

## APPENDIX

□

**Table A1.** Statistics of simulated (R27 and R5.5) near-surface temperatures in comparison with the automatic weather stations. Mo=monthly data; 3hr=three-hourly data.

Station name	Slope (mo.)		Slope (3hr)		R <sup>2</sup> (mo.)		R <sup>2</sup> (3hr)		RMSE (mo.)		RMSE (3hr)	
	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5
Bear Peninsula	1.24	<b>1.05</b>	1.17	<b>0.98</b>	0.95	<b>0.98</b>	0.76	<b>0.88</b>	2.92	<b>0.96</b>	5.35	<b>3.24</b>
Byrd Station	<b>0.91</b>	0.87	0.86	0.86	0.97	0.97	0.81	<b>0.87</b>	2.01	<b>1.73</b>	4.99	<b>4.05</b>
Elizabeth	<b>0.99</b>	0.92	<b>0.95</b>	0.93	0.97	<b>0.99</b>	0.84	<b>0.91</b>	1.82	<b>1.55</b>	4.98	<b>3.76</b>
Evans Knoll	1.15	<b>1.10</b>	1.07	<b>1.00</b>	0.97	<b>0.98</b>	0.77	<b>0.86</b>	2.72	<b>2.46</b>	5.42	<b>3.67</b>
Janet	<b>0.96</b>	0.91	<b>0.88</b>	0.87	<b>0.98</b>	0.97	0.82	<b>0.85</b>	<b>1.33</b>	1.35	4.35	<b>3.83</b>
Kominko-Slade	<b>0.93</b>	0.89	0.87	<b>0.88</b>	0.97	<b>0.98</b>	0.81	<b>0.86</b>	1.78	<b>1.39</b>	4.76	<b>3.84</b>
Mount Siple	<b>0.84</b>	0.77	<b>0.75</b>	0.71	<b>0.96</b>	0.95	<b>0.81</b>	0.80	3.02	<b>2.56</b>	<b>3.51</b>	3.73
Siple Dome	<b>1.02</b>	0.94	<b>0.92</b>	0.90	0.97	<b>0.98</b>	0.82	<b>0.88</b>	<b>1.65</b>	1.74	4.44	<b>3.73</b>
Thurston Island	1.16	<b>1.04</b>	1.11	<b>1.00</b>	0.97	<b>0.99</b>	0.82	<b>0.89</b>	2.89	<b>0.75</b>	4.29	<b>2.72</b>
All stations	0.96	0.96	0.91	<b>0.92</b>	0.95	<b>0.97</b>	0.86	<b>0.91</b>	2.28	<b>1.79</b>	4.70	<b>3.78</b>

□

**Table A2.** Statistics of simulated (R27 and R5.5) 10-meter wind speed in comparison with the automatic weather stations. Mo=monthly data; 3hr=three-hourly data.

Station name	Slope (mo.)		Slope (3hr)		R <sup>2</sup> (mo.)		R <sup>2</sup> (3hr)		RMSE (mo.)		RMSE (3hr)	
	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5	R27	R5.5
Bear Peninsula	0.48	<b>0.68</b>	0.31	<b>0.48</b>	0.72	<b>0.81</b>	0.50	<b>0.57</b>	4.02	<b>3.04</b>	7.28	<b>6.15</b>
Byrd Station	0.78	<b>0.79</b>	0.69	<b>0.72</b>	0.78	<b>0.80</b>	0.59	<b>0.66</b>	<b>1.28</b>	1.53	2.78	<b>2.71</b>
Elizabeth	0.60	<b>0.70</b>	0.58	<b>0.71</b>	0.62	<b>0.63</b>	0.44	<b>0.55</b>	<b>1.07</b>	1.26	2.45	<b>2.37</b>
Evans Knoll	<b>0.90</b>	0.79	0.50	<b>0.54</b>	<b>0.88</b>	0.84	0.51	<b>0.54</b>	<b>0.54</b>	0.62	3.42	<b>3.32</b>
Janet	0.67	<b>0.74</b>	0.65	<b>0.70</b>	0.44	<b>0.45</b>	0.57	<b>0.59</b>	<b>1.37</b>	1.49	3.21	3.21
Kominko-Slade	0.77	<b>0.80</b>	0.65	<b>0.69</b>	0.70	<b>0.77</b>	0.57	<b>0.63</b>	0.97	0.97	3.20	<b>3.02</b>
Mount Siple	-	-	-	-	-	-	-	-	-	-	-	-
Siple Dome	<b>0.59</b>	0.34	0.48	<b>0.52</b>	<b>0.24</b>	0.08	0.25	<b>0.28</b>	<b>0.93</b>	1.93	<b>2.90</b>	3.56
Thurston Island	0.56	<b>0.65</b>	0.23	<b>0.38</b>	0.76	<b>0.80</b>	0.28	<b>0.41</b>	<b>2.41</b>	2.65	6.06	<b>5.60</b>
All stations	0.47	<b>0.52</b>	0.49	<b>0.58</b>	0.36	<b>0.43</b>	0.43	<b>0.52</b>	1.82	<b>1.75</b>	3.69	<b>3.44</b>