

Table S1. Simulation Conditions.

Rime Ice				Glaze Ice			
	temperature (°C)	LWC(g/ m³)	inflow velocities(m/s)		temperature (°C)	LWC(g/ m³)	inflow velocities(m/s)
1	-15	0.9	50	1	-7	1	60
2	-12	1.2	30	2	-5	2.5	20
3	-16	0.45	40	3	-10	3.5	80
4	-17	1.2	70	4	-9	4.5	90
5	-13	0.45	50	5	-3	2	60
6	-19	0.9	70	6	-5	2	80
7	-13	0.9	90	7	-2	2	50
8	-13	1.5	80	8	-2	5	70
9	-18	1.2	10	9	-8	2.5	50
10	-14	0.45	70	10	-7	4	80
11	-15	1.2	20	11	-8	4	30
12	-13	0.6	30	12	-5	3.5	60
13	-13	0.75	20	13	-10	5	60
14	-16	1.35	30	14	-4	4.5	10
15	-16	0.3	90	15	-8	5	40
16	-14	0.6	50	16	-2	3.5	30
17	-18	0.3	50	17	-6	5	20
18	-16	0.6	20	18	-4	4	50
19	-19	0.75	30	19	-7	3	90
20	-18	0.45	30	20	-4	3.5	20
21	-15	1.5	40	21	-8	1	70
22	-17	1.35	50	22	-4	2.5	70
23	-18	0.75	90	23	-4	1.5	80
24	-18	0.6	70	24	-4	5	90
25	-12	1.5	50	25	-3	4	40
26	-17	0.9	10	26	-10	4.5	70
27	-18	1.5	60	27	-3	3	50
28	-19	1.2	40	28	-8	3.5	90
29	-17	0.75	60	29	-9	1.5	40
3	-15	0.75	70	3	-3	2.5	90

0				0			
3 1	-16	1.05	60	3 1	-3	4.5	30
3 2	-12	0.6	90	3 2	-9	4	10
3 3	-12	0.9	60	3 3	-9	2	30
3 4	-16	0.75	10	3 4	-5	1.5	30
3 5	-16	1.5	70	3 5	-4	3	60
3 6	-14	0.75	40	3 6	-7	3.5	50
3 7	-16	1.2	50	3 7	-3	1	20
3 8	-17	1.05	80	3 8	-3	5	80
3 9	-11	0.3	10	3 9	-2	1.5	90
4 0	-14	1.5	10	4 0	-5	1	40
4 1	-14	0.9	20	4 1	-7	4.5	40
4 2	-14	1.05	90	4 2	-6	1	50
4 3	-12	1.05	10	4 3	-9	2.5	60
4 4	-15	0.45	10	4 4	-7	2	70
4 5	-19	0.45	60	4 5	-6	2	90
4 6	-12	0.45	20	4 6	-9	1	80
4 7	-15	0.3	60	4 7	-10	3	30
4 8	-11	0.75	50	4 8	-2	4.5	20
4 9	-13	1.2	60	4 9	-3	3.5	10
5 0	-19	0.3	80	5 0	-4	2	40
5 1	-11	1.5	20	5 1	-5	5	10
5 2	-12	0.3	40	5 2	-6	1.5	10
5 3	-13	1.35	10	5 3	-8	4.5	80
5 4	-11	1.35	40	5 4	-10	2.5	40
5 5	-19	0.6	10	5 5	-8	1.5	60
5 6	-18	0.9	40	5 6	-10	2	10
5 7	-11	0.6	60	5 7	-6	4	70
5	-11	0.9	30	5	-6	2.5	30

8				8			
5 9	-11	0.45	80	5 9	-5	4.5	50
6 0	-13	0.3	70	6 0	-2	4	60
6 1	-14	1.2	80	6 1	-2	2.5	80
6 2	-19	1.5	90	6 2	-7	1.5	20
6 3	-18	1.35	80	6 3	-2	3	40
6 4	-17	0.3	20	6 4	-9	5	50
6 5	-18	1.05	20	6 5	-5	3	70
6 6	-15	1.05	30	6 6	-10	4	20
6 7	-11	1.2	90	6 7	-9	3.5	70
6 8	-12	1.35	70	6 8	-6	3.5	40
6 9	-17	1.5	30	6 9	-5	4	90
7 0	-19	1.35	20	7 0	-6	3	80
7 1	-11	1.05	70	7 1	-7	2.5	10
7 2	-17	0.45	90	7 2	-10	1.5	50
7 3	-17	0.6	40	7 3	-8	2	20
7 4	-12	0.75	80	7 4	-10	1	90
7 5	-13	1.05	40	7 5	-6	4.5	60
7 6	-16	0.9	80	7 6	-8	3	10
7 7	-15	1.35	90	7 7	-4	1	30
7 8	-14	0.3	30	7 8	-7	5	30
7 9	-19	1.05	50	7 9	-9	3	20
8 0	-14	1.35	60	8 0	-3	1.5	70
8 1	-15	0.6	80	8 1	-2	1	10