PoP Reliability For MFR verifying on 10/14/2009 at 00Z

ClimoPoP: Max=31 Avg=16 Min=8

QPE: Max=3.61" Avg=0.50" Min=0.00" | Percent of CWA with precip: 99.95

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12								100 15.96	100 32.93	100 35.60	100 15.52	0.029	0.696	8.64
24								98 2.09	100 26.68	100 48.14	100 23.09	0.015	0.806	6.57
36								99 4.38	100 30.00	100 46.63	100 19.00	0.018	0.789	6.61
48								99 4.38	100 30.00	100 46.67	100 18.95	0.018	0.789	6.60
60						100 0.20	100 28.08	100 26.09	100 28.61	100 13.91	100 3.10	0.079	0.561	10.95
72						100 0.03	100 11.96	100 28.14	100 33.47	100 19.28	100 7.12	0.057	0.629	10.46
84						100 0.31	100 17.48	100 26.81	100 32.54	100 17.49	100 5.37	0.064	0.605	10.71
96					100 0.61	100 15.72	100 21.86	100 20.97	100 23.75	100 13.43	100 3.66	0.102	0.523	13.59
108			100 0.49	100 4.08	100 15.06	100 17.65	100 14.47	100 19.06	100 18.19	100 8.71	100 2.29	0.166	0.435	17.98
120				100 5.59	100 13.98	100 18.09	100 14.44	100 23.13	100 18.07	100 6.46	100 0.24	0.170	0.416	16.65
132				100 11.58	100 14.42	100 24.70	100 19.00	100 17.74	100 12.57			0.216	0.334	14.73
144			100 0.11	100 19.01	100 15.64	100 18.82	100 20.92	100 18.75	100 6.75			0.250	0.301	15.84
156			100 0.11	100 19.01	100 15.64	100 18.82	100 20.92	100 18.75	100 6.75			0.250	0.301	15.84
168			100 3.43	100 33.10	100 27.57	100 26.48	100 9.43					0.368	0.175	11.06

PoP Reliability For EKA verifying on 10/14/2009 at 00Z

ClimoPoP: Max=21 Avg=16 Min=8

QPE: Max=2.18" Avg=0.75" Min=0.00" | Percent of CWA with precip: 99.96

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12										100 13.43	99 86.57	0.001	0.952	2.05
24										100 13.43	99 86.57	0.001	0.959	2.05
36										100 53.99	99 46.01	0.004	0.905	3.33
48										100 53.99	99 46.01	0.004	0.905	3.33
60										100 65.44	100 34.56	0.005	0.889	3.08
72										100 65.44	100 34.56	0.005	0.889	3.08
84										100 57.19	99 42.81	0.004	0.894	2.54
96									100 46.13	100 50.47	100 3.40	0.020	0.752	3.99
108									100 32.99	100 66.87	100 0.14	0.018	0.756	2.20
120									100 38.06	100 61.94		0.020	0.741	1.94
132							100 21.03	100 76.68	100 2.29			0.102	0.467	3.07
144							100 64.52	100 35.48				0.129	0.414	3.09
156					100 0.02	100 41.32	100 46.85	100 11.81				0.188	0.330	6.34
168					100 6.22	100 49.39	100 37.35	100 7.04				0.208	0.306	6.53

PoP Reliability For STO verifying on 10/14/2009 at 00Z

ClimoPoP: Max=19 Avg=9 Min=5

QPE: Max=5.15" Avg=0.79" Min=0.00" | Percent of CWA with precip: 99.73

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12											99 100.00	0.003	1.000	0.00
24											99 100.00	0.003	1.000	0.05
36										100 0.02	99 99.98	0.003	1.000	0.13
48										100 0.02	99 99.98	0.003	1.000	0.13
60											99 100.00	0.003	1.000	0.00
72										100 0.02	99 99.98	0.003	1.000	0.13
84									100 0.02	100 68.86	99 31.12	0.008	0.869	3.49
96									100 0.02	100 68.87	99 31.11	0.008	0.869	3.49
108									99 30.83	100 49.04	100 20.12	0.016	0.800	5.21
120									99 30.85	100 49.03	100 20.12	0.016	0.800	5.21
132							100 59.54	100 14.53	100 8.76	100 17.17		0.104	0.494	10.37
144						100 6.63	100 82.52	100 10.85				0.151	0.379	3.58
156				100 15.70	100 31.89	100 41.93	100 10.48					0.312	0.208	8.58
168				100 15.70	100 31.88	100 41.95	100 10.48					0.312	0.208	8.58

PoP Reliability For REV verifying on 10/14/2009 at 00Z

ClimoPoP: Max=16 Avg=8 Min=2

QPE: Max=9.20" Avg=0.76" Min=0.00" | Percent of CWA with precip: 100.00

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12								100 2.07	100 1.93	100 2.94	100 93.06	0.003	0.969	5.19
24								100 2.07	100 1.93	100 2.94	100 93.06	0.003	0.972	4.96
36						100 0.48	100 1.59	100 1.93	100 2.94	100 57.55	100 35.50	0.012	0.859	7.70
48						100 0.48	100 1.59	100 1.93	100 2.94	100 57.55	100 35.50	0.012	0.859	7.70
60						100 1.69	100 7.80	100 13.76	100 12.96	100 28.29	100 35.50	0.035	0.769	13.21
72				100 0.02	100 0.29	100 5.95	100 8.62	100 8.38	100 12.96	100 28.29	100 35.50	0.044	0.754	15.16
84				100 0.02	100 0.29	100 6.02	100 13.33	100 13.24	100 10.91	100 20.75	100 35.45	0.054	0.723	16.22
96				100 0.35	100 9.19	100 24.82	100 31.69	100 4.44	100 9.25	100 8.66	100 11.59	0.161	0.447	18.33
108				100 0.35	100 9.19	100 24.82	100 31.69	100 4.44	100 9.25	100 8.66	100 11.59	0.161	0.447	18.33
120			100 0.02	100 10.12	100 6.42	100 17.08	100 33.84	100 8.10	100 5.88	100 7.40	100 11.14	0.181	0.426	19.70
132			100 0.02	100 10.12	100 6.42	100 17.08	100 33.84	100 8.10	100 5.88	100 7.40	100 11.14	0.181	0.426	19.70
144	100 0.12	100 3.80	100 28.52	100 24.99	100 12.34	100 22.35	100 7.86	100 0.04				0.455	0.134	13.80
156	100 0.05	100 17.20	100 37.51	100 10.34	100 22.11	100 12.49	100 0.30					0.546	0.093	13.62
168	100 1.17	100 33.78	100 26.88	100 17.43	100 19.96	100 0.78						0.613	0.064	11.58

PoP Reliability For MTR verifying on 10/14/2009 at 00Z

ClimoPoP: Max=14 Avg=7 Min=3

QPE: Max=6.06" Avg=0.88" Min=0.00" | Percent of CWA with precip: 99.71

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12											99 100.00	0.003	1.000	0.00
24										100 41.53	99 58.47	0.005	0.927	2.52
36									100 5.02	100 64.36	99 30.62	0.010	0.864	4.36
48									100 5.02	100 64.36	99 30.62	0.010	0.864	4.36
60								100 0.10	100 12.52	100 30.02	99 57.36	0.010	0.895	6.33
72									99 23.39	100 61.31	99 15.30	0.014	0.819	5.26
84									100 53.74	99 40.47	100 5.79	0.025	0.740	5.52
96									100 53.74	99 40.47	100 5.79	0.025	0.740	5.52
108									100 12.33	100 87.67		0.017	0.773	2.26
120									100 59.78	99 40.22		0.033	0.697	5.37
132								100 100.00				0.091	0.490	0.14
144		100 0.29	100 1.69	100 2.80	100 12.98	100 31.46	99 50.06	100 0.71				0.227	0.293	9.45
156			100 27.68	100 23.12	100 21.55	99 16.18	100 11.48					0.429	0.146	13.26
168		100 3.68	100 16.14	100 19.13	100 25.25	99 26.82	100 8.99					0.401	0.163	13.30

PoP Reliability For HNX verifying on 10/14/2009 at 00Z

ClimoPoP: Max=14 Avg=5 Min=1

QPE: Max=10.00" Avg=1.61" Min=0.00" | Percent of CWA with precip: 95.39

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12					100 0.01	59 1.94	51 2.60	77 2.62	90 2.81	96 14.11	98 75.91	0.035	0.912	10.34
24					100 0.02	62 2.37	47 2.46	73 2.80	95 9.02	94 13.05	99 70.28	0.036	0.893	11.19
36				100 0.01	100 0.01	62 2.37	47 2.46	73 2.80	95 9.02	94 13.05	99 70.28	0.036	0.893	11.20
48						97 0.30	54 3.04	81 11.20	94 19.21	100 23.00	100 43.25	0.042	0.808	11.27
60			63 0.32	54 3.12	57 3.32	85 6.10	94 12.01	100 7.30	100 18.43	100 12.39	100 37.00	0.069	0.693	19.79
72			73 0.47	61 7.27	85 11.13	100 9.77	100 11.75	100 10.32	100 21.71	100 24.68	100 2.89	0.125	0.514	20.35
84			56 3.76	67 3.97	87 12.73	100 10.79	100 9.13	100 10.32	100 21.71	100 24.68	100 2.89	0.132	0.507	21.52
96			51 4.17	81 5.29	90 16.04	100 10.98	100 11.01	100 16.49	100 27.02	100 8.25	100 0.76	0.159	0.433	19.87
108			51 4.17	81 5.29	90 16.04	100 10.98	100 11.01	100 17.95	100 25.87	100 7.93	100 0.76	0.160	0.429	19.69
120		56 3.85	72 4.27	83 7.35	99 30.89	100 25.64	100 17.07	100 5.44	100 4.03	100 1.35	100 0.11	0.278	0.248	15.89
132		56 3.85	72 4.27	83 7.35	99 30.89	100 25.64	100 17.07	100 5.44	100 4.03	100 1.35	100 0.11	0.278	0.248	15.89
144	63 4.82	80 12.05	99 26.37	100 15.44	100 19.10	100 21.72	100 0.50					0.480	0.109	14.88
156	75 12.54	97 52.22	100 26.33	100 8.92								0.726	0.022	7.86
168	75 12.54	97 52.22	100 26.33	100 8.92								0.726	0.022	7.86

PoP Reliability For LOX verifying on 10/14/2009 at 00Z

ClimoPoP: Max=8 Avg=4 Min=2

QPE: Max=6.71" Avg=1.44" Min=0.00" | Percent of CWA with precip: 99.42

Forecast PoP

Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12							96 0.50	90 4.32	100 1.43	99 2.09	99 91.68	0.008	0.964	7.08
24						100 0.08	93 5.66	98 2.46	100 22.35	100 50.54	100 18.92	0.024	0.785	8.87
36						100 0.08	93 5.66	98 2.50	100 22.30	100 50.54	100 18.92	0.025	0.782	9.02
48						100 0.08	93 5.66	98 2.52	100 22.28	100 50.54	100 18.92	0.025	0.782	9.02
60							100 3.74	98 21.40	100 39.24	100 23.19	100 12.43	0.043	0.689	9.82
72				96 10.31	100 2.56	99 14.73	100 44.61	100 22.02	100 5.78			0.181	0.365	12.48
84				96 10.51	100 25.77	100 14.75	100 21.17	100 22.02	100 5.78			0.232	0.312	14.76
96				98 32.18	100 9.42	100 11.21	100 38.99	100 8.20				0.282	0.253	13.53
108				99 38.04	100 11.50	100 20.86	100 28.67	100 0.93				0.313	0.223	13.09
120				99 37.79	100 5.66	100 26.95	100 29.60					0.310	0.225	13.01
132			98 23.77	100 12.08	100 25.53	100 27.45	100 11.17					0.394	0.168	13.97
144	93 6.28	100 45.06	100 48.66									0.759	0.018	4.39
156	99 50.74	100 49.26										0.883	0.004	3.17
168	99 86.62	100 13.38										0.927	0.001	1.38

PoP Reliability For SGX verifying on 10/14/2009 at 00Z

ClimoPoP: Max=8 Avg=3 Min=1

QPE: Max=1.44" Avg=0.06" Min=0.00" | Percent of CWA with precip: 32.09

Forecast PoP

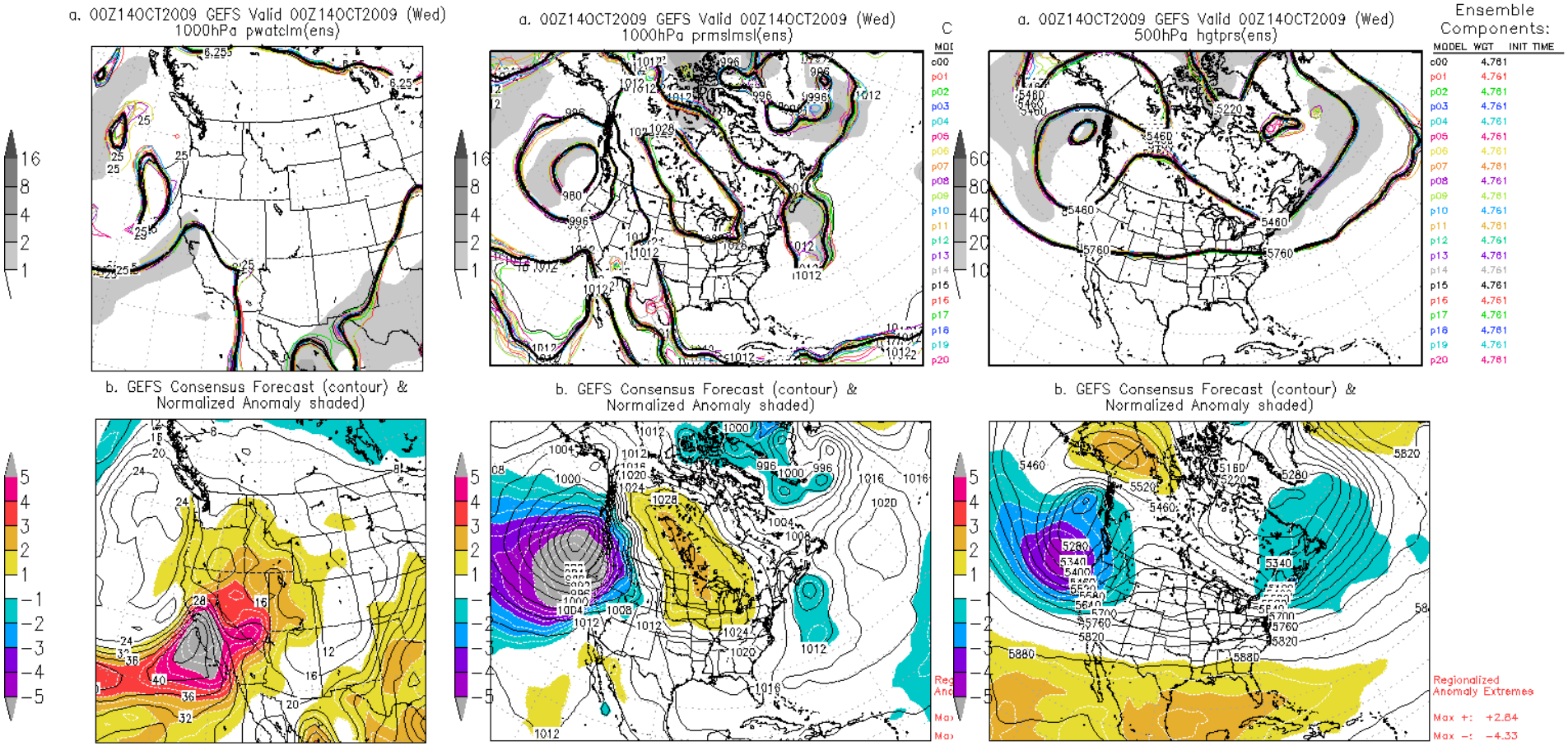
Forecast Hour	0	10	20	30	40	50	60	70	80	90	100	Brier	Resolution	Std
12	0 2.60	0 7.03	0 7.17	15 7.03	38 6.58	42 7.51	11 21.92	20 15.02	75 17.11	85 6.80	100 1.23	0.228	0.357	24.75
24	0 2.60	0 4.53	0 9.10	14 7.53	38 6.64	42 7.51	11 21.92	20 15.02	75 17.11	85 6.80	100 1.23	0.229	0.373	24.33
36	0 1.17	0 6.62	0 7.87	10 22.53	19 17.21	35 13.07	46 9.18	73 14.27	88 6.72	96 0.99	100 0.36	0.160	0.246	20.90
48	0 1.17	0 6.62	0 7.87	10 22.53	19 17.21	35 13.07	46 9.18	73 14.27	88 6.72	96 0.99	100 0.36	0.160	0.246	20.90
60	0 1.51	0 12.48	4 29.03	26 22.65	37 11.94	78 8.50	97 6.36	100 6.04	100 1.21	100 0.28		0.129	0.137	18.08
72	0 1.51	0 12.70	5 29.56	27 22.95	49 14.03	89 17.46	100 1.79					0.149	0.106	13.73
84		2 28.15	35 62.37	100 9.28	100 0.20							0.204	0.033	5.76
96	0 15.36	16 58.49	87 25.99	100 0.16								0.232	0.015	4.98
108		0 9.34	1 32.90	39 42.02	99 15.40	100 0.34						0.171	0.077	8.31
120	0 12.56	11 50.13	70 35.64	100 1.67								0.219	0.021	6.01
132	0 18.80	39 80.73	100 0.46									0.255	0.007	3.18
144	25 88.54	86 11.46										0.299	0.001	1.85
156	30 86.03	47 13.97										0.301	0.001	1.67
168	30 86.03	47 13.97										0.301	0.001	1.67

GEFS Anomalies

- Big event "anomaly-wise" advertised 6 days in advance
- Ensemble mean fairly consistent starting at day 6
- Anomalies can be used to raise forecaster confidence of an event
- Need to be careful – anomalies increase as more members key in on solution
- Thanks to Chris Smallcomb for archiving these images!

GEFS and Normalized Anomalies – Verif. 00Z 14 Oct.

Precipitable Water Sea-Level Pressure 500 mb



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