

**Ice Core Records of Recent Climate and Environmental Change in Central Asia: Using  $^{137}\text{Cs}$  from atmospheric nuclear weapons tests conducted by the People's Republic of China to improve chronostratigraphic information**

Through this Climate Center project, we will become more involved in ongoing research related to recent environmental change in Central Asia. In collaboration with Karl Kreutz (U. Maine) and Cameron Wake (UNH), we have been working on reconstructing the  $^{137}\text{Cs}$  fallout record in glaciers from the Yukon (Eclipse ice field) and central Asia (Inilchek Glacier). Initial work suggests that discrete Cs-137 enriched horizons located above the main Cs-137 peak are derived from nuclear weapons tests conducted by the People's Republic of China and Chernobyl, providing datable horizons between 1965 and 1986.

The proposed research is based on availability of ice core samples from two 165 m ice cores recovered during July-August 2000 from the accumulation zone of the Inilchek Glacier (Central Tien Shan, Kyrgyzstan; north-western periphery of the Tibetan Plateau). Whereas the overall goal of the Tien Shan coring project is to develop high-resolution (seasonal to interannual) multivariate glaciochemical records from the Tien Shan Mountains of, and evaluate climate and environmental variability in the region over the past 200 years, the goal of this Climate Center project is to develop time series for the anthropogenic radionuclides ( $^{137}\text{Cs}$ , Pu-isotopes, and  $^{237}\text{Np}$ ) as well as develop ICP-MS based methods to measure Pb-isotopes.