

Risk management: Recommended decision matrix for meteorological risks



**Levels Criteria**  
& Description

**(Low; Medium; High)**  
**(Measurements; Forecast; Weather events; Danger signals)**  
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Risk Level	Measurements	Forecast	Weather events	Danger signals
<b>High</b>	<ul style="list-style-type: none"> <li>☒ Different from Observation</li> <li>☒ Data missing</li> <li>☒ Rapid changes within last days</li> </ul>	<ul style="list-style-type: none"> <li>☒ Frequent differences to past measurements</li> <li>☒ Data missing</li> <li>☒ Rapid changes during next days</li> </ul>	<ul style="list-style-type: none"> <li>☒ Wind &gt; 6 Beaufort</li> <li>☒ Thunderstorms</li> <li>☒ Temperature &lt;-5°C, &gt;30°C</li> <li>☒ Swell &gt; 4 m</li> </ul>	<ul style="list-style-type: none"> <li>☒ Rapid drop in pressure (QLM)</li> <li>☒ Hazy, low visibility</li> <li>☒ Strong wind against high swell or tide</li> <li>☒ Icebergs</li> <li>☒ Warnings from official meteorology services</li> </ul>
<b>Medium</b>	<ul style="list-style-type: none"> <li>● Inconsistent with Observation</li> <li>● Data are incomplete</li> <li>● Some changes within last days</li> </ul>	<ul style="list-style-type: none"> <li>● Inconsistent with Observation</li> <li>● Data are incomplete</li> <li>● Some changes within last days</li> </ul>	<ul style="list-style-type: none"> <li>● Wind = 4 to 6 Beaufort</li> <li>● Cloud cover</li> <li>● -5°C &gt; Temperature &lt;30°C,</li> <li>● Swell 1-4 m</li> </ul>	<ul style="list-style-type: none"> <li>● Change in pressure (QLM)</li> <li>● Visibility &lt;10 miles</li> <li>● Wind direction against swell or tide</li> </ul>
<b>Low</b>	<ul style="list-style-type: none"> <li>☀ Consistent with Observation</li> <li>☀ Data are complete</li> <li>☀ Few changes within last days</li> </ul>	<ul style="list-style-type: none"> <li>☀ Consistent with Observation</li> <li>☀ Convergence<sup>1)</sup></li> <li>☀ Data are complete</li> <li>☀ Few changes within next days</li> </ul>	<ul style="list-style-type: none"> <li>☀ Wind &lt; 4 Beaufort</li> <li>☀ Clear skies</li> <li>☀ Temperature 0-25°C</li> <li>☀ Swell &lt; 1 m</li> </ul>	<ul style="list-style-type: none"> <li>☀ No change in pressure (&lt;2 hPa/day)</li> <li>☀ Visibility &gt;10 miles</li> <li>☀ Wind direction same as swell or tide</li> </ul>

Notes: <sup>1)</sup> Convergence: similarity of different forecast (weather models, calculation runs); low convergence = large differences; high convergence = small difference.

Risk management: Recommended reactions for meteorological risks



<b>Risk Level</b>	<b>Business value =</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>High</b>		<ul style="list-style-type: none"> <li>☒ <b>Get professional advice</b></li> <li>☒ Contingency: stop or change <sup>3)</sup></li> <li>☒ Continuous hourly observation <sup>2)</sup></li> <li>☒ Special safety measures</li> </ul>	<ul style="list-style-type: none"> <li>☒ <b>Get professional advice</b></li> <li>☒ Contingency: change or stop <sup>2)</sup></li> <li>☒ Continuous observation (1-3h) <sup>3)</sup></li> </ul>	<ul style="list-style-type: none"> <li>☒ Postpone measures</li> <li>☒ Regular observation</li> </ul>
<b>Medium</b>		<ul style="list-style-type: none"> <li>● <b>Get professional advice</b></li> <li>● Continuous observation (1-3 hourly) <sup>2)</sup></li> <li>● Contingency: stop, change or get professional advice <sup>3)</sup></li> </ul>	<ul style="list-style-type: none"> <li>● Continuous observation (1-3h)</li> <li>● Contingency: stop, change or get professional advice <sup>2)</sup></li> </ul>	<ul style="list-style-type: none"> <li>● Continuous daily observation</li> </ul>
<b>Low</b>		<ul style="list-style-type: none"> <li>☼ Continuous observation (1-3 hourly) <sup>2)</sup></li> <li>☼ Contingency: change or get professional advice <sup>3)</sup></li> <li>☼ <b>Execute planned measures</b></li> </ul>	<ul style="list-style-type: none"> <li>☼ Execute planned measures</li> <li>☼ Observation during measures, at least daily</li> </ul>	<ul style="list-style-type: none"> <li>☼ Execute planned measures</li> <li>☼ Observation once daily or when needed</li> </ul>

Notes: <sup>1)</sup> Convergence: similarity of different forecast (runs); low convergence = large differences; high convergence = small difference.  
<sup>2)</sup> Plan: a contingency for (quick) reaction in case the situation changes (gets worse).  
<sup>3)</sup> Escalation plan: contingency measures in place in case the situation changes (gets worse).