

North American Electric Reliability Council
Performance Subcommittee
Correlation between Time Standards
Monday-Wednesday-Friday 0200 Central Time
Time in Seconds for December, 1999

DATE	AEP	MAPP	Diff.	ES	Diff.	NYPP	Diff.	Max Diff.
12/01	1.58	1.59	-0.01	1.47	0.11		1.58	1.58
12/03	3.31	3.31	0.00	3.23	0.08		3.31	3.31
12/06	1.39	1.39	0.00	1.34	0.05		1.39	1.39
12/08	2.43	2.43	0.00	2.29	0.14		2.43	2.43
12/10	2.81	2.81	0.00	2.77	0.04		2.81	2.81
12/13	3.00	2.98	0.02	2.90	0.10		3.00	3.00
12/15	6.24	6.22	0.02	6.16	0.08		6.24	6.24
12/17	3.18	3.17	0.01	3.15	0.03		3.18	3.18
12/20	2.04	2.02	0.02	2.03	0.01		2.04	2.04
12/22	4.87	4.85	0.02	4.81	0.06		4.87	4.87
12/24	7.19	8.16	-0.97	7.19	0.00		7.19	7.19
12/27	2.65	2.63	0.02	2.60	0.05		2.65	2.65
12/29	3.43	3.41	0.02	3.36	0.07		3.43	3.43
12/31	6.24	6.22	0.02	6.20	0.04		6.24	6.24
NET	50.36	51.19	-0.83	49.50	0.86	0.00	50.36	50.36

AEP - AMERICAN ELECTRIC POWER

MAPP - MID-CONTINENT AREA POWER POOL

ES - ENTERGY SERVICES, INC.

NYPP - NEW YORK POWER POOL

+ = FAST TIME

- = SLOW TIME

- Not Available

ALL CALCULATIONS USE AEP AS THE TIME BASE.

04/04/00

North American Electric Reliability Council
Performance Subcommittee
Eastern Interconnection

Time Error Corrections and Adjustments through October

Month	Time Corrections		Time Adjustments	
	Fast	Slow	Fast	Slow
1986-Total	101	14	0	62
1987-Total	72	18	0	96
1988-Total	67	23	0	119
1989-Total	44	21	0	129
1990-Total	97	24	0	5
1991-Total	86	67	0	0
1992-Total	89	1	0	0
1993-Total	39	2	0	0
1994-Total	33	4	0	0
1995-Total	113	3	0	0
1996-Total	90	5	0	0
1997				
JAN	7	0	0	0
FEB	9	0	0	0
MAR	14	0	0	0
APR	14	0	0	0
MAY	7	1	0	0
JUN	23	0	0	0
JUL	5	0	0	0
AUG	11	0	0	0
SEP	0	0	0	0
OCT	3	0	0	0
NOV	5	0	0	0
DEC	2	0	0	0
Total	100	1	0	0
1998				
JAN	2	0	0	0
FEB	14	0	0	0
MAR	14	0	0	0
APR	12	0	0	0
MAY	8	3	0	0
JUN	11	1	0	0
JUL	10	0	0	0
AUG	7	5	0	0
SEP	4	6	0	0
OCT	2	4	0	0
NOV	1	8	0	0
DEC	4	2	0	0
Total	89	29	0	0
1999				
JAN	1	1	0	0
FEB	2	2	0	0
MAR	3	1	0	0
APR	1	2	0	0
MAY	7	1	0	0
JUN	7	3	0	0
JUL	13	8	0	0
AUG	7	5	0	0
SEP	1	6	0	0
OCT	0	4	0	0
NOV	12	0	0	0
DEC	17	0	0	0
Total	71	33	0	0

04-Apr-00

**MAAC
TIME ERROR
SUMMARY**

MAAC participated in (17) time error correction during December.
 Table #1, below, lists monthly and year-to-date correction statistics by type of correction.
 The Total Hours on Correction is the number of hours spent on time error correction
 for the period. The Average Duration is the average length of the correction, and the
 Percent of Time on Correction is the number of hours spent on correction divided
 by the total number of hours in the period. The Average Percent Effectiveness
 compares the actual correction achieved to the desired correction.

HOURS IN MONTH
744

December-99

TABLE #1

	<u># of corrections</u>	<u>total hours on correction</u>	<u>average duration</u>	<u>% of time on correction</u>	<u>average % effectiveness</u>
FAST	17.00	90.50	5.32 hrs.	12.16	49.52
SLOW	0.00	0.00	0.00 hrs.	0.00	0.00
TOTAL	17.00	90.50	5.32 hrs.	12.16	49.52

TOTAL HOURS IN
YEAR TO DATE
8760

YEAR TO DATE

	<u># of corrections</u>	<u>total hours on correction</u>	<u>average duration</u>	<u>% of time on correction</u>	<u>average % effectiveness</u>
FAST	73.00	301.75	4.13 hrs.	3.44	80.80
SLOW	32.00	175.00	5.47 hrs.	2.00	101.16
TOTAL	105.00	476.75	4.54 hrs.	5.44	97.36

North American Electric Reliability Council
Performance Subcommittee
ERCOT
Time Error Corrections and Adjustments