change risks been embedded within your sector or organisation?

We are clear that Climate Change continues to have an effect on our Agency and staff around the UK.

The risks we face from Climate Change are taken into account as part of our Business Continuity Planning.

These risks are also assessed within our estate planning. When looking at the acquisition of a new site, the research conducted will largely be dependent on the physical attributes of the building, locational factors and the tenure. We analyse flood risks and ground stability to assess a sites susceptibility to extremes of weather.

All of these functions are now thought of as everyday business as usual, their effectiveness can be seen within the examples provided in this report.

5.2 How effectively have organisational monitoring and evaluation processes been to ensure adaptation responses are implemented and on track? If these have not been effective, what barriers prevented this?

Climate change adaptation is taken into account proportionately and appropriately according to our operations and their associated risks. There is not a detailed evaluation process specifically on adaptation to climate change.

The length of contracts and commitments that we enter into for our sites are relatively short term commitments and their risk to climate change is re-assessed as and when they are acquired or renewed. Day to day risks and effects of climate change are evaluated through the site specific business continuity plans.

5.3 How effective were monitoring and evaluation processes on determining how the organisation handled recent extreme weather conditions?

A central record of business continuity plan invocations are held by the Secretariat team which includes times where plans have been invoked due to flooding or extremes of weather.

Each incident and response is assessed by the staff at the site or within the function that was affected. It is considered that those members of staff are the most appropriate evaluation and monitoring factor as they have first-hand experience and will undoubtedly know what will work in the future or why something may not have worked in the past.

5.4 Has the organisation identified any financial benefits from implementing adaptation actions? Perhaps through cost benefit analysis, fewer working days lost, more efficient operations etc.?

At this stage no financial benefits have been identified that can be attributed to our adaptation to climate change. As our adaptations are considered business as usual this would be something that would be difficult for us to identify.

6.0 Opportunities and benefits

6.1 What action have you taken to exploit opportunities?

We have not had the opportunity to fully exploit all the opportunities that were identified in our original report of 2011.

We have continuously reviewed our business continuity plans and we assess each estate before purchase which allows us to remain effective despite the changing risks.

Since the flooding incidents that we noted in our last report there has not been a widespread flooding incident that we have been asked to attend. This means we have not had the opportunity to develop further relationships with other government departments with respect to climate change in that area.

We have not assessed if our Agency's reputation has been enhanced as a result of an increase in safety awareness in our mitigation of climate change effects.

Since the report of 2011, the MCA has established HM Coastguard functions in the National Maritime Operations Centre which, although originally designed for another purpose, fits well with the needs of HM Coastguard. The building was constructed to a high specification of resilience including the ability to withstand extremes of environmental and technological threats. This stands us in good stead to cope with the realities of climate change.

The Business Continuity Community has allowed us to activate a virtual community across the UK to share learning and advice on how we can adapt our sites or functions to become more resilient to climate change in the future.

6.2 How effective were your efforts?

The effectiveness of our efforts to exploit opportunities should become apparent to us within the next five years, in time for us to refresh our adaptation to climate change plan for 2020.

7.0 Conclusion

In conclusion, the risks and barriers set out in our Voluntary Report of 2011 remain as described. Since then, however, we have made progress with making our estate more resilient and less susceptible to extremes of weather and long term climate change.

The MCA's management understand the need to embrace adaptation to climate change into account as part of our ongoing Business Continuity Planning.

As an Agency we will continue to review estate and operational decisions regarding climate change as is appropriate and proportionate to our business and our risk portfolio.