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Scott Lacy*, scott.lacy@mavs.uta.edu. *Looking Glass Neofields.*

A neofield is a set with two binary operations similar to a field, with the addition not necessarily associative and the multiplication not necessarily commutative. In his 1948 paper L.J. Paige presented all known results with his own contributions in admissible groups and planar neofields. The notion of a property-D neofield was introduced by A.D Keedwell in his 1966 paper in relation to orthogonal latin squares. Property D neofields are known to exist for every order up to 20, except 2 and 6, and are believed to exist for every finite order greater than 20. In this talk we discuss a class of commutative property-D neofields, and in particular examine a family of commutative property-D neofields of order $2^k + 1$ for all $k > 2$. (Received February 10, 2014)