

<b>Table 5.3.2-2</b>				
<b>Summary of Available Avian Radar Survey Results for Proposed Terrestrial Wind Facilities</b>				
Project Site	Landscape	Average Passage Rate (t/km/hr)	Average Flight Height (m)	Citation
<b>Fall 1998</b>				
Harrisburg, NY	Great Lakes plain/ADK foothills	122	182	Cooper and Mabee 2000
Wethersfield, Wyoming Cty, NY	Agricultural plateau	168	154	Cooper and Mabee 2000
<b>Spring 2003</b>				
Westfield Chautauqua Cty, NY	Great Lakes Shore	395	528	Cooper <i>et al.</i> 2004a
<b>Fall 2003</b>				
Westfield Chautauqua Cty, NY	Great Lakes shore	238	532	Cooper <i>et al.</i> 2004c
Mt. Storm, Grant Cty, WV	Forested ridge	241	410	Cooper <i>et al.</i> 2004b
<b>Fall 2004</b>				
Franklin, Pendleton Cty, WV	Forested ridge	229	583	Woodlot 2005a
Prattsburgh, Steuben Cty, NY	Agricultural plateau	193	516	Woodlot 2005b
Prattsburgh, Steuben Cty, NY	Agricultural plateau	200	365	Mabee <i>et al.</i> 2005a
Martindale, Lancaster, Cty, PA	Reclaimed minelands	187	436	Young 2006
Casselman, Somerset Cty, PA	Reclaimed minelands	174	448	Young 2006
Deerfield, Bennington Cty, VT (Existing Facility)	Forested ridge	175	438	Woodlot 2005c
Deerfield, Bennington Cty, VT (Western Expansion)	Forested ridge	193	624	Woodlot 2005c
Deerfield, Bennington Cty, VT (Valley Site)	Forested ridge	150	503	Woodlot 2005c
Deerfield, Bennington Cty, VT (3 sites combined)	Forested ridge	178	611	Woodlot 2005c
Sheffield, Caledonia Cty, VT	Forested ridge	114	566	Woodlot 2006a
<b>Spring 2005</b>				
Churubusco, Clinton Cty, NY	Great Lakes plain/ADK foothills	254	422	Woodlot 2005d
Ellenberg, Clinton Cty, NY	Great Lakes plain/ADK foothills	110	338	Mabee <i>et al.</i> 2006a
Dairy Hills, Clinton Cty, NY	Great Lakes shore	117	397	ED&R 2006a
Clayton, Jefferson Cty, NY	Agricultural plateau	450	443	Woodlot 2005e
Sheldon, Wyoming Cty, NY	Agricultural plateau	112	418	Woodlot 2006b
Prattsburgh, Steuben Cty, NY	Agricultural plateau	277	370	Woodlot 2005f
Prattsburgh, Steuben Cty, NY	Agricultural plateau	170	319	Mabee <i>et al.</i> 2005a
Cohocton, Steuben Cty, NY	Agricultural plateau	371	609	ED&R 2006b
Munnsville, Madison Cty, NY	Agricultural plateau	160	291	Woodlot 2005g
Fairfield, Herkimer Cty, NY	Agricultural plateau/ADK foothills	509	419	Woodlot 2005h

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<b>Project Site</b>	<b>Landscape</b>	<b>Average Passage Rate (t/km/hr)</b>	<b>Average Flight Height (m)</b>	<b>Citation</b>
Jordanville, Herkimer Cty, NY	Agricultural plateau	409	371	Woodlot 2005i
Sheffield, Caledonia Cty, VT	Forested ridge	208	522	Woodlot 2006a
Deerfield, Bennington Cty, VT	Forested ridge	404	523	Woodlot 2005j
Franklin, Pendleton Cty, WV	Forested ridge	457	492	Woodlot 2005k
<b>Fall 2005</b>				
Churubusco, Clinton Cty, NY	Great Lakes plain/ADK foothills	152	438	Woodlot 2005l
Ellenberg, Clinton Cty, NY	Great Lakes plain/ADK foothills	197	333	Mabee <i>et al.</i> 2006a
Dairy Hills, Clinton Cty, NY	Agricultural plateau	94	466	Young <i>et al.</i> 2006
Flat Rock, Lewis Cty, NY	Great Lakes plain/ADK foothills	158	415	ED&R 2006a
Clayton, Jefferson Cty, NY	Agricultural plateau	418	475	Woodlot 2005m
Bliss, Wyoming Cty, NY	Agricultural plateau	440	411	Young 2006
Perry, Wyoming Cty, NY	Agricultural plateau	64	466	Young 2006
Sheldon, Wyoming Cty, NY	Agricultural plateau	197	422	Woodlot 2005n
Howard, Steuben Cty, NY	Agricultural plateau	481	491	Woodlot 2005o
Fairfield, Herkimer Cty, NY	Agricultural plateau	691	516	Woodlot 2005p
Jordanville, Herkimer Cty, NY	Agricultural plateau	380	440	Woodlot 2005q
Munnsville, Madison Cty, NY	Agricultural plateau	732	644	Woodlot 2005r
Deerfield, Bennington Cty, VT	Forested ridge	559	395	Woodlot 2005s
Kibby, Franklin Cty, ME (Mountain)	Forested ridge	565	370	Woodlot 2006d
Kibby, Franklin Cty, ME (Range 1)	Forested ridge	201	352	Woodlot 2006d
Kibby, Franklin Cty, ME (Valley Site)	Forested valley	452	391	Woodlot 2006d
Mars Hill, Aroostook Cty, ME	Forested ridge	512	424	Woodlot 2005t
<b>Spring 2006</b>				
Chateaugay, Franklin Cty, NY	Agricultural plateau	360	409	Woodlot 2006e
Wethersfield, Wyoming Cty, NY	Agricultural plateau	324	355	Mabee <i>et al.</i> 2006b
Centerville, Allegany Cty, NY	Agricultural plateau	290	351	Mabee <i>et al.</i> 2006b
Howard, Steuben Cty, NY	Agricultural plateau	440	426	Woodlot 2006f
Deerfield, Bennington Cty, VT	Forested ridge	263	435	Woodlot 2006g
Kibby, Franklin Cty, ME (Mountain)	Forested ridge	456	368	Woodlot 2006h
Kibby, Franklin Cty, ME (Range 1)	Forested ridge	197	412	Woodlot 2006h
Kibby, Franklin Cty, ME (Range 2)	Forested ridge	512	378	Woodlot 2006h

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Project Site	Landscape	Average Passage Rate (t/km/hr)	Average Flight Height (m)	Citation
Kibby, Franklin Cty, ME (Valley Site)	Forested valley	443	334	Woodlot 2006h
Mars Hill, Aroostook Cty, ME	Forested ridge	338	384	Woodlot 2006i
<b>Fall 2006</b>				
Chateaugay, Franklin Cty, NY	Agricultural plateau	643	431	Woodlot 2006j
Wethersfield, Wyoming Cty, NY	Agricultural plateau	256	344	Mabee et al. 2006c
Centerville, Allegany Cty, NY	Agricultural plateau	259	350	Mabee et al. 2006c
Lempster, Sullivan Cty, NH	Forested ridge	620	387	Woodlot 2007a
Stetson, Penobscot Cty, ME	Forested ridge	476	378	Woodlot 2007b
<p>Cooper, B.A., and T.J. Mabee. 2000. Bird migration near proposed wind turbine sites at Wethersfield and Harrisburg, New York. Unpublished report prepared for Niagara–Mohawk Power Corporation, Syracuse, NY, by ABR, Inc., Forest Grove, OR. 46 pp.</p> <p>Cooper, B.A., A.A. Stickney, J.J. Mabee. 2004a. A visual and radar study of 2003 spring bird migration at the proposed Chautauqua wind energy facility, New York. 2004. Final Report prepared by ABR Inc. Chautauqua Windpower LLC.</p> <p>Cooper, B.A., T.J. Mabee, and J.H. Plissner. 2004b. A Radar Study of Nocturnal Bird Migration at a Proposed Mount Storm wind power development, West Virginia, Fall 2003. Appendix in Avian baseline studies Mount Storm wind power project Grant County, West Virginia, final report 2004. Prepared for NedPower Mount Storm, LLC.</p> <p>Cooper, B.A., A.A. Stickney, and T.J. Mabee. 2004c. A radar study of nocturnal bird migration at the proposed Chautauqua wind energy facility, New York, Fall 2003.</p> <p>Environmental Design and Research. 2006a Draft Environmental Impact Statement for the Dairy Hills Wind Farm Project. Towns of Perry, Warsaw and Covington, Wyoming County, New York. Prepared for Dairy Hills Wind Farm, LLC.</p> <p>Environmental Design and Research. 2006b Draft Environmental Impact Statement for the Cohocton Wind Power Project. Town of Cohocton, Steuben County, New York. Prepared for Canandaigua Wind Partners, LLC.</p> <p>Mabee, T.J., B.A. Cooper, and J.H. Plissner. 2004. A Radar Study of Nocturnal Bird Migration at the Proposed Mount Storm Wind-power Development, West Virginia, Fall 2003. Unpublished report prepared for Western Ecosystems Technology, Inc., Cheyenne WY, and Nedpower US LLC, Chantilly, VA by ABR, Inc., Forest Grove, OR. 40 pp.</p> <p>Mabee, T.J., J.H. Plissner, and B.A. Cooper. 2005a. A radar and visual study of nocturnal bird and bat migration at the proposed Prattsburg-Italy wind power project, New York, fall 2004. Unpublished report prepared for Ecogen LLC, West Seneca, NY, by ABR, Inc., Forest Grove, OR. 26 pp.</p> <p>Mabee, T.J., J.H. Plissner, and B.A. Cooper. 2006a. A Radar and Visual Study of Nocturnal Bird and Bat Migration at the Proposed Clinton County Windparks, New York, Spring and fall 2005. Report prepared for Ecology and Environment, LLC and Noble Environmental Power, LLC. January 2006.</p> <p>_____. 2006b. A Radar and Visual Study of Nocturnal Bird and Bat Migration at the Proposed Centerville and Wethersfield Windparks, New York, Spring 2006. Report prepared for Ecology and Environment, LLC and Noble Environmental Power, LLC. July 2006.</p> <p>_____. 2006c. A Radar and Visual Study of Nocturnal Bird and Bat Migration at the Proposed Centerville and Wethersfield Windparks, New York, Fall 2006. Report prepared for Ecology and Environment, LLC and Noble Environmental Power, LLC. December 2006.</p> <p>Woodlot Alternatives, Inc. 2005a. A Radar and Acoustic Survey of Bird and Bat Migration at the Proposed Liberty Gap Wind Project in Franklin, West Virginia – Fall 2004. Prepared for US Wind Force, LLC.</p> <p>_____. 2005b. A Fall 2004 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Windfarm Prattsburgh Project in Prattsburgh, New York. Prepared for UPC Wind Management, LLC.</p> <p>_____. 2005c. Fall 2004 Avian Migration Surveys at the Proposed Deerfield Wind/Searsburg Expansion Project in Searsburg and Readsboro, Vermont. Prepared for Deerfield Wind, LLC and Vermont Environmental Research Associates.</p>				

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**Summary of Available Avian Radar Survey Results for Proposed Terrestrial Wind Facilities**

Project Site	Landscape	Average Passage Rate (t/km/hr)	Average Flight Height (m)	Citation
_____	2005d. A Spring Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Marble River Wind Project in Clinton and Ellenburg, New York. Prepared for AES Corporation.			
_____	2005e. A Spring 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Clayton Wind Project in Clayton, New York. Prepared for PPM Atlantic Renewable.			
_____	2005f. A Spring 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Windfarm Prattsburgh Project in Prattsburgh, New York. Prepared for UPC Wind Management, LLC.			
_____	2005g. A Spring 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Munnsville Wind Project in Munnsville, New York. Prepared for AES-EHN NY Wind, LLC.			
_____	2005h. A Spring 2005 Radar Survey of Bird and Bat Migration at the Proposed Top Notch Wind Project in Fairfield, New York. Prepared for PPM Atlantic Renewable.			
_____	2005i. A Spring 2005 Radar and Acoustic Survey of Bird and Bat Migration at the Proposed Jordanville Wind Project in Jordanville, New York. Prepared for Community Energy, Inc.			
_____	2005j. A Spring 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Deerfield Wind Project in Searsburg and Readsboro, Vermont. Prepared for PPM Energy/Deerfield Wind, LLC.			
_____	2005k. A Spring 2005 Radar and Acoustic Survey of Bird and Bat Migration at the Proposed Liberty Gap Wind Project in Franklin, West Virginia. Prepared for US Wind Force, LLC.			
_____	2005l. A Fall 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Marble River Wind Project in Clinton and Ellenburg, New York. Prepared for AES Corporation.			
_____	2005m. A Fall 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Clayton Wind Project in Clayton, New York. Prepared for PPM Atlantic Renewable.			
_____	2005n. A Fall 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed High Sheldon Wind Project in Sheldon, New York. Prepared for Invenergy.			
_____	2005o. A Fall 2005 Survey of Bird and Bat Migration at the Proposed Howard Wind Power Project in Howard, New York. Prepared for Everpower Global.			
_____	2005p. A Fall 2005 Radar Survey of Bird and Bat Migration at the Proposed Top Notch Wind Project in Fairfield, New York. Prepared for PPM Atlantic Renewable.			
_____	2005q. A Fall 2005 Radar and Acoustic Survey of Bird and Bat Migration at the Proposed Jordanville Wind Project in Jordanville, New York. Prepared for Community Energy, Inc.			
_____	2005r. Summer and Fall 2005 Bird and Bat Surveys at the Proposed Munnsville Wind Project in Munnsville, New York. Prepared for AES-EHN NY Wind, LLC.			
_____	2005s. A Fall 2005 Radar and Acoustic Survey of Bird and Bat Migration at the Proposed Deerfield Wind Project in Searsburg and Readsboro, Vermont. Prepared for Deerfield Wind LLC and Vermont Environmental Research Associates.			
_____	2005t. A Fall 2005 Radar, Visual, and Acoustic Survey of Bird and Bat Migration at the Proposed Mars Hill Wind Project in Mars Hill, Maine. Prepared for UPC Wind Management, LLC.			
_____	2006a. Avian and Bat Information Summary and Risk Assessment for the Proposed Sheffield Wind Power Project in Sheffield, Vermont. Prepared for UPC Wind Management, LLC.			
_____	2006b. A Spring 2005 Radar Survey of Bird Migration at the Proposed High Sheldon Wind Project in Sheldon, New York. Prepared for Invenergy.			
_____	2006d. A Fall 2005 Radar Survey of Bird and Bat Migration at the Proposed Kibby Wind Power Project in Kibby and Skinner Townships, Maine. Prepared for TRC and TransCanada Energy, Ltd.			
_____	2006e. A Spring 2006 Survey of Bird and Bat Migration at the Proposed Chateaugay Windpark in Chateaugay, New York. Prepared for Ecology and Environment, Inc. and Noble Power, LLC.			
_____	2006f. A Spring 2006 Survey of Bird and Bat Migration at the Proposed Howard Wind Power Project in Howard, New York. Prepared for Everpower Global.			
_____	2006g. Spring 2006 Bird and Bat Migration Surveys at the Proposed Deerfield Wind Project in Searsburg and Readsboro, Vermont. Prepared for PPM Energy, Inc.			

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Project Site	Landscape	Average Passage Rate (t/km/hr)	Average Flight Height (m)	Citation
_____	2006h. A Spring 2006 Survey of Bird and Bat Migration at the Proposed Kibby Wind Power Project in Kibby and Skinner Townships, Maine. Prepared for TransCanada Maine Wind Development, Inc.			
_____	2006i. A Spring 2006 Radar, Visual, and Acoustic Survey of Bird Migration at the Mars Hill Wind Farm in Mars Hill, Maine. Prepared for Evergreen Windpower, LLC.			
_____	2006j. A Fall 2006 Survey of Bird and Bat Migration at the Proposed Chateaugay Windpark in Chateaugay, New York. Prepared for Ecology and Environment, Inc. and Noble Power, LLC.			
_____	2007a. A Fall 2006 Survey of Bird and Bat Migration at the Proposed Lempster Mountain Wind Power Project in Lempster, New Hampshire. Prepared for Lempster Wind, LLC.			
_____	2007b. A Fall 2006 Survey of Bird and Bat Migration at the Proposed Stetson Mountain Wind Power Project in Washington County, Maine. Prepared for Evergreen Wind V, LLC.			
Young, D.P.	2006. Wildlife Issue Solutions: What Have Marine Radar Surveys Taught Us About Wildlife Risk Assessment? Presented at Windpower 2006 Conference and Exhibition. June 4-7, 2006. Pittsburgh, PA.			
Young, D.P., C.S. Nations, V.K. Poulton, J. Kerns, and L. Pavidonis	2006. Avian and bat studies for the Proposed Dairy Hills wind project, Wyoming County, New York. Prepared for Horizon Wind Energy, April 2006, Cited in the Draft Environmental Impact Statement for the Noble Wethersfield Windpark, Wyoming County, New York. Prepared for Noble Wethersfield Windpark, LLC by Ecology and Environment.			