ACF
Arctic Climate Forum

Arctic Consensus Statement

Summary of Summer 2020 and Outlook for Winter 2020/2021

What it is and how it is generated

Eivind Støylen, Norwegian Meteorological Institute
ACF-6 online, October 2020

Arctic Regional Climate Center

What is the ArcRCC Consensus Statement?

A collaborative product developed amongst Arctic meteorological and ice services to synthesize observations, historical trends, forecast models and fill gaps with regional expertise.

The consensus statement provides:

- a review of the major Arctic climate trends of the previous season,
- verification of the previous seasons outlooks and
- outlooks for the upcoming season for temperature, precipitation and sea-ice.

How is it produced?

- Joint effort by all members of the ArcRCC
- Climate monitoring and Forecast information is collected from the Responsible nodes
- Additional regional information is provided
- Consensus statement document draft is circulated among the team
- Final version published after the Arctic Climate Forum

<table>
<tr><th colspan="2">NATIONAL</th><th colspan="2">REGIONAL</th><th>CIRCUMPOLAR</th></tr>
<tr><td>Countries</td><td>Meteorological Organizations</td><td colspan="2">Regional Climate Centres (RCCs)</td><td rowspan="9">Arctic
Regional Climate Centre</td></tr>
<tr><td>United States</td><td>NOAA</td><td rowspan="2">North American Node</td><td rowspan="2">Forecasting</td></tr>
<tr><td>Canada</td><td>ECCC</td></tr>
<tr><td>Denmark</td><td>DMI</td><td rowspan="5">Northern European Node</td><td rowspan="5">Data Services</td></tr>
<tr><td>Iceland</td><td>IMO</td></tr>
<tr><td>Norway</td><td>NMI</td></tr>
<tr><td>Sweden</td><td>SMHI</td></tr>
<tr><td>Finland</td><td>FMI</td></tr>
<tr><td>Russia</td><td>AARI</td><td>Northern Eurasia Node</td><td>Monitoring</td></tr>
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What does it look like?

This is the 6th one

Environment and Climate Change Canada | Norwegian Meteorological Institute | Russian Federal Service for Hydrometeorology and Environmental Monitoring | WORLD METEOROLOGICAL ORGANIZATION

First Session of the Pan-Arctic Regional Climate Outlook Forum (PARCOF-1)
Ottawa, Canada, May 2018

Environment and Climate Change Canada | Norwegian Meteorological Institute | WORLD METEOROLOGICAL ORGANIZATION

Second Session of the Pan-Arctic Regional
Forum (PARCOF-2), virtual forum, October

Consensus Statement for the Arctic Winter 2018-2

Third Session of the Pan-Arctic R
Forum (PARCOF-3), Rovaniemi,

Consensus Statement for the Arctic Su

To meet climate adaptation and decision-makin
has been made towards the establishment of
(ArcRCC-Network). The ArcRCC-Network is
Organization (WMO) RCC concept with active contributi
member countries. The Pan-Arctic Regional Climate Outloo
activity of the ArcRCC-Network to create a forum to meet di
information, and follows the well-known Regional Climate
supported by WMO and its partners around the world. Th
year of its demonstration phase.

Freezing and thawing periods on the fringes of the warm a
most important considerations for many sectors of the Arcti
twice per year: a face-to-face meeting in May preceding t
virtual meeting in October before the ice returns in the Arctic

The third PARCOF meeting was held May 8-9, 2019 in Rov
Participants of the Arctic Council representatives of Arctic
from all of the Arctic Council Member States, and stakehold
a collaborative effort by the network which reviews the tr

Arctic Regional Climate Centre Consensus Statement

2019 Arctic Summer Seasonal Summary and 2019-2020 Arctic Winter Seasonal Outlook

CONTEXT

Arctic temperatures continue to warm at more than twice the global mean. Annual surface air
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Environment and Climate Change Canada | Russian Federal Service for Hydrometeorology and Environmental Monitoring | WORLD METEOROLOGICAL ORGANIZATION | Norwegian Meteorological Institute

Arctic Climate Forum Consensus Statement

2020 Arctic Summer Seasonal Climate Outlook
(along with a summary of 2020 Arctic Winter Season)

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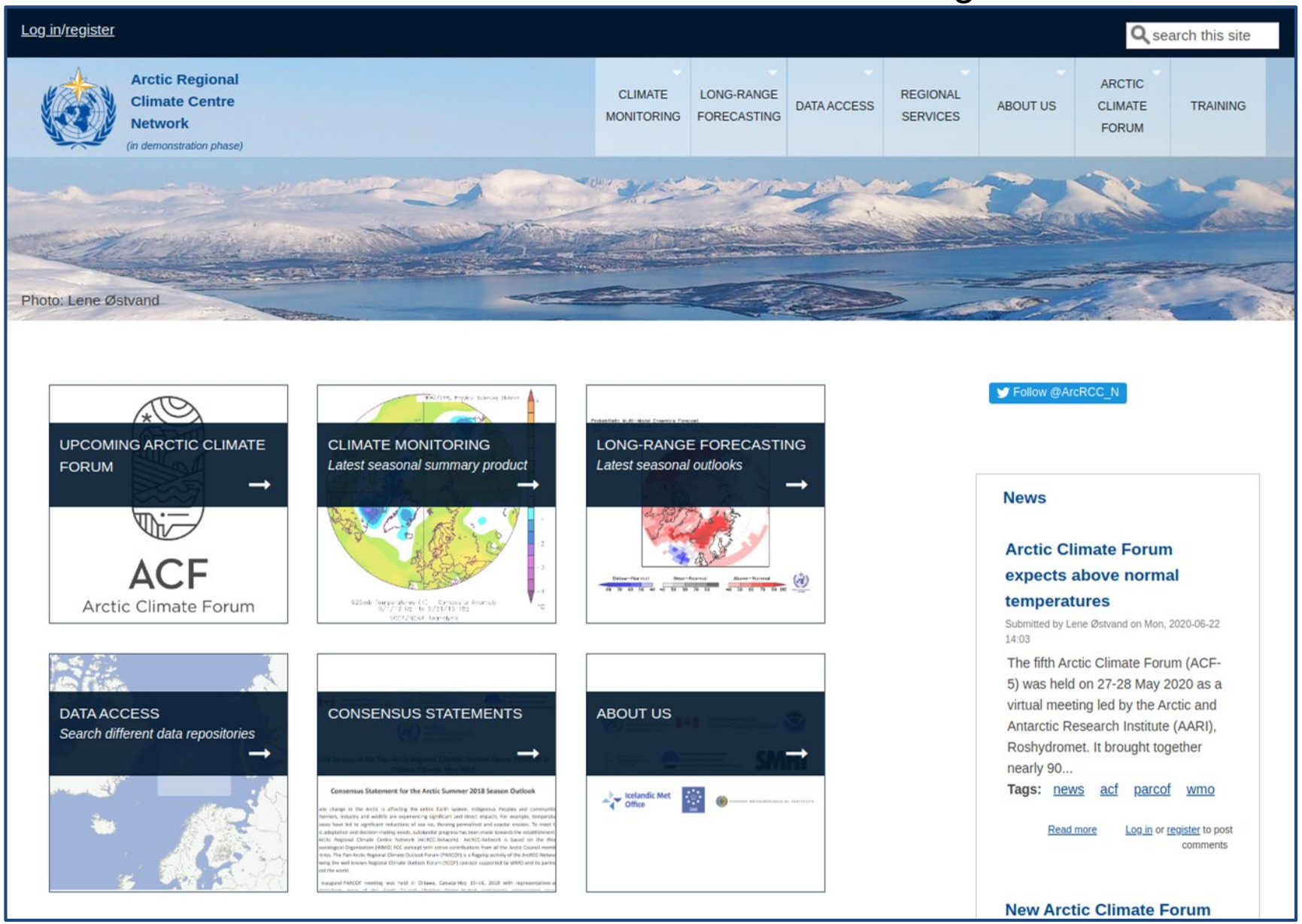
CONTEXT

Arctic temperatures continue to warm at more than twice the global mean. Annual surface air temperatures over the last 4 years (2016–2019) in the Arctic (60°–85°N) have been the highest in the time series of observations for 1936-2019[1]. The extent of winter sea-ice is at record low levels, and the volume of Arctic sea-ice present in the month of September 2019 has declined by more than 50% compared to the mean value for 1979–2019[2]. To support Arctic decision makers in this changing climate, the recently established Arctic Climate Forum (ACF) convened by the Arctic Regional Climate Centre Network (ArcRCC-Network) under the auspices of the World Meteorological Organization (WMO) provides consensus climate outlook statements in May prior to summer thawing and sea-ice break-up, and in October before the winter freezing and the return of sea-ice. The role of the ArcRCC-Network is to foster collaborative regional climate services amongst Arctic meteorological and ice services to synthesize observations, historical trends, forecast models and fill gaps with regional expertise to produce consensus climate statements. These statements include a review of the major climate features of the previous season, and outlooks for the upcoming season for temperature, precipitation and sea-ice. The elements of the consensus statements are presented and discussed at the Arctic Climate Forum (ACF) sessions with both providers and users of climate information in the Arctic twice a year in May and October, the later typically held online. This consensus statement is an outcome of the 5th session of the ACF held online on 27-28 May 2020 and coordinated by the Eurasian Node of ArcRCC-Network hosted by the Russian Federation.

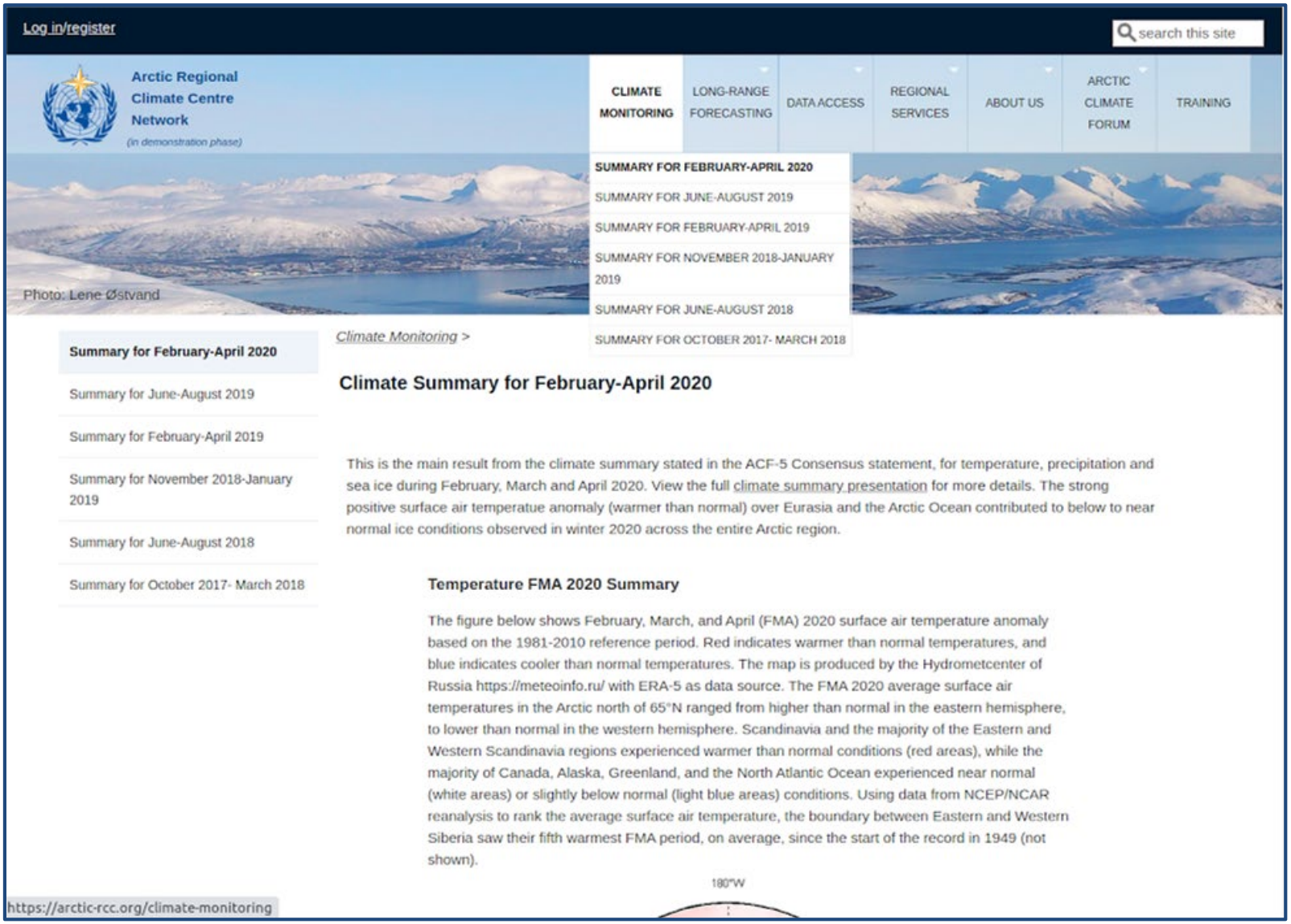
Where is it published?

We have a website: arctic-rcc.org



arctic-rcc.org

Climate monitoring summary for past periods



arctic-rcc.org
Archive of previous outlooks

Arctic Regional Climate Centre Network
(in demonstration phase)

CLIMATE MONITORING | **LONG-RANGE FORECASTING** | DATA ACCESS | REGIONAL SERVICES | ABOUT US | ARCTIC CLIMATE FORUM | TRAINING

- **Outlook for June-August 2020**
- Outlook for February-April 2020
- Outlook for November-January 2019-20
- Outlook for June-August 2019
- Outlook for February-April 2019
- Outlook for November-January 2018-19
- Outlook for June-August 2018
- About forecasts
- WMO Global Seasonal Climate Update

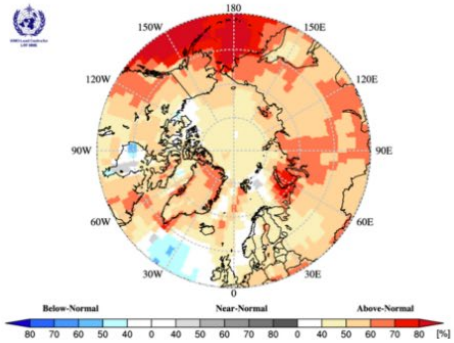
Long-Range Forecasting >

Seasonal outlook for June-August 2020

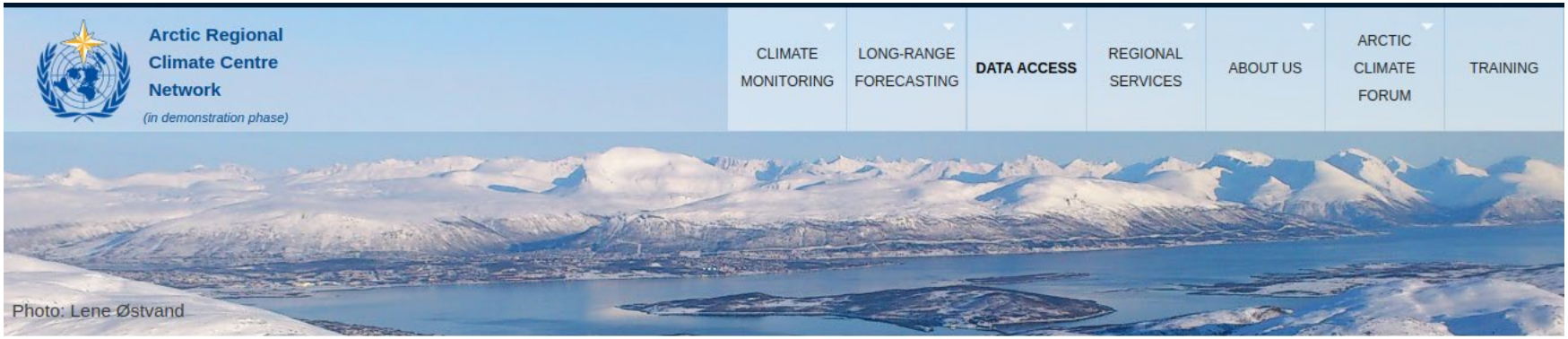
The images below show seasonal outlooks for June to August 2020, for temperature, precipitation and sea ice. More details can be found in the Seasonal outlook for June-July-August 2020 presentation and the Sea-Ice Outlooks Summer 2020 presentation.

Temperature JJA 2020 Outlook

Surface air temperatures during summer 2020 (JJA: June, July, and August 2020) are forecast to be above normal across the majority of the Arctic regions (orange and red areas). The confidence of the forecast is low to moderate over the majority of the continental Arctic (land areas) (yellow and orange areas), while forecast confidences are high for the maritime parts of the Atlantic region, the Bering Sea, and a portion of the Barents and Kara Seas (dark red areas). The multi-model ensemble did not agree over a few maritime areas across the Arctic (white areas).



arctic-rcc.org
Pointer to data access portals



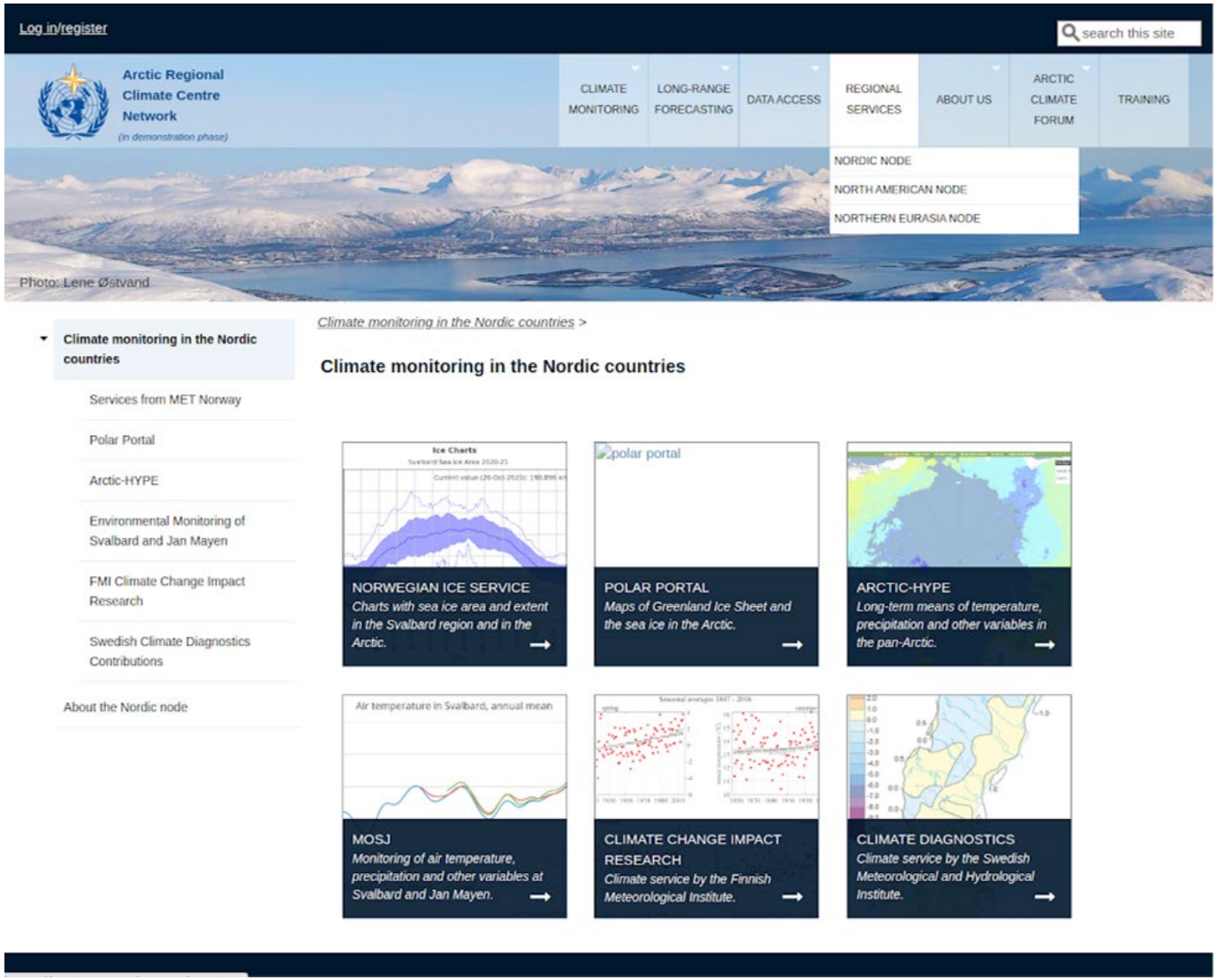
Arctic Data Centre

NSF Arctic Data Center

INTAROS Arctic Data

Data access

arctic-rcc.org
Pointers to regional products



Consensus statement will be published on https://arctic-rcc.org/acf

Arctic Climate Forum Consensus Statement

2020-2021 Arctic Winter Seasonal Climate Outlook

(along with a summary of 2020 Arctic Summer Season)

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HIGHLIGHTS

The combination of an Arctic meridional atmospheric circulation (north-south) and high ocean surface heating this summer (JJA: June, July, August 2020) was the main driver of this past season's temperature, precipitation and sea ice anomalies. Above normal temperatures forecast for all Arctic regions this winter (November 2020 to January 2021) will continue to have implications for sea-ice over that time period.

Temperature: The summer 2020 average surface air temperatures were above normal for most of the Arctic domain, with Eastern Siberia observing record-breaking temperatures. Above normal temperatures are expected to continue across the majority of the Arctic this winter.

Precipitation: High spatial variability between wetter and drier than average conditions was observed across the Arctic during JJA 2020. Wetter than normal conditions are expected across the majority of the Arctic region this winter.

Sea-ice: The Northern Hemisphere September 2020 minimum sea-ice extent was the 2nd lowest since 1979, with the Eurasian seas and the Northern Sea Route completely ice free while sea-ice conditions in the Beaufort Sea and the Canadian Archipelago were close to normal. Later than normal fall freeze-up is expected for Baffin Bay, East Siberia, and the Kara, Labrador, and Laptev Seas; near normal to early freeze-up is expected for all other regions. Below to near normal 2021 maximum sea ice extent are forecast for majority of the Arctic.

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Thank you!

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