1116-20-2480 **Madeleine Burkhart** and **David C. Vella*** (dvella@skidmore.edu), Dept. Mathematics & Computer Science, Skidmore College, 815 N. Broadway, Saratoga Springs, NY 12866. *Nilpotent Orbits for Borel Subgroups of Modality Zero.* Preliminary report.

Let G be a simple algebraic group with Lie algebra Lie(G) and B a Borel subgroup of G with Lie algebra Lie(B). Let $\mathfrak{n}$ denote the nilradical of Lie(B). Then B acts on $\mathfrak{n}$ via the Adjoint action. The orbits of this action are called the nilpotent orbits of B. In 1990 it was shown that there are finitely many nilpotent orbits (if this happens, B is said to have 'modality zero') in exactly five cases. Since then, much of the literature has been focused on generalizing this result to studying the modality of parabolic subgroups. In this paper, we stick to Borel subgroups in the five cases of modality zero. In these cases, we determine the defining equations of each orbit and use this information to find the dimension of each orbit as well as the closure ordering on the orbits. (Received September 22, 2015)