



Fig. S1. GPS tracks of homing pigeons released pre- and post-clock-shift (CS, 6 h slow) manipulation at the control site. Dashed frames for (a) pre-CS release and (c) post-CS release encapsulate enlarged regions shown in b and d, respectively. Tracks for the same pigeon flying in both releases from a site are identified by the color of the track (bird no. 425, 427 and 438 in blue, yellow and red, respectively). Units on axes are easting and northing coordinates (in meters) based on the UTM system. It should be noted that four complete tracks (blue, yellow, red and white) and one incomplete track (in white; data acquisition by the GPS unit was lost shortly after release) are shown. Of these five tracks, three (the two white tracks and the yellow one) showed the expected CS deflection during initial orientation.

Table S1. Vanishing direction of individual pigeons released pre- and post-6 h slow clock-shift (CS) treatment at two familiar release sites (with and without distinctive landmarks)

Control site (home direction 293 deg)				Turbine site (home direction 77 deg)			
Pre-CS		Post-CS		Pre-CS		Post-CS	
Bird number	Vanishing direction (deg)	Bird number	Vanishing direction (deg)	Bird number	Vanishing direction (deg)	Bird number	Vanishing direction (deg)
214	269	214	4	214	108	276	110
276	330	276	340	276	80	418	170
418	276	422	355	424	71	424	117
422	287	424	329	425	104	425	118
424	255	427	38	427	116	428	195
425	254	430	351	428	82	430	86
427	311	431	308	430	106	437	84
428	270	432	349	431	96	438	174
430	268	437	350	432	113		
432	274	438	286	437	97		
438	252	445	343	438	90		