Performance of the SciCR as a component muon detector of the Global Muon Detector Network (GMDN)

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We plan to use the SciCR as a new muon detector and fill a gap remaining in the viewing directions of the present GMDN over the north and middle America. In order to minimize the interference to the solar neutron detection, we trigger the muon measurement by the four-fold coincidence between pulses from the top and bottom pairs of the x- and y-layers. We analyze the data recorded by a prototype detector “mini-SciCR” at the observation site for the SciCR and evaluate the observed count rate, zenith- and azimuth-angle distributions and the atmospheric pressure effect by comparing with the numerical expectations from the response of the atmospheric muons to the primary galactic cosmic rays.