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Oscar E. Vega* (oscar.vega@cudenver.edu), Campus Box 170, P.O. Box 173364, Denver, CO 80217. *Translation planes of order q^n admitting a collineation group of order $(q^n - 1)/(q - 1)$.*

Translation planes of order q^n admitting a collineation group of order $(q^n - 1)/(q - 1)$ are studied and, in certain cases, characterized and compared to known planes.

A new class of planes of this type, $jj \cdots j$ -planes, will be presented and discussed.

Some classes of planes of this type may be related to flat flocks of Grassmanian varieties; that will also be explained. (Received January 22, 2007)