

Chap. 6 : transportation during wartime
(1938-1945) : coastal and river transport

著者	増田 広実
権利	Copyrights United Nations University
journal or publication title	Technological Innovation and the Development of Transportation in Japan
page range	186-195
year	1993
URL	http://doi.org/10.20561/00051037

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.

Since the regulations on permission to import ships, which had been in effect since 1933, prevented any official importation of ships, the Shipping Control Law of September 1937 dealt with the shortage by permitting a flag-of-convenience system to be used in which imported ships registered in Guandong Province could be reregistered in Japan. That measure alone increased ship tonnage by some 400,000 tons, nevertheless, the shortage continued to worsen. To get more ships, the government decided by cabinet resolution in August 1939 to adopt the General Plan for Shipping Control Measures, which went into force in September. Based on that general plan, the Communications Ministry set up in September a Shipping Control Commission. The commission further strengthened the control over shipping by shifting over from controls on fares to controls on the allocation of ships, thus bringing the shipping industry even further into the war effort.

To increase wartime control over shipping, the government issued, in February 1940, the Shipping Control Order, its provisions being based on those of the Law for National Mobilization. The order provided regulations concerning shipbuilding, ship repair, the lending and allotment of ships, ocean navigation, cargo unloading, and official fares and charter rates. In August 1941, a time when Japan had reached its point of no return on the path to the Pacific War, the cabinet decided to adopt the General Plan for Wartime Control of Shipping, which was concerned with government control of ships, crews, and shipbuilding. In March 1942, the Order for the Control of Wartime Shipping was issued and put into operation. This order prescribed the installation of facilities for the Merchant Marine Commission, which was charged with unifying national control over shipping, the procurement and supervision of ship's crews, and the control of ships for use by the nation.

Already by this time, about 300 ships, each less than 1,000 tons, had been conscripted by the army and navy for use in inland shipping. But the Order for the Control of Wartime Shipping stated that all steamships of at least 100 tons in size and auxiliary-engine-powered sailing-ships of 150 tons and more were to be for use by the nation. The range of coverage was expanded in October 1943 to include all auxiliary-engine-powered sailing-ships of 50 tons or more. Then in September 1944, all steamships, auxiliary-engine-powered sailing-ships, and simple sailing-ships of 15 tons or more came under state control. These ships were declared to be for state use by the communications minister, and, in turn, these ships were turned over to the Merchant Marine Commission for operation. The Merchant Marine Commission was composed of owners of Japanese ships or members of the owners' association and had been set up in April 1942. The actual operation of ships was performed by a member whom the communications minister designated as a ship operator.

In April 1945, US army and marine units invaded the main island of Okinawa. With the situation pointing more and more to defeat, Japan's military leaders adopted a policy for the final defence of the homeland. The cabinet further tightened its control over the operation of all harbours, ports, and

Table 10. Number of tons (1,000) transported by means of transportation (1946-1955)

Fiscal year	Motor vehicles	Railroad		Inland shipping
		National Railways	Private railroads	
1946	147,288	91,296	21,102	17,551
1947	177,216	109,133	23,592	29,902
1948	197,496	128,035	26,022	42,235
1949	230,808	127,529	30,857	40,787
1950	309,000	135,690	29,274	49,282
1951	351,000	162,058	34,193	64,243
1952	382,000	152,739	32,470	49,271
1953	497,000	159,245	34,066	49,590
1954	535,000	156,219	33,786	51,577
1955	569,000	160,246	33,173	59,152

Source: *Shōwa kokusei sōran*, vol. 1, p. 417, 7-3, "Yusō kikan betsu no kamotsu yusō" (Freight transport by means of transport).

ships for national use and set up a Department for the Overall Monitoring of Maritime Shipping within the Imperial Headquarters. But by the time the war ended on 15 August 1945, maritime transport had been dealt a series of destructive blows through the US Air Force's destruction of ports and harbours, the cutting off of shipping routes by aerially dropped mines, and the overall destruction of shipping.

On 3 September, under the Occupation, all ships of 100 tons and more came under the control of the Supreme Commander for the Allied Powers (SCAP) and under the supervision of the commander of the US Pacific Fleet.

Effects of the Second World War

When we look at the increases and decreases in number of tons transported by inland ships, we see that 79.26 million tons were carried in 1936; in 1937, the year the Sino-Japanese War started, the total increased to 94.656 million tons. There is a series of annual increases after that, until a peak of 102.864 million tons is reached in 1940. There is then a drop to 99.18 million tons in 1941, 81.312 million tons in 1942, and rapid declines to 60.096 million tons in 1943, 44.796 million tons in 1944, and 24.756 million tons in 1945. The figures for 1945 represent a mere 24 per cent of those in 1940. These trends in inland shipping are repeated in the figures for ships entering the nation's ports. In 1936, a cumulative total of 6,663,000 ships entered those ports. These figures continue to increase until they reach their peak in 1940 with 7,316,000 ships in 1940. They then turn downward by 510,000 ships in 1941 to 6,809,000, to 1,432,000 ships in 1943, 1,584,000 in 1944, and 997,000 in 1945, the 1945 cumulative total constituting only 13.6 per cent of that for 1940. The situation was even graver in 1946, with only 961,000 ships entering Japanese ports and 17,551,000 tons transported by

Table 11. Number of inland ships entering ports (Japan total) (1936-1945)

Year	Number (1,000)	Total tonnage (1,000)
1936	6,663	354,450
1937	6,667	364,371
1938	6,698	372,702
1939	6,580	379,524
1940	7,316	378,922
1941	6,809	347,931
1942	5,950	295,085
1943	1,432	63,554
1944	1,584	59,354
1945	997	35,268

Source: *Shōwa kokusei sōran* (Survey of Showa Japan), vol. 1, p. 441, 7-24, "Zen-koku oyobi rokudai kōwan e no nyūkō sempaku" (Number of ships entering Japan's six major ports and all Japanese ports).

Table 12. Commercial shipping (1936-1945)

Year	Total			Freighters/passenger ships			Passenger ships		Oil-tankers	
	Number of ships	Tonnage (1,000)	Number of ships	Tonnage (1,000)	Number of ships	Tonnage (1,000)	Number of ships	Tonnage (1,000)	Number of ships	Tonnage (1,000)
1936	1,431	4,051	978	2,809	324	909	82	138	47	196
1937	1,518	4,408	1,045	3,079	330	944	84	142	59	243
1938	1,666	5,038	1,168	3,629	337	961	89	145	72	304
1939	1,740	5,382	1,242	3,893	335	1,006	84	113	79	370
1940	1,819	5,683	1,318	4,122	337	1,042	80	141	84	378
1941	1,962	6,094	1,435	4,424	354	1,135	79	135	94	401
1942	1,821	5,367	1,316	3,797	328	1,023	76	120	101	427
1943	1,741	4,764	1,226	3,243	295	839	73	85	147	597
1944	1,705	3,581	1,153	2,217	213	458	72	82	267	824
1945	796	1,344	528	987	63	114	122	75	83	168

Source: *Shōwa kokusei sōran* (Survey of Showa Japan), vol. 1, p. 443, 7-28, "Nihon shōsen no sempukuryō" (Commercial-ship tonnage in Japan).

ship. In just six years, the number of ships entering port had declined to 13 per cent, and total tons transported had dropped to 17 per cent of what it had been in the year of greatest prosperity, 1940. The figures show clearly the decline in shipping in the final years of the Pacific War.

This gives us a good general idea of the state of shipping in inland waters, so we can now look at the increase and decrease in the number of commercial ships of 100 tons or more – freighters, freighter-passenger ships, passenger ships, and tankers – that supported this situation. Commercial ships increased in number from 1,431 (4,051,000 tons) in 1936 to 1,518 (4,408,000 tons) in 1937 and continued their gradual increase until 1941, when there were 1,962 ships and 6,094,000 tons. This was the peak year, for after that the destruction of shipping decreases the numbers to 1,705 ships and 3,581,000 tons in 1944 and then sharply reduces them to 796 ships and 1,344,000 tons in 1945. The total for 1945 is only 41 per cent of that for the peak year 1941.

Let's look at the breakdown on these ships by type. In 1936, there were 978 freighters (2,809,000 tons), a number that rose to 1,435 (4,424,000 tons) in 1941 and then dropped to 528 (987,000 tons) in 1945. Freighters-passenger ships went from 324 (909,000 tons) to 354 (1,135,000 tons) in 1941, gradually decreasing afterwards until a low of 63 ships (114,000 tons) was reached in 1945. The situation is somewhat different for passenger ships because the category also includes railroad ferry lines and scheduled inland shipping. In 1936 there were 82 ships totalling 138,000 tons and in 1938, 89 ships totalling 145,000 tons, which is the peak for this period. Thereafter the number of ships gradually declines, while the number of tons fluctuates up and down: in 1944, there were 72 ships (82,000 tons), increasing in 1945 to 122, while the number of tons declines to 75,000. As for oil-tankers, indispensable to waging war, the number rapidly increased from 47 (196,000 tons) in 1936 to 59 (243,000 tons) in 1937, with more gradual increases prevailing in the following years. By 1944, there are 267 tankers (824,000 tons), which, however, plummets to 83 (168,000 tons) in 1945.

One should note the difference in the state of shipping as seen in the increases and decreases in the number and tons of ships and as seen in the cumulative totals for port enterings. The amount of transport in inland shipping rapidly increased in 1937, the first year of war in China, then continued to increase annually until peaking in 1940. A decline sets in in 1943 and becomes more rapid in 1945 as the number of ships hits bottom in 1946. The number of registered freighters and freighter-passenger ships increases rapidly in 1937, but the overall increase is relatively gradual, the peak being reached in 1940, followed by a gradual decline. This gradual decrease then falls quickly to its nadir in 1945. These rises and falls apply not just to commercial vessels of 100 tons and over; although the data for 1944 and 1945 are not complete, we can estimate from the available data that the same kinds of increases and declines were taking place for all registered steamships and sailing-ships of 20 tons or more. There are three reasons for the trends. First, although shipping suffered a great deal of war damage, the

shipbuilders worked hard to compensate for the damage and to increase transport power. Second, to avoid damage to maritime transport from bombing and shelling, much of the cargo carried by ship was shifted over to land transport, i.e. to the railroads. Third, there was a reduction in the amount of goods to be shipped.

The first point, in regard to shipbuilding, is obvious from the growth in the number of commercial ships – freighters, freighter-passenger ships, passenger ships, and tankers – in the 100 ton and above classes. As mentioned previously, the outbreak of the Sino-Japanese War in 1937 created a shortage in ship number and tonnage that brought about a construction boom in shipping. From 1937 until Japan was defeated in 1945, 1,623 ships (over 4,637,000 tons) were constructed. Some 1,100 ships (more than 2,853,000 tons), or close to 68 per cent of the total, were built in the three years from 1943 to 1945. One of the incentives for this boom was the Shipbuilding Law that was enacted in April 1939 to cut costs and shorten the time required for constructing ships. To aid in achieving these two goals, the Shipping Improvement Association selected a set of standard ship types for mass production, construction starting not long afterward. In May 1940, the government acted on the basis of its Shipping Control Order and set up a system for authorizing the building of ships through the granting of licences. Then in May 1942, during the Pacific War, planned ship construction was started in order to build standard wartime ships as quickly and in as large a volume as possible. In the first phase of wartime ship construction, the government added the construction of one type of ore carrier and three types of oil-tankers to the six general freighter types selected by the Shipping Improvement Association and decreed that each shipyard could build only one or two types. The second stage of planned construction begun in 1943 called for three types of freighters and two types of oil-tankers; the third and fourth stages followed in 1944 and 1945. By the third stage, construction had resulted in a total of 1,009 ships (2,607,00 tons).¹ Thus most ships built from 1943 through 1945 were so-called standard wartime ships.² And although a total of 1,100 commercial ships (2,853,000 tons) were built during those three years, there were only 796 (1,344,000 tons) remaining in 1945. With the approximate doubling in the number of ships constructed and the increase in tonnage by 2.4 times, we can estimate that the loss in ships was 2,125 ships, or 6,876,000 tons.³

These shipping losses, which went far beyond the number of ships constructed, resulted in a push toward the construction of wooden ships. The General Plan for Emergency Construction of Wooden Ships, adopted in January 1943, called for the construction of at least 1,000 standard wooden wartime ships. There were to be three classes: 100, 200, and 250 tons, the longest being four *ken* (7.3 m), and the construction being standard, straight, square lumber.⁴ But because the ships were made of wood and the utmost attention was given to conserving materials and simplifying construction, the large quantity of wartime ships were of poor quality, resulting in an actual decline in transport capability.

Table 13. Number of commercial ships constructed (1937-1945)

Year	Total		Freighters		Freighter/passenger ships		Passenger ships		Oil-tankers	
	Number of ships	Tonnage	Number of ships	Tonnage	Number of ships	Tonnage	Number of ships	Tonnage	Number of ships	Tonnage
1937	107	368,956	72	262,585	12	66,881	4	1,473	19	38,017
1938	86	332,206	72	287,353	4	11,225	4	1,288	6	32,340
1939	82	321,030	66	215,195	7	49,790	—	—	9	56,045
1940	92	298,027	72	202,028	13	78,999	1	3,500	6	13,500
1941	75	220,991	60	161,808	4	36,454	1	13,500	10	9,229
1942	81	242,740	67	187,991	6	34,405	—	—	8	20,344
1943	238	664,911	172	368,212	6	29,700	2	900	58	266,099
1944	675	1,632,765	463	958,464	—	—	1	406	211	673,895
1945	187	555,559	156	455,770	—	—	1	383	30	99,406
Total	1,623	4,637,185	1,200	3,099,406	52	307,454	14	21,450	357	1,208,875

Source: *Kindai Nihon yusō shi* (History of transport in modern Japan), pp. 458-459, "Sempaku kenzyōryō" (Volume of ship construction).

The second point mentioned above, regarding the shifting of cargo over to the railroads, the share of domestic freight tons hauled by ship fell from 20–22 per cent to 17.1 per cent in 1942, 13.6 per cent in 1943, 12.2 per cent in 1944, and 9.9 per cent in 1945. The railroad's share, particularly that of the National Railways, increased to 40.6 per cent in 1941, 43.9 per cent in 1942, 51.5 per cent in 1943, and 53.5 per cent in 1944. But in 1945, bomb damage cut the railroad share to 41.3 per cent and sharply increased the motor vehicle share from 34.3 to 48.8 per cent.

Under these wretched conditions, inland shipping went down with the rest of the nation, but rapidly moved into a postwar age of recovery and new development.

The Demise of River Transport

As we have seen, river transport had been almost completely abandoned during the previous period, with the exceptions of the service continuing on the Takahashi, Go, and Ota rivers in the Chugoku region and that on the Shimanto River in Shikoku. Some of the Tone and Edo River steamboats were ceded to Tokyo Kisen in 1931. Tokyo Tsun moved its operations to the lower reaches of the Tone, but eventually went bankrupt in 1936. The last of the vessels operating were Choshi Kisen's four small ships in 1942, thus bringing to a close the final chapter in scheduled freight-passenger service on the Tone.⁵ In the final period, the important Tone Canal connecting the Tone and Edo rivers was damaged by a typhoon in 1935, and another typhoon in 1941 destroyed the embankments, closing the entrance to the Tone River and for all intents and purposes, closing the canal.⁶

The thread of life for the river boat as a means of inland transport had already been cut; only a few managed to stay alive as boats connected to the tourist trade. Some examples are the Kasumigaura and Biwako pleasure boat services; the route on the Tenryu River down the Tenryu Channel; the Nihon Line along the Kiso River; the Hozu and Kuma river runs; and the Kumano River propeller boats. But even these disappeared, one after another, as the entire nation mobilized for war.

Notes

1. Aoki Eiichi, *Nihon no kaijō kōtsū – Sono rekishi to genjō* (Japan's maritime transport – Its history and present situation) (Un'yu Shinko Kyokai, 1981), pp. 14–15; *Un'yushō sanjū-nen shi* (Thirty-year history of the Ministry of Transport) (Un'yu Keizai Kenkyū Senta, 1980), p. 24.
2. According to *Kindai Nihon yūsō shi* (History of transport in modern Japan), pp. 458–459, table 15, "Volume of Ship Construction," a total of 1,286 ships (over 3,138,000 tons) were constructed in the three years of 1943–1945. However, 78 per cent of the ships and 83 per cent of the tonnage was in standard wartime ships.
3. The basis for this estimate is the addition of 1,100 commercial ships (2,853,000

tons) built in 1943–1945 to the 1,821 (5,367,000 tons) commercial ships built in 1942 and then subtracting the 796 (1,344,000 tons) ships built in 1945.

4. *Un'yushō sanjū-nen shi*, p. 24.
5. Matsumura An'ichi, "Tonegawa kisen kōtsū no hensen" (Changes in steamboat transport on the Tone River), *Kotsu Shi Kenkyū* (Historical review of transport and communications), no. 7 (1982), p. 16.
6. Kawana Haruo, *Tone Unga shi* (An account of Tone Canal) (Ronshobo, 1971), p. 120.