An imaging riometer operated in Poker Flat by the National Institute of Communication and Technology (NICT), Japan, has an overlapping field of view with the meridian scanning photometer (MSP) at Poker Flat. The brightness ratios of optical emissions can be used to obtain the mean energy and energy flux of the auroral electrons with assumptions about the energy spectrum of the precipitation. The addition of cosmic noise absorption measurements by the riometer (top panel) allows us to further constrain this analysis. The riometer is most sensitive to the high energy tail of the auroral precipitation, and from the analysis of 79 nights of data we found that electron precipitation with a kappa distribution provides better fits than Maxwellians or double Maxwellians. (Mori, H., M. Ishii, Y. Murayama, M. Kubota, K. Sakanoi, M-Y. Yamamoto, Y. Monzen, D. Lummerzheim, and B. J. Watkins, Energy distribution of precipitating electrons estimated from optical and cosmic noise absorption measurements, Ann. Geophys., 22, 1613, 2004).