## RESTING GEESE AND HOT-AIR BALLOONS: STUDY ON THE LOWER RHINE

Low-flying balloons can trigger conflicts with nature conservationists if areas sensitive to disturbances are affected.
"Fly over avoiding zones" presented in charts on a scale of 1:50,000 as a guide for bar loonists was the outcome of a study carried out in the mid-90s entitled "Auswirkungen des Ballonsports auf Tiere und Vegetation" (Effects of balloon sports on fauna and flora) (BayStMLU 1997). To minimize disturbances, it was recommended that flights over areas with sensitive animal species only be allowed at minimum altitudes of 300 m either the whole year round or during certain times of the year. It was questionable whether this altitude would also be sufficient for geese that are considered particularly sensitive to disturbances when they are in their winter resting places.

In a joint nature conservation and air sports project, a field test was therefore carried out in the winter of 2001 / 2002 in North-Rhine Westphalia (NRW), the purpose of which was to provide data at internationally important geese resting places with regard to the flying altitudes which minimize disturbances or eliminate them altogether.

In these studies, several free balloons flew one after the other at different altitudes over resting geese on the Lower Rhine between Wesel and Rees. The birds were observed both from the ground and from the air, and behavioural changes were documented. The nine balloon trips altogether were carried out by members of the German Free Balloon Sports Association (DFSV); the studies were coordinated by the Landesanstalt für Ökologie, Bodenordnung und Forsten NRW (LÖBF) with the participation of the Nature Conservation Federation (NABU), Kranenburg Nature Conservation Station and the Wesel Biological Station.

In this study, which was funded by the Ministry for the Environment in North RhineWestphalia and the DFSV, it was found that resting geese (predominantly greater whitefronted geese and bean geese) did not usually take to the air when hot-air balloons flew over at altitudes of 500 m or more. On the basis of these results, the executive committee of the DFSV declared that it will ask its members only to cross the water meadows of the Lower Rhine and the Weser at an altitude of at least 500 m during the period when most geese were in these areas ( 15 October to 15 March). Balloonists will be provided with maps showing the borders of the EC bird sanctuaries "Lower Rhine" (approx. 20,000 ha) and "Weseraue" (approx. 2,670 ha). An appropriate cooperation agreement is to be concluded between the Ministry for the Environment in NRW and the federation of DSFV.


Bavarian Ministry for State Development and Environmentallssues (1997): Balloon sports, animals and vegetation. Effects of balloon sports on animals and vegetation. Materials 123, 84 pp.
Bayerisches Staatsministerium für Landesentwicklung und Umweltfragen (1997): Ballonsport, Tiere und Vegetation. Auswirkungen des Ballonsports auf Tiere und Vegetation. Materialien 123, 84 pp.


Geese protection map of Lower Rhine


## Photos (not reproduced):

Geese taking to the air
Greater white-fronted goose

