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### Executive Summary:

Models support a wet and mild Spring over Nordic while slightly dry and mild over Central Europe.

Based on teleconnections, analog years and the PV outlook for March I find

Based on teleconnections, analog years and the PV outlook for March I find it more likely with also drier and cooler periods during the spring over Nordic and wet periods over the Conti, and not prevailing mild but also slightly cooler than normal for limited periods. Average for the Spring milder than normal.

### Prevailing weather regime

Region		Ten	npe	erat	ure	•		Pre	cipi	itat	ion	Ī
Region	м	A	м	1	J	A	м	A	м	J	1	A
Nordic												
Continent												
NO1 (SE)												

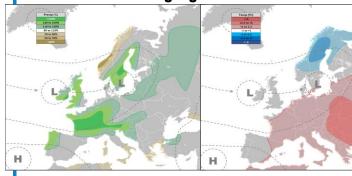
	NO1 (SE)						
ē	NO2 (SW) NO3 (C) NO4 (O)						
. ₹	NO3 (C)						
ž	NO4 (O)						Г
	NO5 (W)						
_	SE1						
eden	SE2						
Swe	SE3						
S	SE4						Г
	Norway						
S	Sweden						
Z	Finland						
	Denmark						
	Germany						П
ш	France						Г
O	Switzerland						Г
	Austria						

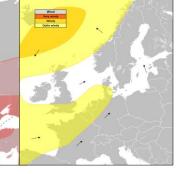
# 2nd most prevailing regime

Region		Te	mp	eratı	ure			Pre	cipi	tat	ion	
Region	м	A	м	1	ı	A	м	A	М		J	A
lordic												
ontinent												
IO1 (SE)												
IO2 (SWI)												

	NO1 (SE)											
ĕ	NO2 (SW)											
Vorway	NO3 (C)											
우	NO4 (O)											
7	NO5 (W)				_	_						
_	SE1											
veden	SE2				_	_						
ĕ	SE3	_			_	_	_					
2	SE4	_			_	_	_					-
	Norway	-	_	_	_	_			_	_	_	
	Sweden	_			_	_	_					-
ž		-	_	_			_				_	-
	Finland Denmark											
		_		_	_	_	_	_	_	_	_	_
	Germany											
ш	France											
U	Switzerland											
	Austria											

# March 2025: Prevailing regime





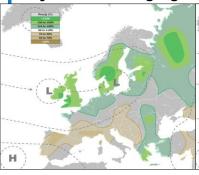
# **April 2025: Prevailing regime**



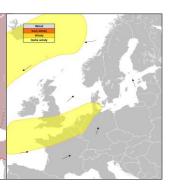




# May 2025: Prevailing regime



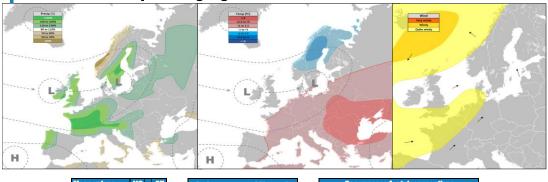




# March 2025 - ForeSight180



Frequency: 45%



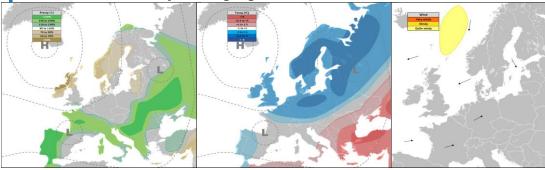
Mean values	NC	CE
Precipitation	SA	WA
Temperature	N	SA
Windy days		69%

Provious occurrences of this se	enario
Occurrences since 2010	2%
Occurrences 2000-2009	4%
Occurrences 1979-1999	3%

Occurr	ences fo	r teleconnections	
QBO	13%	OSCE	•
Ati. Tripole	11%	AO	10%
ONI	15%	Analog	6%
Solar cycle	12%		

# March 2025: 2nd most prevailing regime

Frequency: 35%



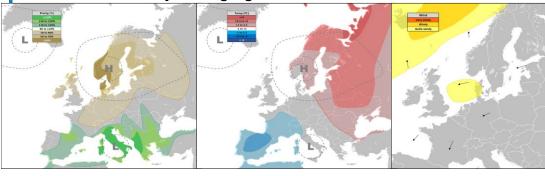
Mean values	NC	CE
Precipitation	SB	A
Temperature	В	В
Windy days		50%

s scenario	-auto
11	11%
89	8%
99	9%

Occurr	ences fo	r teleconnecti	ons
QB0	11%	OSCE	
Ati. Tripole	17%	AO	8%
ONI	16%	Analog	27%
Solar cycle	12%		

# March 2025: 3rd most prevailing regime

# Frequency: 15%



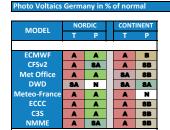
Mean values	NC	CE
Precipitation	WB	SB
Temperature	SA	N
Windy days		28%

Previous occurrences of this s	cenario
Occurrences since 2010	25%
Occurrences 2000-2009	10%
Occurrences 1979-1999	24%

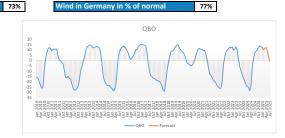
Occurr	ences fo	r teleconnections	
QBO	25%	OSCE	-
Ati. Tripole	22%	AO	24%
ONI	24%	Analog	27%
Solar cycle	29%		

INDEX	SIGN/DHASE	SIGN/PHASE NORDIC CONTINENT							Main weather regimes									
INDEX	SIGN/PHASE	Т	P	ı	T	P	W		1	2	3	4	- 5	6		Т	Ν	Н
Normal conditions		N	N		N	N	10%		27%	10%	31%	2%	20%	8%		37%	33%	28%
<b>Quasi-Biennial Oscillation</b>	westerly winds	N	N		N	SA	10%		27%	13%	25%	2%	18%	11%		40%	27%	29%
Atlantic Tripole	positive	SB	SB		N	SA	8%		25%	11%	22%	3%	22%	17%		36%	25%	39%
Ocean Niño Index (ONI)	neutral	SB	SB		SB	SA	5%		17%	15%	24%	1%	25%	16%		32%	25%	40%
Solar cycle	maximum period	SA	SA		SA	WA	11%		30%	12%	29%	1%	16%	12%		42%	30%	28%
Oct snow cover extent	-	-			-	-	-		-	-	-	-	-	-		-	-	-
AO persistence	neutral	SB	SA		SA	A	15%		25%	10%	24%	6%	25%	8%		35%	31%	33%
Analog years	97,01,02,13	В	SB		SB	A	2%		22%	6%	27%	0%	17%	27%	1	28%	27%	44%

Explanation of each index and the legend are found on the last page.



Forecaster SA N SA SA



The observed and forecasted Quasi Biennial Oscillation

# **March 2025 - Discussion**

### MODELS

All seasonal models align of really mild across Europe and wet over Nordic, most of them slighty dry over Central Europe.

### TELECONNECTIONS

The QBO is currently in its westerly phase giving a weak wet signal over Central Europe.

Atlantic Tripole is expected slightly positive and give some support for north Atlantic ridge and therefore a weak dry and cold signal over Nordic and wetter over Central Europe.

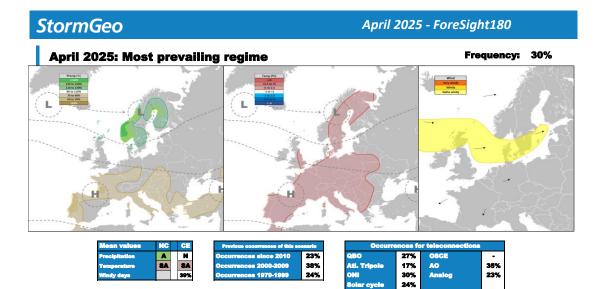
ENSO is neutral negative and give a weak cold signal across Central and Northern Europe and weak dry signal over Nordic and weak wet signal over Central Europe.

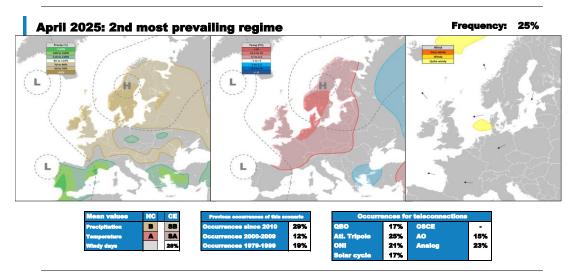
The solar cycle is currently in its maximum phase and give a strong wet signal over the Conti and weak wet signal over Nordic, weak mild signal across Europe.

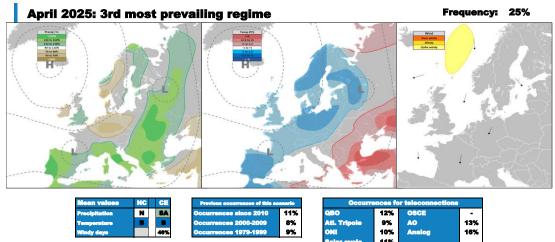
Analog year 2013 was very dry and cold over Nordic and also 2001 was dry and cold, but 97 was wet and mild and also 2002 slightly wet and mild so no clear signals from the analog years. Over the Conti 2013 was very cold, but the other years normal to mild and most of the years wet.

### CONCLUSION

Models are very wet and mild over Nordic, but teleconnections not supporting that outcome and mixed from analog years. Polar Vortex will most likely becoming weak in March and the jet stream could be quite wavy and slow down. I therefore expect only normal precipitation amounts and normal to slightly mild. Over the Conti slightly wet and mild.



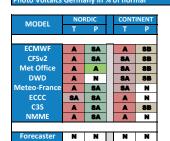




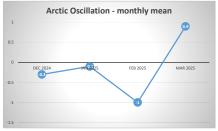
# April 2025 - ForeSight180

INDEX	SIGN/PHASE	NO	RDIC		C	ONTINE	NT	l			V	1ain w	eathe	r regin	ne	S		
INDEX	SIGN/PHASE	Т	P	ı	T	P	W	ı	1	2	3	4	- 5	6		_	N	Н
Normal conditions		N	N		N	N	6%	ı	30%	8%	18%	4%	28%	11%		39%	22%	39%
Quasi-Biennial Oscillation	westerly winds	N	N		N	N	7%	ı	27%	7%	17%	6%	30%	12%		34%	23%	42%
Atlantic Tripole	neutral	SA	SB		N	SA	4%	ı	17%	10%	25%	33%	6%	9%		27%	58%	15%
Ocean Niño Index (ONI)	neutral	SB	N		N	N	3%	ı	30%	10%	26%	21%	2%	10%		39%	47%	12%
Solar cycle	maximum period	SA	SA		SB	A	5%	ı	24%	11%	17%	8%	29%	11%		35%	25%	40%
Oct snow cover extent	-	-			-	-	-	ı	-	-	-	-	-	-		1		-
AO persistence	neutral	SB	SA		N	N	18%	ı	35%	12%	15%	2%	23%	13%		47%	17%	36%
Analog years	02,06,09,12	SB	N		N	SA	3%	ı	23%	13%	23%	0%	25%	16%		36%	23%	41%

Explanation of each index and the legend are found on the last page.







Monthly mean values of the Arctic Oscillation (AO)

# **April 2025 - Discussion**

### MODELS

Models shows a strong mild signal across Nordic while slightly weaker mild signal over Central Europe. Weak wet signal dominates over Nordic and weak dry signal dominates over the Conti.

## TELECONNECTIONS

**QBO** in westerly phase give no signals this month.

Some uncertainty for the **Tripole** but most likely neural, giving a weak dry and mild signal over Nordic and weak wet signal over Central Europe. Neutral **ENSO** conditions give only a weak cold signal over Nordic.

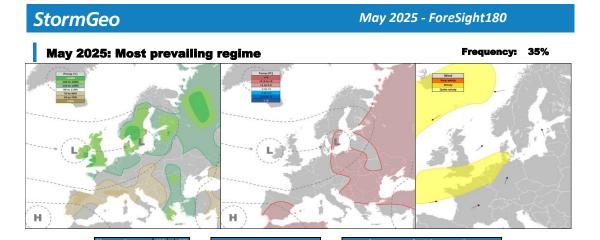
Solar cycle in maximum phase give a quite solid wet signal over Central Europe and weak wet and mild signal over Nordic.

76%

Analog years give no clear signals as there is large spread among the years. I think weather development in April is wide open and there choose neutral conditions.

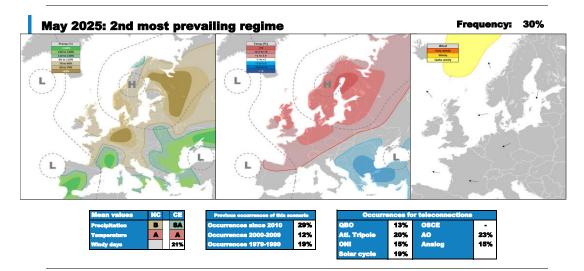
## CONCLUSION

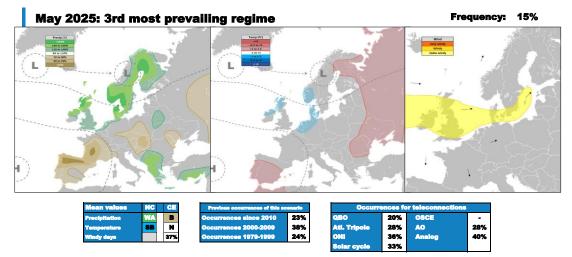
Teleconnections and analog years shows large spread and no consistent signals from these. Models on the other hand shows clearer signals.



. 14% 5%

9% 14%





# May 2025 - ForeSight180

94%

INDEX	SIGN/PHASE	NO	RDIC		CC	ONTINE	NT	ĺ		
INDEX	SIGN/PHASE	T	P	Г	T	P	W		1	2
Normal conditions		N	N		N	N	16%		28%	12%
<b>Quasi-Biennial Oscillation</b>	westerly winds	SA	N		N	SA	15%		20%	12%
Atlantic Tripole	negative	SA	N		SA	В	19%		28%	9%
Ocean Niño Index (ONI)	neutral	SA	SA		N	SA	12%		36%	14%
Solar cycle	maximum period	A	SB		SA	N	13%		33%	6%
Oct snow cover extent	-	-				-	-		-	-
AO persistence	negative	N	N		SB	N	18%		28%	14%
Analog years	91,02,11,13	N	SA		В	A	9%		40%	5%

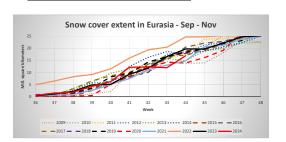
28%         12%         17%         3%         28%         12%         40%         20%         40           20%         12%         13%         7%         34%         13%         32%         20%         47           28%         9%         20%         4%         27%         12%         37%         24%         39           36%         14%         15%         2%         25%         7%         50%         17%         32           33%         6%         19%         6%         27%         8%         39%         26%         -							 ~		
20%         12%         13%         7%         34%         13%         32%         20%         47           28%         9%         20%         4%         27%         12%         37%         24%         39           36%         14%         15%         2%         25%         7%         50%         17%         32           33%         6%         19%         6%         27%         8%         39%         26%         25%           .         .         .         .         .         .         .         .         .	1	2	3	4	- 5	6	L	N	Н
28%         9%         20%         4%         27%         12%         37%         24%         39           36%         14%         15%         2%         25%         7%         50%         17%         32           33%         6%         19%         6%         27%         8%         39%         26%         35           - </td <td>28%</td> <td>12%</td> <td>17%</td> <td>3%</td> <td>28%</td> <td>12%</td> <td>40%</td> <td>20%</td> <td>40%</td>	28%	12%	17%	3%	28%	12%	40%	20%	40%
36% 14% 15% 2% 25% 7% 50% 17% 32 33% 6% 19% 6% 27% 8% 39% 26% 35 	20%	12%	13%	7%	34%	13%	32%	20%	47%
33% 6% 19% 6% 27% 8% 39% 26% 35 	28%	9%	20%	4%	27%	12%	37%	24%	39%
	36%	14%	15%	2%	25%	7%	50%	17%	32%
	33%	6%	19%	6%	27%	8%	39%	26%	35%
	-	-	-	-	-	-	-	-	-
28% 14% 23% 5% 23% 8% 42% 27% 31	28%	14%	23%	5%	23%	8%	42%	27%	31%
40% 5% 15% 7% 26% 8% 44% 22% 34	40%	5%	15%	7%	26%	8%	44%	22%	34%

Main weather regimes

Explanation of each index and the legend are found on the last page.

Photo Voltaics Germany in % of normal 101%

MODEL	NO	RDIC	CONT	INENT
MODEL	T	P	T	Р
ECMWF	A	SA	A	SB
CFSv2	A	SA	SA	A
Met Office	A	SA	SA	N
DWD	A	N	SA	SA
Meteo-France	8A	N	SA	N
ECCC	A	SB	A	SB
C3S	A	N	A	N
NMME	A	N	A	N
Forecaster	SA	SA	SA	SA



Wind in Germany in % of normal

# May 2025 - Discussion

### MODELS

Models remain mild across Central and Northern Europe while weak and mixed signals for precipitation.

## TELECONNECTIONS

**QBO** in westerly phase give a weak mild signal over Nordic and weak wet signal over Central Europe.

Tripole phase is uncertain, perhaps becoming negative this month and in case a weak mild signal across europe and a dry signal over the Conti.

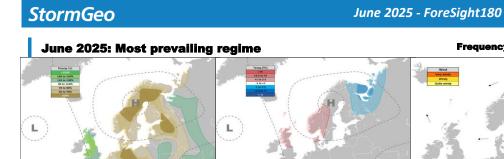
 $\textbf{ENSO} \ is \ probably \ neutral \ and \ give \ a \ weak \ wet \ signal \ across \ Central \ and \ Northern \ Europe \ and \ weak \ mild \ signal \ over \ Nordic.$ 

Solar Cycle in maximum phase give a mild and weak dry signal over Nordic and weak mild signal over the Conti.

Analog year 1991 was dry and cold over Nordic but the other years normal to wet and normal to mild. Over the Conti most of the years have been wet and normal to cool.

### CONCLUSION

More signals are pointing toward wet and mild over Nordic than dry, and some support for wet over the Conti as well.

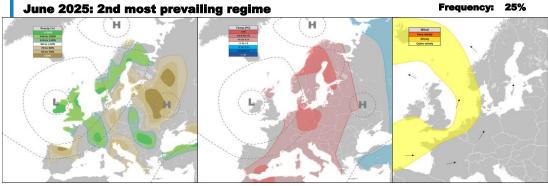


Previous occurrences of this	cenario
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurr	ences fo	or teleconnectio	ons
QBO	17%	OSCE	
Ati. Tripole	12%	AO	7%
ONI	18%	Analog	4%
Solar cycle	10%		

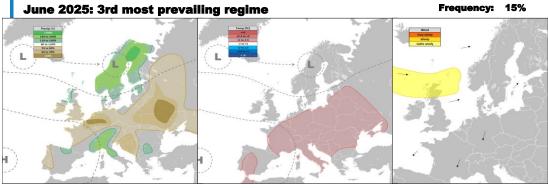
Frequency: 35%





conario	Previous occurrences of this s
1%	Occurrences since 2010
3%	Occurrences 2000-2009
1%	Occurrences 1979-1999

Occur	rences fo	r teleconnecti	ons
QBO	1%	OSCE	
Ati. Tripole	0%	AO	3%
ONI	2%	Analog	0%
Solar cycle	5%		



N SA 39%

33% 24% 30% -15% 23%

# June 2025 - ForeSight180

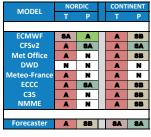
INDEV	SIGN/PHASE	NO	RDIC		C	ONTINE	NT			N	/lain w	<i>r</i> eathe	r regin	ne	S			
INDEX	SIGN/PHASE	Т	P	Ī	T	P	W	1	2	3	4	- 5	6		L	N	H	
Normal conditions		N	N		N	N	4%	31%	19%	17%	2%	23%	8%		49%	19%	31%	
Quasi-Biennial Oscillation	transition phase	SA	N		N	N	5%	33%	22%	17%	1%	20%	7%		55%	18%	27%	
Atlantic Tripole	negative	SA	SB		SB	SA	6%	24%	19%	12%	0%	30%	15%		43%	12%	45%	
Ocean Niño Index (ONI)	neutral	N	N		N	N	4%	30%	23%	18%	2%	19%	8%		53%	20%	27%	
Solar cycle	maximum period	SA	N		N	SA	3%	34%	16%	10%	5%	24%	11%		50%	15%	35%	
Oct snow cover extent	-		-				-	-	-	-	-	-	-		-	-	-	
AO persistence	positive	N	В		SA	SA	0%	15%	28%	7%	3%	35%	12%		42%	10%	48%	
Analog years	01,02,07,12,20	N	SB		SB	SA	5%	23%	27%	4%	0%	33%	13%		51%	4%	45%	

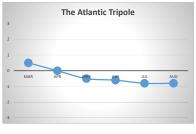
Explanation of each index and the legend are found on the last page.

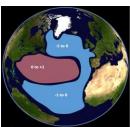


Photo Voltaics Germany in % of normal









# June 2025 - Discussion

### MODELS

The models hold on to warm weather across Europe, weak wet tendency over Nordic and weak dry signal over Central Europe.

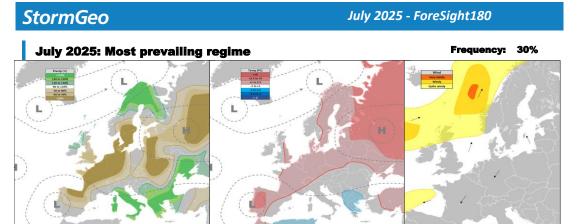
Phase and strength of the **Tripole** is uncertain, possibly negative and in case a weak warm and dry signal over Nordic and weak cold and wet signal over the Conti.

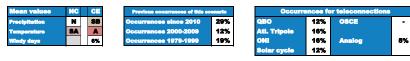
**ENSO** is probably neutral and give no signals.

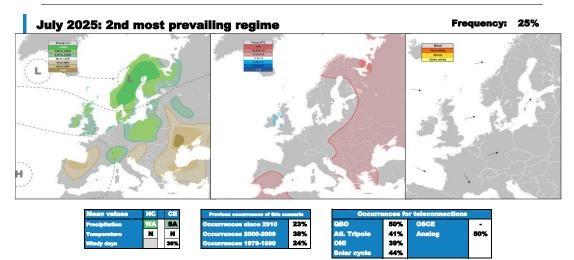
Solar Cycle remain in maximum period showing a weak warm signal over Nordic and weak wet signal over the Conti.

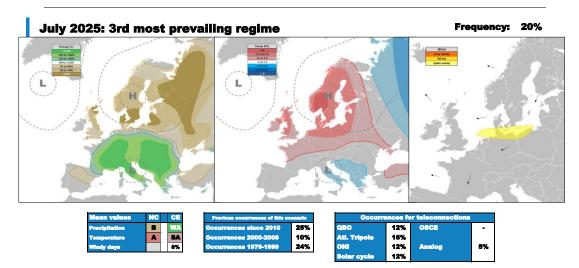
Analog years have been normal to quite dry over Nordic with variable temperatures. Over Central Europe normal to wet and mostly slightly cool.

Based on analog years and partly teleconnections I find dry and warm over Nordic most likely with slightly mild and wet over the Conti.









# July 2025 - ForeSight180

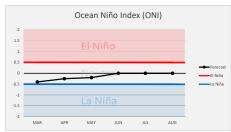
INDEX	SIGN/PHASE	NO	RDIC		C	ONTINE	NT	Main weather regimes											
INDEX	SIGN/PHASE	Т	Р	Ī	T	P	W		1	2	3	4	- 5	6		L	N	Η	
Normal conditions		N	N		N	N	5%		41%	17%	12%	3%	25%	2%		58%	15%	27%	
<b>Quasi-Biennial Oscillation</b>	transition phase	N	SA	Г	N	N	6%		50%	16%	12%	2%	19%	1%		66%	14%	20%	
Atlantic Tripole	negative	N	N	1	N	N	4%		41%	13%	16%	2%	26%	2%		54%	18%	28%	
Ocean Niño Index (ONI)	neutral	SA	SB		N	N	1%		39%	13%	16%	3%	25%	4%		52%	19%	29%	
Solar cycle	maximum period	N	SA		SB	SA	5%		44%	20%	12%	0%	23%	2%		64%	12%	25%	
Oct snow cover extent	-		-	1			-		-	-	-	-	-	-		-	-	-	
Analog years	2011,2016	N	SA		В	SA	2%		50%	16%	5%	0%	23%	6%		66%	5%	29%	

Explanation of each index and the legend are found on the last page.



MODEL	NO	RDIC		CONTINENT				
MODEL	T	ГР		T	P			
ECMWF	SA	SB		SA	A			
CFSv2	A	В		SA	A			
Met Office	A	N		A	SB			
DWD	N	N		A	SB			
<b>Meteo-France</b>	A	SA		<b>A</b>	В			
ECCC	A	N		A	SB			
C3S	SA	SA		<b>A</b>	SB			
NMME	A	SA		A	N			
Forecaster	SA	SA		SA	SB			





The ENSO system - Pacific equatorial sea surface temperature anomaly

# July 2025 - Discussion

### MODELS

The models are still warm across Europe. A weak dry signal dominates over Central Europe while very mixed precipitation signal over Nordic.

### TELECONNECTIONS

Teleconnection signals are quite uncertain both regarding phase and strength. **Solar cycle** still likely in maximum phase and give a weak wet signal over Nordic an weak wet and cool signal over Central Europe.

Analog years have both been wetter than normal over Nordic with temperatures near normal. One slightly dry and one wet year over the Conti and 2011 was very cool.

## CONCLUSION

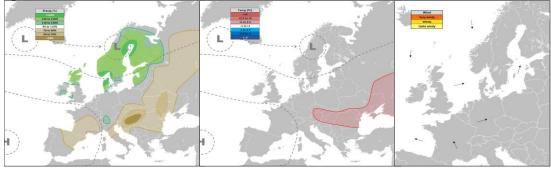
Signals are pointing toward wetter than normal over Nordic and at least slightly mild is likely, over the Conti most likely drier and warmer than normal.



# August 2025 - ForeSight180



Frequency: 35%



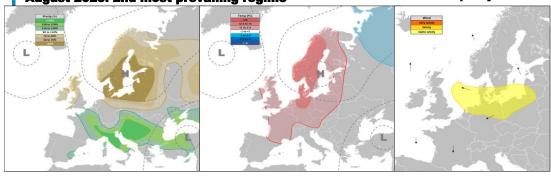
Mean values	NG	CE
Precipitation	A	SB
Temperature	Z	N
Windy days		35%

Previous occurrences of this s	cenario
Occurrences since 2010	23%
Occurrences 2000-2009	38%
Occurrences 1979-1999	24%

Occurrences for teleconnections									
QBO	42%	Solar cycle	27%						
Ati. Tripole	41%								
ONI	40%	Analog	44%						

# August 2025: 2nd most prevailing regime

Frequency: 30%



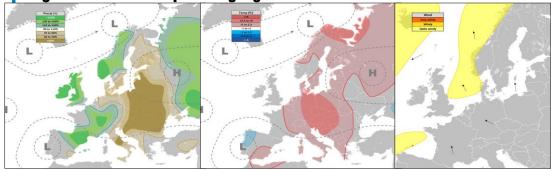
Mean values	NC	CE
Precipitation	В	A
Temperature	A	SA
Windy days		7%

Previous occurrences of this s	cenario
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections									
QBO	13%	Solar cycle	12%						
Ati. Tripole	17%								
ONI	17%	Analog	8%						

# August 2025: 3rd most prevailing regime

Frequency: 15%



Mean values	NC	CE
Precipitation	SA	SA
Temperature	SA	A
Windy days		8%

Previous occurrences of this se	cenario
Occurrences since 2010	29%
Occurrences 2000-2009	12%
Occurrences 1979-1999	19%

Occurrences for teleconnections									
QBO	13%	Solar cycle	12%						
Ati. Tripole	17%								
ONI	17%	Analog	8%						

# August 2025 - ForeSight180

INDEX SIGN/PHASE		NORDIC			CONTINENT			Main weather regimes										
INDEX	SIGN/PHASE	Т	P	1	T	P	W	- [	1	2	3	4	- 5	6		L	Ν	Н
Normal conditions		N	N	П	N	N	15%	ſ	40%	19%	13%	1%	23%	3%		59%	15%	26%
<b>Quasi-Biennial Oscillation</b>	easterly winds	SB	SA	Г	N	N	18%	ı	42%	18%	13%	0%	24%	3%		60%	13%	27%
Atlantic Tripole	negative	N	N	1	N	N	18%	ı	41%	16%	17%	0%	24%	2%		57%	17%	26%
Ocean Niño Index (ONI)	neutral	N	N	1	N	N	16%	ı	40%	13%	17%	1%	25%	4%		53%	18%	29%
Solar cycle	maximum period	A	В		SB	A	14%		27%	23%	12%	0%	35%	3%		49%	12%	38%
Oct. snow cover extent	-	-	-	1			-	Ī	-	-	-	-	-	-		-	-	-
Analog years	1993,2017	В	A		В	N	21%	ı	44%	15%	8%	0%	34%	0%		58%	8%	34%

Explanation of each index and the legend are found on the last page.



# **August 2025 – Discussion**

### MODELS

With few models available for this period, there is limited guidance, but warmer than normal across Europe continue to dominate, no clear signals for precipitation.

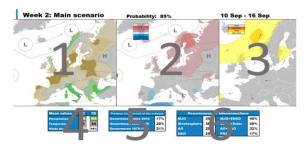
### TELECONNECTIONS

While teleconnection data exists for this month, it should be taken with caution given the extended range with uncertain phase and strenght.

Similarly, analog years provide some hints but are not highly reliable. These analogs suggest wet and cool over Nordic and slightly cool over the Conti.

### CONCLUSION

Highly uncertain outlook so many months ahead. But as it looks now slighty more likely with wetter than normal over Nordic and at least slightly



For each month, the forecaster pick three weather regimes that the forecaster think is going to be the most prevailing that month. How likely each of these are, or how often we anticipate these to occur that week, is given by the "Frequency" above the charts. All the charts are based on the average conditions for a typical weather situation of the chosen weather regime

- 1. Precipitation anomaly chart. Shows areas of above and below normal precipitation for the given scenario, and where the most common low pressure track or low pressure/high pressure systems are positioned.
- 2. Temperature anomaly chart.
- 3. Wind anomaly chart. This is a rough estimate of areas that often see windy conditions and the general wind direction for the given weather scenario.
- 4. The average precipitation and temperature for the Nordic Countries (NC) and Continental Europe (CE). "Windy days" shows how many days the average wind in Germany is higher than 1 standard deviation above the normal.
- 5. A table that shows how often this particular weather scenario has occurred in that particular month.
- 6. A table that shows how often this particular weather scenario has occurred before for the given phase or value of each teleconnection index in that week.



- 1. A table for each teleconnection index, the sign/phase they have for that week, and the average temperature, precipitation and wind for the Nordic and the continent based on previous occurrences of these indices for the same time of the year.
- Shows what weather scenario that occurs most often for the given teleconnection, and how often this occurs.
   A table for several available weather models and their average conditions in the Nordic and the Continent. The last row shows the forecaster's expectation.
- 4. For each month this shows different charts and graphs for different teleconnections.

### A description of the weather regimes used.

- 1 A general western low pressure regime. Lows into Scandinavia. Often a high over Southern Europe and/ or the continent.
- 2 A southern low pressure track via UK and into South Scandinavia and/or the continent. Also includes the quite rare situation where lows move from E-Europe and into Scandinavia from the SE.
- 3 A northern low pressure scenario where lows move via Iceland and into the Barents Sea/N-Nordic. Often a high in the continent and/or into South Scandinavia. Often a mild scenario. It may be wet at times, especially in Northern Norway, but often it is quite dry for the Nordic in general.
- 4 Lows stops west of Scandinavia or over UK due to a high pressure to the east, often over NW or W Russia.
- 5 High pressure over Northern Europe. Includes high pressure situation over the Nordic, the Norwegian Sea or the North Sea. There may be lows into the continent, but it could also just be a ridge, or the high itself may stretch into the continent. The main point is that the high is centered to the north.
- 6 High over or just south of Iceland. Usually there will be a low over the Nordic. The continent is more mixed, whether there is a low there or not, but for most of Europe this means a cold scenario.

StormGeo **Explanations** 

### Quasi-Biennial Oscillation (QBO)

The QBO (Quasi-Biennial Oscillation) is a large-scale wind system over the Equator. The wind blows in a broad belt over the Equator in a Westerly or Easterly direction, and the direction changes approximately every second year.

A negative phase indicates Easterly winds, and a positive phase Westerly winds. It usually have stronger signals in the winter season and typically it tend to be cooler and drier types of weather in winters with a negative QBO phase. It may occasionally give signals in other seasons as well.

### Atlantic Tripole

The Atlantic Tripole is a sea surface temperature pattern in the Northern Atlantic. The temperature anomalies in the Northern Atlantic often follow a three-way pattern, or three poles (a Tripole), where the tropical parts and the areas south of Greenland/Iceland often have the same sign, while the area in the middle, especially off the coast of the United States, have the opposite sign. In a negative Atlantic Tripole, the areas south of Greenland/Iceland, and in the tropics, are generally cooler than normal, with a warm anomaly between them. A positive Tripole has a warm anomaly south of Greenland/Iceland and in the tropics, and cooler off the coast of North America.

The tripole may have signals all year around. A negative tripole is typically associated with increased low pressure activity in the Nordic.

### Ocean Niño Index (ONI) or ENSO

The ONI is used to define the ENSO system. It measures the sea surface temperatures (SST) in the tropical Pacific. Temperatures higher than 0.5 deg above normal SSTs are regarded as El Niño conditions, while temperatures lower than 0.5 deg below normal SST are regarded as La Niña. The ENSO system typically has stronger deviations from the normal in the Winter season, and thus the impact on the weather is also often stronger in the Winter, although it may have signals all year around.

The amount of solar radiation that Sun emits and the Earth absorbs, oscillates in an approximate 11-year cycle, thus changes very little from month to month. The forecasts are based on predictions from NASA, although the main trends are relatively predictable The impact on the weather is generally quite low, but there are tendencies that varies through the year depending on where in the cycle we are

### October snow cover extent (OCE)

The October snow cover extent in Siberia has shown to have possible impacts on the Winter weather. Thus, this is only applicable for the Winter season. Years of high snow cover in Siberia has a tendency of increasing the chance of a colder weather development in January/February, where complicated processes leads to changes in the stratosphere and the result is often a weaker polar vortex or a sudden stratospheric warming (SSW). Years of low snow cover in Siberia has the opposite effect, often resulting in a stronger polar vortex and milder/wetter conditions near the surface.

### AO persistence

The Arctic Oscillation (AO) is a pressure index related to the pressure difference between higher and lower latitudes across the Northern Hemisphere, and could be seen as a more general version of the NAO. Or the NAO could be seen as a local variant of the AO. The negative and positive AO has similar signals as the NAO. There tend to be a certain persistence in this signals, especially when the amplitude has been large. So this index basically shows how the weather typically is 3 months after a particular AO. It is based on the actual observed AO for the first three months, then partly observations and forecast for the 4th month, and only forecast for the 5th month.

These are years with similar teleconnections as we expect to see the next 6 months. Ideally, there would be years where all the teleconnections are similar, but that is rarely the case. It is rarely more than 4 of 5 teleconnections that are similar, if we are lucky, but often only 3 of 5 teleconnections, and the signal from the analog years must be used with caution

### MISSING DATA

Note that occasionally we get situations where certain combinations of the indices above have not occurred before for the period