

M. H. Hitchcock - 1

PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY
WASHINGTON 25, D. C.

Est

INFORMATIONAL MEMORANDUM NO. 51

DATE: DECEMBER 1, 1943

SUBJECT: TRAFFIC VOLUME TRENDS

Traffic volume on rural highways in October 1943 was 17.0 percent smaller than it was in the same month last year. This is indicated by preliminary data from 611 automatic traffic recorders located on rural highways throughout the United States (table 1). Again increases are found in some of the southeastern States. Traffic in North Carolina, South Carolina, and Georgia was greater than in October, 1942; Florida data are not available. Traffic on local highways during October 1943 was 13.5 percent less than in the same month of last year, which is a smaller decline than that for State highways, as is usually the case.

In the revised summary for September (table 2) the decline from a year ago is 18.7 percent, which may be compared with the preliminary figure of 18.6 percent, shown in Informational Memorandum No. 49. This comparison is particularly interesting because the data in the revised summary are from but 609 recorders, while in the preliminary summary the data were from 612 recorders. Since the preliminary summary was tabulated, data from several more stations have been received, but the number of stations eliminated from the earlier compilation due to exclusion of stations operated less than one half of a month, was greater than the number that was added.

The monthly record of traffic since January 1940 is indicated in the attached chart. Data are recorded in percent of the figures for the corresponding months in 1941, and the results are stated separately for the areas in which gasoline rationing began in May 1942 and those in which it began in December 1942. It will be noted that, in comparison with 1941, traffic in the eastern seaboard States has generally been well below that of the remainder of the country. However, the gap between these two areas has been closing since July of this year.

If we take the relative for July 1943 in each area as 100, the results for the last four months are as follows:

	July	Aug.	Sept.	Oct.
East:	100.0	118.9	133.6	139.7
West and Middle West:	100.0	108.8	105.8	108.7

Thus, on the scale of relatives shown in the attached chart, the ratio has increased nearly five times as fast during the last four months in the East as it has in the West and Middle West. If we discard the relationships to 1941 and use the traffic volumes in each of the two areas, the figures are as follows (again with July 1943 as 100 in each area):

	July	Aug.	Sept.	Oct.
East:	100.0	118.7	123.2	113.4
West and Middle West:	100.0	100.8	94.9	92.4

Thus we find that traffic in the East has increased 13.4 percent during the last four months while, in the same period, traffic in the West and Middle West has declined 7.6 percent. The advantage of using the relatives in the presentation of the data, as in the attached chart, is that it enables a comparison of current data from each of the two areas with the last "normal" traffic year, 1941, without a blurring due to divergent seasonal changes between the two areas.

Traffic at toll facilities (table 3) indicates that the declines in the areas rationed in May 1942 were smaller than in the remainder of the country. Percentage changes from October 1942 were -3.6 for total traffic on 22 facilities from Maine to Florida and -15.4 for 53 facilities in the area rationed in December 1942. At facilities where 1941 data are available, the comparable figures are -25.0 and -21.2 for all vehicles. The declines in truck traffic from last October are much smaller than that for total traffic and are very nearly equal in the two areas: -4.7 in the East and -5.0 in the West and Middle West.

H. S. FAIRBANK, DEPUTY COMMISSIONER,
PUBLIC ROADS ADMINISTRATION.

Attachments:

TABLE 1.--PRELIMINARY SUMMARY* OF AUTOMATIC TRAFFIC RECORDER DATA.
FOR OCTOBER 1943 INCLUDING 611 STATIONS IN 45 STATES

Type of highway and State	Number of stations	Total daily traffic	Percent decrease ¹ October 1942	Type of highway and State	Number of stations	Total daily traffic	Percent decrease ¹ October 1942
<i>STATE HIGHWAYS.</i>				<i>STATE HIGHWAYS.</i>			
Alabama	8	11,058	11.5	Virginia	5	10,698	16.9
Arizona	5	11,917	19.4	Washington	9	15,912	19.8
Arkansas	20	13,682	23.9	West Virginia	10	14,851	12.5
California	8	16,864	7.2	Wisconsin	9	16,942	27.6
Colorado	5	5,517	30.5	Wyoming	2	1,109	33.5
Connecticut	18	51,770	14.7				
Delaware	4	9,671	14.3	<i>TOTAL -</i>			
Georgia	6	10,186	+11.4	45 STATES	572	849,268	17.0
Idaho	7	10,146	12.9				
Illinois	3	1,451	21.9	<i>LOCAL HIGHWAYS</i>			
Indiana	21	30,476	19.2	Alabama	2	730	10.6
Iowa	26	23,067	27.4	Connecticut	3	1,457	23.0
Kansas ³	9	8,017	22.5	Georgia	4	986	+2.1
Kentucky	14	18,428	23.8	Indiana	2	566	12.5
Louisiana ³	6	12,540	10.4	Iowa	10	1,247	11.1
Maine	10	10,126	10.5	Kentucky	1	197	5.3
Maryland	16	38,679	1.2	Maryland	1	303	+11.8
Massachusetts	8	24,072	9.0	Massachusetts	1	209	40.3
Michigan	26	63,153	23.1	Michigan	2	536	33.1
Mississippi	9	10,724	7.7	Missouri	2	856	+1.8
Missouri	24	37,894	24.7	Montana	2	394	+1.0
Montana	12	7,543	13.7	Nebraska	1	128	5.9
Nevada	13	10,963	39.2	North Dakota	1	335	13.4
Nebraska	11	9,756	27.1	Ohio	2	920	19.4
New Hampshire	18	15,387	9.2	Oregon	1	228	14.0
New Mexico	12	16,578	10.1	Rhode Island	1	374	1.6
New York	5	11,709	7.8	Tennessee	1	665	16.8
North Carolina ⁴	19	27,247	+2.4	Wisconsin	2	375	17.6
North Dakota	9	4,652	11.5				
Ohio	30	50,060	21.4	<i>TOTAL -</i>			
Oklahoma	20	29,526	20.4	18 STATES	39	10,506	13.5
Oregon	3	4,299	23.0				
Pennsylvania	29	43,814	20.2	<i>ALL HIGHWAYS</i>			
Rhode Island	3	4,754	11.1	45 STATES ²	611	859,774	17.0
South Carolina	6	8,133	+4.2				
South Dakota	9	6,442	18.4	<i>RATIONED AREA</i>			
Tennessee	1	2,802	20.9	MAY 1942	152	249,831	8.2
Texas	69	101,794	14.6				
Utah	7	8,172	18.2	<i>RATIONED AREA</i>			
Vermont	8	6,687	17.2	DECEMBER 1942	459	609,943	20.1

* Data from some States cover only a portion of the month, or have not been adjusted for the difference in numbers of Saturdays and Sundays between this year and last.

1. Plus sign before percentage indicates increase.

2. Includes all States except the following: Florida, Minnesota, and New Jersey.

STATIONS NOT INCLUDED:

3. Defense activity: 1 in Kansas, 2 in Louisiana.

4. Occasional high counts due to military activities - 12 stations in North Carolina.

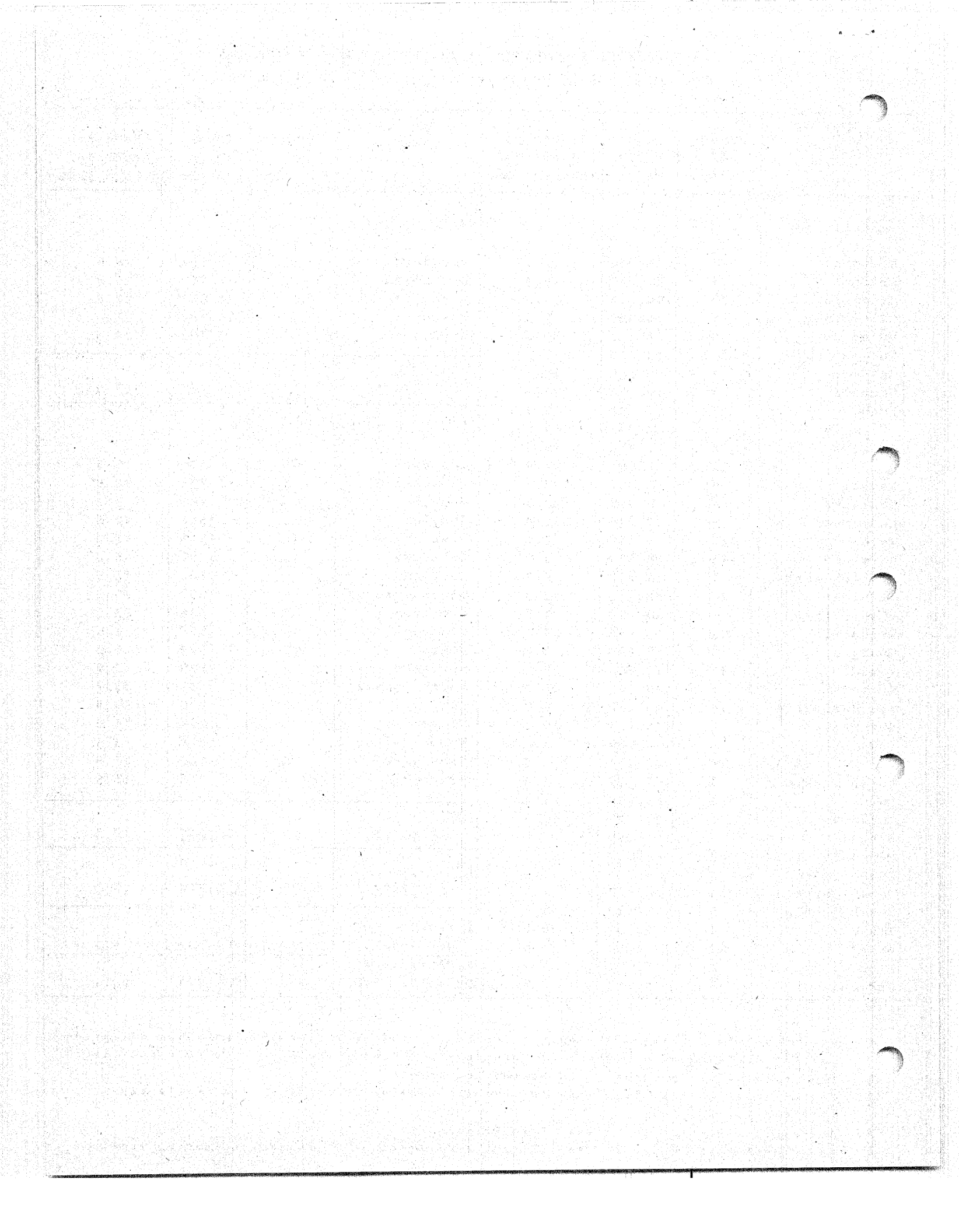
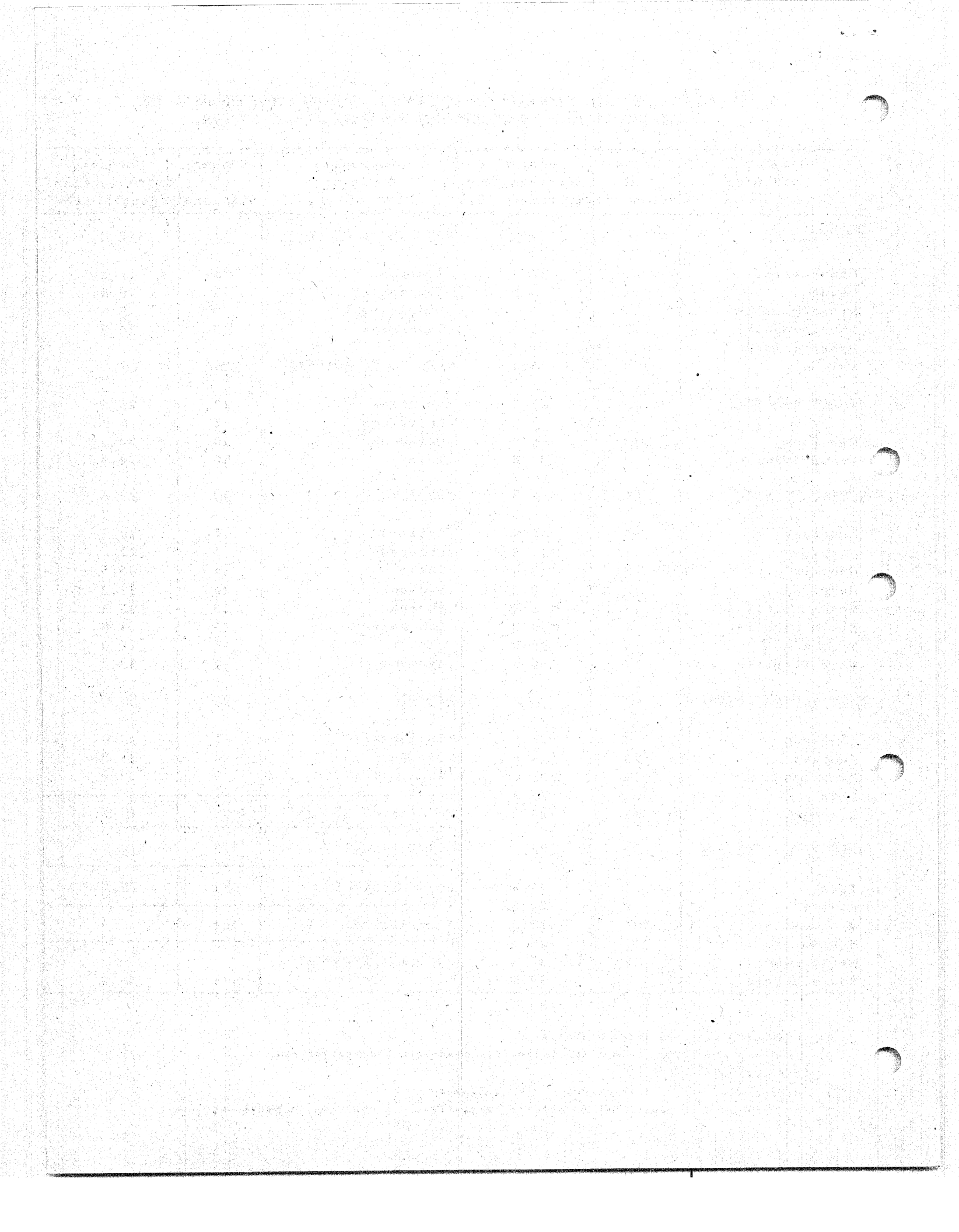


TABLE 2.--REVISED SUMMARY¹ OF AUTOMATIC TRAFFIC RECORDER DATA FOR SEPTEMBER 1943, INCLUDING 609 STATIONS AND 46 STATES

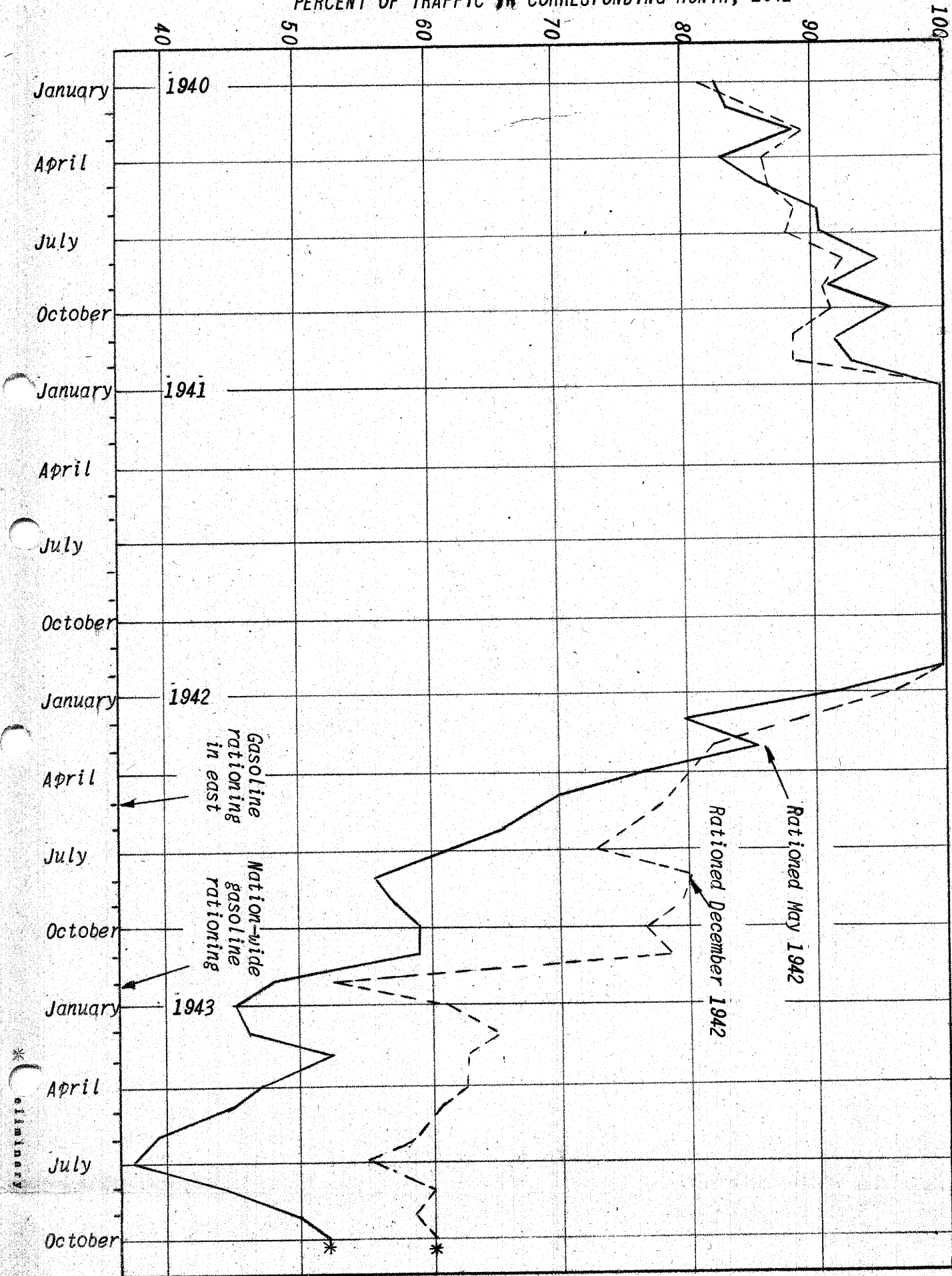
Geographic division and State	Number of stations	Percent decrease from September 1942	Geographic division and State	Number of stations	Percent decrease from September 1942
<i>NEW ENGLAND</i>	68	8.6	<i>EAST SOUTH CENTRAL</i>	31	17.6
Connecticut	20	12.1	Alabama	8	11.1
Maine	11	3.9	Kentucky	11	25.8
Massachusetts	10	5.0	Mississippi	9	9.6
New Hampshire	19	5.7	Tennessee	3	24.9
Rhode Island	3	4.5	<i>WEST SOUTH CENTRAL</i>	106	16.3
Vermont	5	15.3	Arkansas	21	25.4
<i>MIDDLE ATLANTIC</i>	42	18.6	Louisiana ³	5	6.8
New York	13	9.9	Oklahoma	20	20.2
Pennsylvania	29	24.3	Texas	60	14.3
<i>SOUTH ATLANTIC</i>	84	2.7	<i>MOUNTAIN</i>	60	20.4
Delaware	4	11.9	Arizona	4	10.4
Florida	19	+11.9	Colorado	3	22.1
Georgia	9	+15.6	Idaho	6	25.5
Maryland	17	3.2	Montana	14	23.3
North Carolina ⁴	15	+ 3.8	Nevada	12	36.8
South Carolina	4	+ 4.0	New Mexico	12	8.8
Virginia	5	20.9	Utah	7	14.0
West Virginia	11	29.8	Wyoming	2	33.0
<i>EAST NORTH CENTRAL</i>	96	30.0	<i>PACIFIC</i>	20	20.0
Illinois	4	38.0	California	7	14.8
Indiana	23	26.6	Oregon	4	25.3
Michigan	28	32.8	Washington	9	21.9
Ohio	30	25.8	<i>TOTAL - 46 STATES²</i>	609	18.7
Wisconsin	11	34.2	<i>STATE HIGHWAYS</i>	575	18.7
<i>WEST NORTH CENTRAL</i>	102	27.2	<i>LOCAL HIGHWAYS</i>	34	12.2
Iowa	35	29.8	<i>RATIONED MAY 1942</i>	168	6.6
Kansas ³	9	24.5	<i>RATIONED DECEMBER 1942</i>	441	23.7
Missouri	27	28.2			
Nebraska	10	26.5			
North Dakota	12	17.6			
South Dakota	9	20.8			

1. Combined State and local highways.
2. Includes all States except the following: Minnesota and New Jersey.
STATIONS NOT INCLUDED:
3. Defense activity - 1 in Kansas, 2 in Louisiana.
4. Occasional high counts due to military activities - 8 stations in North Carolina.

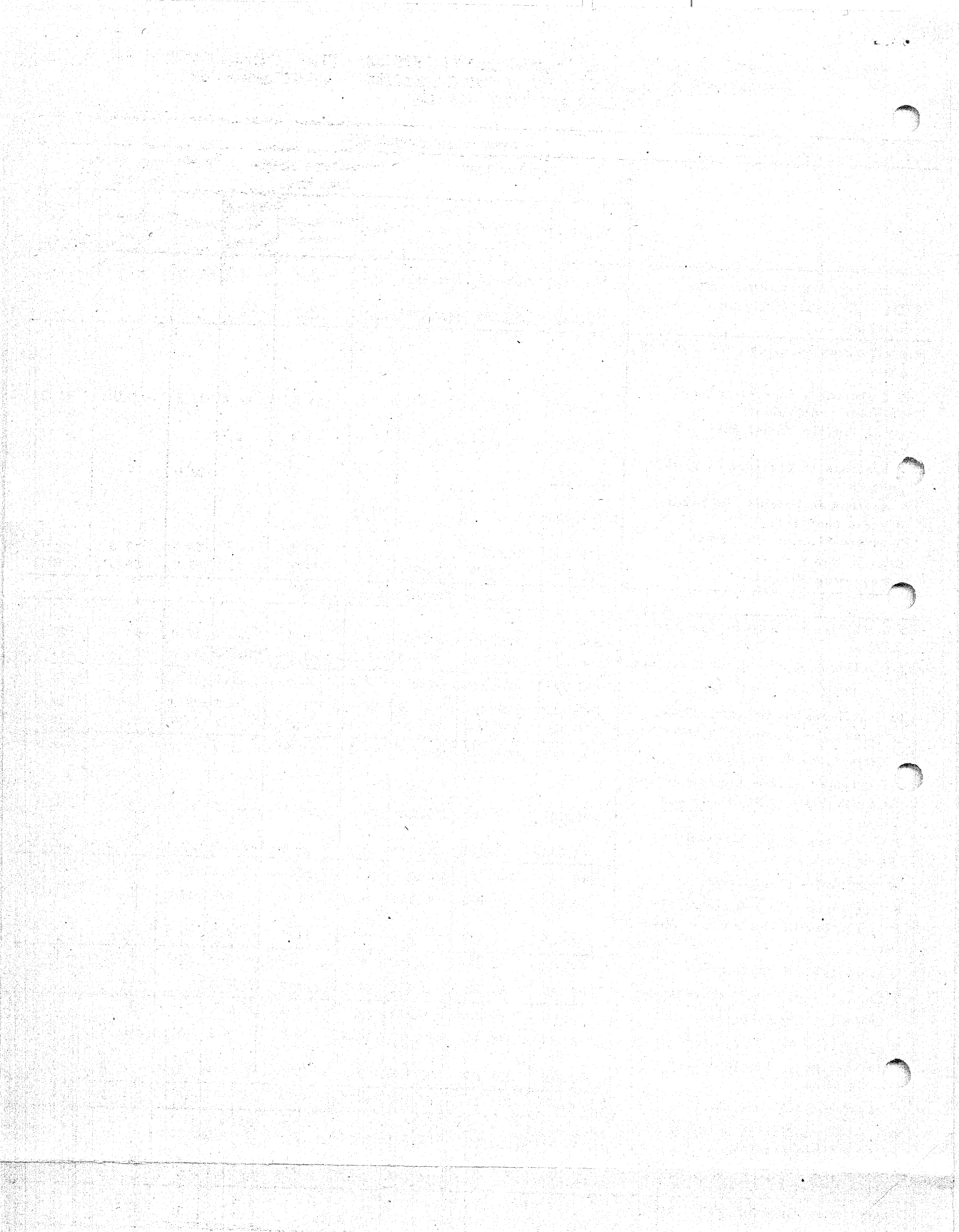


PERCENT OF TRAFFIC IN CORRESPONDING MONTH, 1941

TRAFFIC AT AUTOMATIC TRAFFIC RECORDERS, 1940-1943

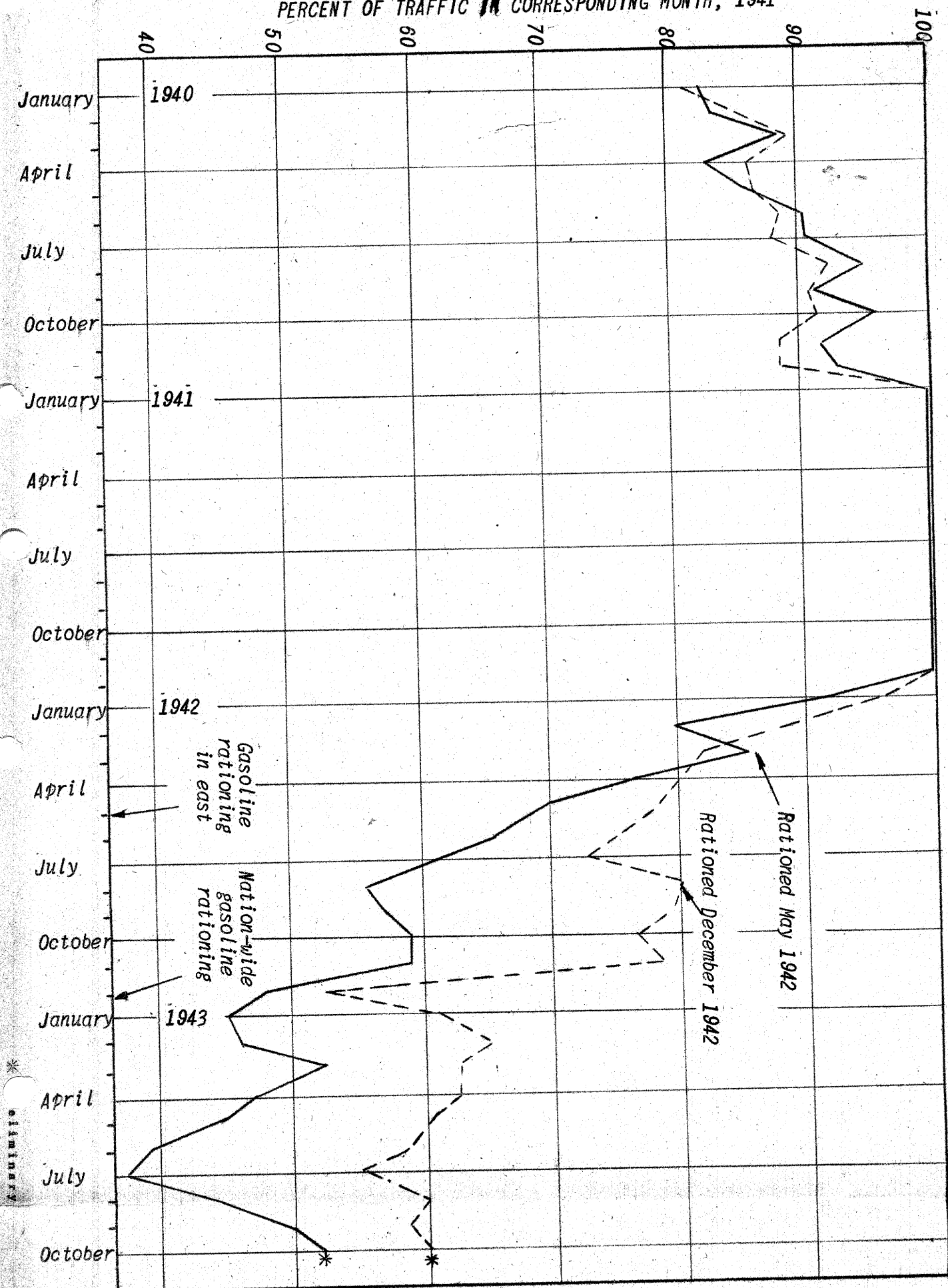


* preliminary



PERCENT OF TRAFFIC IN CORRESPONDING MONTH; 1941

TRAFFIC AT AUTOMATIC TRAFFIC RECORDERS, 1940-1943



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