



Seascape Assessment for the South Marine Plan Areas

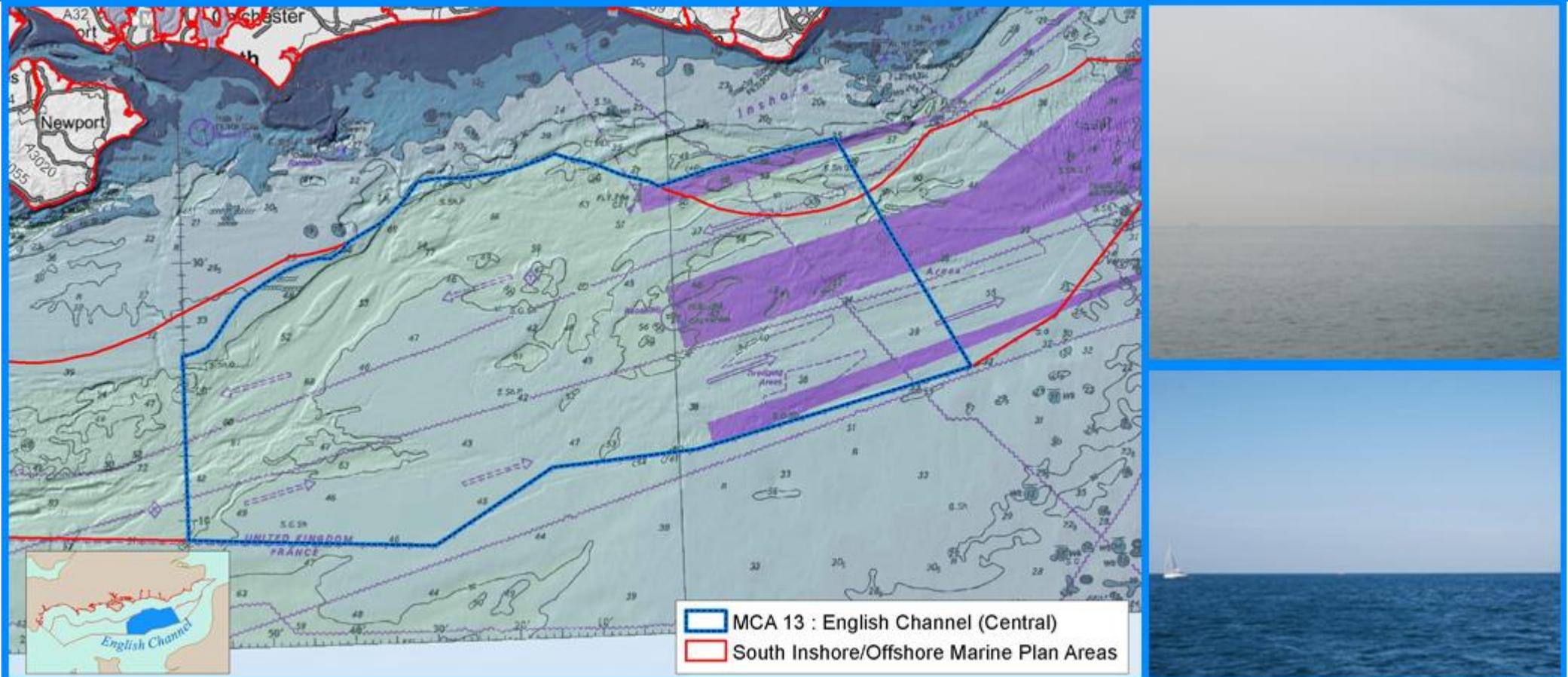
MCA 13: English Channel (Central)

Snapshot

Key Characteristics

Description

Visual Resource Mapping



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Location and boundaries

The Marine Character Area (MCA) covers the central English Channel. The western boundary reflects the transition between the eastern and western English Channel marked by the Isle of Wight. The inshore boundary follows the line of bathymetry approximately 20 kilometres (11 nautical miles) offshore. The outer boundaries are formed by the edge of the offshore Marine Plan Area and territorial limits, reaching a maximum of approximately 74 kilometres (40 nautical miles) from the coast. The eastern boundary is marked by the point off Beachy Head where the Dover Strait (as depicted on the international Vessel Traffic Services (VTS) guide) begins. The functional extent of the Channel extends eastwards and westwards into adjoining MCAs 14 and 12.

Please note that the MCA boundaries represent broad zones of transition (not immediate breaks in character). Natural, visual, cultural and socio-economic relationships between adjacent MCAs play a key role in shaping overall character. Therefore individual MCAs should not be considered in isolation.

Overall character

This MCA has a rich geomorphological history which has been used as the basis of our understanding of the English Channel. It is also a busy shipping channel which supports heavy sea traffic as well as the passenger ferry between Newhaven and Dieppe. The seabed contains wrecks which reflect battle history from the World Wars.

Adjacent National Character Areas (NCAs)

N/A – this NCA does not include an adjacent coastline.

Adjacent nationally protected landscapes

Although not immediately adjacent to the MCA, the South Downs National Park includes land with views out towards this part of the English Channel.



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- Broad east to west channel forming the central part of the wider English Channel (which stretches into French territorial waters). It reaches a maximum depth of approximately 75 metres.
- Contains a large part of the English Channel Outburst Flood Feature -providing evidence of the flood which created the channel separating England from mainland Europe.
- Important geomorphological features within the Northern Palaeovalley, including a bedrock bench and the hanging Solent palaeo-valley.
- Mixed solid geology of the sea floor largely concealed by seabed and palaeovalley sediments, including sand, gravels, flints and chalk pebbles.
- Areas of high marine biodiversity associated with the offshore 'Overfalls' (in MCA 6) and areas of deeper water where sediment has infilled the ancient palaeovalley system.
- Subtidal sands and gravels interspersed with Rossworm reefs provide habitats for benthic species.
- Complex tidal currents meeting from the western English Channel and the North Sea. Strong tides and the funnelling influence of the nearby Dover Strait (MCA 12) can give rise to relatively rough seas with steep breaking waves.
- Marine species including brown crab, bass, cod and sandeels, and the wider area supports spawning grounds for plaice. There are also sea squirt beds and spoon worm habitats.
- Strategic area for trade and military routes both along and across the Channel since at least the medieval period. The western MCA formed the major route for the 1944 D-Day invasion of Normandy which turned the tide of the Second World War in Western Europe.
- The Channel's turbulent past reflected in the wrecks of cargo and military vessels frequently attacked by torpedo or gunfire during the First World War. Much of the MCA remains in military use as Firing Practice Areas.
- Part of the first IMO-approved traffic separation scheme in the world in the Dover Strait in the east of the MCA. Maritime traffic follows a one way system, separated by a central traffic separation zone.
- Internationally important telecommunications cables passing through the seabed, including the Atlantic Crossing, which transports speech and data traffic between the USA and Europe.
- Extensive dredging of seafloor gravels in the east of the MCA provides aggregates for the construction industry.
- One of the busiest shipping channels in the world, with high volumes of large commercial freight/cargo vessels and tankers as well as the ferry route from Newhaven to Dieppe.
- Important commercial and offshore recreational fishing grounds heavily used by British, Belgian, Dutch and French trawling, potting and netting fleet.
- Scallop dredging and trawling are particularly important. A mixture of species is fished including cod, sole plaice, bass and rays.
- Weather conditions subject to rapid change. Strong tides and the narrow topography can give rise to rough seas with steep breaking waves.
- Visibility is often poor, changing quickly to dense fog, even in strong or gale-force winds which can last for several days.



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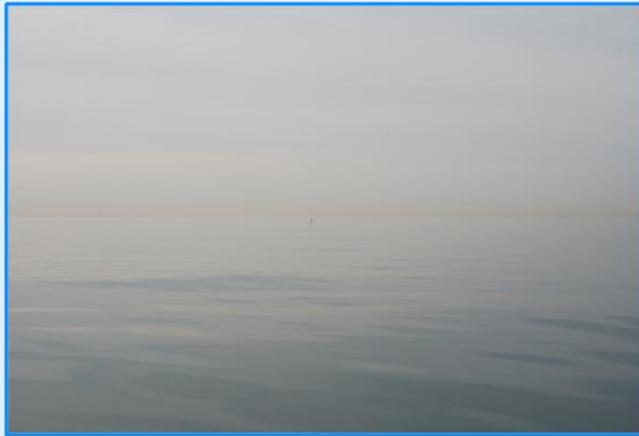
Description

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For ease of reference, the following description text is arranged under three headings, considering the 'Natural', 'Cultural / social' and 'Aesthetic / perceptual' characteristics of the Marine Character Area. It should be noted, however, that all of these aspects combine and interact with each other to varying degrees to shape character.

Natural influences

This MCA covers the deeper waters of the mid English Channel, between approximately 35m in the south-east of the area to 75m in the west.



The seabed in this MCA shows important geomorphological evidence of the Eastern English Channel Outburst Flood. The deeper waters in the west and north of the MCA mark the location of what was the Northern Palaeovalley. This formed part of the Channel River system which flowed west along what is now the English Channel, but which was land when sea levels were lower (i.e. glacial periods).

Important geomorphological features have been identified within the Northern Palaeovalley, including a bedrock bench and the hanging

Solent palaeo-valley – the confluence with this lies in the far north-western corner of the MCA -which indicate that it was formed by megafloods between 125,000 – 500,000 years ago. The megafloods, caused by a breach in the land bridge which formed the rim of a previous North Sea lake - would have massively expanded and gouged the channel and resulted in the main part of the formation of what is now the English Channel.

Most solid geology is concealed by seabed sediments which have infilled the ancient river valley. The seabed – especially at the deeper waters - consists of deep rock often overlain with a thin veneer of sand or mixed sediments with some outcrops of chalk to the west of the MCA. Chalk reefs in the west of the MCA are associated with the 'Offshore Overfalls' recommended Marine Conservation Zone (rMCZ) in MCA 6 as being of particularly notable biodiversity value. These are large relic glacial deposits forming a series of large bank features alongside sand and gravel banks in an area of high tidal currents and moderate energy rock habitats. Deeper waters within the 'Offshore Brighton' rMCZ are associated with sediments which have infilled the ancient palaeovalley system. These support large numbers of benthic species and fish species including brown crab, bass, cod and sandeels, and the wider area are spawning grounds for plaice. There are also sea squirt beds and spoon worm habitat. Rossworm reef and subtidal sands and gravels are also important habitats rich in benthic species, found within the rMCZ 'East Meridian', in the east of the MCA.

Tidal currents are relatively strong, with water flowing up the English Channel from the south-west. The channel narrows towards the Dover Strait to the east (MCA 12) which gives rise to some more pronounced sea and weather conditions. Occasional sightings of long-finned pilot whales take place within this part of the Channel.



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Cultural / social influences

This part of the Channel, along with the adjacent Dover Strait (MCA 12 to the east) has been, and remains, an important trade route for thousands of years, recognised nationally (and internationally) for its role in British maritime history – both as a trade route and as the location of multiple battles and invasion attempts from the continent over the millennia.

The English Channel has been used to import and export goods between the continent and English ports since the Iron Age. This is in evidence through the presence of a large concentration of ship wrecks within the MCA (particularly in what is now the English shipping lane). These include a range of vessels from clippers to fully rigged wooden sailing ships carrying a variety of cargo, which had either succumbed to stormy weather conditions, or collisions in the busy shipping channel. In addition, some cargo vessels were innocently caught up in World War One attacks, particularly by torpedo. The international nature of trade is highlighted in the varied origins of the ship wrecks, including The Netherlands, Norway, Ireland, France, Wales, Scotland and the Channel Islands – as well as their planned destinations, including Melbourne in Australia. Some wrecks date back to the 16th century, with many from the latter part of the 19th and early 20th centuries. A fully rigged ship aptly named *British Commerce* foundered after a collision in 1883 whilst en-route from London to Melbourne, carrying a varied cargo including glassware. The long-standing role as a ferry crossing route is also in evidence, with an 1895 ferry called *Seaford*, which foundered en-route from Newhaven to Dieppe carrying both passengers and general cargo.

The Channel's strategic position and proximity to the continent has also meant that it has long been at the frontline in the defence of the nation,

including as far back as the Roman period. In the 11th century William the Conqueror led the Norman invasion across the Channel from Saint-Valery-sur-Somme, landing in Pevensey Bay. The Norman conquest also encouraged further cross-channel trade – such as the importing of French stone to build their famous castles and fortifications along the south coast, and wine.

Perhaps the most famous events in recent memory are from the First and Second World Wars, including the early stages of the *Battle of Britain* (1940) involving both the RAF and the Navy against airborne German attacks. Many casualties of both English and German vessels, submarines and aircraft from both World Wars are found on the seabed. For example, the *Warilda* was a hospital ship torpedoed by a German submarine whilst transporting wounded soldiers from Le Havre to Southampton in the First World War. *HMS Moldavia*, a passenger steamship converted for military use, was also torpedoed, sinking off Beachy Head during World War One. It is largely preserved on the sea floor and is a popular diving site today. The remains of wrecked German aircraft are also present, including a German Dornier Do17 which was shot down in 1940, as well as a German Junkers Ju88 bomber which crashed off the Sussex coast in the same year – possibly as part of the *Battle of Britain*.

Today, the role of the English Channel as a key trade route for international shipping continues. It contains a very high volume of large commercial freight/cargo vessels, tankers, fishing vessels plus cross-Channel ferries from Newhaven to Dieppe. The strict system of traffic separation zones manages the high density of sea-based traffic navigating through the narrow Strait, beginning in a line off Shoreham-by-Sea and continuing into MCA 12.



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The Channel has traffic on both the UK-Europe and North Sea-Atlantic routes, and is the world's busiest seaway, with over 500 ships per day. Following an accident in January 1971 and subsequent series of collisions with wreckage in the following February, the Dover Traffic Separation System (TSS), the world's first radar controlled TSS, was set up by the International Maritime Organization. The scheme mandates that vessels travelling north must use the French side, travelling south along the English side. There is a separation zone between the two lanes. The English shipping lane passes through the southern part of this MCA.

As well as this part of the Channel's importance for marine transport and trade, the seabed provides a rich resource for scallop and oyster dredging. The waters are also a rich resource for commercial fishing. The MCA is heavily used by British, Belgian, Dutch and French trawling, potting and netting fleets, though most fishing is from French vessels. Boats of over 10m work from a few UK harbours, mainly Shoreham. A mixture of species is fished, including cod, sole plaice, bass and rays. Other boat traffic includes cargo and fishing vessels travelling east/ west along the Channel. Gravel deposits in the east of the MCA are dredged to provide aggregates for the construction industry.

The other important role for the Channel, particularly in the 21st century, is in providing seabed routing for telecommunications cables along the seafloor. This includes the Atlantic Crossing, which transports speech and data traffic between the USA and Europe.

Aesthetic and perceptual qualities

This is a busy, dynamic area defined by transport movement, regularly used by over 400 commercial vessels per day, and regular cross

channel traffic between Newhaven and Dieppe. There are occasional views of maritime traffic on the horizon from the Sussex coast, where the westbound shipping lane is as near as 17km offshore at Beachy Head. However, views towards to the MCA from the coast are predominantly to a wide uninterrupted horizon.



Perceptions of the area are also strongly influenced by sea and weather conditions – with visibility often poor and fog lasting for consecutive days, evoking a strong sense of remoteness despite the presence of dense marine traffic.



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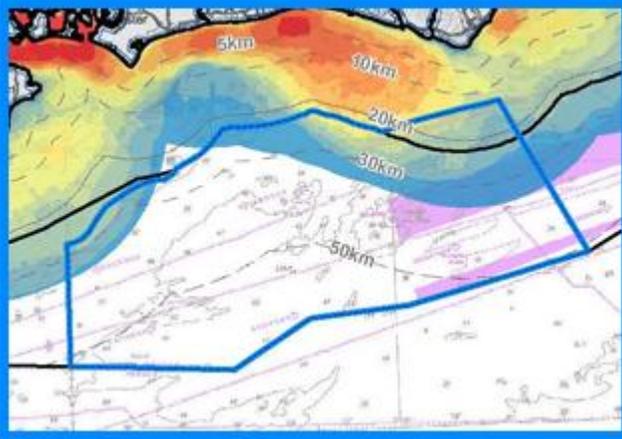
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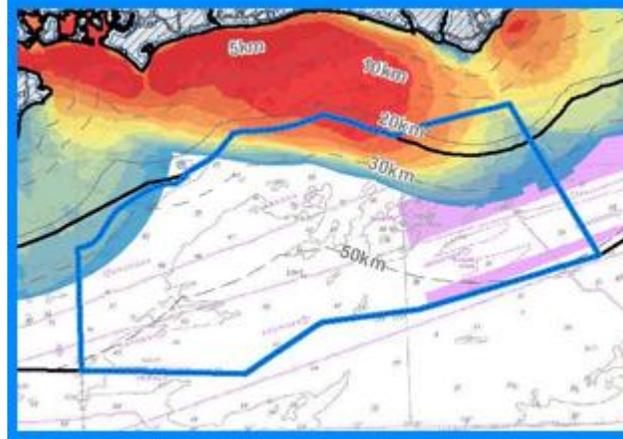
Visual Resource Mapping

Visibility of sea from land

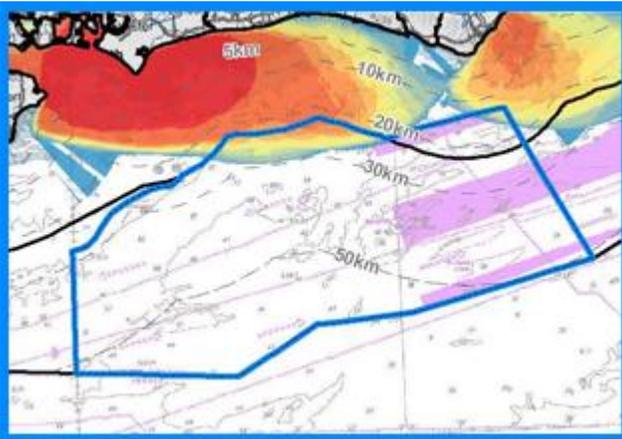
Relative visibility of the sea surface from viewers on land



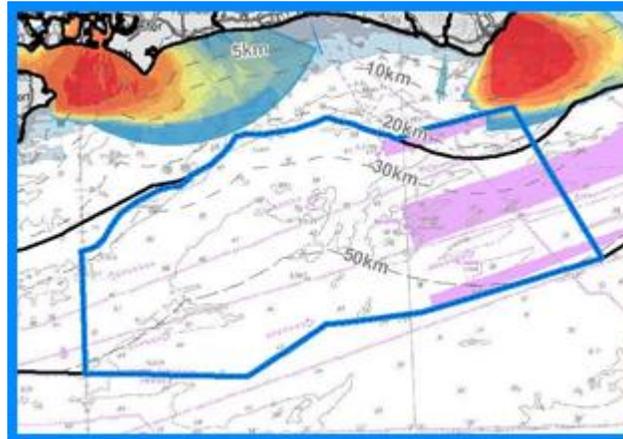
0-1km from the High Water Mark



1-5km from the High Water Mark



5-10km from the High Water Mark



10-20km from the High Water Mark

South Inshore/South Offshore marine plan areas

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Location of viewers

1 to 10	11 to 20	21 to 30	31 to 40	41 to 50
51 to 60	61 to 70	71 to 80	81 to 90	91 to 100

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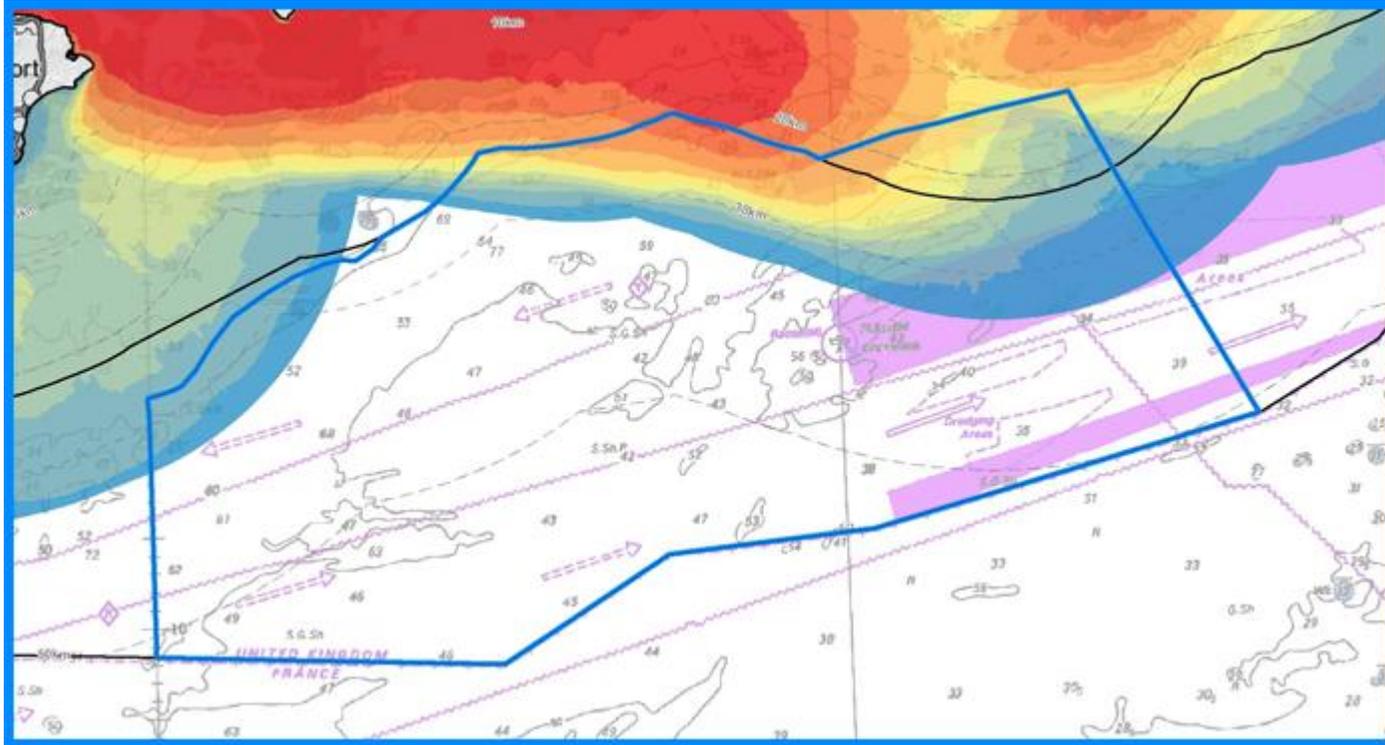
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Visibility of sea from land

Relative visibility of the sea surface from viewers on land



- The majority of this MCA is not visible from land.
- There is a very small area of high visibility located along the boundary with MCA 7 (Selsey Bill to Seaford Head), however visibility is likely to be heavily influenced by atmospheric conditions given that it is located more than 20km offshore.

Up to 20km from the High Water Mark

South Inshore/South Offshore marine plan areas

MCA 13: English Channel (Central)

Visibility of sea from land (percentile)

