



MAGS

THE MACKENZIE GEWEX STUDY

The Mackenzie GEWEX (Global Energy and Water Cycle Experiment) Study is part of an international effort aimed at improving our understanding and prediction of the role that the water cycle plays in our climatic system.

GOALS

- to understand the circulation, storage and distribution of water and energy in the Canadian north;
- to improve our capability to predict the impacts of human activities and climatic changes on the northern environment.

Over 30 Canadian university and government groups actively participate in MAGS. Our study consists of several related components:

OBSERVATIONS

field measurements and past records are combined to provide the basis for studying land surface (hydrological) and atmospheric processes, and computer modelling of these;



HYDROLOGICAL PROCESSES

processes that govern the movement and storage of water in the Mackenzie basin;



ATMOSPHERIC PROCESSES

how weather generated within and outside the Mackenzie basin affects water resources;

MODELLING

computer scheme which assimilates results from the process studies to predict atmospheric and hydrological conditions, and how these interact with climate change.

