Geophysical Research Abstracts
Vol. 14, EGU2012-6762, 2012
EGU General Assembly 2012

Integrated research and observation experiment of hydrological process in small watershed in cold regions of Qilian Mountain

R. Chen and J. Liu
China (jfliu121@163.com)

Heihe Qilian Mountain station is located at QingHai Province, northeast of Tibetan Plateau, belongs to the Source Region of Heihe River Basin at latitude 38° 15¢54^2 N and longitude 99° 52¢ 53^2 E. The research objective of this station is to find the mutual mechanisms of eco-hydrological processes and to predict the runoff with high precision in cold watershed in China under global warming. Hulugou watershed, with a total area of 23.1 km2 and elevation fluctuating from 2960m to 4820m, has obvious vertical landscape and all types of typical underlying surface of cold regions. Thus, it was chosen as the researched watershed for integrated research and observation experiment of hydrological process in cold regions. In 2008, four ENVIS (Environmental Information System) were built along different altitude gradient in Hulugou experiment watershed to measure heat and water flux of the frozen soil-vegetation-atmosphere-transfer systems. Besides, many apparatus measuring snow, frozen soil, glacier, evapotranspiration, infiltration and runoff were built on various typical underlying surfaces. Through the observation net in Hulugou experiment watershed, various hydrological and meteorological data was obtained for hydrological processes research in cold regions.