Yvirvøka av veðurlagsbroytingum

Skipan av veðurmátingum

Climate change monitoring: Meteorological monitoring network (151)

Bárður A. Niclasen

deildarleiðari á Veðurstovuni

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Skipan her heima

FISKIVINNU- OG SAMFERÐSLUMÁLARÁÐIÐ
Ministry of Fisheries and Infrastructure

VØRN

DMI

Fiskiveiðieftirlitið

MRCC

Veðurstova Føroya

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Hvørji, hvar og nær?

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Skipan internationalt

WORLD METEOROLOGICAL ORGANIZATION

INTERNATIONAL MARITIME ORGANIZATION

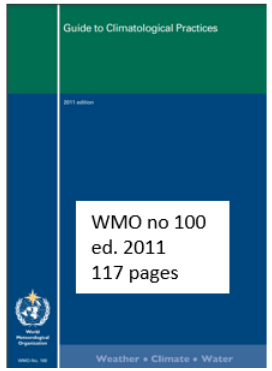
DMI

VÐRN

SJÓVINNUSTÝRIÐ
FAROESE MARITIME AUTHORITY

Veðurstova Føroya

WMO: (undir ST) standardisering av veðurfræði, herundir veðurmátingar



Hvat skal mátast og hvussu

Element	*Ordinary climate*	*Principal climate*
Air temperature	•	•
Precipitation	•	•
Weather		•
Clouds		•
Pressure		•
Visibility		•
Humidity		•
Wind		•
Solar radiation		•
Sunshine		•

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Skipan innanhýsis

					 ½ +½			 ¼
		v	v	v	v	v	v	
	v					v		
			v		v			
						v	v	
		v			v			v
v			v			v		
	v	v						
		v		v				
		v		v				v
				v				

- Fólk
- Veðurvakt
- Mátingar
- Veðurmodel (WRF)
- Havmodel (FVCOM)
- Dátuviðgerð og veðurlag
- KT-kervi og ritbúnaður
- Leiðsla og samskipan
- Mannagongdir
- Heimasíða
- Staðarveður

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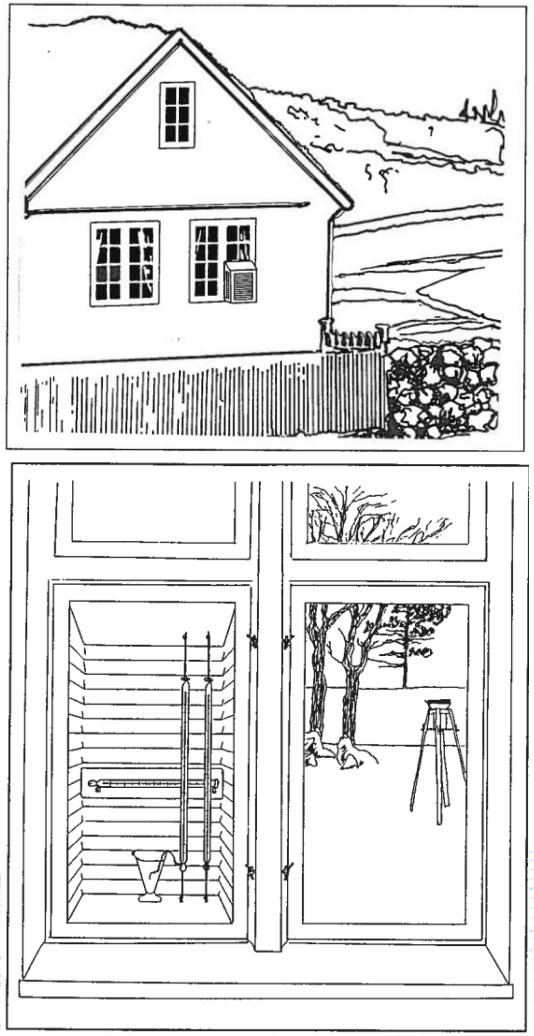
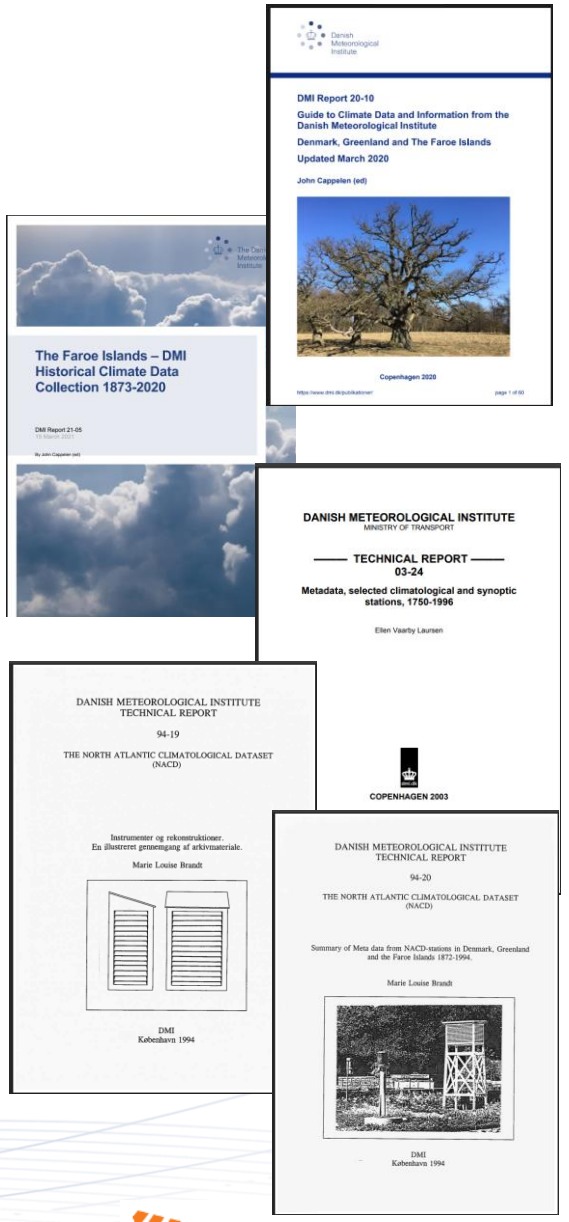
Veðurlagsmátingar

Mátingar við “Klimadata” status

- Tórshavn og Hoyvík
  - 1874(72) – dags dato
- Mykines og Mykineshólmur
  - 1876-1904 + 1911-1966





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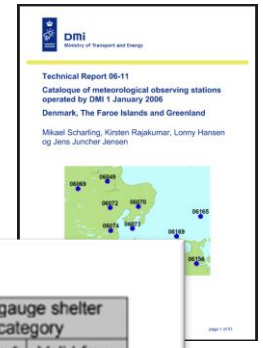
Avfalsmátingar (nakrar mangla)



Precipitation sum (24 hours)

Station no.		Station name	Start date	Longitude		Latitude		UTM ZONE 29		Elevation	Rain gauge shelter category	
WMO	DMI		dd.mm.yyyy	Degree	Minute	Degree	Minute	Northings	Eastings	m.a.s.l.	Category*	Valid from
	33010	Midvagur	25.05.2004	62	3	7	11	6881167	594771	10	B	25.05.2004
	33021	Fitjarnar	1.11.1935	62	9	7	9	6892950	596220	2	B	1.05.1986
	33037	Hvalvik	1.01.1987	62	11	7	2	6896770	602305	14	B	1.01.1987
	33055	Klaksvik	2.04.2003	62	14	6	35	6901940	625451	13	B	27.05.2004
	33090	Sandur	1.01.1971	61	51	6	49	6858880	615360	5	B	1.01.1980
	33100	Vagur	1.11.1903	61	28	6	45	6817565	619300	39	B	2.06.1999

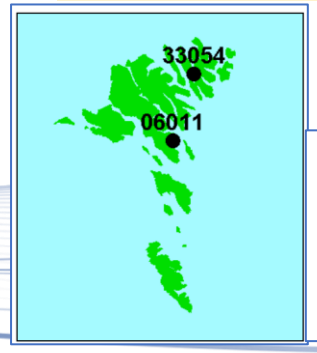
* A = well sheltered, B = moderately sheltered, C = unsheltered, D = overprotected

Precipitation sum (6 hours)

Station no.		Station name	Start date	Longitude		Latitude		UTM ZONE 29		Elevation	Rain gauge shelter category	
WMO	DMI		dd.mm.yyyy	Degree	Minute	Degree	Minute	Northings	Eastings	m.a.s.l.	Category*	Valid from
06011		Torshavn	1.01.1953	62	1	6	46	6879010	617080	54	C	30.04.1986

* A = well sheltered, B = moderately sheltered, C = unsheltered, D = overprotected

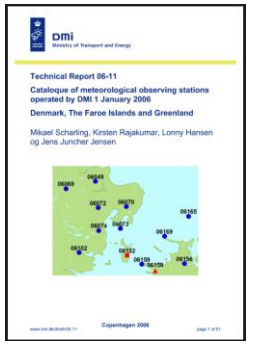
NB: tíðarseria við regnintensiteti ov stuttar at tosa um veðurlagsbroytingar (tímavirðir frá 2014, minuttvirðir frá 2017)



4.7 Strond Kraftstation (STRO) - 33054

Element No. 601 (Accumulated Precipitation)		
Dataset	*Period*	*Content*
Recommended	1932 – 2005	JC-TS1161 + Monthly-db STRO 33054

Automatiskar mátingar



Temperature, relative humidity, wind and air pressure (1 hour)

Station no.		Station name	Start date	Longitude		Latitude		UTM ZONE 29		Elevation
WMO	DMI		dd.mm.yyyy	Degree	Minute	Degree	Minute	Northings	Eastings	m.a.s.l.
06005		Mykines Fyr	1.01.1953	62	6	7	41	6885960	569040	96
06009		Akraberg Fyr	1.09.1961	61	24	6	40	6809300	623910	99
06010	33009	Vaga Floghavn	21.07.1963	62	4	7	17	6883010	589740	84
06011		Torshavn	1.01.1953	62	1	6	46	6879010	617080	54
06012	33052	Kirkja	12.05.1999	62	19	6	19	6912895	638955	54

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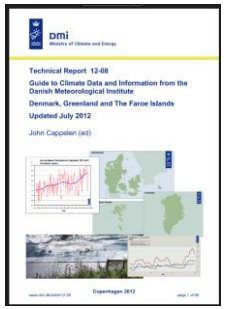
Atgongd til eldri mátingar



- Upprunamátingar 1872-1952 í ársbókum (myndum)
- Flestu mánaðarmiðal tó tøk talgild
- Alt er ávegis at verða lagt út á :

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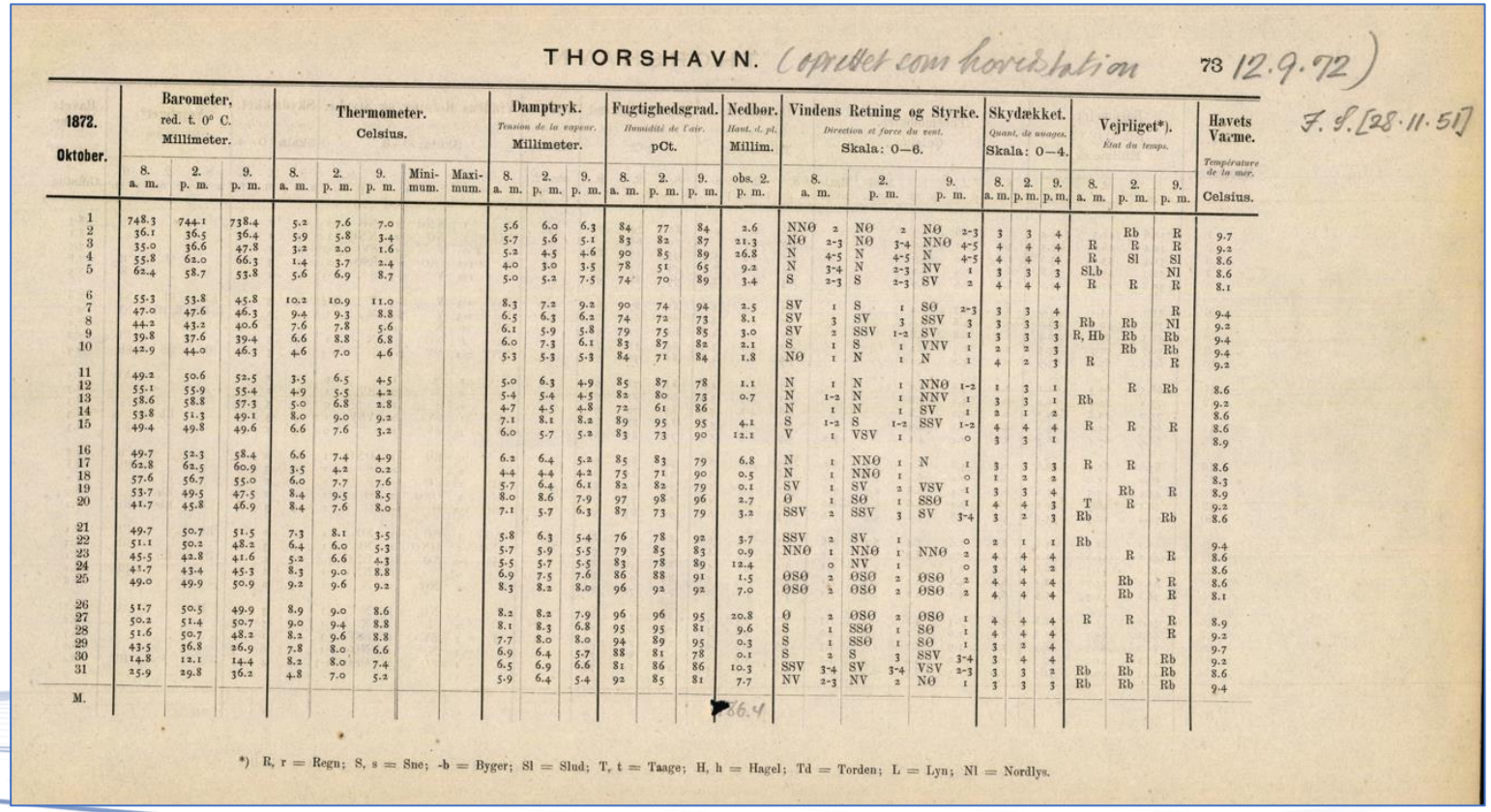
Meteorologisk Årbog

1874-1879	Part 1 (The Kingdom of Denmark) + Part 2 (The Faroe Islands, Greenland and other colonies)
1880-1896	Part 1 (The Kingdom of Denmark) + Part 2 (The Faroe Islands, Greenland and other colonies) part 3 (Nautical)
1897-1919	Part 1 (The Kingdom of Denmark) + Part 2 (The Faroe Islands, Greenland and other colonies)
1920-1960	Part 1 (Denmark and The Faroe Islands) + Part 2 (Grønland)



THORSHAVN. (oprettet som hovedstation 73 12.9.72)

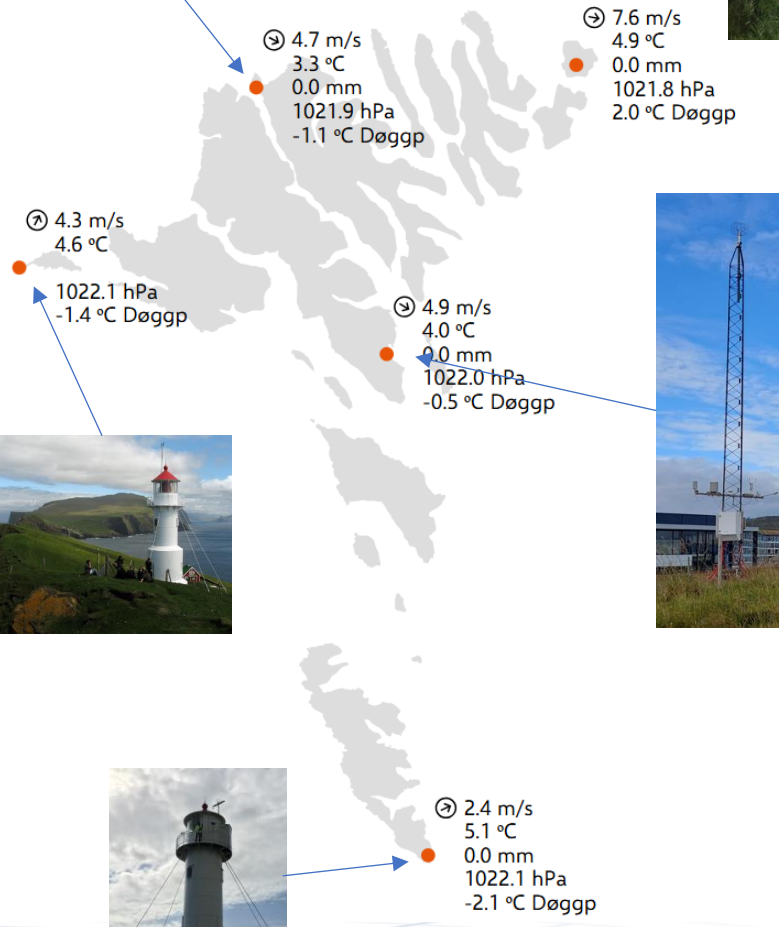
F. S. [28.11.51]

1872. Oktober.	Barometer, red. t. 0° C. Millimeter. 8. a. m.	2. p. m.	9. p. m.	Thermometer. Celsius. 8. a. m.	2. p. m.	9. p. m.	Minimum.	Maximum.	Damptryk. Millimeter. 8. a. m.	2. p. m.	9. p. m.	Fugtighedsgrad. pCt. 8. a. m.	2. p. m.	9. p. m.	Nedbør. Millim. obs. 2. p. m.	Vindens Retning og Styrke. Skala: 0—6. 8. a. m.	2. p. m.	9. p. m.	Skydækket. Skala: 0—4. 8. a. m.	2. p. m.	9. p. m.	Vejrliget*). 8. a. m.	2. p. m.	9. p. m.	Havets Varme. Celsius.
1	748.3	744.1	738.4	5.2	7.6	7.0			5.6	6.0	6.3	84	77	84	2.6	NNØ 2	NØ 2	NØ 2-3	3	3	4		Rb	R	9.7
2	36.1	36.5	36.4	5.9	5.8	3.4			5.7	5.6	5.1	83	82	87	21.3	NØ 2-3	NØ 3-4	NNØ 4-5	4	4	4	R	R	R	9.2
3	35.0	36.6	47.8	3.2	2.0	1.6			5.2	4.5	4.6	90	85	89	26.8	N 4-5	N 3-4	N 4-5	4	4	4	R	Sl	Sl	8.6
4	55.8	62.0	66.3	1.4	3.7	2.4			4.0	3.0	3.5	78	51	65	9.2	N 3-4	N 2-3	NV 1	3	3	3	Sl.b		Nl	8.6
5	62.4	58.7	53.8	5.6	6.9	8.7			5.0	5.2	7.5	74	70	89	3.4	S 2-3	S 2-3	SV 2	4	4	4	R	R	R	8.1
6	55.3	53.8	45.8	10.2	10.9	11.0			8.3	7.2	9.2	90	74	94	2.5	SV 1	S 1	SØ 2-3	3	3	4			R	9.4
7	47.0	47.6	46.3	9.4	9.3	8.8			6.5	6.3	6.2	74	72	73	8.1	SV 3	SV 3	SSV 3	3	3	3	Rb	Rb	Nl	9.2
8	44.2	43.2	40.6	7.6	7.8	5.6			6.1	5.9	5.8	79	75	85	3.0	SV 2	SSV 1-2	SV 1	3	3	3	R, Hb	Rb	Rb	9.4
9	39.8	37.6	39.4	6.6	8.8	6.8			6.0	7.3	6.1	83	87	82	2.1	S 1	S 1	VNV 1	2	2	3		Rb	Rb	9.4
10	42.9	44.0	46.3	4.6	7.0	4.6			5.3	5.3	5.3	84	71	84	1.8	NØ 1	N 1	N 1	4	2	3	R		R	9.2
11	49.2	50.6	52.5	3.5	6.5	4.5			5.0	6.3	4.9	85	87	78	1.1	N 1	N 1	NNØ 1-2	1	3	1		R	Rb	8.6
12	55.1	55.9	55.4	4.9	5.5	4.2			5.4	5.4	4.5	82	80	73	0.7	N 1-2	N 1	NNV 1	3	3	1	Rb			9.2
13	58.6	58.8	57.3	5.0	6.8	2.8			4.7	4.5	4.8	72	61	86		N 1	N 1	SV 1	2	1	2				8.6
14	53.8	51.3	49.1	8.0	9.0	9.2			7.1	8.1	8.2	89	95	95	4.1	S 1-2	S 1-2	SSV 1-2	4	4	4	R	R	R	8.6
15	49.4	49.8	49.6	6.6	7.6	3.2			6.0	5.7	5.2	83	73	90	12.1	V 1	VSV 1	0	3	3	1				8.9
16	49.7	52.3	58.4	6.6	7.4	4.9			6.2	6.4	5.2	85	83	79	6.8	N 1	NNØ 1	N 1	3	3	3	R	R		8.6
17	62.8	62.5	60.9	3.5	4.2	0.2			4.4	4.4	4.2	75	71	90	0.5	N 1	NNØ 1	0	1	2	2				8.3
18	57.6	56.7	55.0	6.0	7.7	7.6			5.7	6.4	6.1	82	82	79	0.1	SV 1	SV 2	VSV 1	3	3	4		Rb	R	8.9
19	53.7	49.5	47.5	8.4	9.5	8.5			8.0	8.6	7.9	97	98	96	2.7	Ø 1	SØ 1	SSØ 1	4	4	3	T	R		9.2
20	41.7	45.8	46.9	8.4	7.6	8.0			7.1	5.7	6.3	87	73	79	3.2	SSV 2	SSV 3	SV 3-4	3	2	3	Rb		Rb	8.6
21	49.7	50.7	51.5	7.3	8.1	3.5			5.8	6.3	5.4	76	78	92	3.7	SSV 2	SV 1	0	2	1	1	Rb			9.4
22	51.1	50.2	48.2	6.4	6.0	5.3			5.7	5.9	5.5	79	85	83	0.9	NNØ 1	NNØ 1	NNØ 2	4	4	4		R	R	8.6
23	45.5	42.8	41.6	5.2	6.6	4.3			5.5	5.7	5.5	83	78	89	12.4		NV 1		3	4	2				8.6
24	41.7	43.4	45.3	8.3	9.0	8.8			6.9	7.5	7.6	86	88	91	1.5	ØSØ 2	ØSØ 2	ØSØ 2	4	4	4		Rb	R	8.6
25	49.0	49.9	50.9	9.2	9.6	9.2			8.3	8.2	8.0	96	92	92	7.0	ØSØ 2	ØSØ 2	ØSØ 2	4	4	4		Rb	R	8.1
26	51.7	50.5	49.9	8.9	9.0	8.6			8.2	8.2	7.9	96	96	95	20.8	Ø 2	ØSØ 2	ØSØ 1	4	4	4	R	R	R	8.9
27	50.2	51.4	50.7	9.0	9.4	8.8			8.1	8.3	6.8	95	95	81	9.6	S 1	SSØ 1	SØ 1	4	4	4			R	9.2
28	51.6	50.7	48.2	8.2	9.6	8.8			7.7	8.0	8.0	94	89	95	0.3	S 1	SSØ 1	SØ 1	3	2	4				9.7
29	43.5	36.8	26.9	7.8	8.0	6.6			6.9	6.4	5.7	88	81	78	0.1	S 2	S 3	SSV 3-4	3	4	4		R	Rb	9.2
30	14.8	12.1	14.4	8.2	8.0	7.4			6.5	6.9	6.6	81	86	86	10.3	SSV 3-4	SV 3-4	VSV 2-3	3	3	2	Rb	Rb	Rb	8.6
31	25.9	29.8	36.2	4.8	7.0	5.2			5.9	6.4	5.4	92	85	81	7.7	NV 2-3	NV 2	NØ 1	3	3	3	Rb	Rb	Rb	9.4
M.																									

*) R, r = Regn; S, s = Sne; -b = Byger; Sl = Slud; T, t = Taage; H, h = Hagel; Td = Torden; L = Lyn; Nl = Nordlys.

Støðan í dag v.v. veðurlagsmátingum

- Tórshavn: OK (Principal climate)
- Eiði og Kirkja: OK (Ordinary climate⁺)
- Mykineshólmur, Akraberg, vónandi OK í 2025 (Ordinary climate⁺)
- Átøk at betra um umstøður/trygd
  - Eiði 2023
  - Akraberg 2024
  - Kirkja og Mykineshólmur 2025



Element	*Ordinary climate*	*Principal climate*
Air temperature	•	•
Precipitation	•	•
Weather		•
Clouds		•
Pressure		•
Visibility		•
Humidity		•
Wind		•
Solar radiation		•
Sunshine		•

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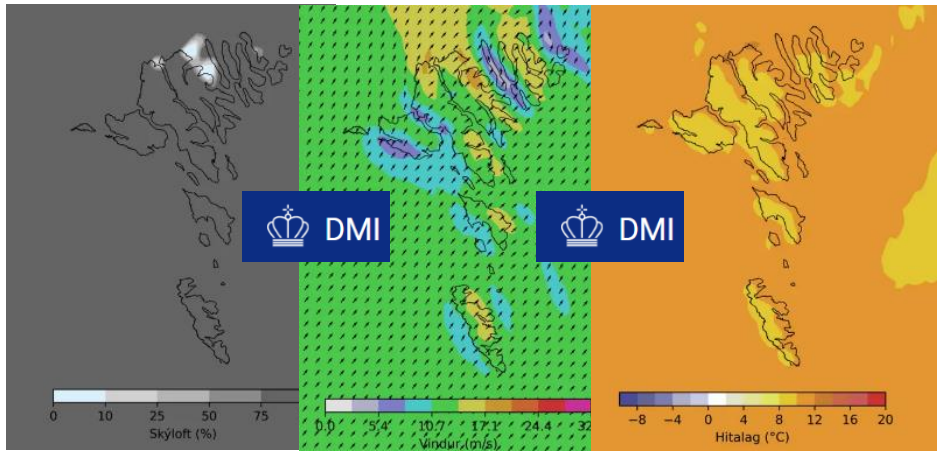
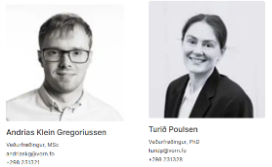
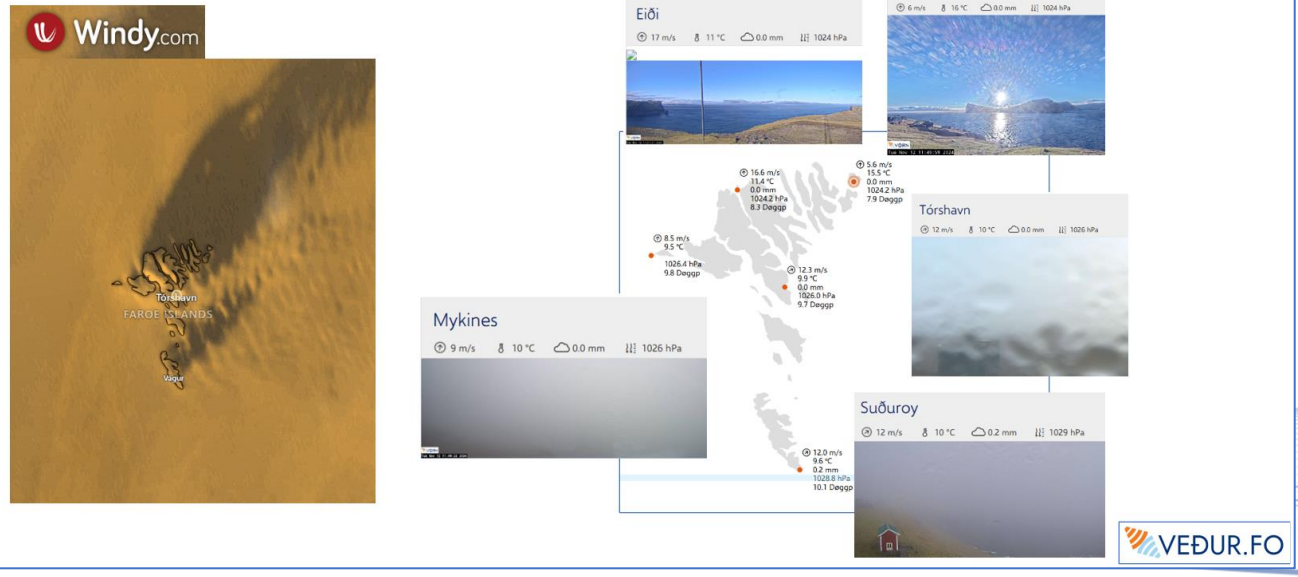
Støðan frameftir: hjálp frá veðurmodellum?

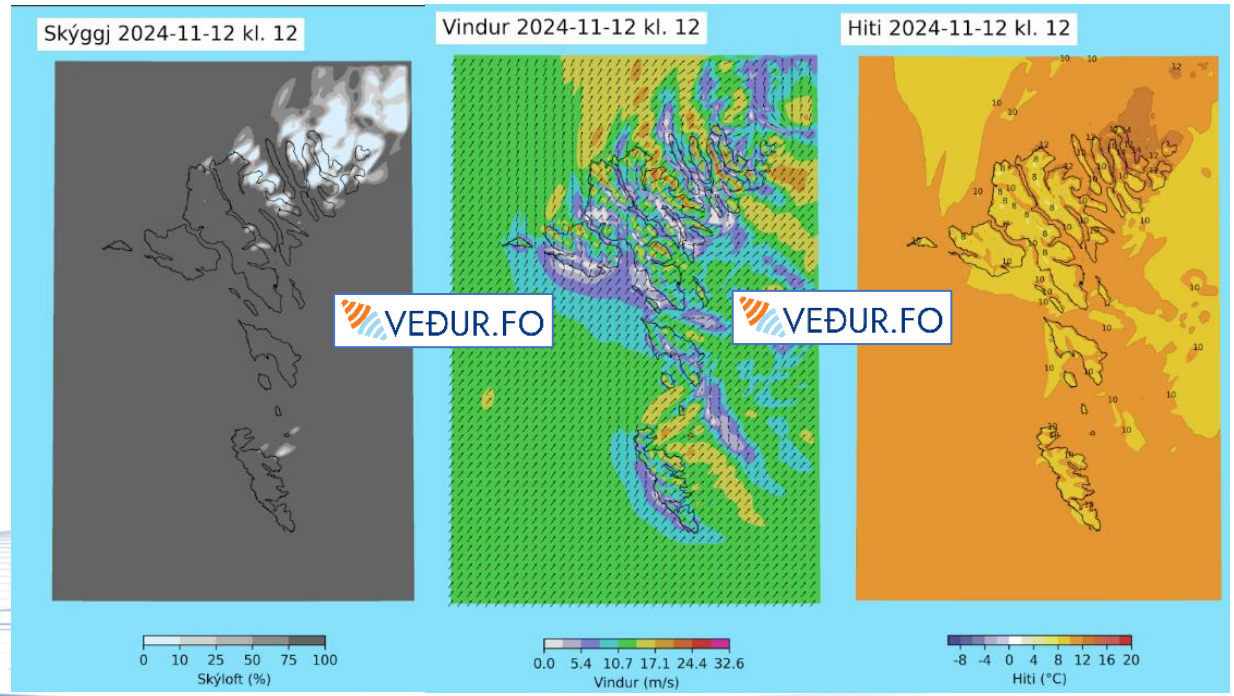
- Regional modelldata
  - fylla í har manglar
- Háloyst lokal veðurmodell
  - vindklima, regnklima v.m.





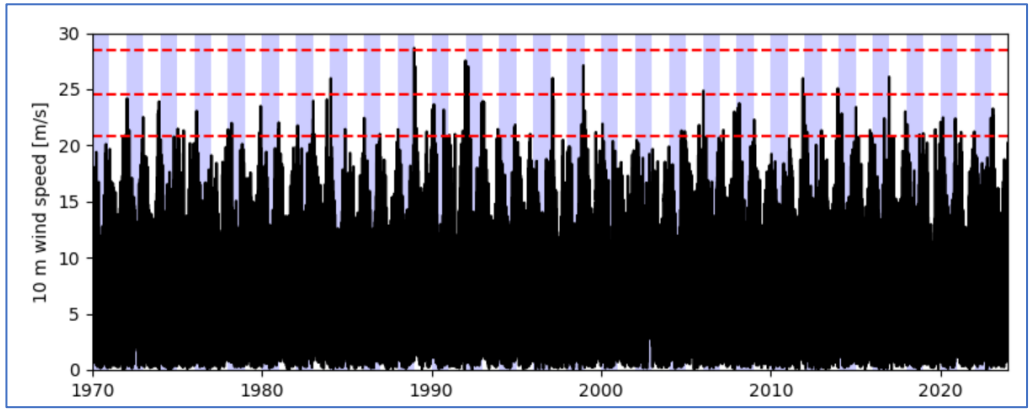
Dømi um veðrið - mátingar





Samandráttur

- Veðurlagsmátingar úr Tórshavn/Hoyvík frá 1873 til nú
  - tølini koma á heimasíðuna
  - tøkni, krøv v.m. handan veðurlagstøl broytt ávegis
- Veðurlagsmátingar halda á og verða betraðar
  - mátiskipan heldur enn mátistað
- Veðurmodell gerast væntandi stór hjálp
  - vindatlas, regnatlas? v.m.
- Veðurstovan heldur seg til WMO krøv
  - støðið OK, men støðug betran
  - miða móti at koma undir egið flagg



ERA5 Tórshavn (mesti vindur jólaódnin 1988)