Appendix K

Hourly Thermal Gradient from EICM

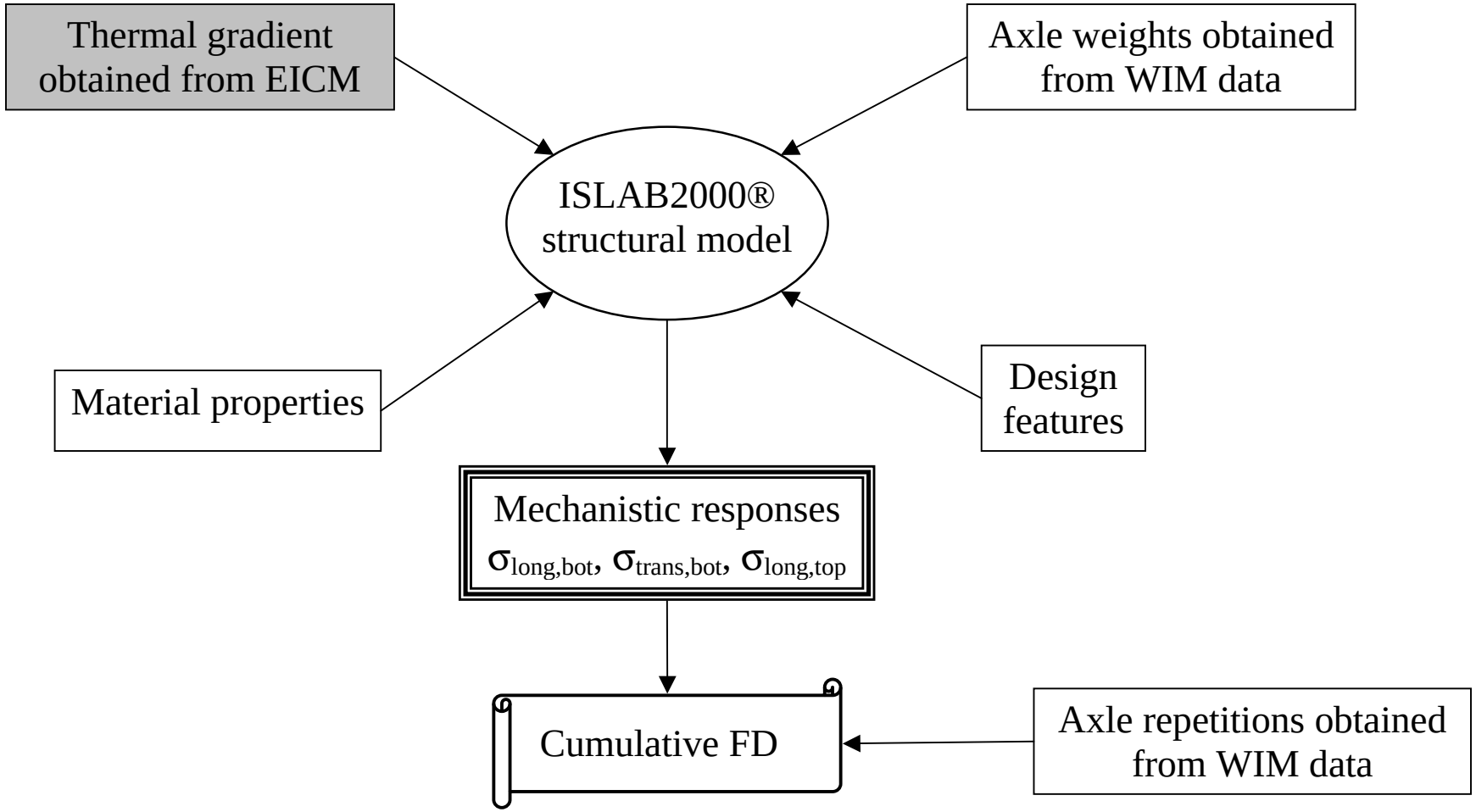

Figure K-1: Role of thermal gradient from EICM in the design process

Table K-1: Thermal gradients generated by EICM for 8-in. sections (sections 26-0213, 26-0214)

Year	Month	12 am - 3 am	3 am - 6 am	6 am - 9 am	9 am - 12 pm	12 pm - 3 pm	3 pm - 6 pm	6 pm - 9 pm	9 pm - 12 am
1998	July	-1.398	-1.386	-0.257	2.280	2.962	2.169	0.354	-1.316
1998	August	-1.325	-1.143	-0.641	1.696	2.333	1.864	-0.182	-1.501
1998	September	-1.418	-1.382	-1.167	1.205	2.476	1.924	-0.328	-1.361
1998	October	-1.078	-1.125	-1.111	0.783	1.882	1.208	-0.699	-1.028
1998	November	-0.812	-0.786	-0.678	0.311	1.427	0.815	-0.518	-0.742
1998	December	-0.896	-0.886	-0.818	0.046	1.248	0.688	-0.567	-0.823
1999	January	-0.720	-0.839	-0.852	-0.224	0.703	0.361	-0.702	-0.786
1999	February	-0.747	-0.703	-0.671	0.438	1.415	0.905	-0.501	-0.689
1999	March	-0.926	-1.017	-0.937	1.154	2.065	1.802	-0.400	-0.841
1999	April	-1.080	-1.038	-0.717	1.631	2.315	1.499	-0.210	-1.079
1999	May	-1.374	-1.309	-0.269	2.110	2.796	1.827	0.003	-1.381
1999	June	-1.487	-1.435	-0.071	2.163	2.601	2.130	0.147	-1.605
1999	July	-1.591	-1.494	-0.278	2.189	2.618	2.217	0.187	-1.514
1999	August	-1.423	-1.477	-0.836	1.709	2.426	1.700	-0.161	-1.464
1999	September	-1.511	-1.403	-1.288	1.502	2.674	2.010	-0.459	-1.404
1999	October	-1.082	-1.097	-1.020	1.005	2.077	1.262	-0.759	-1.059
1999	November	-0.883	-0.941	-0.904	0.268	1.555	1.014	-0.610	-0.804
1999	December	-0.677	-0.676	-0.661	0.101	1.063	0.670	-0.480	-0.625
2000	January	-0.898	-1.039	-1.036	-0.283	0.856	0.368	-0.813	-0.898
2000	February	-0.499	-0.457	-0.481	0.696	1.737	1.356	-0.173	-0.440
2000	March	-0.930	-0.980	-0.903	1.101	2.303	1.551	-0.462	-0.978
2000	April	-1.157	-1.130	-0.795	1.393	2.119	1.911	-0.114	-1.192
2000	May	-1.349	-1.184	-0.286	1.876	2.589	1.725	0.045	-1.370
2000	June	-1.412	-1.313	-0.150	1.852	2.536	1.757	0.211	-1.478
2000	July	-1.538	-1.363	-0.295	1.790	2.598	2.040	0.076	-1.510
2000	August	-1.424	-1.340	-0.790	1.481	2.541	2.067	0.161	-1.332
2000	September	-1.362	-1.312	-1.135	1.168	2.395	1.773	-0.583	-1.402
2000	October	-1.023	-1.003	-1.005	0.896	2.222	1.436	-0.649	-1.058
2000	November	-0.895	-0.849	-0.807	0.213	1.191	0.744	-0.635	-0.806
2000	December	-0.844	-0.811	-0.824	-0.210	0.728	0.302	-0.747	-0.824

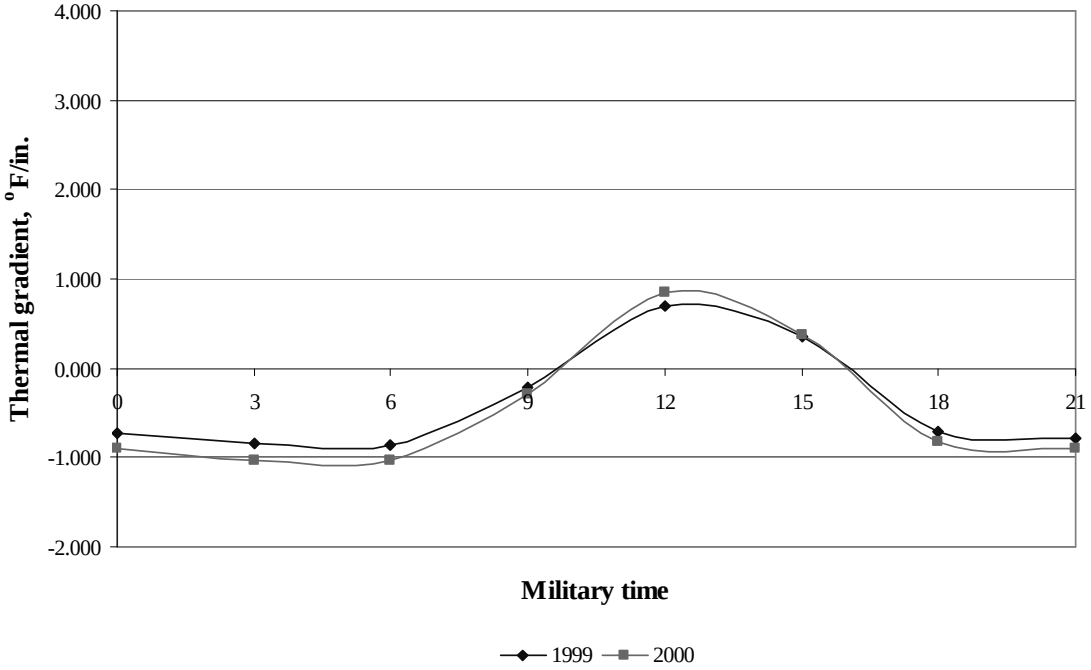

Figure K-2: Hourly thermal gradients generated by EICM for 8-in. sections in January

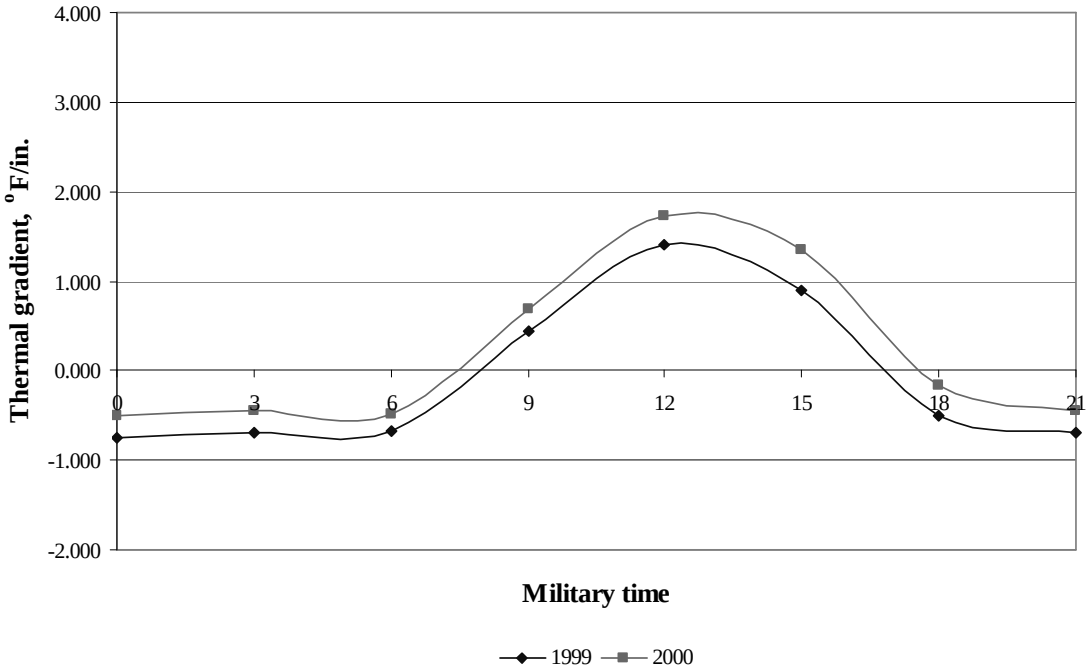

Figure K-3: Hourly thermal gradients generated by EICM for 8-in. sections in February

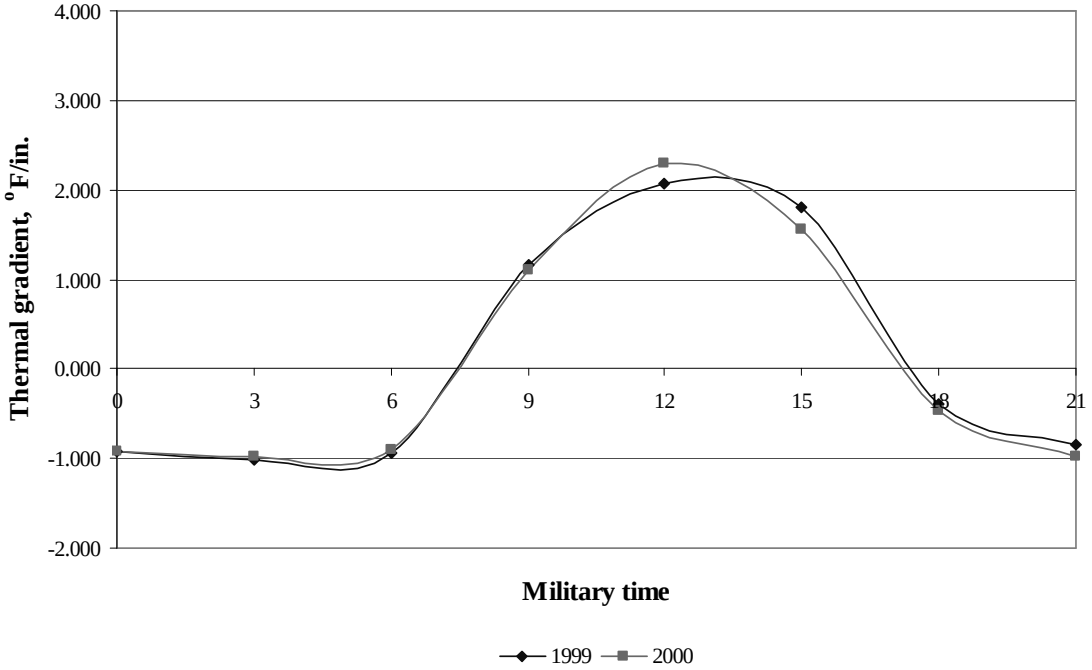

Figure K-4: Hourly thermal gradients generated by EICM for 8-in. sections in March

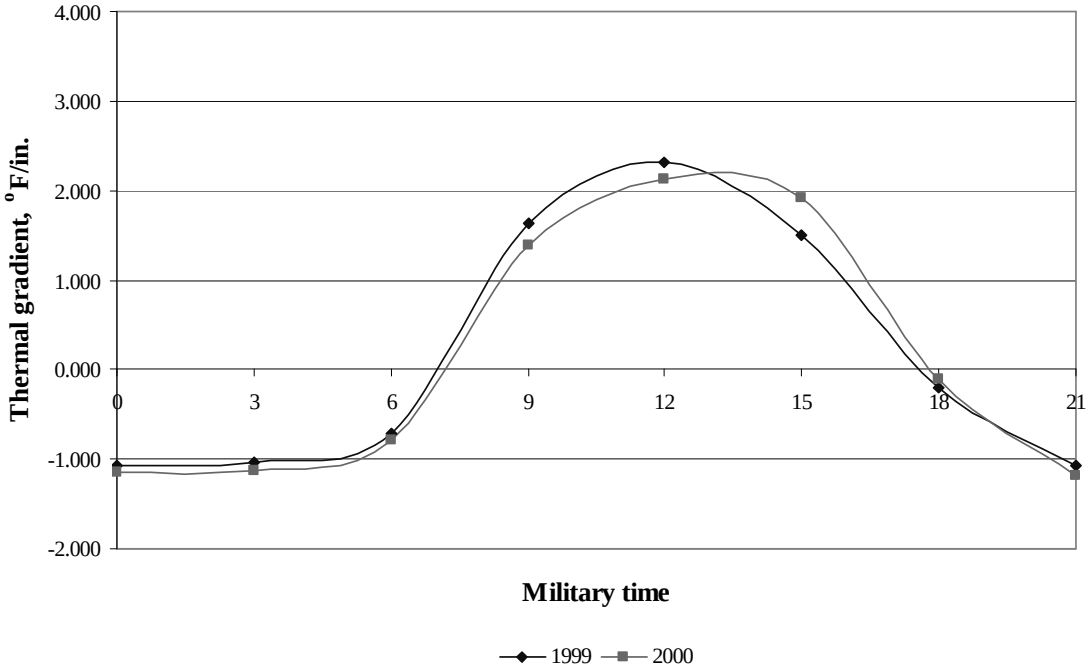

Figure K-5: Hourly thermal gradients generated by EICM for 8-in. sections in April

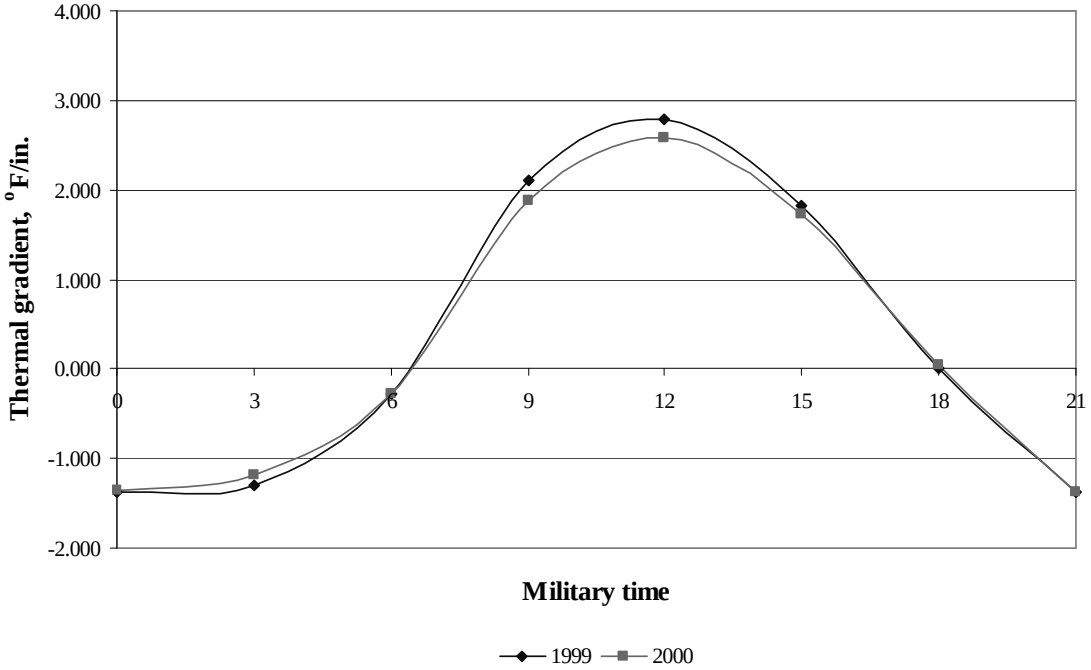

Figure K-6: Hourly thermal gradients generated by EICM for 8-in. sections in May

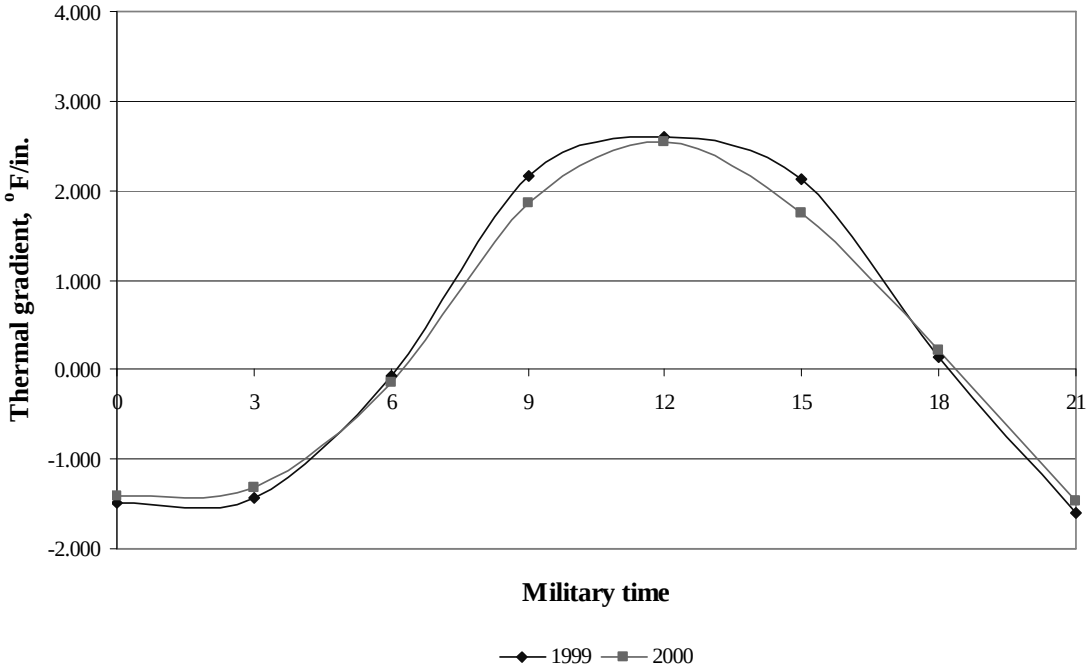

Figure K-7: Hourly thermal gradients generated by EICM for 8-in. sections in June

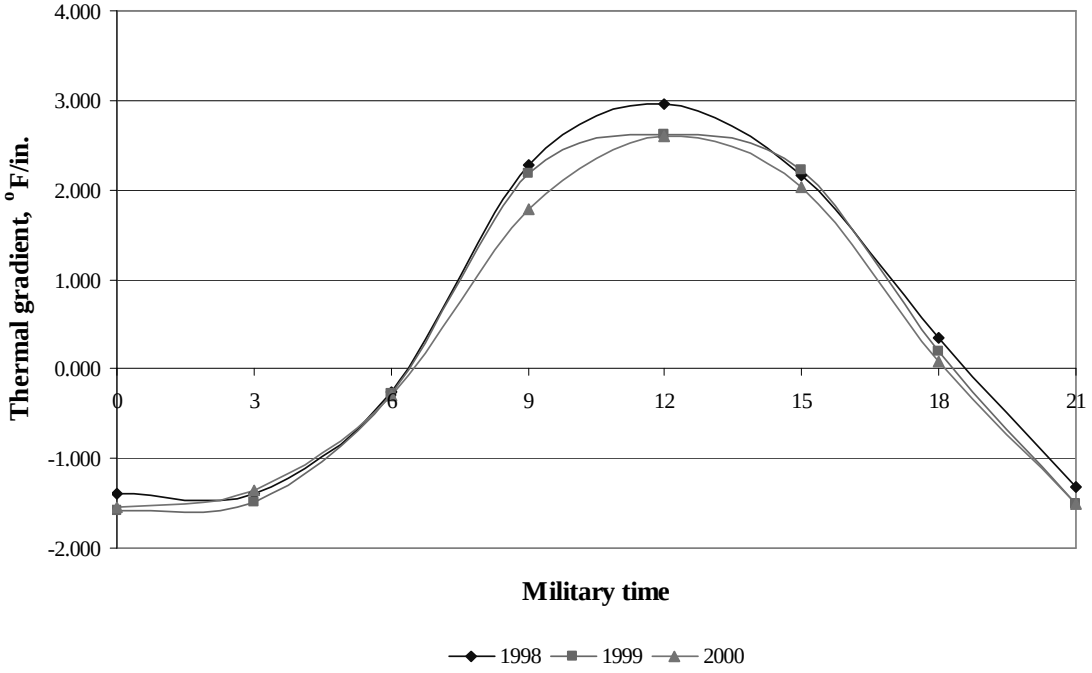

Figure K-8: Hourly thermal gradients generated by EICM for 8-in. sections in July

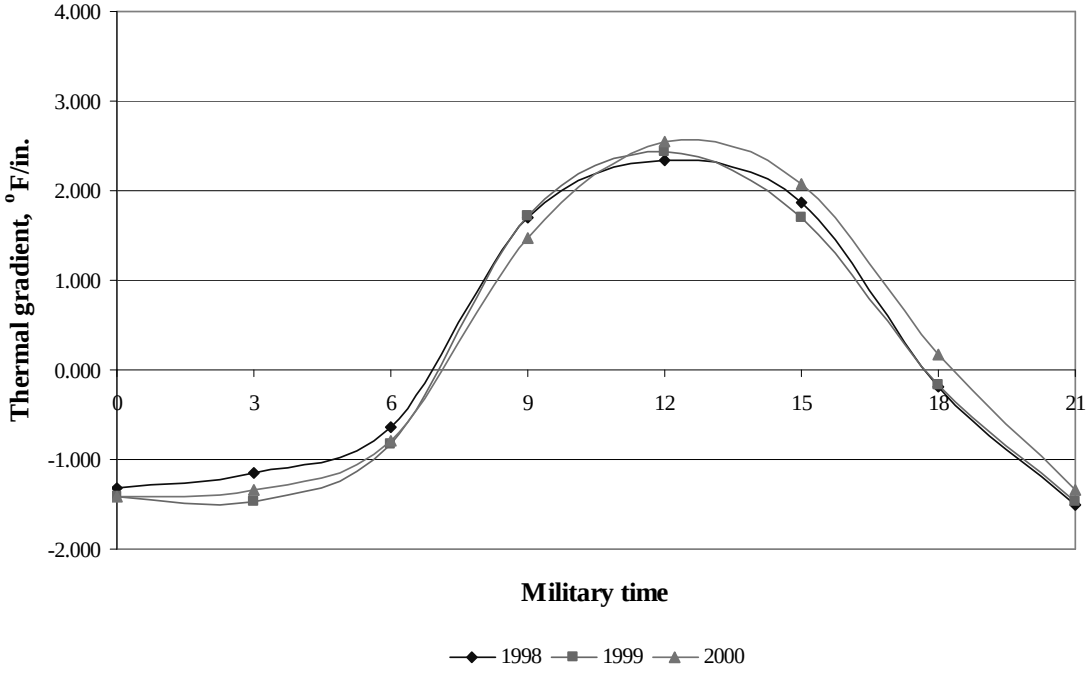

Figure K-9: Hourly thermal gradients generated by EICM for 8-in. sections in August

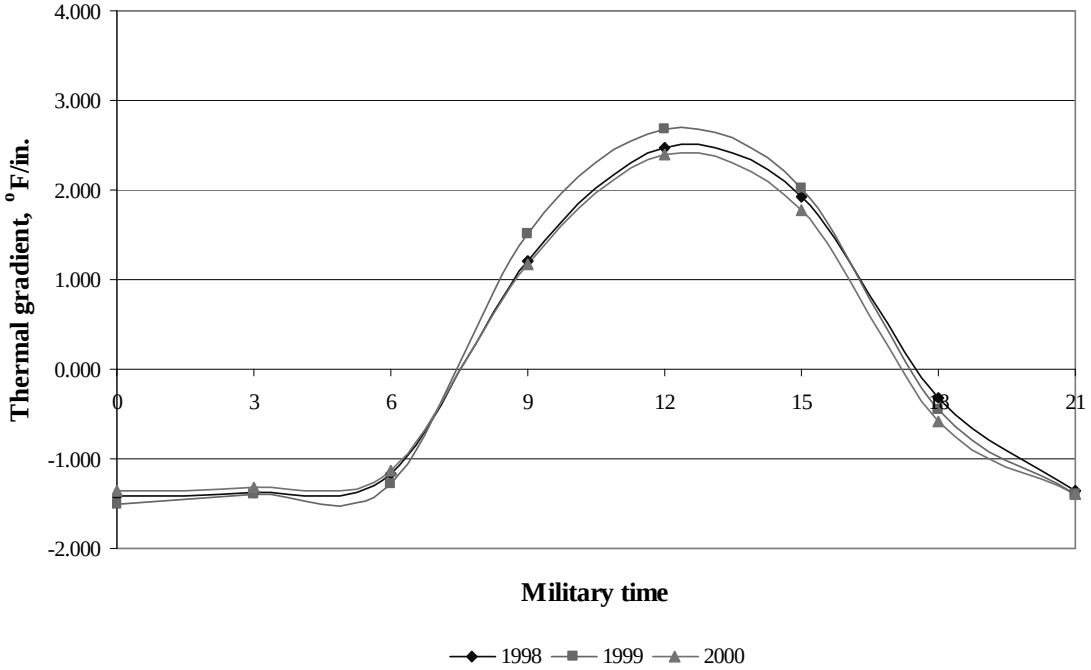

Figure K-10: Hourly thermal gradients generated by EICM for 8-in. sections in September

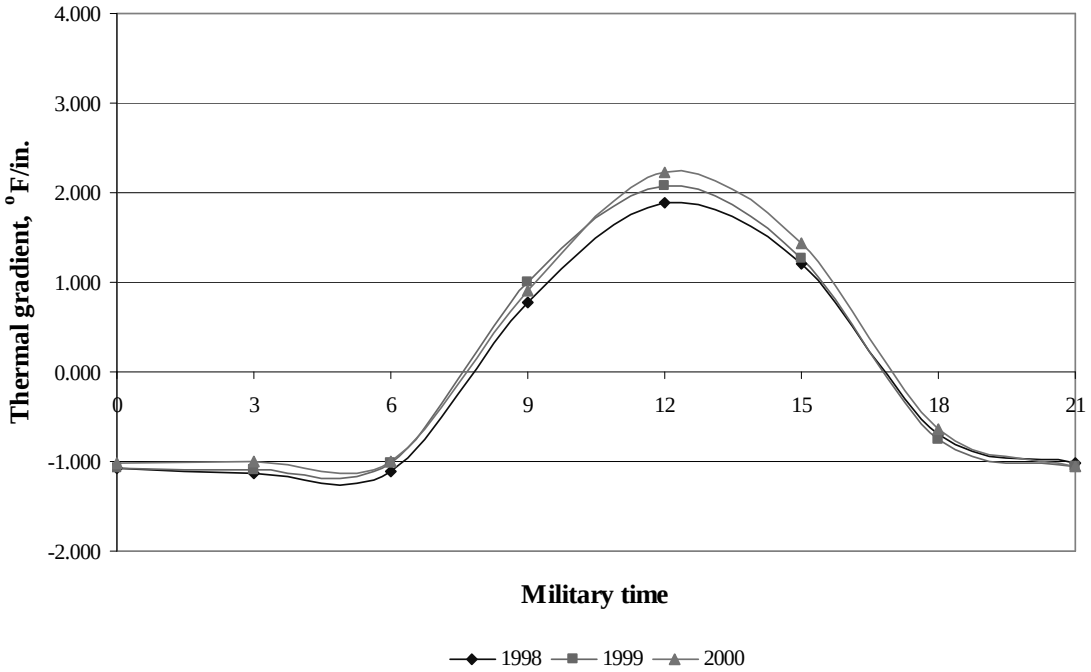

Figure K-11: Hourly thermal gradients generated by EICM for 8-in. sections in October

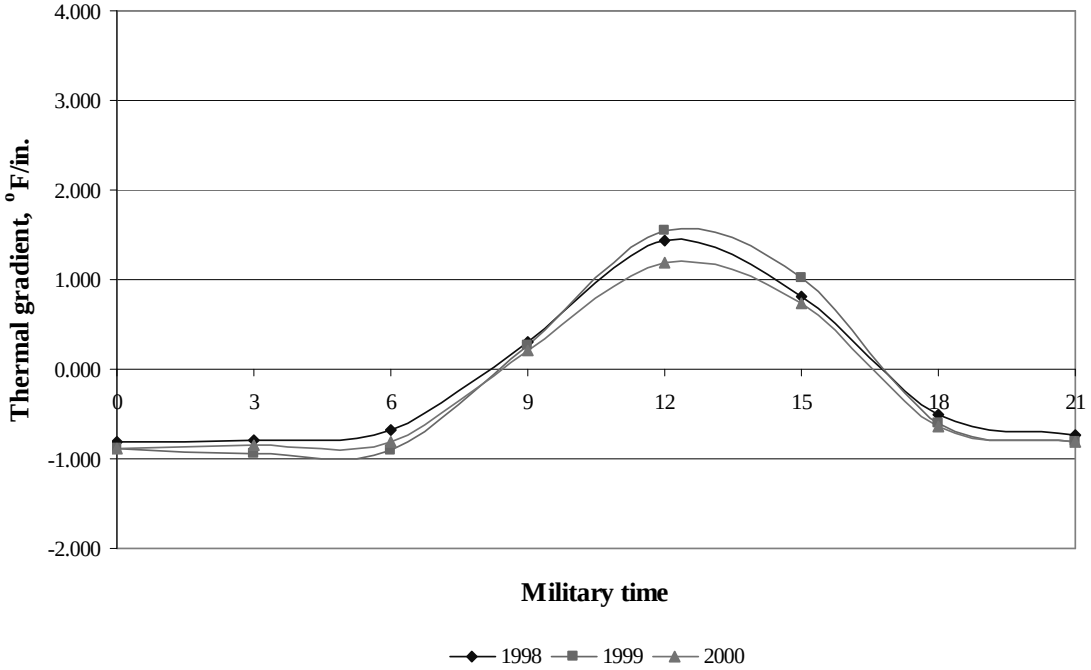

Figure K-12: Hourly thermal gradients generated by EICM for 8-in. sections in November

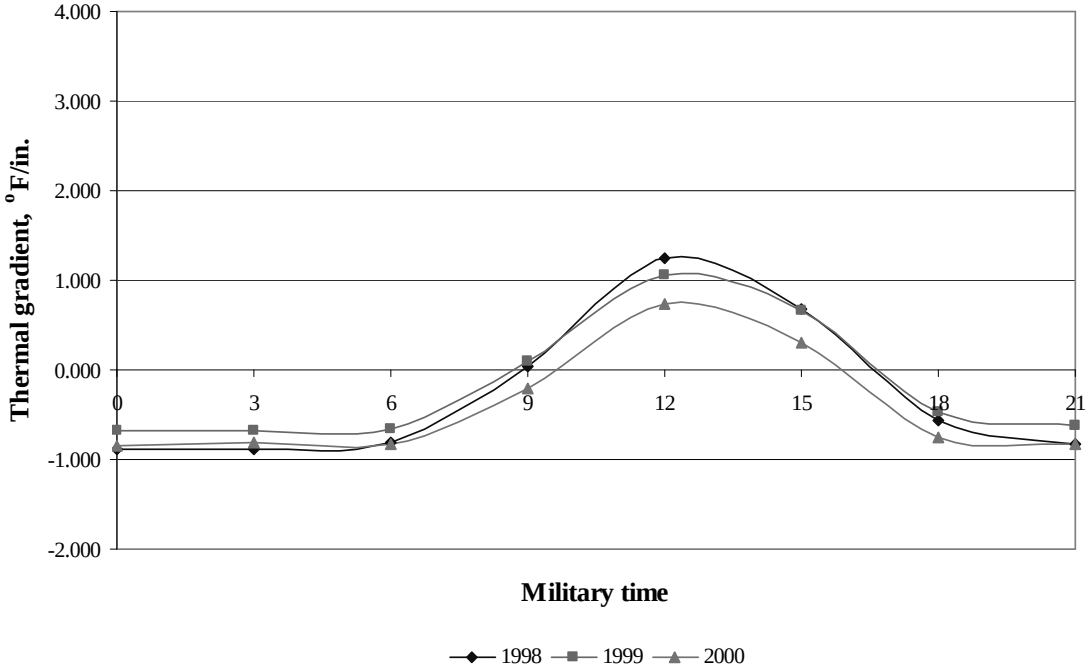

Figure K-13: Hourly thermal gradients generated by EICM for 8-in. sections in December

Table K-2: Thermal gradients generated by EICM for 11-in. sections (sections 26-0215, 26-0216)

Year	Month	12 am - 3 am	3 am - 6 am	6 am - 9 am	9 am - 12 pm	12 pm - 3 pm	3 pm - 6 pm	6 pm - 9 pm	9 pm - 12 am
1998	July	-1.057	-1.148	-0.428	1.569	2.423	2.060	0.728	-0.750
1998	August	-1.070	-1.001	-0.699	1.085	1.853	1.702	0.230	-0.994
1998	September	-1.139	-1.193	-1.089	0.653	1.881	1.734	0.123	-0.913
1998	October	-0.909	-1.000	-1.025	0.319	1.380	1.082	-0.314	-0.763
1998	November	-0.688	-0.708	-0.648	0.046	1.025	0.759	-0.251	-0.556
1998	December	-0.766	-0.787	-0.750	-0.158	0.852	0.571	-0.372	-0.659
1999	January	-0.662	-0.771	-0.803	-0.381	0.399	0.266	-0.520	-0.674
1999	February	-0.616	-0.627	-0.621	0.166	1.042	0.839	-0.212	-0.498
1999	March	-0.755	-0.882	-0.860	0.658	1.571	1.563	-0.017	-0.567
1999	April	-0.862	-0.897	-0.719	1.050	1.835	1.426	0.161	-0.710
1999	May	-1.078	-1.115	-0.453	1.439	2.266	1.752	0.388	-0.876
1999	June	-1.166	-1.219	-0.340	1.465	2.116	1.971	0.537	-1.003
1999	July	-1.241	-1.280	-0.502	1.470	2.131	2.039	0.575	-0.937
1999	August	-1.157	-1.282	-0.900	1.050	1.884	1.563	0.209	-0.994
1999	September	-1.221	-1.227	-1.199	0.835	2.044	1.812	0.034	-0.958
1999	October	-0.908	-0.972	-0.949	0.499	1.561	1.174	-0.323	-0.775
1999	November	-0.743	-0.830	-0.838	-0.027	1.107	0.907	-0.306	-0.609
1999	December	-0.582	-0.601	-0.601	-0.075	0.738	0.559	-0.304	-0.498
2000	January	-0.800	-0.920	-0.934	-0.425	0.515	0.283	-0.601	-0.755
2000	February	-0.406	-0.407	-0.447	0.375	1.273	1.123	0.031	-0.285
2000	March	-0.743	-0.835	-0.821	0.624	1.769	1.439	-0.029	-0.647
2000	April	-0.918	-0.971	-0.796	0.864	1.671	1.726	0.274	-0.772
2000	May	-1.070	-1.029	-0.456	1.258	2.097	1.659	0.408	-0.875
2000	June	-1.107	-1.128	-0.374	1.272	2.056	1.674	0.536	-0.926
2000	July	-1.220	-1.180	-0.500	1.186	2.068	1.861	0.450	-0.967
2000	August	-1.118	-1.149	-0.832	0.908	1.985	1.868	0.500	-0.838
2000	September	-1.135	-1.164	-1.078	0.622	1.800	1.597	-0.114	-0.993
2000	October	-0.845	-0.885	-0.923	0.430	1.647	1.322	-0.211	-0.748
2000	November	-0.774	-0.777	-0.766	-0.054	0.821	0.654	-0.372	-0.636
2000	December	-0.740	-0.733	-0.746	-0.322	0.439	0.236	-0.565	-0.697

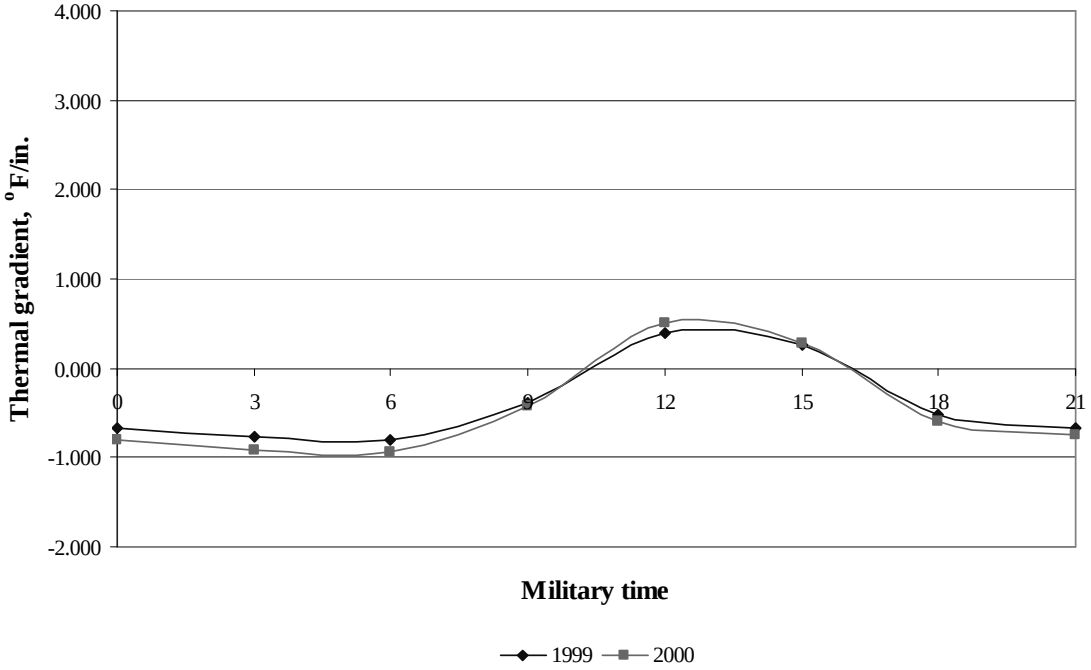

Figure K-14: Hourly thermal gradients generated by EICM for 11-in. sections in January

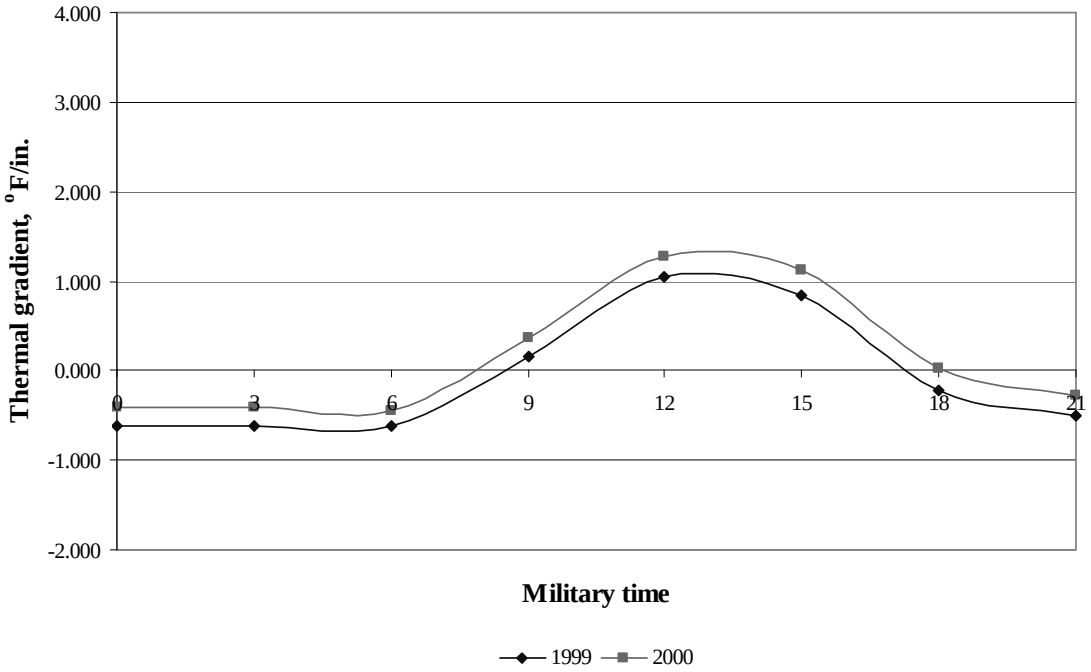

Figure K-15: Hourly thermal gradients generated by EICM for 11-in. sections in February

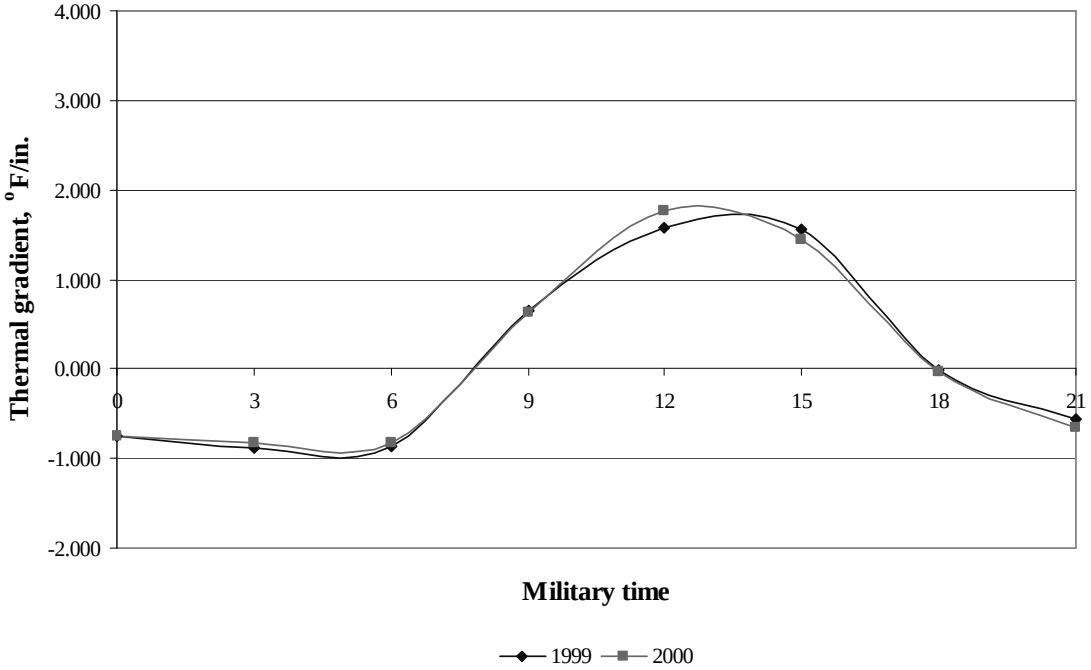

Figure K-16: Hourly thermal gradients generated by EICM for 11-in. sections in March

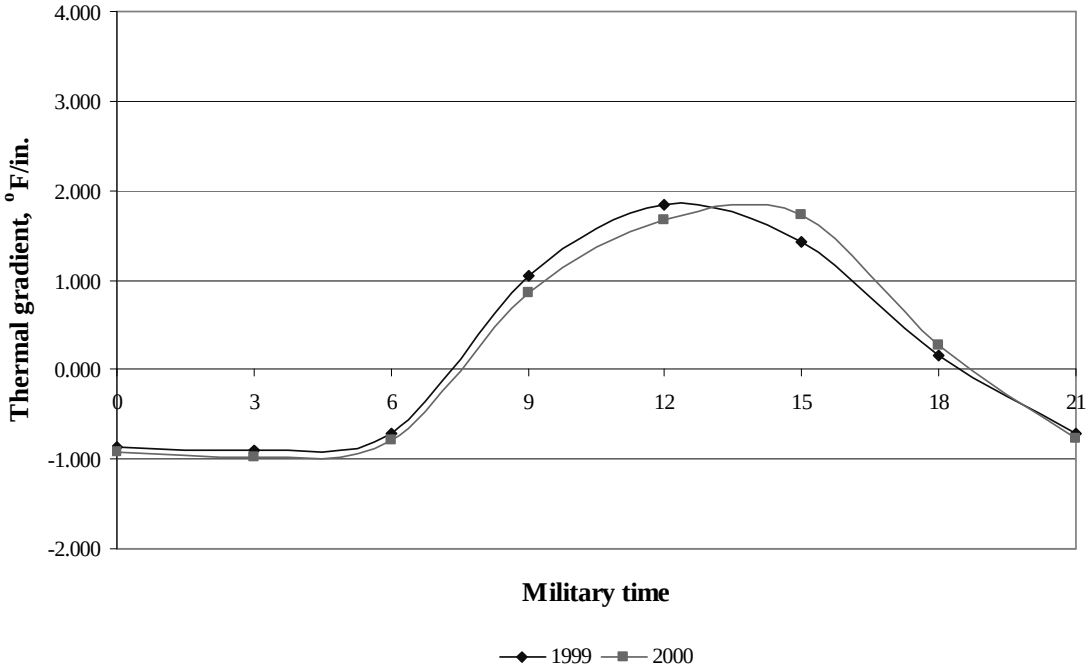

Figure K-17: Hourly thermal gradients generated by EICM for 11-in. sections in April

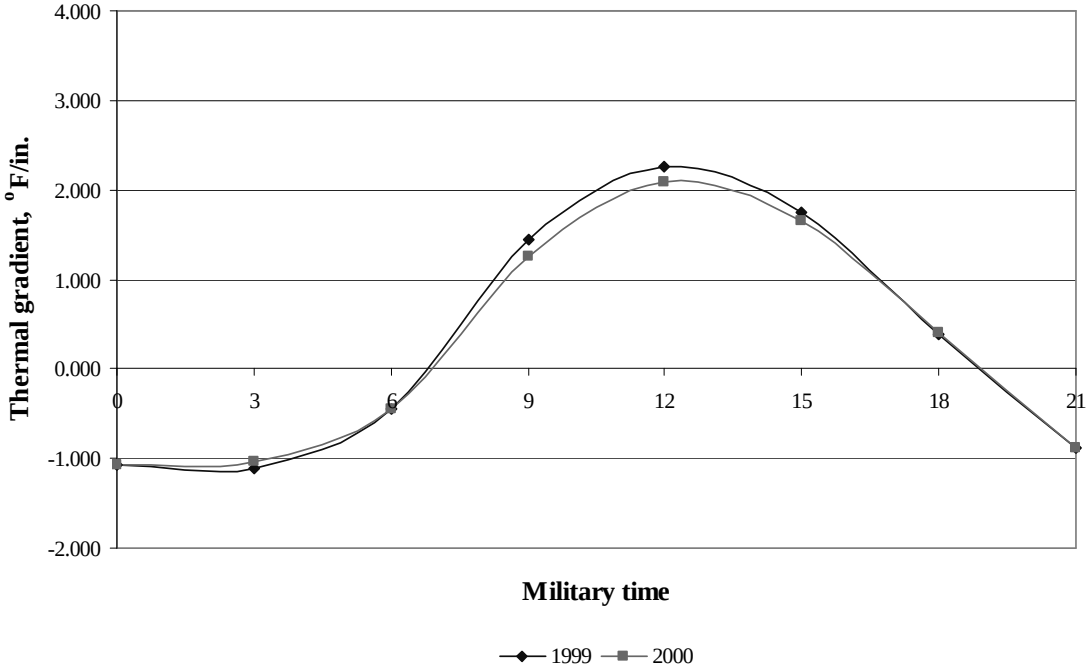

Figure K-18: Hourly thermal gradients generated by EICM for 11-in. sections in May

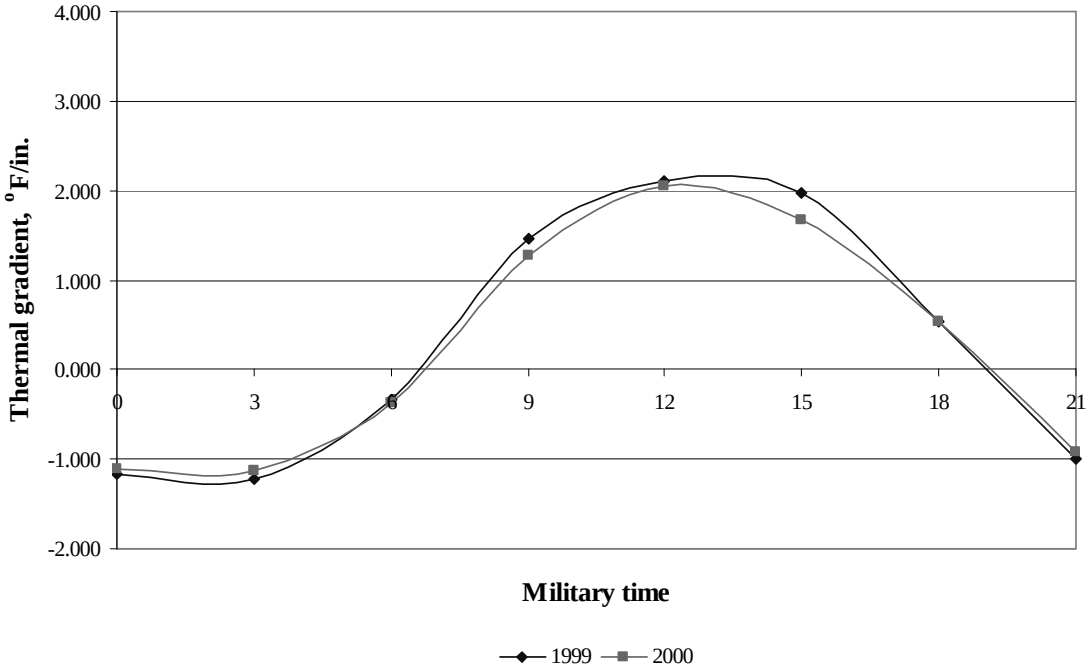

Figure K-19: Hourly thermal gradients generated by EICM for 11-in. sections in June

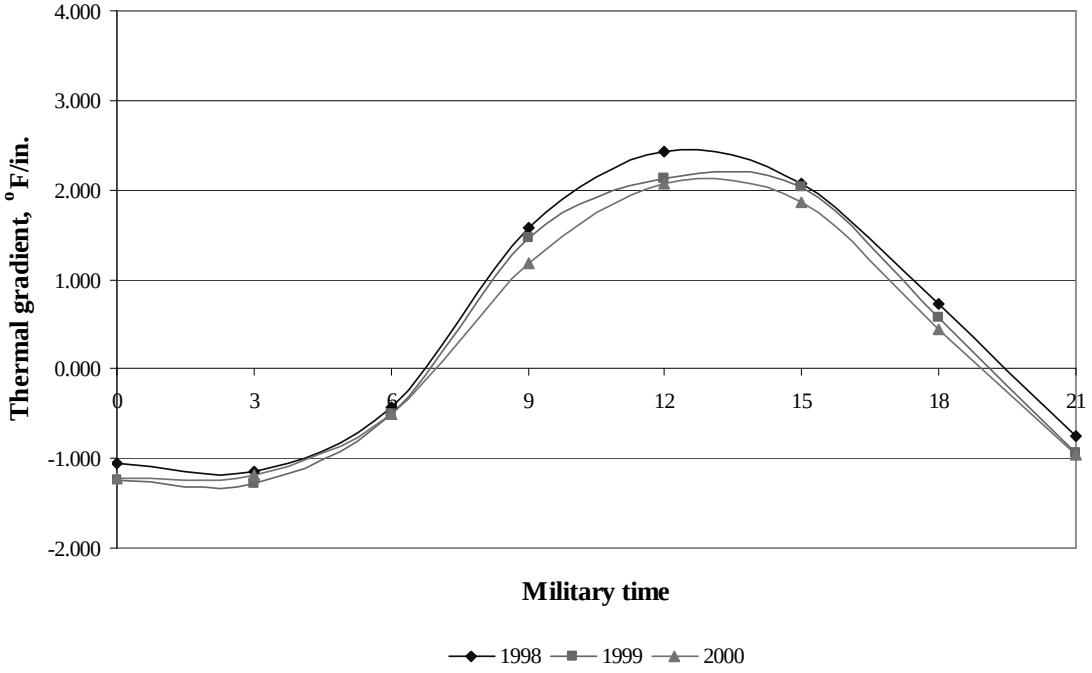

Figure K-20: Hourly thermal gradients generated by EICM for 11-in. sections in July

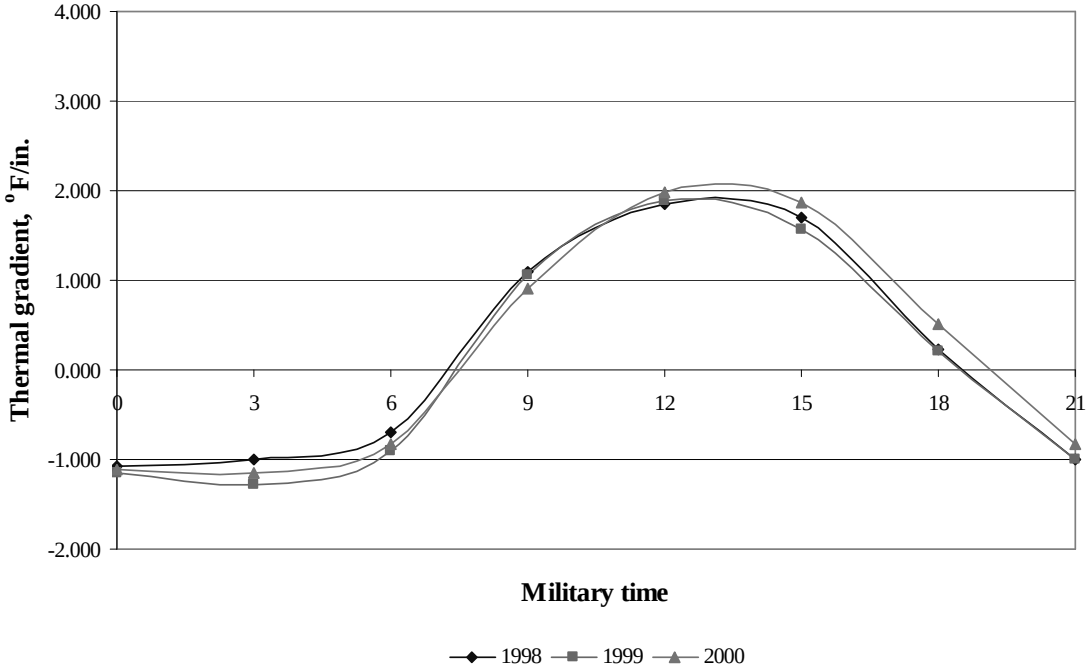

Figure K-21: Hourly thermal gradients generated by EICM for 11-in. sections in August

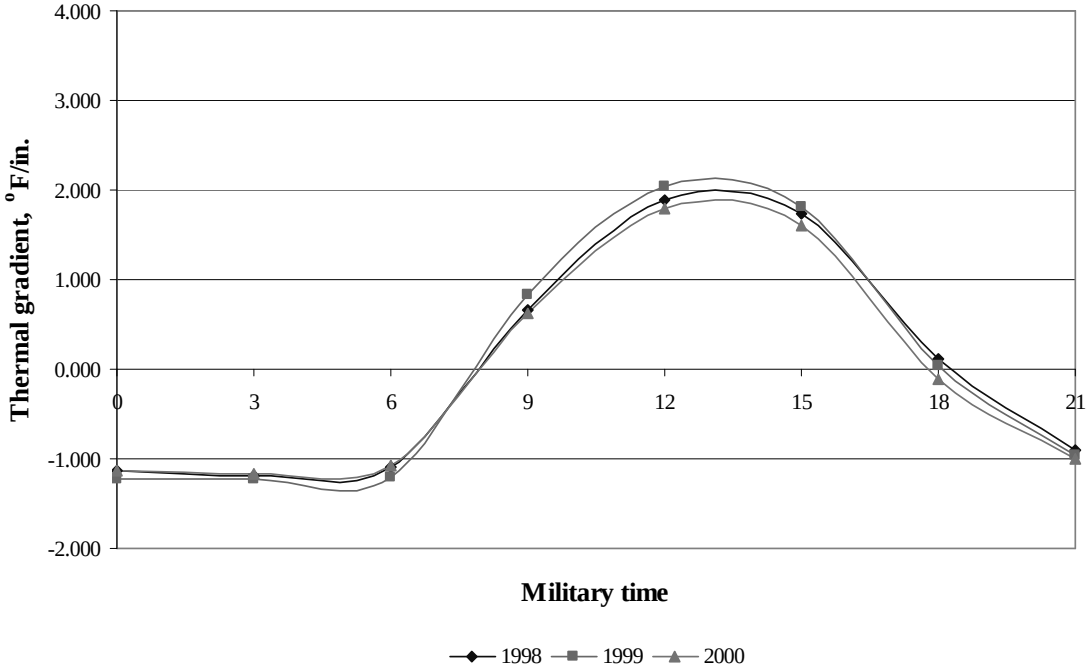

Figure K-22: Hourly thermal gradients generated by EICM for 11-in. sections in September

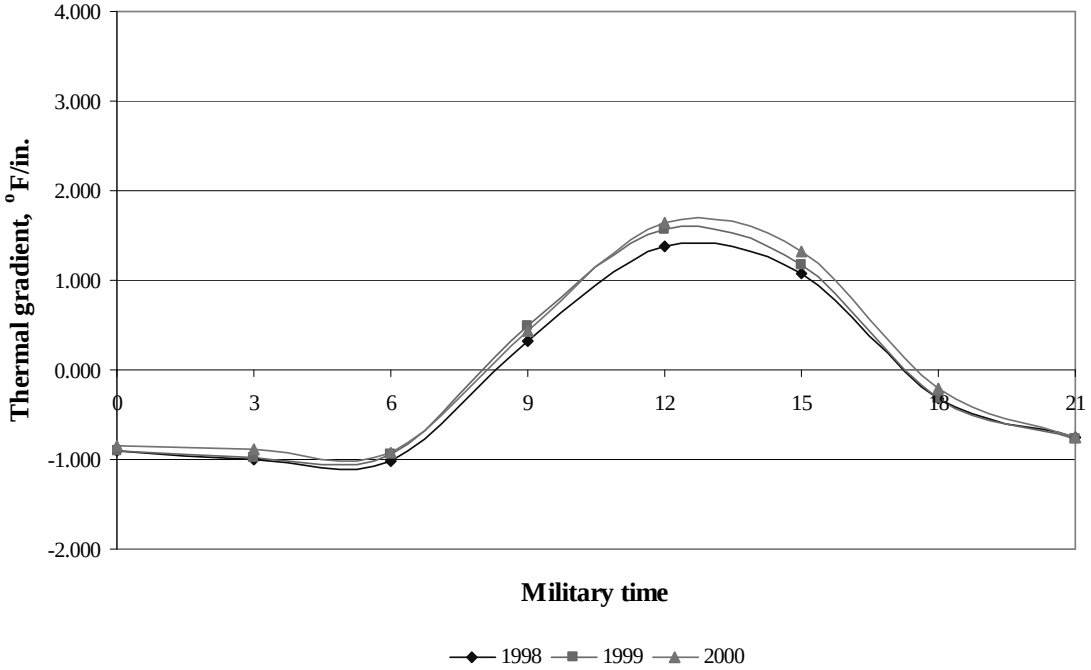

Figure K-23: Hourly thermal gradients generated by EICM for 11-in. sections in October

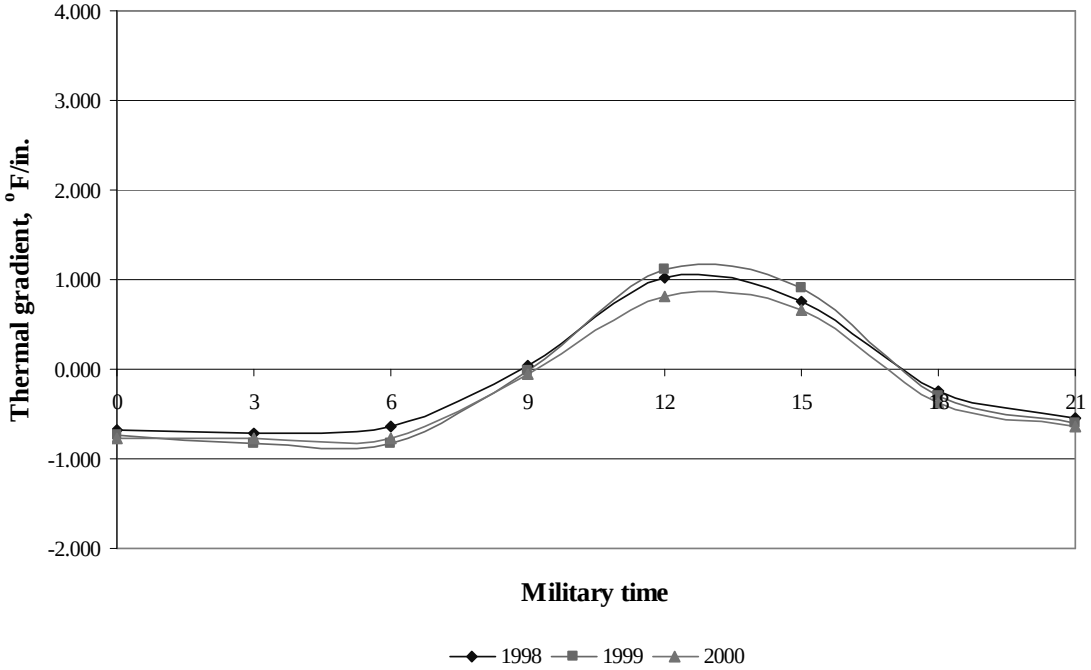

Figure K-24: Hourly thermal gradients generated by EICM for 11-in. sections in November

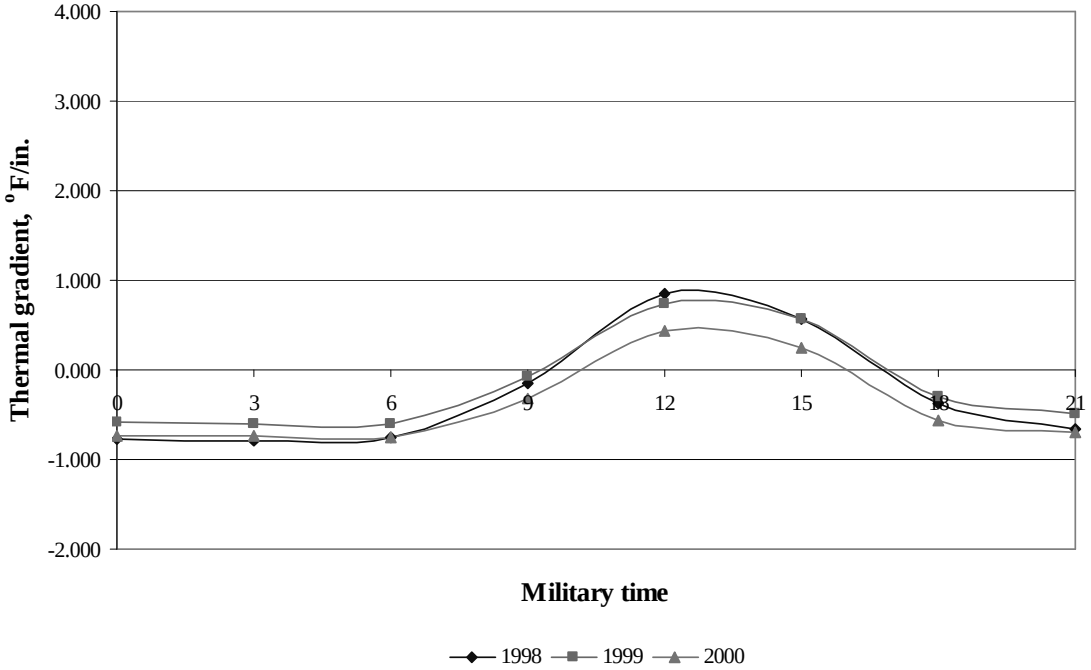

Figure K-25: Hourly thermal gradients generated by EICM for 11-in. sections in December