1. Mandatory Functions for designation as WMO RCC/RCC Network

Climate Prediction and Climate Projection

The Antarctica RCC need to interpret and assess relevant LRF products from Global Producing Centres (GPCs), distribute relevant information to RCC users; and provide feedback to GPCs.

RCC also recommended to assist users in the access and use of WCRP-CMIP climate model simulations and working on the downscaling of climate change scenarios and provide information to users for use in development of climate adaptation strategies.

Beijing Climate Center is a regional center for RAII designated by WMO and it is also a global producing center. As a RCC, BCC generates regional and sub-regional tailored products, relevant to RCC user needs, including seasonal outlooks, verification, assessment etc. BCC also exchange of basic forecasts and hindcast data with RCCs and GPCs. Users can have on-line access to RCC products.

BCC is interested in making contribution for Antarctic RCC in future, for example providing the S2S prediction, the climate projection products for the Antarctic and sub regions.

China Meteorological Administration has launched a marine meteorology project, and it will be in it's second phase in 2020, in which some fund will support the development of marine climatology including the development on the prediction for polo regions in term of SST, sea wave, sea ice etc. Some of these achievements may make contribution to the Antarctic RCC. For example, BCC can send staff to join the AnRCOF and share information in future.

Operational Activities for Climate Monitoring

As a RCC, it is also need to establish the historical reference climatology for the

region and/or sub-regions and to perform climate diagnostics including analysis of climate variability and extremes, at regional and sub-regional scales. RCC also need to implement a global and regional climate watch, in term of the ENSO, SST activities, the Atmospheric anomalies.

Since the Antarctic RCC is quite different from other RCCs. Antarctica RCC should have different focus besides rainfalls and temperatures, such as marine observation and monitoring in term of the sea ice, snow covering, Antarctica's contribution to global warming, Antarctica's impact on the global extreme climate events, climate projections for Antarctica and nearby region under different senoria.

For now, except for the sea ice covering monitoring, AAO monitoring prediction etc., BCC do not have other relevant products to enable services for Antarctica, but will have interest in making contribution.

Operational Data Services, to support operational LRF and climate monitoring

RCC need to develop quality controlled regional climate datasets and provide climate database and archiving services, at the request of Members.

Until now, BCC involved in very limited data services or research for Antarctica. BCC will have high interest in sharing the model output data relevant to Antarctica region in term of the S2S dataset and CMIP6 dataset etc.

Training in the use of operational RCC products and services

RCC have request to provide information on methodologies and product specifications for mandatory RCC products, and provide guidance on their use. So Antarctica RCC will required to provide Antarctica relevant climate monitoring, watch and prediction methodology training to the member.

In May this year the prediction methodology training course hosted in Nanning China and another one relevant to climate prediction and risk management was hosted in Nanjing last month. Training centers of Beijing and Nanjing have been working on the climatic training for many years. Since Antarctica climatology is a crucial and popular topic in recent years, some of the Antarctica climate research and operational progress may be included in the CMA international training in future.

2. Some works are highly recommended to performed or coordinated by Research and Development

We also highly recommend research and development activities to be performed or coordinated by an Antarctica RCC.

Promote studies of regional climate variability and change, predictability and impact in the Region;

Develop and validate regional models, methods of downscaling and interpretation of global output products

Promote the use of proxy climate data in long-term analyses of climate variability and change.