

Arctic PRRC

Service and Service Delivery

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Partnership

- WMO-IOC
 - RCCs
 - TCs, Programs, RAs
 - WMO-IOC Marine Climate Data System (CMOC)
 - GCW, GAW
- AC
- International Ice Charting Working Group
- NSIDC
- Arctic ROOS
- EUMETSAT
- COPERNICUS MyOCEAN

User Needs for Arctic PRCC

- “National Strategies” – priorities placed upon stewardship, responsible resource development, international collaboration
- Economic drivers: natural resources, tourism, transportation
- Ecosystem changes: permafrost degradation, increasing runoff, coastal erosion, reduced ice thickness
- Arctic Populations/communities commonly distributed along or dependent on coastal waterways and river systems for access and subsistence

Arctic PRCC Target Users

- NMHSs
- Arctic Council
- Federal Stakeholders – local governments
- Global Users
- Partners
- Scientific Consortia
- Additional Users

Value Added

- Covering unique polar regional elements
- Bringing unified and harmonized view to core services
- Upscaling /downscaling capabilities
- Avoiding contradictions from various sources
- Sharing information / common data base
- Addressing more requirements
- Reducing costs to individual service provider
- Considering national concerns and feedback
- Creating common wealth of knowledge

Parameters of interest

- Cryosphere
 - Sea and Freshwater Ice
 - Snow Cover
 - Glaciers, Ice Caps, and Ice Sheets
 - Permafrost
- Atmosphere
 - SLP, T_a , precipitation
 - Storminess, winds, atmospheric circulation patterns
- Polar oceanography
 - Water temperature, Salinity
 - Sea level
 - Waves
 - River runoffs
- Land issues
 - Coastal and river erosion
 - Fresh water runoffs

Arctic PRCC Mandatory Functions

- operational activities for long range forecasts (LRF);
 - Synthesized regional perspectives
 - Validation of model guidance
 - Interpretation and guidance to users
- operational activities for climate monitoring;
- operational data services to support LRF and climate monitoring; and
- training in the use of operational RCC products and services.

Arctic PRCC Highly Recommended Functions

- climate prediction and climate projection;
- non-operational data services;
- centralized coordination functions;
- training and capacity development; and
- research and development

Discussed Elements (within the zone of each PRCC responsibility)

- ❑ Operational activity for LRF, additional elements:
 - interpretation and estimates: sea ice, atmosphere, etc.; monthly or quarterly.
 - reparation of regional and sub-regional products: sea ice, polar oceanography; 10 days – 1 month
 - consensus statement: sea ice, atmosphere; semiannual-annual
 - Verification: sea ice, atmosphere....
- ❑ Operational activity for climate monitoring, additional elements:
 - climate diagnosis: actual and anomaly values of sea ice, atmosphere, polar oceanography.....
 - Development of historical climatology for region/subregion: sea ice, polar oceanography.....

Service Delivery

- PRCC-Network
 - Monthly/quarterly bulletin of PRCC
- Polar Climate Outlook Forums (?)
- Portal (Amazon style to individual service providers – PRCC-Network and NMHSs)
 - Leverage WIS, CSIS, and other existing sources
- Seamless suite of products
 - daily, monthly (monitoring)
 - monthly, seasonal, decadal timescales (prediction and projection)