

Morkill, A.E. and S.H. Anderson. 1991. Effectiveness of Marking Powerlines to Reduce Sandhill Crane Collisions. *Wildlife Society Bulletin* 19:442-449.

Abstract: The principal known cause of death for wild fledged whooping cranes (*Grus americana*) is collision with powerlines (Lingle 1987). Such mortality affects the recovery of this federally endangered species (Howe 1989). Collisions with powerlines have to date accounted for 25% of known losses in the Aransas-Wood Buffalo flock (J. C. Lewis, U.S. Fish and Wildlife Service, Albuquerque, N.M., unpubl. data) and 40% in the Rocky Mountain cross-fostered flock (Brown et al. 1987). These data illustrate the need for methods to minimize such losses (U.S. Fish and Wildlife Service 1986, Howe 1989). Sandhill cranes (*Grus canadensis*), a related species, also suffer appreciable mortality from colliding with powerlines and provide opportunities for studying this problem. Collisions occur mainly during migration, when cranes rest and feed in habitats bisected by powerlines (Tacha et al. 1979, Krapu et al. 1984, Kuyt 1987, Windingstad 1988). Nonconducting static wires usually installed above conductor wires to intercept lightning strikes and prevent power outages are generally smaller in diameter than conductor wires; consequently, birds often see and avoid conductor wires only to strike the less visible static wires (Brown et al. 1987, Faanes 1987). The effectiveness of various methods used to minimize bird collisions with powerlines has not been evaluated critically. A review of the literature indicated that increasing the visibility of powerlines by installing markers on the static wires was the most cost-effective and logistically feasible potential method for reducing bird collisions (Beaulaurier 1981, Archibald 1987). We evaluated the effectiveness of color markers on static wires in reducing sandhill crane collisions with powerlines. We used a yellow aviation ball with a vertical black stripe as a marker.