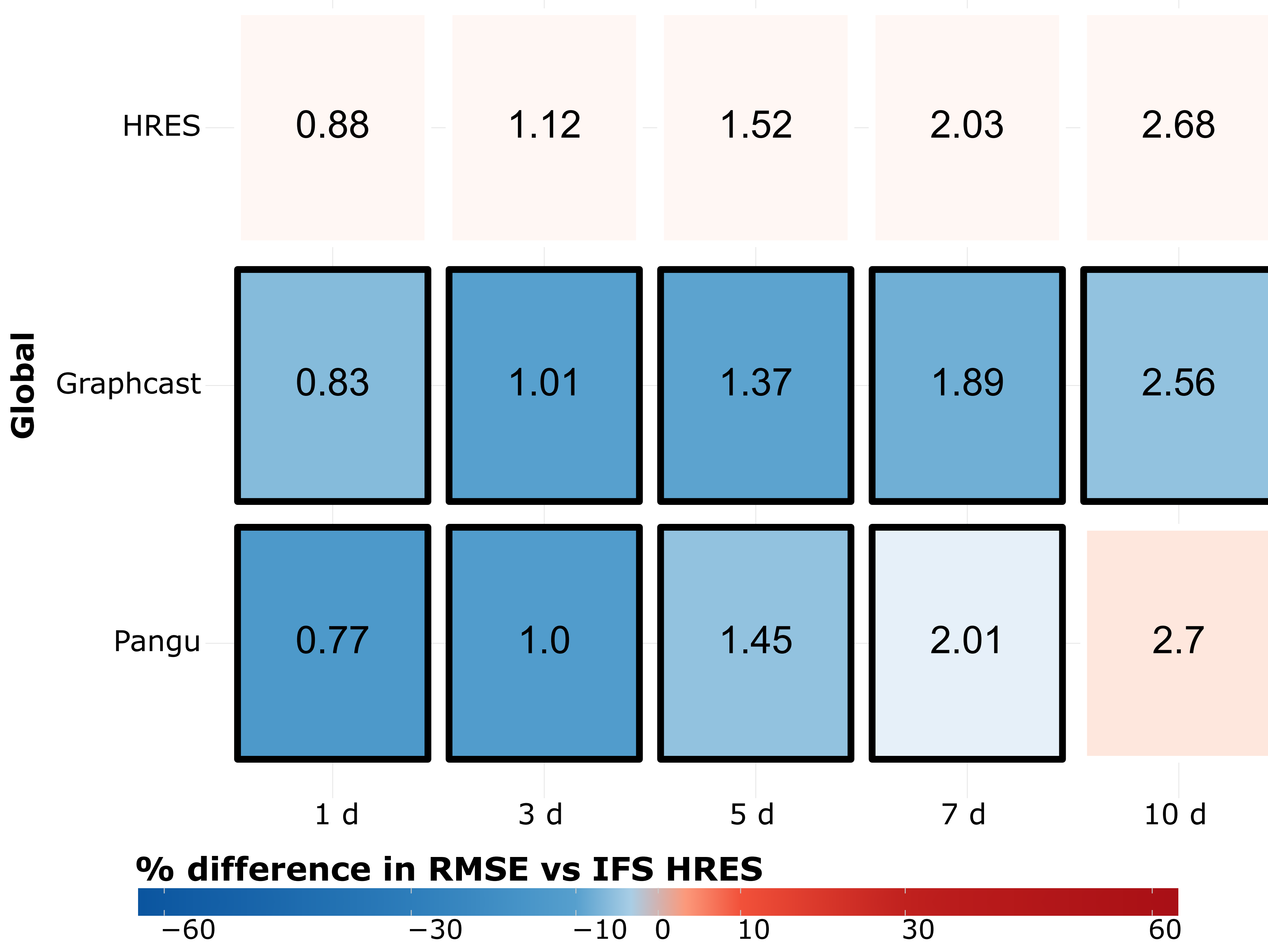


RMSE scorecard based on all test data-points

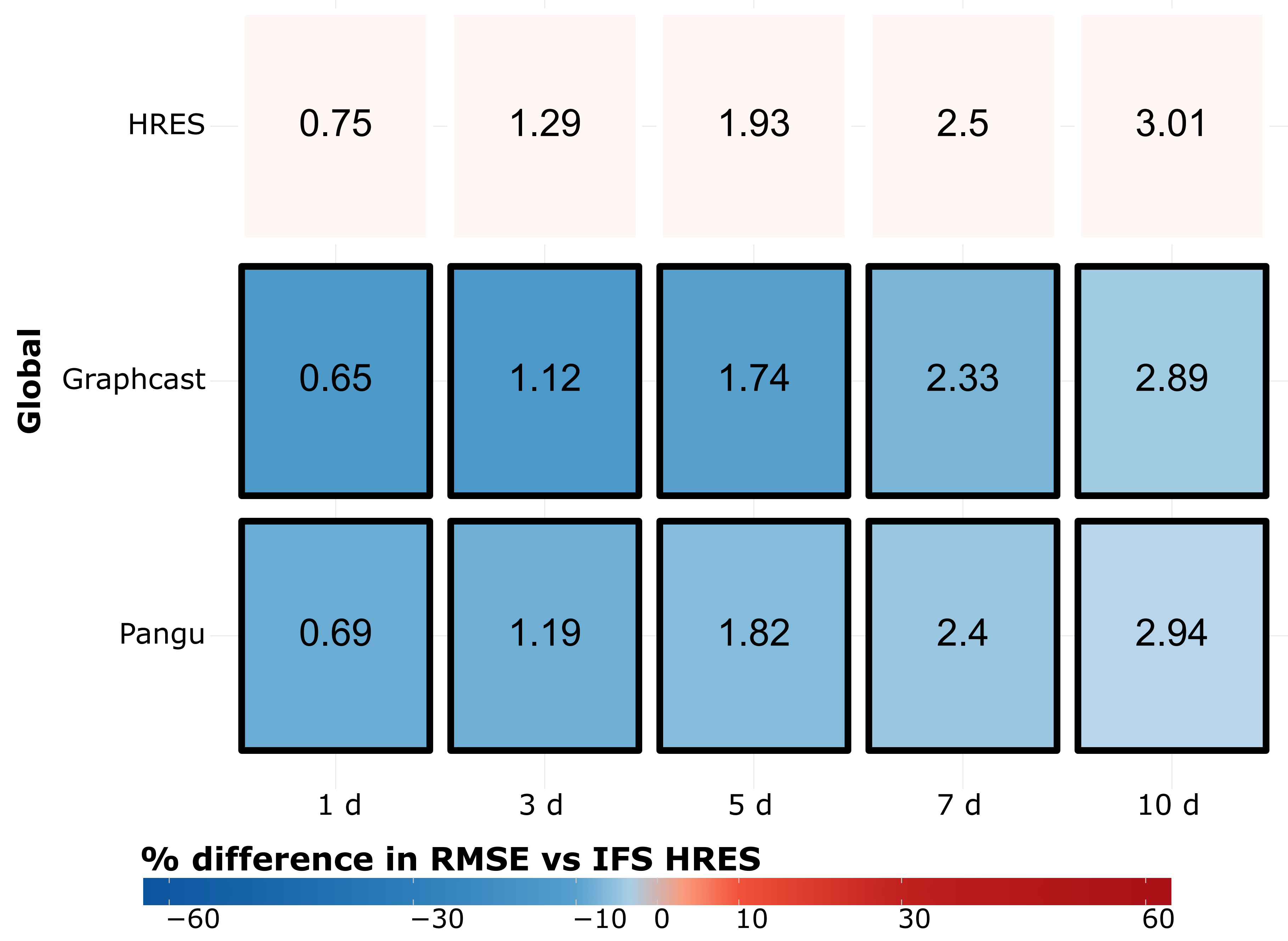
(a)

2 m temperature



(b)

10 m windspeed



Northern Hemisphere

Tropics

Arctic

Europe

North Atlantic

East Asia

Southern Hemisphere

Extra-Tropics

Antarctic

North America

North Pacific

AusNZ

Northern Hemisphere

Tropics

Arctic

Europe

North Atlantic

East Asia

Southern Hemisphere

Extra-Tropics

Antarctic

North America

North Pacific

AusNZ

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.18	1.47	1.94	2.62	3.53
Graphcast	1.12	1.33	1.77	2.45	3.38
Pangu	1.01	1.26	1.82	2.56	3.53

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.7	1.03	1.58	2.2	2.9
Graphcast	0.68	0.94	1.43	2.04	2.77
Pangu	0.65	0.98	1.55	2.21	2.91

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.68	0.78	0.85	0.93	1.07
Graphcast	0.61	0.68	0.75	0.83	0.99
Pangu	0.57	0.68	0.8	0.93	1.17

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.97	1.27	1.77	2.42	3.23
Graphcast	0.93	1.15	1.61	2.25	3.09
Pangu	0.85	1.13	1.69	2.39	3.23

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.53	1.99	2.74	3.75	4.98
Graphcast	1.48	1.8	2.5	3.51	4.77
Pangu	1.27	1.66	2.55	3.65	4.94

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.18	1.81	2.83	3.95	5.03
Graphcast	1.15	1.64	2.54	3.63	4.81
Pangu	1.09	1.7	2.76	3.93	5.02

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.86	1.14	1.62	2.31	3.21
Graphcast	0.8	1.04	1.53	2.18	3.09
Pangu	0.73	1.03	1.58	2.23	3.2

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.43	1.81	2.52	3.46	4.75
Graphcast	1.33	1.61	2.26	3.26	4.57
Pangu	1.27	1.65	2.42	3.5	4.79

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.48	0.77	1.19	1.74	2.42
Graphcast	0.47	0.69	1.08	1.61	2.33
Pangu	0.47	0.73	1.18	1.73	2.45

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.27	1.5	1.86	2.43	3.28
Graphcast	1.2	1.36	1.7	2.26	3.13
Pangu	1.07	1.27	1.71	2.35	3.3

Model	1 d	3 d	5 d	7 d	10 d
HRES	1.34	1.59	1.93	2.46	3.2
Graphcast	1.28	1.45	1.76	2.27	3.07
Pangu	1.15	1.34	1.76	2.41	3.41

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.75	0.94	1.19	1.59	2.33
Graphcast	0.71	0.86	1.11	1.48	2.15
Pangu	0.68	0.85	1.14	1.55	2.26

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.68	1.23	1.91	2.51	2.99
Graphcast	0.63	1.11	1.76	2.37	2.91
Pangu	0.67	1.18	1.84	2.41	2.94

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.77	1.54	2.47	3.25	3.93
Graphcast	0.69	1.36	2.25	3.06	3.8
Pangu	0.73	1.45	2.35	3.16	3.86

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.79	1.05	1.25	1.46	1.76
Graphcast	0.63	0.83	1.03	1.25	1.62
Pangu	0.67	0.89	1.09	1.31	1.66

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.72	1.4	2.21	2.9	3.49
Graphcast	0.66	1.24	2.02	2.74	3.38
Pangu	0.7	1.32	2.11	2.81	3.43

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.71	1.36	2.16	2.82	3.26
Graphcast	0.68	1.28	2.07	2.75	3.22
Pangu	0.72	1.37	2.16	2.79	3.25

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.89	1.88	2.97	3.76	4.28
Graphcast	0.83	1.68	2.74	3.59	4.19
Pangu	0.87	1.82	2.87	3.71	4.21

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.67	1.23	1.92	2.56	3.03
Graphcast	0.63	1.15	1.84	2.48	2.96
Pangu	0.69	1.22	1.91	2.51	3.02

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.62	0.96	1.42	1.85	2.18
Graphcast	0.57	0.87	1.32	1.76	2.12
Pangu	0.62	0.92	1.38	1.8	2.14

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.74	1.53	2.48	3.35	4.01
Graphcast	0.67	1.36	2.25	3.13	3.88
Pangu	0.72	1.43	2.34	3.15	3.94

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.63	1.08	1.66	2.21	2.66
Graphcast	0.58	0.97	1.52	2.08	2.57
Pangu	0.63	1.03	1.58	2.1	2.61

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.67	1.16	1.66	2.13	2.54
Graphcast	0.61	0.99	1.5	1.98	2.43
Pangu	0.68	1.05	1.54	2.0	2.47

Model	1 d	3 d	5 d	7 d	10 d
HRES	0.72	1.16	1.7	2.31	3.0
Graphcast	0.65	1.02	1.55	2.15	2.88
Pangu	0.7	1.06	1.61	2.24	2.96