

Chap. 6 : transportation during wartime (1938-1945) : roads

著者	山本 弘文
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The cut-backs in passenger service caused uncontrollable confusion in passenger-train operations. Beginning in April 1944, passengers were required to have papers issued by the police permitting them to go on ordinary trips, but the regulation had almost no beneficial effect whatsoever, and in fact the red tape involved in getting the papers made things that much worse. Further restrictions were set down on commuting and group travel that made the relatively simpler times of peace something of the far-distant past.

Moreover, the bombing of the main Japanese islands by the Allied forces began in June 1944. When the air raids began to be mounted from bases in Mariana in November 1944, the damage to the railroads became increasingly severe. Then in February 1945, carrier-borne planes directly attacked both defence and railroad facilities.

The breakdown of air attacks on the National Railways alone was 403 conventional bombings, 252 incendiary bombings, and 494 strafings. A total of 15 naval bombardments damaged facilities at Kamaishi, Hitachi, Muro-ran, Hamamatsu, and elsewhere. The attacks also damaged some 1,600 km of rail tracks. One hundred-and-ninety-eight stations were damaged, 90,000 km of telegraph lines, 14 factories, 891 locomotives, 563 electric multiple units, 2,228 passenger coaches, and 9,557 freight cars. There were also 79,774 gross tons of loss in railroad ferries, 65 per cent of the total. This describes the situation regarding the railways as Japan neared its defeat in the war.

Roads

Hirofumi Yamamoto

The Wartime Motor-Vehicle Industry

The overwhelming dominance of Japan Ford and Japan GM on the motor-car industry had continued since the 1920s, but a turning point was reached with the May 1936 enactment of the Motor Vehicle Manufacturing and Enterprise Law. The motivation behind this law was military. As international tensions were heightening in the final years of the depression, the armed forces wanted to rapidly set up a domestic system for the production of motor vehicles that could be used for military needs. In order to build such a system, the government gave permission to certain companies to produce at least 3,000 vehicles a year. The government would provide these companies with favourable tax treatment and would loosen the restrictions on procurement of funds. The law also set a restriction on the scale of foreign producers, limiting the number of vehicles. Japan Ford could produce to only 12,360 vehicles a year and Japan GM to no more than 9,470 vehicles. Another step to reduce the power of foreign competition in the Japanese market was to raise the duties on imported parts.

The companies authorized for vehicle production in September 1936 were Toyoda Automatic Loom Works (which became the new Toyota Motor Manufacturing in August 1937) and Nissan Motor Company, both of which

began planning for production. The number of vehicles rapidly increased after that with the refurbishing of Nissan's Yokohama plant and the construction of Toyota's Koromo plant. By 1940, Japan had almost perfected its domestic system centred on the production of military lorries, but production rapidly declined from 1943 on with the worsening shortage of materials. Japan Ford and Japan GM had been seriously hit by the drop in the yen rate and the December 1936 increase in tariff duties. The subsequent adoption of the Law for Temporary Measures on Imported and Exported Goods in September 1937 imposed a harsh set of import-export controls that made it difficult for the foreign competitor companies to stay in business in Japan. Indeed, production ceased in 1939. And, the military-inspired domestic motor-vehicle manufacturing system, too, collapsed as Japan suffered defeat in the war.

Consolidation of the Road Transport Industry

The Showa Depression forced the companies in the road transport industry to consolidate and reorganize, and the subsequent periods of preparation for war and war itself further tightened the system of state control and unification.

The country gradually tightened its control over railroad freight handling during the latter half of the 1930s, when Japan's international relations soured with its instigation of the Manchurian Incident in September 1931, withdrawal from the League of Nations in March 1933 and from the London disarmament conference in January 1936. Using the so-called two laws on small transport, the Small Transporters Law and the Nippon Tsuun Kabushiki Kaisha Law (Nittsu Law), both enacted in April 1937, the government was able to consolidate various small companies into Nippon Tsuun (Nittsu).

The Small Transporters Law and the Nittsu Law were closely linked laws used to control the small transporters (railroad freight handlers). The Small Transporters Law instituted a system of licences for these members of the transport industry, thus creating controls where once free entry in the market was the rule, to prevent the flooding of the market with small operators, and the Nittsu Law established a semi-governmental company that would oversee and unify all small transporters in the nation. Nittsu was established on 1 October 1937, with the government providing ¥8 million of the ¥35 million capital and Kokusai Tsuun and six other major companies providing a ¥16,245,000 investment in kind; the National Railways Mutual Aid Association provided ¥9.5 million and Kokusai Tsuun and the six converted their pure assets into investment in kind and disbanded at the end of September. As a result, the liquidation of all accounts current, issuance and withdrawal of freight receipts, and all prime contractor work performed by the seven companies were taken over by Nittsu, and freight handlers at all stations came under Nittsu control. But, fearing the wrath of the existing operators, the government issued licences to all operators before the Small

Table 3. Motor-vehicle production (1937-1945)

Fiscal year	Standard vehicles			Small vehicles				Electric motor vehicles	Total
	Lorries and buses	Passenger cars	Total	Four-wheeled	Three-wheeled	Two-wheeled	Total		
1937	7,643	1,819	9,462	8,593	15,230	2,492	26,315	68	35,845
1938	13,981	1,774	15,755	8,633	10,685	2,483	21,801	155	37,711
1939	29,233	856	30,089	4,425	8,194	2,429	15,048	97	45,234
1940	42,073	1,633	43,706	2,335	8,252	3,047	13,634	184	57,524
1941	42,813	1,065	43,878	2,620	4,666	2,596	9,882	207	53,967
1942	34,786	705	35,491	1,697	3,821	2,189	7,707	175	43,373
1943	24,600	207	24,807	1,072	2,259	1,965	5,296	164	30,267
1944	21,434	19	21,453	309	1,338	1,029	2,676	122	24,251
1945	6,084	—	6,084	—	380	125	505	?	

Source: Un'yu Keizai Kenkyu Senta, Kindai Nihon Yuso Shi Kenkyu Kai, eds., *Kindai Nihon yuso shi* (History of transport in modern Japan), pp. 454-455.

Table 4. Standard-lorry, bus production for military and civilian use

Fiscal year	National production total	Civilian demand (%)	Military demand (%)	Toyota production (units)	Nissan production (units)
1937	7,643	43.7	56.3	3,023	1,356
1938	13,981	74.7	25.3	3,719	7,943
1939	29,233	57.0	43.0	10,913	12,326
1940	42,073	48.9	51.1	13,574	12,899
1941	42,813	42.5	57.5	14,331	17,056
1942	34,786	44.4	55.6	16,261	15,974
1943	24,600	16.7	83.3	9,774	9,958
1944	21,434	16.1	83.9	12,701	7,074
1945	5,487	71.1	28.9	3,275	2,001

Source: Toyota Jiko, *Toyota jidōsha 20-nen shi* (Twenty-year history of Toyota Manufacturing), and Nissan Jidōsha, *Nissan jidōsha shashi* (History of the Nissan Motor Company).

Note: The figures for Toyota and Nissan do not include buses.

Table 5. Share of Nittsu in small transport operations (1939-1946)

Fiscal year	Capital	Employees	Handled freight	Number of motor vehicles	Number of hand-, ox-, or horse-drawn carts
1939	10.2%	2.5%	6.2%	4.0%	13.5%
1940	8.8	3.3	9.4	3.9	16.2
1941	10.5	3.8	30.3	4.0	23.1
1942	28.6	47.8	55.1	52.2	51.3
1943	47.6	53.6	54.8	60.4	61.1
1944	44.3	55.6	61.5	62.0	60.5
1945	?	62.6	72.2	?	?
1946	83.7	77.2	?	87.1	91.3

Source: Nippon Tsuun Kabushiki Kaisha, *Shashi* (Company history), pp. 399-400.

Table 6. Sectoral rate (%) of restrictions on gasoline consumption (1938–1941)

Month and year	Total	Hired				Other
		Buses	vehicles/taxis	Lorries	Passenger cars	
May 1938	16	17	22	19	—	0
October 1938	34	36	42	27	55	12
May 1939	48	50	58	38	91	25
October 1939	56	63	68	46	87	2
May 1940	59	63	73	50	89	—
October 1940	64	70	83	50	96	17
May 1941	75	81	91	62	98	17
October 1941	87	100	100	76	100	19

Source: Nihon Noriai Jidosha Kyokai, *Basu jigyō gojū-nen shi* (Fifty-year history of the bus industry), p. 302.

Transporters Law was enacted, giving a total of 7,789 operators as of 31 March 1938, 60 per cent of whom handled 5,000 tons or less of freight per year. The Railway Ministry then began a move to concentrate the operators into one company per station, and, under its direction, this goal was reached for 90 per cent of the stations by June 1941 (totalling 5,010 operators). The move to absorb these operators into Nittsu began in September, and with it, the beginning of Nittsu's monopolistic hold on the railway freight-handling (small-operator) business.

After the outbreak of the Sino-Japanese War in July 1937, motor-vehicle operators, i.e. the operators of buses, taxis, and lorries, were faced with growing shortages of gasoline, vehicles, and spare parts, as well as with strict state control that required a switch to alternate fuels and also abolished competing routes and reorganized and consolidated existing companies. One such control was the restriction on gasoline consumption that started in March 1938. The situation was getting tougher every year (table 6), and the embargo on oil exports to Japan that was placed by the United States in August 1941 shut down almost the entire fuel allocation to bus, hired car, and taxi operators. The rate of reduction for lorries was less than that for buses and taxis, but by 1941 fuel allocation had been slashed 75 per cent, and most lorries had to rely on substitute fuels.

The move to reorganize and consolidate operators was done quickly so that fuel and materials could be conserved and efficiently used. We can get some idea of what was going on from tables 7 and 8, which show that the Railway Ministry's orders of August 1942 led to a drastic consolidation in bus routes. The consolidation reduced the number of operators in 1945 to one-tenth what it had been in 1936.

Because of the importance of lorries in military transport, an even more drastic reorganization and consolidation was made of lorry operators, a business in which the size of individual companies was almost always very small. The first government-ordered consolidation of September 1940 and

Table 7. Trends in bus route operation (1936-1945)

Fiscal year	Number of operators	Total route length (km)	Number of vehicles	Running distance (1,000 km)	Transport personnel (1,000)	Income (¥1,000)	Outlay (¥1,000)	Profit (¥1,000)
1936	2,747	98,836	28,745	948,540	1,464,386	123,569	109,867	13,701
1937	2,422	95,834	24,344	1,009,981	1,654,936	141,267	128,690	12,576
1938	2,175	94,436	24,024	826,424	1,962,110	148,765	132,518	16,247
1939	1,966	90,222	23,181	689,999	1,763,458	160,364	144,610	15,753
1940	1,641	86,688	22,394	632,806	1,872,880	177,438	174,515	2,923
1941	1,495	85,841	21,965	530,306	1,739,630	172,236	170,983	1,252
1942	1,145	85,718	21,744	389,234	1,480,628	171,388	171,037	350
1943	414	83,600	21,502	353,626	1,302,543	258,147	257,849	297
1944	322	82,155	16,769	228,780	1,256,930	247,784	246,825	598
1945	256	81,655	11,119	161,151	808,910	191,769	191,756	13

Source: Nihon Kokuyu Tetsudo, *Nihon rikuun 10-nen shi* (Ten-year history of land transport), vol. 2, p. 599.

Note: Forty per cent of the total route length had been halted by 1945.

Table 8. Trends for motor vehicle freight transport operators (1939-1945)

Type	Before first consolidation (as of 30 June 1939)	Before second consolidation (as of 30 December 1942)	After second consolidation (as of 30 January 1945)
Number of operators	26,548	3,221	340
Number of standard vehicles	44,454	48,483	46,140
Number of small vehicles	12,055	14,055	12,475
Number of vehicles registered per operator	1.8	16.7	147.9

Source: Nihon Kokuyu Tetsudo, *Nihon rikuuin 10-nen shi* (Ten-year history of land transport), vol. 2, p. 614.

Note: In number of vehicles registered per operator, three small vehicles are calculated as the equivalent of one standard vehicle.

Table 9. Trends in motor vehicle transport power (1936-1945)

Fiscal year	Buses			Hired vehicles/taxis			Lorries			Total	
	Number of vehicles in operation	%	Number of vehicles in operation	Number of vehicles in operation	%	Number of vehicles in operation	Number of vehicles in operation	%	Number of vehicles in operation	Number of vehicles in operation	%
1936	28,745	85	37,005	31,454	85	51,338	43,637	85	98,524		
1937	24,344	80	35,170	29,895	85	52,995	42,464	80	91,834		
1938	24,024	70	33,100	28,135	85	55,063	38,544	70	83,495		
1939	23,181	65	31,643	25,314	80	54,461	35,400	65	75,781		
1940	22,641	60	29,497	23,598	80	60,517	36,915	61	74,097		
1941	23,049	50	27,775	22,220	80	54,263	29,844	55	63,588		
1942	22,791	46	18,468	12,004	65	56,319	29,285	52	51,772		
1943	21,254	42	15,879	8,733	55	59,864	23,274	35	40,933		
1944	19,870	37	13,623	5,531	41	44,673	18,304	41	31,186		
1945	11,109	41	7,870	3,387	43	44,521	16,473	37	24,489		

Source: Nihon Kokuyu Tetsudo, *Nihon rikuun 10-nen shi* (Ten-year history of land transport), vol. 2, p. 600.

Note: Figures for vehicles in operation are estimates.

the second of December 1942 represented extremely large policy moves that reduced the number of companies to one-eightieth of what it had been.

Despite these various measures, however, the supplies of fuel and materials worsened as the war turned against Japan, and the operating rate for buses, taxis, and lorries dropped every year. Looking at the figures for those years, we can see that from 1943 on, the operating rate is less than 40 per cent (table 9). By the time of Japan's surrender, only one-fourth the 1936 number of vehicles were operable.

Coastal and River Transport

Hiromi Masuda

The Second World War and the Unification of Coastal Shipping

Powerful government protection policies, such as the Shipping Improvement Aid Service, provided levers for bringing the shipping industry to economic recovery after the Great Depression that began in October 1929. But the war with China brought the industry even better economic conditions, because the army and navy commandeering of ships for transport caused a shortage of ships. At the end of July 1937, the Communications Ministry gave special permission, as mentioned earlier, allowing foreign ships and ships under Guandong Province registry to engage in coastal trade and thus supplement the shortage of ships. Then in August, the ministry issued an emergency order for dispositions that would hold down soaring charter-ship rates and restrict non-emergency loading of cargo. To deal with the soaring rates, the Ocean Transport League, Japan Shipowners Association, and the League for Self-governance in Ocean Shipping decided in July and August to adopt policies of self-control on fares and charter rates.

Although the government's main emphasis regarding controls was on self-regulation by the industry, in order to further strengthen those controls, it aimed at an expansion of its power and, in September 1937, enacted the Temporary Shipping Control Law. For the purpose of transporting important materials, adjusting fares, and maintaining overseas shipping rights, this law covered a broad range of areas, including a system of licensing the import and export of ships, authority over shipping routes, zones, and passenger transport, and governance over fares and charter rates and ships' crews and shipbuilding. Before any orders based on this law could be issued, they first had to be deliberated by the Shipping Control Committee, which was composed of representatives from government, the Diet, and the shipping industry. Circumstances were construed to give the appearance that control resided with the industry, but state control was extensive, and it was only strengthened by the enactment in April 1938 of the Law for National Mobilization, which emphasized shipping and applied strong pressure on getting the industry on to a wartime footing as soon as possible.