TABLE 1. PROPERTIES OF DRY AIR[a]

Barometric Pressure 29.921 In. of Hg

TEMPERATURE DEG F	WEIGHT POUNDS PER CU FT	RATIO OF VOLUME TO VOLUME AT 70 F	BTU ABSORBED BY ONE CU FT DRY AIR PER DEG F	CU FT DRY AIR WARMED ONE DEG PER BTU
0	0.08633	0.8678	0.02077	48.15
10	0.08449	0.8867	0.02030	49.26
20	0.08273	0.9056	0.01986	50.35
30	0.08104	0.9245	0.01944	51.44
40	0.07942	0.9433	0.01905	52.49
50	0.07785	0.9624	0.01868	53.36
60	0.07636	0.9811	0.01832	54.44
70	0.07492	1.0000	0.01798	55.62
80	0.07353	1.0189	0.01765	56.66
90	0.07219	1.0378	0.01733	57.70
100	0.07090	1.0567	0.01702	58.75
110	0.06966	1.0755	0.01672	59.81
120	0.06845	1.0946	0.01643	60.86
130	0.06729	1.1133	0.01616	61.88
140	0.06617	1.1322	0.01589	62.93
150	0.06509	1.1510	0.01563	63.98
160	0.06403	1.1701	0.01538	65.02
180	0.06203	1.2078	0.01490	67.11
200	0.06015	1.2456	0.01446	69.24
220	0.05838	1.2832	0.01403	71.27
240	0.05671	1.3211	0.01364	73.31
260	0.05514	1.3587	0.01326	75.41
280	0.05365	1.3965	0.01291	77.46
300	0.05223	1.4344	0.01257	79.55
350	0.04901	1.5287	0.01181	84.67
400	0.04615	1.6234	0.01114	89.67
450	0.04362	1.7176	0.01054	94.87
500	0.04135	1.8119	0.01001	99.01
550	0.03930	1.9064	0.00953	104.93
600	0.03744	2.0011	0.00908	110.13
700	0.03422	2.1893	0.00833	120.05
800	0.03150	2.3784	0.00769	130.04
900	0.02911	2.5737	0.00713	140.25
1000	0.02718	2.7564	0.00668	149.70

[a]Compiled by W. H. Severns, based on the instantaneous specific heats of air. The values for the heats and for the cubic feet warmed one degree are for the temperatures stated and are not true over a temperature range of more than one degree above or below the temperatures stated.

TABLE 2. PROPERTIES OF SATURATED AIR[a]

Weights of Air, Vapor and Saturated Mixture of Air and Vapor at 29.921 In. of Hg

TEMP. DEG F	WEIGHT IN A CUBIC FOOT OF MIXTURE			BTU ABSORBED BY ONE CUBIC FOOT SAT. AIR PER DEG F	CUBIC FEET SAT. AIR WARMED ONE DEG PER BTU	SPECIFIC HEAT BTU PER POUND OF MIXTURE
	Weight of Dry Air Pounds	Weight of Vapor Pounds	Total Weight of Mixture Pounds			
0	0.08622	0.000068	0.08629	0.02078	48.12	0.2408
10	0.08431	0.000111	0.08442	0.02031	49.24	0.2406
20	0.08244	0.000177	0.08262	0.01987	50.33	0.2405
30	0.08060	0.000278	0.08088	0.01946	51.39	0.2406
40	0.07876	0.000409	0.07917	0.01908	52.41	0.2410
50	0.07692	0.000587	0.07751	0.01872	53.42	0.2415
60	0.07503	0.000828	0.07586	0.01838	54.41	0.2423
70	0.07307	0.001151	0.07422	0.01805	55.40	0.2432
80	0.07099	0.001578	0.07257	0.01775	56.34	0.2446
90	0.06877	0.002134	0.07090	0.01747	57.24	0.2464
100	0.06634	0.002851	0.06919	0.01721	58.11	0.2487
110	0.06361	0.003762	0.06737	0.01696	58.96	0.2517
120	0.06057	0.004912	0.06548	0.01675	59.70	0.2558
130	0.05712	0.006344	0.06346	0.01657	60.35	0.2611
140	0.05317	0.008116	0.06129	0.01642	60.91	0.2679
150	0.04863	0.010284	0.05891	0.01630	61.35	0.2767
160	0.04339	0.012919	0.05631	0.01624	61.58	0.2884
170	0.03733	0.016092	0.05342	0.01621	61.69	0.3034
180	0.03033	0.019888	0.05022	0.01624	61.58	0.3234
190	0.02228	0.024384	0.04666	0.01633	61.24	0.3500
200	0.01298	0.029700	0.04268	0.01649	60.64	0.3864
210	0.00230	0.035932	0.03616	0.01672	59.81	0.4624
212	0.00000	0.037286	0.03729	0.01818	55.01	0.4875

[a]Compiled by W. H. Severns, based on the instantaneous specific heats of air.

TABLE 3. SPECIFIC HEATS OF DRY AIR[a]

Constant Barometric Pressure of 29.921 In. of Hg

TEMPERATURE DEG F	INSTANTANEOUS OR TRUE SPECIFIC HEAT	TEMPERATURE RANGE DEG F	MEAN SPECIFIC HEAT
−301.0	0.2520	32 to 212	0.2401
−108.4	0.2430	32 to 392	0.2411
32.0	0.2399	32 to 752	0.2420
212.0	0.2403	32 to 1112	0.2430
392.0	0.2413	.....	.....
752.0	0.2430	.....	.....
1112.0	0.2470	.....	.....

[a]Compiled by W. H. Severns, based on data given in the *International Critical Tables*.