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A Subarctic Research Watershed. The Caribou-Poker Creeks Research Watershed, 30 miles north of Fairbanks, Alaska, was established in 1969 as a site for investigation of all aspects of this upland subarctic, taiga ecosystem. Research is directed toward the ultimate goal of developing an ecosystem "model" which can be used to further understanding of processes and relations in this cold-dominated setting. The 24-square-mile Poker Creek Drainage has been reserved for use as an "experimental" watershed; this basin will be the site of planned experimentation on effects of land management practices on water resources and the total ecosystem. The adjacent 15-square-mile Caribou Creek drainage is designated a "natural", "representative" basin; it is a site for research into the existing environment. Research currently underway includes: Precipitation/runoff relations in permafrost and non-permafrost drainages; soil moisture behavior in upland basins; nutrient turnover in a permafrost setting; chemical and biological water quality in undisturbed basins; snow hydrology; development and significance of stream "icings" (aufeis). This project was conceived and has developed as a multi-discipline, inter-agency effort; it is administered through the Inter-Agency Technical Committee for Alaska.