1023-22-1610   **Jon W. Short*** (`jon@shsu.edu`), Department of Mathematics and Statistics, Sam Houston State University, Huntsville, TX 77341-2206. *Completions of altered topological subgroups of $\mathbb{R}^n$.*

We prove that a large class of metrizable group topologies for subgroups of $\mathbb{R}^n$ and the completions of the subgroups are locally isometric to, respectively, metrizable group topologies for $\mathbb{Z}$ and their completions, first studied by Nienhuys. This will prove, in particular, that all the complete groups in question are one dimensional, locally totally disconnected, and not locally compact. The metrizable topologies on the subgroups of $\mathbb{R}^n$ are formed by specifying a sequence in $\mathbb{R}^n$ and the rate at which it must converge to the identity. (Received September 26, 2006)