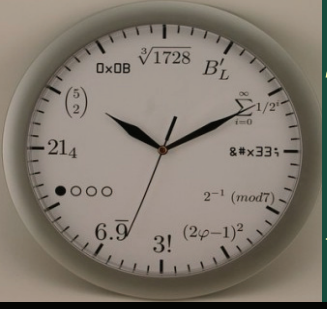
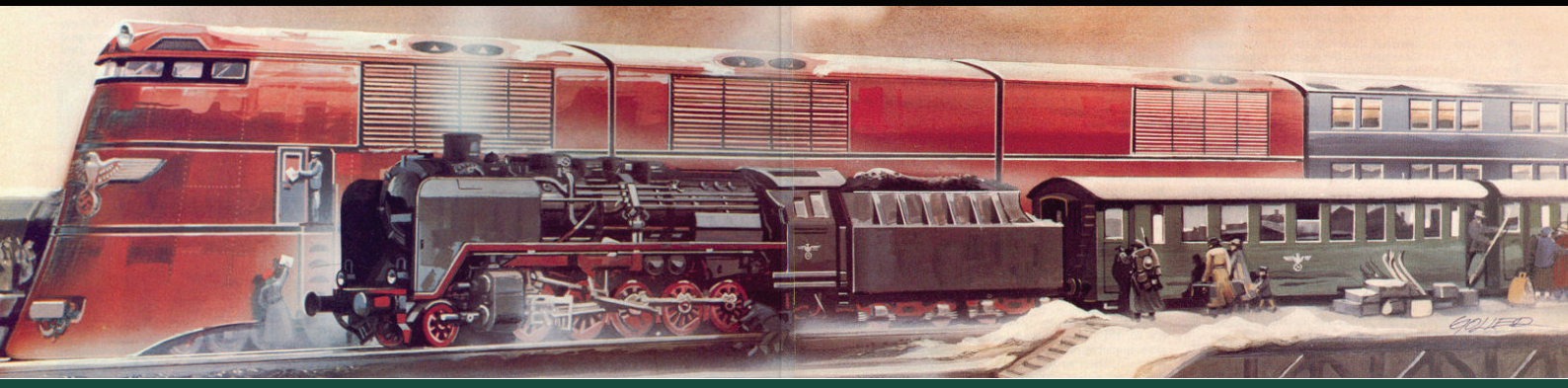


The Times

November 2013

A journal of transport timetable history and analysis

WAR BY TIMETABLE



Inside: War by Timetable
DR's 1941 Continental Timetable
Railway Manual (War)
Disposing of WWII bombs on the line

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The Times

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Gegenrichtung	Zug Nr	DmW 43	DmW 239	DmW 23	SF 271	SF 244
Kattowitz Hbf	ab				19.59	
Beuthen (OS) Hbf	ab					19.40
Hindenburg Hbf	ab				20.31	
Gleiwitz Hbf	146 ab				20.63	
Ratibor Hbf	ab				19.26	
Heydebreck (OS)	ab				21.21	
Oppeln Hbf	ab				22.01	
Breslau Hbf	ab				23.35	
Frankfurt (Oder)	145 ab				3.49	
Berlin Friedrichstr.	an				5.21	
München Hbf 410, 411	ab		8.03	12.20		
Nürnberg Hbf 414	ab		11.11			
Frankfurt (M) Ost 192	ab	15.04				20.30
Erfurt 180	ab	19.41				11.02
Halle (Saale) 180	ab		16.48			3.06
Hof Hbf	173 ab			17.39		
Leipzig Hbf	ab	21.45		20.31		
Berlin Anh Bf 180	an	0.07	19.01	22.37		5.30

	Zug Nr	SF 980	SF 180	SF 181
Berlin Stett Bf	ab	4.37	5.44	8.43
Bernau b. Berlin	ab	5.05		
	an		6.24	9.26
Eberswalde Hbf	ab		6.25	9.27
	an		6.48	
Angermünde	ab		6.49	
Prenzlau	ab	DmW 22	7.21	
Pasewalk	an	6.50	7.42	11.11
Königsberg (Pr) Hbf	ab			
Marienburg (Westpr)	135 ab			
Danzig Hbf	ab	23.08		
Stolp	124 ab	1.30		
Stargard (Pom)	an	4.26	SF 74	
Posen Hbf	ab		1.23	
Kreuz	129a ab		4.10	
Stargard (Pom)	an	EmW	5.40	
Stargard (Pom)	124 ab	4.33	5.56	7.35
	an	5.08		8.23
Stettin Hbf	ab	6.00		8.45
Pasewalk	118 an	7.14 7.27		9.34
Pasewalk	ab	6.56	7.45	11.15
Ducherow	ab		8.12	
Anklam	ab		8.25	
Greifswald	ab		8.57	
Stralsund	an	8.39	9.27	12.06
München Hbf 411, 415	ab			
Würzburg Hbf 416 g	ab			
Frankfurt (Main) Hbf	192 ab			
Fulda	an			
Fulda 192	ab			
Bebra 202	ab			
Kassel Hbf	202 ab			
Göttingen	an			
Göttingen	211 ab			
Hannover Hbf	ab			
Duisburg Hbf 227	ab			
Hamm (Westf) 223	ab			
Münster (Westf) Hbf	ab			
Osnabrück Hbf	218 ab			
Bremen Hbf	ab			
Hamburg Hbf	an			
Hamburg Hbf 114	ab			
Lübeck Hbf	118 ab			
Seestadt Rostock Hbf	ab	5.37		
Stralsund Hbf 121 m	an	7.28		
Stralsund	ab	8.52	9.39	13.20
Bergen (Rügen)	ab		10.07	
Saßnitz	ab	9.50	10.51	14.21
	an	9.57	10.57	14.28
Saßnitz Hafen	ab	11.00	11.00	14.40
	an	16.50	16.50	20.35
Trelleborg	ab	17.25	17.25	21.50
Oslo	an	10.15	10.15	
Narvik	an			22.50

⊙ Verkehrstage bei den Bahnhöfen erfragen

The "War" issue

Welcome to the "War" issue of ATA's The Times. In this compendium, we look at the classic work by AJP Taylor entitled "War by Timetable"; a reprint of a 1941 Deutsche Reichsbahn timetable when the Third Reich was at its peak; the way Australian railways were mobilized by the Military and; a 70-year old echo of the war on Japan and its effects on a 2013 timetable. For good measure, we also illustrate a railway timetable network conceived by Adolf Hitler, which he meant to implement after his anticipated victory in WWII.

One might say that these stories look at both the effect of war on railway timetables and the effect of railway timetables on war. The role of railways in war came to the fore in the 1st decade of the 20th century and quickly faded after its 5th decade. The cardinal point to be made is about the close cooperation between military authorities and railway authorities during war– three of these stories make explicit this hand-in-glove approach. Indeed, in Germany in particular, much railway construction by the Government (which owned all the tracks– but not the train operators) was specifically directed towards defensive or offensive military purposes.

Quite a few countries set up their own military railways so that the military could practice for war railway work—Britain had the Longmoor Military Railway.

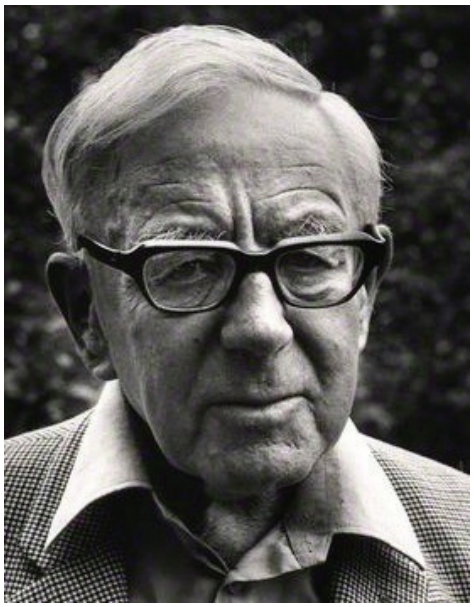
It is hard to imagine that railway timetables could play a role in modern warfare, but the Central Japan Railway Company story on page 14 shows that old wars can still have an effect on modern railway timetables.

War by Timetable

"The First World War had begun - imposed on the statesmen of Europe by railway timetables. It was an unexpected climax to the railway age".

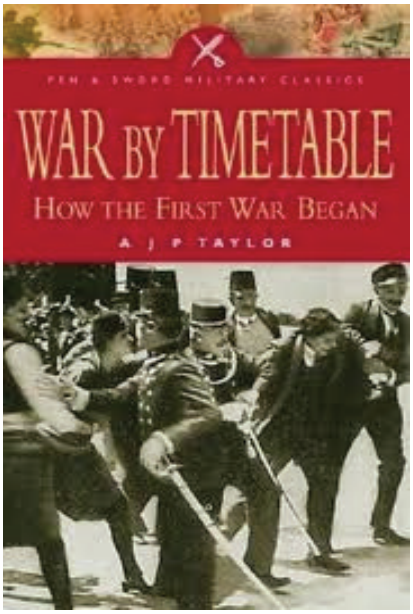
GEOFF LAMBERT, DAVID STEVENSON AND WIKIPEDIA

ALAN JOHN PERCIVALE TAYLOR, (1906–1990, right) was a British historian who specialised in 19th- and 20th-century European diplomacy. Both a journalist and a broadcaster, he became well known to millions through his television lectures. He was, as will become abundantly apparent, a fierce "Germanophobe".



He is famous for his analyses on the causes of war and, in particular, for his assertion that the First World War was an inadvertent outcome of too much military preparedness involving the railway networks on the combatant blocs– Triple Entente of Britain, France and Russia, against the Triple Alliance of Italy, Austria-Hungary and Germany. His most controversial book was his 1961 *The Origins of the Second World War*. In this, Taylor put forward the idea that the war was the result of an intentional plan on the part of Hitler. He began his book with the statement that "*too many people have accepted uncritically*" what he called the *Nuremberg Thesis*, that the Second World War was the result of criminal conspiracy by a small gang comprising Hitler and his associates. He asserted instead that Hitler was not the demoniacal figure of popular imagination but in foreign affairs a normal German leader, a grasping opportunist with no beliefs other than the pursuit of power and anti-Semitism. He argued that Hitler did not possess any sort of programme and his foreign policy was one of drift and seizing chances as they offered themselves.

In stark contrast, in his 1969 book *War by Timetable*, Taylor examined the origins of the First World War, concluding that, although all of the great powers wished to increase their own power relative to the others, none consciously sought war before 1914. Instead, he argued that all of the great powers believed that if they possessed the ability to mobilise their armed forces faster than any of the others, this would serve as a sufficient deterrent to avoid war and allow them to achieve their foreign policy. Thus, the general staffs of the great powers developed elaborate timetables to mobilise faster than any of their rivals. When the crisis broke in 1914, though none of the statesmen of Europe wanted a world war, the need to mobilise faster than potential rivals created an inexorable movement towards war. Thus Taylor claimed that the leaders of 1914 became prisoners of the logic of the mobilisation timetables and the timetables that were meant to serve as deterrent to war instead relentlessly brought war.



Taylor used the term timetable as much as a metaphor for "preparedness" and "mobilisation" than as anything else. He was criticised for this. However, an article in the journal *Past and Present* by David Stevenson in 1999 argued cogently that the title means what it says– the ability of the railways to mobilize troops and material and to transport them to the battle front *via* intensive timetables was the irresistible force that made war inevitable. What follows is largely taken from Stevenson's publication.

Military theorists of the time generally held that seizing the offensive was extremely important. This theory encouraged all belligerents to strike first to gain the advantage. This attitude shortened the window for diplomacy. Some historians assert that mobilization schedules were so rigid that once they began they could not be cancelled without massive disruption of the country and military disorganization; thus diplomatic overtures conducted after mobilizations were ignored. However, in practice, these timetables were not always decisive. The Tsar ordered general mobilization canceled on July 29 despite his chief of staff's objections that this was impossible. A similar cancellation was made in Germany by the Kaiser on August 1 over the same objections, although in theory Germany should have been the country most firmly bound by its mobilization schedule.

The railways' ability to conduct these operations (their 'military capacity', or throughput) depended on three variables: fixed installations, rolling stock, and organization and planning. The last involved much cooperation between the military and the railways in building up workable timetables, to be ready at a moment's notice.

The pre-planned operations at the outset of war fell into three phases: preparation, mobilization and concentration.

Preparation: All of the Powers had initial states of readiness. Each included setting guards on railway tunnels and bridges; in Britain's 'precautionary stage', the army was to communicate its troop movement plans to the railway companies. Reinforcing the frontier units to protect mobilization (a procedure known as 'covering' or *couverture*) might ensue. Instituting the couverture in France, required 573 special trains between 31 July and 3 August 1914

Britain was exceptional in that until the turn of the century military-railway liaison hardly existed. The 1871 *Regulation of the Forces Act* allowed the government to take control of the railways on mobilization, and the *National Defence Act* of 1888 gave naval and military shipments precedence over civil traffic. An Army Railway Council, set up in 1896 (renamed the War Railway Council in 1903), gave the companies the information needed to begin timetabling. Yet, until as late as 1911, the War Office did not consult them about transporting the British Expeditionary Force (BEF) to the Continent and had no influence on their construction plans.

In the rest of Europe, Germany set the norm. The 1871 constitution gave the military a standing right to supervise railway building, equipment and operations in the interests of national defence. In addition, the Reich financed strategic improvements. The Imperial Railway Office (Reichseisenbahnamt) oversaw the implementation of these provisions. Germany's railways were divided into Line Commands (Linienkommandaturen): in 1914, there were twenty-six, labelled from A to Z. Each Line Command was headed by a military and a railway management representative, who ensured that the track in their area was ready. At the apex of the system, the Railway Section (Eisenbahnabteilung) of the Prussian Great General Staff in Berlin, comprising some eighty officers in 1914, planned for the whole of the empire except Bavaria. Headed from 1911 by Wilhelm Groener, it was the General Staff's hardest working division, sometimes busy from 9 a.m. to 1 a.m. Groener later recounted his arduous apprenticeship, drawing up schedules with his newly married wife for the lines round Frankfurt-am Main. Both mobilization and concentration plans were annually revised, the new regulations coming in to force each 1 April. The Line Commands drafted the mobilization schedules, but the Berlin centre dealt with concentration, in the light of changing railway capacities and intelligence about the enemy and of the Chief of the General Staff's wishes. Once the task was completed, the chief of the *Eisenbahnabteilung* locked the concentration schedules in iron cabinets in his office, ready for printing and distribution if the time came.

Annual manoeuvres tested the arrangements: some 1,988 special train movements, for example, taking place in 1911. Like his father and like Alfred von Schlieffen, successively Chiefs of the General Staff in 1857-88 and 1891-1905, Helmuth von Moltke the younger, Chief of the General Staff in 1906-14, well understood railway planning's centrality. At the outset of each cycle he told the officials responsible that only the most rigorous advance preparation would ensure that the railways performed their tasks.

Germany's principal ally, Austria-Hungary, was likewise divided into railway commands (eighteen in 1913). The counterpart of Groener's bureau was the seventh section of the General Staff in Vienna, which drew up annual concentration schedules in conjunction with Department 24 of the Austrian Railway Ministry. In 1914, it came under Colonel Johann Straub.

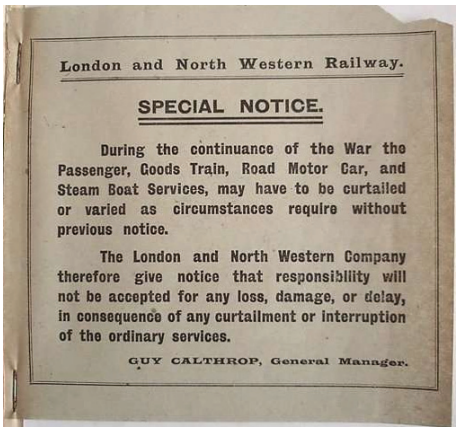
In France, military liaison with the six big companies operated through network commissions (commissions de re'seau), comprising the company managing director and a staff officer, and through a consultative commission of railway chiefs and interdepartmental representatives in the War Ministry. Legislation in 1873 confirmed that the companies must place their resources at the state's disposal for military movements. The 4th (railway) Bureau of the General Staff (Etat-major de l'armie EMA) rivalled the Germans' Railway Section in ability, greatly impressing the British officers who dealt with it.

There was also a railway section in the Russian General Staff, headed by General Dobrychin, and nineteen territorial subdivisions throughout the empire, each under military command even in peacetime.

Mobilisation: The essence of mobilization itself was raising army units from peacetime to wartime strength by calling up reservists and making the units 'mobile', by assigning to them draught animals and supplies. Most European countries had some form of 'territorial' mobilization, whereby draftees reported to units garrisoned in their localities. This meant that many of the men could travel by road or water, while normal civilian rail traffic continued. All the same, because mobilization entailed multifarious short hauls throughout the national territory, it was the most taxing operation for the railways and the hardest to pre-schedule. Even in Britain, the 1912 Committee of Imperial Defence sub-committee learned that mobilization would require over 1,000 trains. In France, in 1914, the figure was over 10,000; in Germany, it was 20,800, moving 2,070,000 men, 118,000 horses (each horse eating ten times as much as one man) and 400,000 tonnes of materiel. Moreover, the pressure was exacerbated by simultaneous preparations for the next stage.

Concentration meant conveying the mobilized units from their depots to the frontier railheads, prior to deployment and advance on foot into the zone of operations. Unlike mobilization, concentration comprised long-distance transits that could be timed meticulously, thus maximizing rail transport's advantages. Train movements would be fewer and slower than in peacetime, and would follow a quite different pattern, as civilian traffic halted and troops progressed from the interior to the borders (see note from a L&NWR 1914 public timetable on the next page).

Concentration planning required interchangeability and therefore uniform speeds and axle lengths: the weakest links in the system governed its overall efficiency. Standard stopping times were set for feeding men and animals, and for fuelling and watering engines; train lengths determined those of sidings and of disembarkation ramps. Germany's Military Travel Plan



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During the continuance of the War the Passenger, Goods Train, Road Motor Car, and Steam Boat Services, may have to be curtailed or varied as circumstances require without previous notice.

The London and North Western Company therefore give notice that responsibility will not be accepted for any loss, damage, or delay, in consequence of any curtailment or interruption of the ordinary services.

GUY CALTHROP, General Manager.

envisaged trains some 110 axles long and weighing 600 tonnes, reaching a 'basic speed' of 30 km per hour on straight, level main lines (but averaging less than 20 km per hour. In France, the axle weight was lighter (480-550 tonnes), but Plan XVII, effective from 1 May 1914, raised the basic speed to 30-35 km per hour. In contrast, Russian military trains might be only 70 axles in length, and French observers estimated their speeds on double-tracked lines at 18-20 km per hour and 320 km per day.

Britain had one of the densest rail networks in Europe and many more locomotives and carriages available per route-mile than did Germany or France. The approaches to Southampton were the only significant bottleneck for military purposes. The pre-war Liberal government covertly committed public funds there to increase capacity. Rather than new construction, however, it was the administrative energies of Sir Henry Wilson, the War Office's Director of Military Operations after 1910, that made the difference by 1914. Although discussions with the French about sending the BEF to the Continent dated back to 1906, when Wilson took over the necessary mobilization and concentration schedules were still lacking. In March 1911, he persuaded the prime minister, Herbert Asquith, to speed up the deployment and to authorize consultation of the railway companies, whose directors met secretly from November 1912 onwards as the Railway Executive Committee. The London and South-Western Railway Company, which acted as the 'secretary railway', handling communications with the War Office, would run up to seventy concentration trains a day into Southampton docks, selected by Wilson as the main embarkation point. The 1911 Agadir crisis enabled him to work more closely with the EMA 4th Bureau, which would be responsible for the BEF's movement from Le Havre, Rouen and Boulogne to the deployment area east of Amiens. Early in 1914 British officers attended French entrainment exercises, and in mid-July, the cross-Channel schedules were completed. The concentration was notable for its flexibility and could be modified every twenty-four hours while under way. In the event it went so smoothly that the Expeditionary Force had been deployed before the Germans knew that it had disembarked.

France's own mobilization and concentration plans reproduced these characteristics of speed and suppleness. In the generation after the battle of Sedan, France came to rival Germany in logistical prowess. In 1870, the Germans had nine through lines to the common border: the French, four. But by 1886, whereas Germany still had nine lines, France had twelve; and, by 1913 Germany had risen to thirteen, but France had sixteen. Each French line was double-tracked and could operate as an independent transport current, junction lines (*raccordements*) being inserted to bypass loops and stations and to minimize intersections. Each of the main lines would convey two (by 1914, three) army corps in succession to a regulating station (*Gare rigulatrice*) in the rear of the deployment area. Beyond it units could detrain further forward or backward as circumstances dictated. The combination of independent transport currents with regulating stations gave the concentration great adaptability, enhanced by two ring lines round Paris and two transverse lines running parallel to the frontier. Moreover, after the framework was established, incremental improvements continued. Gradients were smoothed; more junction lines, detraining ramps and special sidings were added; extra watering points were introduced; signalling was improved; and congested sections were multiple-tracked.

The EMA drew on the system's versatility in its Plan XVI of 1909, which envisaged waiting to discern the axis of the expected German invasion before using the transverse lines to move up a manoeuvre force for a counter-stroke. When Joseph Joffre, an engineer and railway expert, took over as Chief of the General Staff in 1911, however, he believed that the network was still not being fully exploited and wanted as flexible a concentration as he supposed Germany to possess. He ordered the preparation of what became Plan XVII. At this point the EMA believed that by investing 1 1m. francs over three years in watering, signalling and sidings, and by reorganizing communication lines, it could shorten concentration by between one and two days. In fact, Plan XVII saw throughput rise from forty-eight to fifty-six *marches* (daily train passages) on the eastern trunk lines. The need to transport more units and heavy artillery prevented a faster deployment. Joffre did, however, gain more flexibility. In contrast to Plan XVI, Plan XVII not only allowed him to attack as soon as possible with all available forces, but also allowed him during concentration to shift the detraining point of each army corps forwards, backwards, and even sideways, along the transverse lines. He would indeed alter four corps' detraining points on 3 and 14 August 1914. The plan did not oblige him to attack, and it included contingency arrangements for a retreat, which proved to be just as well.

War: By 1914, institutional systems forged in the light of nineteenth century experience had had more than a generation in which to perfect their plans.

When the hour struck in August 1914, some 670 trains conveyed the BEF to the Channel coast; a further 361 delivered it from the French ports to the battle zone. Meanwhile, France's own concentration movement required some 11,500 trains, and Germany's almost as many. At the climax, one train crossed the Hohenzollern bridge at Cologne every ten minutes and, in some French eastern stations, one passed every four. Yet France's concentration proceeded almost flawlessly, with very few accidents and with maximum delays of two hours; in Germany, too, although some backlogs were longer, the immense operation was completed on time. Even in Russia, concentration went smoothly. If in Austria-Hungary it did not, this was primarily because the Chief of the General Staff, Franz Conrad von Hotzendorf, committed avoidable errors while it was under way. With this exception, there was no repeat of the confusion surrounding both sides' concentrations in the Austro-Prussian War of 1866, and France's in the Franco-Prussian War of 1870, although the scale of operations was now far greater. Martin van Creveld has estimated that, in Germany in 1870, 2,580 men per day passed along each trunk line to the front, as compared with 11,530 in 1914. The Germans moved perhaps four times more men and horses than in 1870; the French six or seven times as many.

The precondition for the tremendous 1914 offensives was a silent revolution in trans-

A Timetable of the Third Reich

Review by **GEOFF LAMBERT**

A little while ago. AATTC (as it then was) strong-armed our Sydney Convenor Geoffrey Clifton into accepting an invitation from ABC Local Radio to explain AATTC in an evening interview. These are occasions where we always tread carefully– one never knows whether the interviewer wants to do an interview on AATTC or to do a job on it. Needless to say Geoffrey and AATTC came out of it with flying colours. An MP3 of the interview was made available on our Distribution Service.

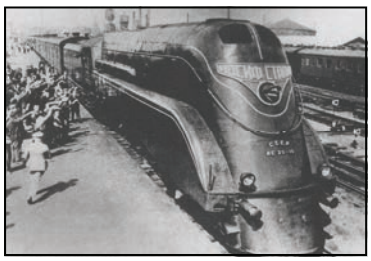
Now comes the curious part. When Geoffrey arrived in the antechamber to the studio, he found another interviewee already in waiting. This was Simon Longstaff, Executive Director of the St James Ethics Centre. They chatted over a cup of tea while waiting for their time to come. At one point, Simon asked Geoffrey, "What would AATTC do if someone offered it a timetable showing trains of the Holocaust in WWII?". Geoffrey said as I am sure we all would– we would reject it and ask the donor to send it to a Holocaust Museum.

Why was this "curious"?

It was curious because I was, at that very moment, considering asking Simon this exact question. AATTC ***had*** been offered what was described by the donor as a "*1941 German Railways Working Timetable*". My especial fear was that this timetable would indeed give details of Holocaust trains. Lucky for me, it did not. It turned out to be a reprint of a 1941 DR timetable showing train services across the Third Reich. This is why I feel I can review it here.

As soon as it arrived, I could see that it could not be an original– it was too clean, too crisp and was clearly offset printed instead of letterpress A little bit of Googling revealed it to be one of a series of reprints produced in Germany late last century. One can still find it for sale on ABE books at €25-35.

The front cover is reproduced at right and, with my fading grasp of Science German, I was able to translate it as follows:



Deutsche Reichsbahn
Generalbetriebsleitung Ost Berlin

12. Verzeichnis

der

SF-Züge

(einschl. der öffentlichen Züge mit Wehrmachtteil)

(Zusammenstellung der Zubringer-SF-Züge zwischen Frankreich [Belgien] und der Reichsgrenze wird als besonderer Anhang verteilt)

Ausgabe: 6. Oktober 1941
Gültig bis auf weiteres

Verteilung des Verzeichnisses:

für Reichsbahnstellen: durch die Rbden; Nachforderungen sind durch die Rbden an die Kursbuchstelle der Gbl Ost Berlin zu richten.

für Wehrmachtstellen: in Frankreich, Belgien und Holland durch die zuständigen Transportkommandanturen bzw. Bahnhofskommandanturen oder Bahnhofsoffiziere, im Generalgouvernement durch Feldpostnummer 07577 und für alle übrigen Wehrmachtstellen durch die zuständigen Transportkommandanturen. Nachforderungen haben **nur** auf dem Dienstwege bei einer der vorstehenden Stellen zu erfolgen.

Geschäftsführung:

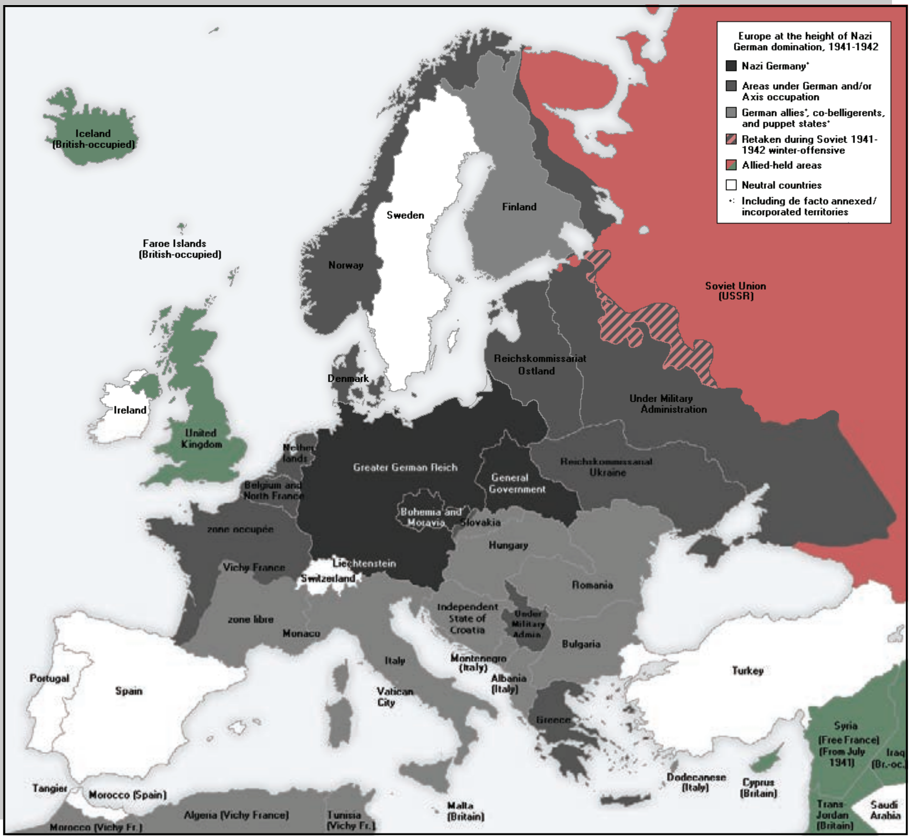
für West - SF - Züge (Abschnitt A): Gbl West Essen
für Südost - und Süd - SF - Züge (Abschnitt B): Gbl Süd München
für Ost- und Nord - SF - Züge (Abschnitte C und D): Gbl Ost Berlin
für Züge des Abschnittes E: Gbl Süd, West oder Ost, je nach Verkehrsbeziehung
für Anschluß - SF - Züge von und nach Frankreich: WVD Paris

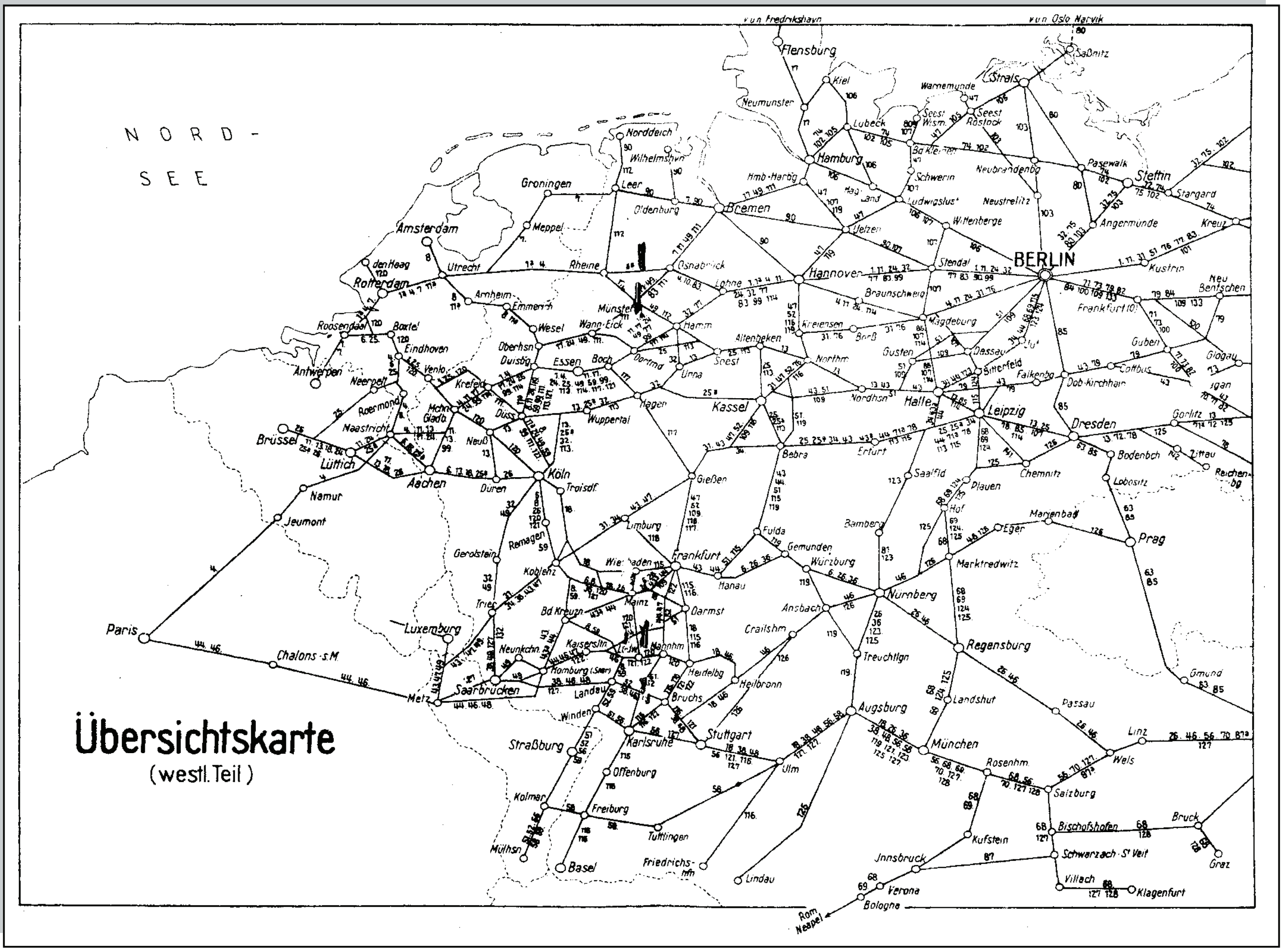
German Railways
General Manager, East Berlin
12th directory
SF trains
(including trains available to the public with the military)
(Compilation of SF Shuttle trains between France, Belgium and the frontier is distributed as a special appendix)
Issue: 6 October 1941
Valid until further notice

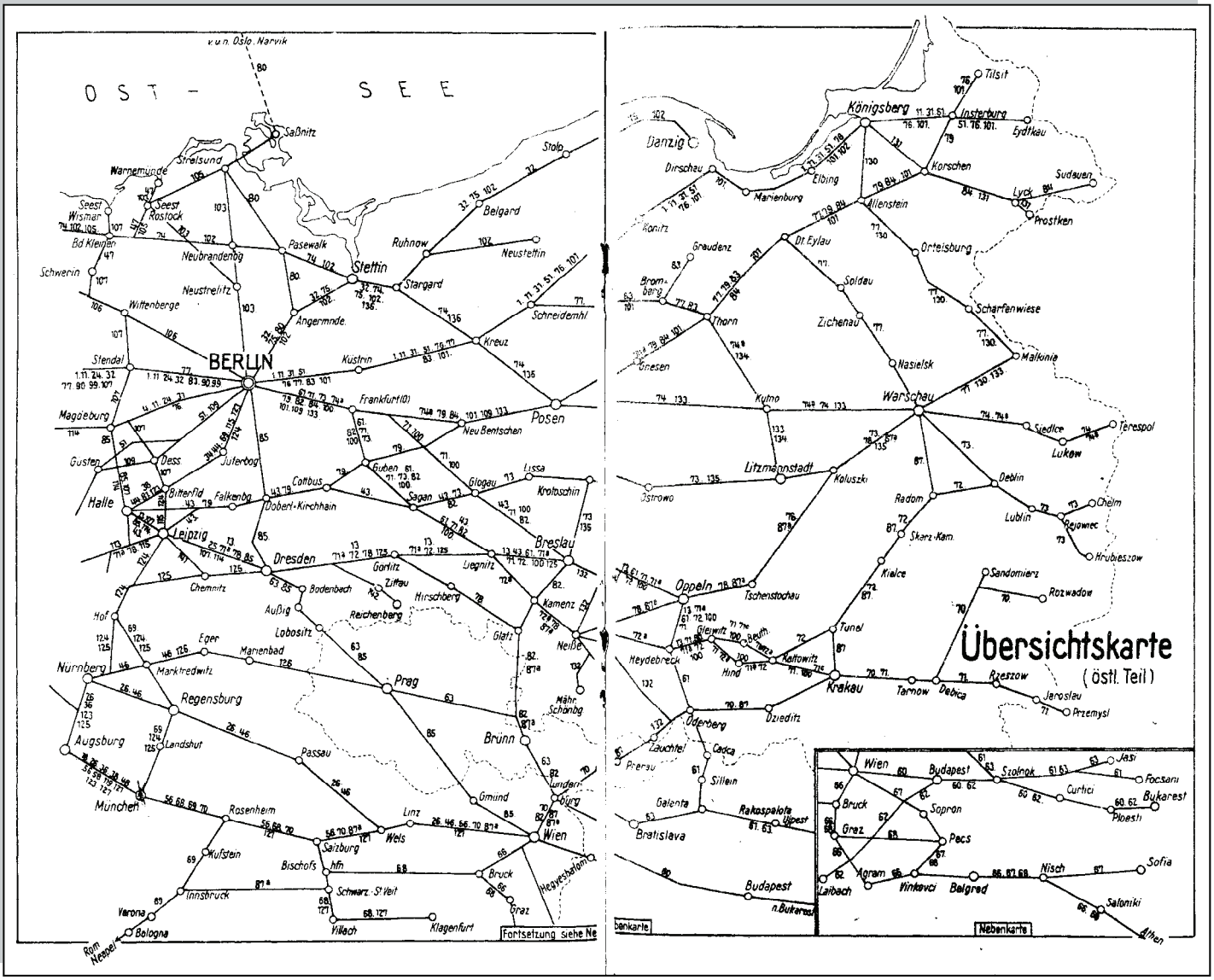
Distribution of the directory:

Railroad offices*: the Rbden; additional claims are to be addressed by the Rbden to the course book instead of East Berlin.*

Military offices*: in France, Belgium and Holland by the relevant transport or commands, Stationmasters or station officers in the General Government by field position number 07 577 and for all other military bodies by the competent transportation headquarters. Additional copies available only through official channels at any of the above points.*







Management offices:

- *<u>for West - SF - Trains (Section A)</u>: Divisional Manager West Essen*
- *<u>for South East - and South - SF - Trains (Section B):</u> Divisional Manager South Munich*
- *<u>for East and North - SF - Trains (Sections C and D):</u> Divisional Manager East Berlin*
- *<u>for trains of section E</u>: Divisional Manager South, East or West, depending on the traffic conditions*
- *<u>for connecting trains to and from Paris France:</u> Manager Military Transport Division, Paris*

In October 1941, Germany had occupied, annexed or formed puppet governments with most of the pre-war European countries as far east as the USSR (see map upper right, page 9). The timetable really only covered the "Low Countries" and the "Greater German Reich" (the dark bits), although some connecting trains to occupied territory also appeared. In France the railways were still run by SNCF, which had posted an ***Order of the Day*** in July 1940, stating: "*All French organizations responsible for railways, roads and waterways, including their transmission network, located in the territory occupied by German troops are placed at the full and entire disposal of the German transport chief. The said chief has the right to take all measures he may deem necessary to meet requirements in terms of operations and traffic*". Similar arrangements probably applied in Vichy France and other countries.

The timetable has 2 maps – one for the west (our page 9) and one for east (above). The numbers against each line are, of course, the table numbers in the book. Not all possible numbers are present.

The layout of the timetable was identical to that which had appeared for decades in Germany and which continued until the final DB timetable of 2012. A selection of long-distance timetables follows

Tabel 4: Berlin to Paris and Roosendaal (our page 11): The Paris train left Berlin at 1836 (note the use of the 24-hour clock), ran via the Ruhr and arrived just 4 minutes short of one day later. A morning train also ran this route as far as Hannover, before branching off to Roosendaal.

Tabel 69: Naples (our page 12). Naples, of course was in Italy, an Axis power. This timetable is of the read up / read down variety on a single page.

Tabel 77: Warsaw (our page 13). From Warsaw to Berlin it took over 12 hours, but if you wanted to go further—as far as the Ruhr—you could switch trains to a guaranteed connection which would set you down at Duisburg 12 hours later.

Tabel 80: Narvik (our inside cover page) was important to DR. It provided an ice-free harbour in the North Atlantic for iron ore transported by the railway from Kiruna in Sweden. Both sides in the war had an interest in securing this iron supply for themselves and denying it to the enemy, setting the stage for the first large-scale battles during the Second World War, In these naval battles, Germany defeated Great Britain. By train, Narvik was 14 hours and involved a train ferry trip.

4 Berlin - Hannover - Duisburg - Maastricht - Paris / Bentheim - Roosendaal

Zug Nr		SF 84	SF 271		SF 76	SF 132				DmW 44	
Breslau Hbf 145	ab	...	23.35	...	...	...	...	...	...	11.26	...
Posen Hbf 130	ab	0.17		...	...	...	...	...	...	7.40	...
Frankfurt (Oder) 145	ab	3.29	3.49	...	...	...	...	...	...	15.21	...
Königsberg (Pr) Hbf 135	ab			...	19.45	...		...	...		...
Schneidemühl 128	ab			...	1.41	...	11.30	...	...		...
Berlin Friedrichstr 128, 145	an	5.12	5.21	...	5.45	...	18.06	...	...	16.50	...
Stettin Hbf } 123	ab			20.21		15.00		...	...		...
Berlin Stett Bf } 123	an			23.24		♁17.37		...	...		...
Gegenrichtung Zug Nr				**SF 304**				**SF 104**			**SF 124**
Berlin Potsd Bf	ab			6.15				18.36			19.10
Potsdam		...	...	6.36	...	...	...	19.02	...	...	19.33
Brandenburg Rb		...	...	7.05				19.34	...	DmW	20.02
Burg b. Magdebg		...	...	8.07	...	...	...	20.19	...	184	
Magdeburg Hbf	an	...	...	8.35	...	...	...	20.44	...		21.10
Dresden Hbf 164	ab	...	...	21.19	...	...	...	...	...	14.11	...
Leipzig Hbf 183 } 183 a	ab	...	...	5.21	...	...	...	17.15	...	16.22	17.15
Halle (Saale) } 183 a	ab	...	4.20		...	...	...	18.22	...	16.59	18.22
Bitterfeld } 183	ab	...		5.54	...	...	...		17.21		
Dessau Hbf } 183	ab	...	...	6.47	...	...	...		18.33		
Magdeburg Hbf 183, 183 a	an	...	...	8.16	...	...	...	20.19	20.03	18.05	20.19
Magdeburg Hbf	ab	...	...	8.55	...	...	...	21.11			21.22
Helmstedt		...	...	9.43	...	...	...	22.00	...	...	
Braunschweig Hbf	an	...	...	10.17	...	...	...	22.36	...	...	21.43
	ab	...	...	10.24	...	...	...	22.47	...	...	22.54
Hildesheim Hbf	an	...	...		...	...	...	23.28		...	
	ab	...	...		DmW	...	...	23.37	SF 83	...	
Lehrte	an	...	...	11.03	104	SF 149	SF 147			...	
	ab	...	...	11.05						...	
Hannover Hbf	an	...	...	11.23				0.13			23.54
Hamburg Hbf } 211	ab	...	...	5.22		18.25	19.33	18.05		...	18.05
Uelzen } 211	ab	...	...	7.50			21.06	20.30		...	20.30
Hannover Hbf } 211	an	...	...	10.26			22.22	22.57		...	22.57
Hannover Hbf	ab	...	...	11.42	12.07			0.24	1.17	...	0.04
Bückeburg		...	...	12.31			...		2.08	...	
Minden (Westf)		...	...	12.42			...	1.13	2.18	...	0.57
Löhne (Westf)	an	...	...	13.00			...		2.36	...	
	ab	...	...	13.16			...		2.38	...	
Bielefeld Hbf	an	...	...		13.34		...	1.47		...	1.34
	ab	...	...		13.38		...	1.49		...	1.36
Hamm (Westf)	an	...	...		14.28	23.16	...	2.40		...	2.31
	ab	...	...		...			2.50		...	2.42
Dortmund Hbf	an	...	...		...	...	...	3.20		...	3.12
	ab	...	...		...	...	...	3.33		...	3.15
Wanne-Eickel Hbf		...	...		...	...	...	4.01		...	
Gelsenkirchen Hbf		...	...		...	...	...	4.12		...	
Essen-Altenessen	an	...	...		...	...	...	4.21		...	●3.52
	ab	...	...		...	...	...	4.24		...	●3.55
Oberhausen Hbf		...	...		...	...	...	4.39		...	
Duisburg Hbf	an	...	...		...	...	...	4.49		...	4.15
	ab	...	...		...	...	...	5.00		...	4.25
Düsseldorf Hbf	an	...	...		...	...	...	5.25		...	4.50
	ab	...	...		...	...	...	5.30		...	4.55
Neuß		...	...		...	...	...	5.46		...	5.11
Krefeld Hbf	an	...	...		...	...	...			...	
	ab	...	...		...	...	...			...	
M Gladbach Hbf	an	...	...		...	...	...	6.02		...	5.27
	ab	...	...		...	...	...	6.07		...	5.36
Herzogenrath	an	...	...		...	...	...	6.49		...	6.28
Maastricht	an	...	...		...	...	...	7.53		...	7.30
	ab	...	...		...	...	...	9.15			
Paris Nord ■	an	...	...		...	...	...	18.30		...	...
Osnabrück Hbf	an	...	...	13.51	...	...	...		3.13	...	...
	ab	...	...	14.00	...	...	...		6.43	...	...
Rheine	an	...	...	14.36	...	...	...			...	...
Norddeich } 223	ab	...	...	7.45	...	...	...			...	...
Emden West } 223	ab	...	...	8.55	...	...	...			...	...
Emden Süd } 223	ab	...	...		...	...	...			...	...
Leer (Ostfriesld) } 223	ab	...	...	9.35	...	...	...			...	...
Rheine } 223	an	...	...	11.52	...	...	...		7.45	...	...
Rheine	ab	...	...	14.38	...	...	...		7.57	...	...
Bentheim	an	...	...	14.57	...	...	...		8.20	...	...
	ab	...	...	15.30	...	...	...		8.50	...	...
Oldenzaal	an	...	...	15.46	...	...	...		9.05	...	...
Hengelo	an	...	...	16.10	...	...	...		...	...	...
Almelo	an	...	...	16.32	...	...	...		...	...	...
Deventer	an	...	...	17.18	...	...	...		...	...	...
Apeldoorn	an	...	...	17.44	...	...	...		...	...	...
Amersfoort	an	...	...	18.43	SF 108	...	...		...	...	...
Utrecht-Maliebaan	an	...	...	19.19		...	...		...	...	...
Utrecht CS	an	...	...	20.07		...	...		...	...	...
	ab	...	...	20.11	20.36	...	...		...	...	...
Amsterdam CS	an	...	...		21.17	...	...		...	...	...
Gouda	an	...	...	20.40	...	...	...		...	...	...
Rotterdam DP	an	...	...	21.13	...	...	...		...	...	...
Dordrecht	an	...	...	21.39	...	...	...		...	...	...
Roosendaal	an	...	...	22.24	...	...	...	12.01	...	...	...

● an bzw. ab Essen Hbf ■ Zwischenbahnhöfe und Fahrzeiten siehe Anhang.
♁ Übergang in Eberswalde.

69 Neapel - Rom - München - Hof - Berlin

	SF 568 ★				Zug Nr	Zug Nr				SF 567 ⧈	
...	7.30	...	...	...	ab **Neapel** Marittima	an	...	...	...	18.15	...
...	8.20	...	...	...	▼ Neapel Centr.	an	...	...	...	17.30	...
...	11.20	...	...	...	an **Rom** Term.	ab	...	...	...	14.20	...
...	11.30	...	...	...	ab **Rom** Term.	an	...	...	...	14.10	...
...	15.32	...	...	...	Florenz C. d. M.	an	...	...	...	10.10	...
...	17.05	...	...	...	**Bologna** C.	an	...	...	...	8.35	...
...	19.25	...	...	...	Verona P. V.	an	...	...	...	6.10	...
...	21.25	SF	...	...	▼ Trient	an	...	...	...	4.15	...
...	0.50	787	...	...	an **Brenner**	ab	...	...	...	1.05	...
...	1.35	⟶	...	...	ab **Brenner**	an	...	...	...	0.10	...
...	2.21	⟶	...	...	an **Innsbruck** Hbf	ab	...	...	...	23.25	...
...	6.50	↓	...	...	ab *Innsbruck Hbf*	an	...	...	...	20.04	...
...	7.04	↓	...	...	an *Ötztal*	ab	...	...	...	18.36	...
...	7.42	↓	...	...	an *Landeck (Tirol)* ...	ab	...	...	...	17.50	...
...	8.44	↓	...	...	an *St Anton a Arlberg*	ab	...	...	...	16.56	...
...	9.45	↓	...	...	an *Bludenz* 407	ab	...	...	...	14.05	...
...	10.36	↓	...	...	an *Feldkirch* (Vorarlberg)	ab	...	...	...	13.14	...
...	11.45	↓	...	...	an *Bregenz Hbf*	ab	...	...	...	12.02	...
SF	12.34	↓	...	...	an *Lindau Hbf*	ab	...	...	SF	11.22	...
168	1.40	5.30		...	ab **Innsbruck** Hbf	an	...	...	270	23.08	...
⟶		6.31		...	an Wörgl	ab	...	...	⟶	22.17	...
↳	4.12		⊗	...	an **Rosenheim**	ab	...	...	↳	21.31	...
5.42	▼	▼		...	ab *Rosenheim* 428	an	...	...	17.55	20.50	...
7.16	↳	10.15		...	an *Salzburg Hbf*	ab	...	...	16.15	18.38	...
8.00	→	10.30	...	...	ab *Salzburg Hbf*	an	...	...	15.53	18.22	...
11.51		13.00		...	an *Linz (Donau) Hbf* ..	ab	...	...	13.20	14.45	...
17.56			DmW	DmW	an *Wien Westbf* 457	ab	DmW	...		...	...
...	▼	17.15	239	34	an *Wien Nordbf*	ab	204	...	9.25	...	...
...	4.14	⟶	⟶	⟶	ab **Rosenheim**	an	⟶	...	...	21.29	...
...	5.17	↓	↓	↓	an **München** Hbf	ab	↳	...	→	20.35	...
...	▼	...	8.03	11.58	ab *München Hbf* 410	an	17.48	...	...	↑	...
...		...	8.58	12.53	an *Augsburg Hbf*	ab	16.54	...	...	↑	...
...		...	10.56	▼	an *Nürnberg Hbf* 411. 413	ab	↑	...	...	↑	...
...		...	14.53	14.20	an *Ulm Hbf* 410	ab	15.40	...	...	↑	...
...	▼	...	...	15.58	an *Stuttgart Hbf* 315	ab	13.50	...	...	↑	...
...	5.35	...	...	...	ab **München** Hbf	an	...	...	...	20.10	...
...	6.37	...	...	...	an Landshut (Bay) Hbf.....	↑	...	...	...	18.54	...
...	7.50	...	...	...	an **Regensburg** Hbf	ab	...	...	↱	17.50	...
...	8.15	...	...	...	ab **Regensburg** Hbf	an	...	...	16.58	17.38	...
...	8.59	...	...	...	an Schwandorf	↑	...	...	16.19	↑	...
...	9.43	...	...	...	an Weiden (Opf)	↑	...	...	15.36	↑	...
...	10.50	...	...	...	an **Marktredwitz**	ab	...	...	14.33	↑	...
...	10.58	...	...	...	ab *Marktredwitz* 421	an	...	...	14.20	↑	...
...	11.40	...	...	...	an *Eger*	ab	...	...	13.32	↑	...
...	15.00	...	...	...	an *Karlsbad Hbf*	ab	...	...	11.15	↑	...
...	16.53	...	...	...	an *Komotau*	ab	...	...	7.49	↑	...
...	18.53	...	...	...	an *Teplitz-Schönau* .. 166	ab	...	...	6.02	↑	...
...	19.34	...	...	...	an *Aussig Stadt*	ab	...	...	5.10	↑	...
...	10.54	...	...	...	ab **Marktredwitz**	an	...	...	...	14.58	...
...	11.52	...	...	...	an **Hof** Hbf	ab	...	...	...	↑	...
...	12.04	DmW	...	...	ab **Hof** Hbf	an	...	DmW	...	14.46	...
...	12.52	223	...	...	an **Plauen** (V) ob Bf	ab	...	122	...	13.54	...
...	12.55	343	...	...	ab **Plauen** (V) ob Bf	an	...	⟶	...	13.52	...
...	13.23	↓	...	...	an **Reichenbach** (V) ob Bf	ab	...	↳	→	13.19	...
...	14.46	16.55	...	...	ab *Reichenbach* (V) ob Bf	an	...	11.15	...	↑	...
...	16.37	18.16	...	...	an *Chemnitz Hbf* 168	ab	...	9.47	...	↑	...
...	19.02	19.55	...	...	an *Dresden Hbf*	ab	...	8.00	...	↑	...
DmW	...	22.00	...	...	an *Görlitz*	ab	...	4.16	...	↑	...
184	...	0.40	...	...	an *Breslau Hbf* 160	ab	...	22.48	...	↑	...
⟶	13.29	...	...	...	ab **Reichenbach** (V) ob Bf	an	...	...	...	13.14	...
↳	15.15	...	...	...	an **Leipzig** Hbf	ab	...	...	↱	11.40	...
16.22	16.27	...	...	...	ab *Leipzig Hbf* 183c	an	...	...	9.39	11.08	...
16.52	▼	...	...	...	an *Halle (Saale)*	ab	...	...	9.05	↑	...
↓	17.10	...	...	...	an *Bitterfeld* 183	ab	...	...	...	10.21	...
▼	18.03	...	...	...	an *Dessau Hbf*	ab	...	...	...	9.36	...
18.05	...	...	...	...	an *Magdeburg Hbf* 183 c ..	ab	...	...	...	8.38	...
...	15.30	...	...	...	ab **Leipzig** Hbf.....	an	...	...	...	11.29	...
...	17.50	↓	↓	↓	an **Berlin** Anh Bf	ab	...	...	→	9.20	...

	EmW 61		DmW 23		Zug Nr	Zug Nr	SF 84		SF 76	DmW 22	
...	18.10	↓	↓	↓	ab *Berlin Stett Bf.* 123	an	...	...	↑	7.02	...
...	20.07	↓	↓	↓	an *Stettin Hbf*	ab	...	...	↑	5.11	...
...	23.56	↓	↓	↓	an *Stolp* 124	ab	...	...	↑	1.30	...
...	...	↳	19.45	19.58	ab *Berlin Friedr*	an	15.12	↳	5.45	...	...
...	...	...	↓	22.18	an *Küstrin Neust Hbf*	ab	↑	...	4.05	...	...
...	...	...	↓	5.46	an *Schneidemühl* 128	ab	↑	...	1.41	...	...
...	...	...	↓	9.53	an *Marienburg* (Westpr)	ab	↑	...	22.03	...	...
...	...	...	↓	12.59	an *Königsberg (Pr) Hbf* 135	ab	↑	...	19.45	...	...
...	...	...	21.21	...	an *Frankfurt (Oder)* .. 130	ab	3.29	...	...	...	...
...	...	...	0.10	...	an *Posen Hbf*.....	ab	0.17	...	...	...	...

★ **SF 568** verkehrt von Neapel ab So und Do, München an Mo und Fr; von München nach Berlin auf besondere Anordnung.

⧈ **SF 567** verkehrt von Berlin nach München auf besondere Anordnung, von München ab Di und Fr, Neapel an Mi und Sa.

(Fortsetzung)

Strecke 77 (Fortsetzung)

77 Warschau-Soldau (Warschau-) Scharfenwiese - Dt Eylau - Thorn - Bromberg - Berlin - Hannover - Duisburg

PmW 1039	SF 277	SF 77	SF 7½	Zug Nr	Zug Nr	SF 17½	SF 177	SF 377
10.05	...	15.45	...	ab Warschau West	an	...	7.33	15.33
10.16	...	16.01	...	ab Warschau Hbf	ar	...	7.17	15.17
10.35	...	16.20	16.45	ab Warschau Ost	an	5.03	6.57	15.01
12.51	...	↓	↓	ab Malkinia	an	↑	↑	11.37
14.27	...			an/ab Scharfenwiese	ab/an			10.02
14.49	17.04			ab Ortelsburg	an			6.30
17.14	19.52			ab	an			3.38
18.03	20.52			an/ab Allenstein Hbf	ab/ar			2.43
‡18.09	21.02	↓					↓	2.33
↓	↓	18.05		ab Nasielsk	an		5.08	↑
		20.27		ab Soldau	an		2.42	
‡19.12	22.00	22.09		an/ab Dt Eylau	ab/ar		1.02	1.24
‡19.21	↳	22.23					0.52	↓
‡21.01		0.01		an Thorn Hbf	an		23.12	

SF 8½		SF 77		Zug Nr	Zug Nr	SF 177		
21.10		0.20	über Kutno-Posen	ab Thorn Hbf	an	über Posen-Kutno	23.03	
↓	...	1.08		an/ab Bromberg Hbf	ab/an		22.16	...
über Posen-Kutno	...	1.19		ab	an		22.10	...
	...	1.57		↓ Nakel	↑		21.46	...
	...	3.00		an/ab Schneidemühl	ab/an		20.53	...
	SF 7½	3.13	↓	ab	an		20.38	SF 17½
		4.04	3.20	an Kreuz	ab	19.59	19.46	
	4.10			ab Kreuz	an	↑	↑ t	19.25
	5.40			an Stargard (Pom)	ab			17.50
	◊7.00			an Stettin Hbf	ab			17.00
	7.27			an Pasewalk	ab			16.18
	13.17	↓		an Hamburg Hbf	ab		↑	10.27
	...	4.06	←	ab Kreuz	an	↳	19.44	...
	...	5.00	...	an Landsberg (Warthe)	↑	...	18.54	...
	...	5.34	...	an Küstrin-Neustadt Hbf	ab	...	18.13	...
	...	6.48	...	ab Küstrin-Neustadt Hbf	an	...	17.55	...
3.22	...	7.34	...	an Frankfurt (Oder)	ab	...	17.10	...
↓	...	5.40	...	ab Küstrin-Neustadt Hbf	an	...	18.05	...
4.50	...	7.20	...	an Berlin Schles Bf	ab	...	16.54	...
5.05	...	7.32	...	an Berlin Alexanderplatz	↑	...	16.42	...
5.12	...	7.39	...	an Berlin Friedrichstr		...	16.36	...
5.24	...	7.51	...	an Berlin Zoolog Garten		...	16.24	...
5.32	...	7.59	...	an Berlin-Charlottenburg	ab	...	16.16	...
↳	→	8.05	...	ab	an	...	16.08	...
...	...	8.18	...	↓ Berlin-Spandau	↑	...		...
...	...	9.43	...	an Stendal	ab	...	14.36	...
...	...	9.58	...	ab	an	...	14.33	...
...	...	10.40	...	↓ Gardelegen	↑	...	14.04	...
...	...	12.22	...	an Hannover Hbf	ab	...	12.25	...
...	...	13.45	...	ab Hannover Hbf	an	...	9.07	...
...	...	16.55	...	an Bremen Hbf	ab	...	6.10	...
...	...	12.42	...	ab Hannover Hbf	an	...	12.12	...
...	...	13.42	...	↓ Minden (Westf)	↑	...	11.08	...
...	...	14.01	...	an Löhne (Westf)	ab	...	10.43	...
...	...	17.47	...	ab Löhne (Westf)	an	...	9.17	...
...	...	18.57	...	an Osnabrück Hbf	ab	...	8.16	...
...	...	14.03	...	ab Löhne (Westf)	an	...	10.41	...
...	...	14.16	...	↓ Herford	↑	...	10.30	...
...	...	14.31	...	an/ab Bielefeld Hbf	ab/an	...	10.15	...
...	...	14.33	...	ab	an	...	10.13	...
...	...	15.23	...	an Hamm (Westf)	ab	...	9.13	...
...	...	16.39	...	ab Hamm (Westf)	an	...	8.42	...
...	...	17.23	...	an Münster (Westf) Hbf	ab	...	7.58	...
...	...	15.29	...	ab Hamm (Westf)	an	...	7.37	...
...	...	16.30	...	an Hagen Hbf	ab	...	6.00	...
...	...	17.22	...	an Wuppertal-Elberfeld	ab	...	5.01	...
...	...	15.31	...	ab Hamm (Westf)	an	...	9.04	...
...	...	16.01	...	an Dortmund Hbf	ab	↳	8.36	...
...	...	16.29	...	ab Dortmund Hbf	an	8.31	↑	...
...	...	16.58	...	an Wanne-Eickel Hbf	↑	8.01		...
...	...	17.06	...	an Gelsenkirchen Hbf		7.54		...
...	...	17.18	...	an Essen-Altenessen		7.43		...
...	...	17.36	...	an Oberhausen Hbf	ab	7.25		...
...	...	16.06	...	ab Dortmund Hbf	an	↑	8.34	...
...	...	16.18	...	an Bochum-Langendreer	↑		8.22	...
...	...	16.31	...	an Bochum Hbf			8.11	...
...	...	16.50	...	an Essen Hbf	ab		7.54	EmW
...	...	17.03	...	ab	an		7.42	217
...	...	17.14	SF 32½	an Mülheim (Ruhr)	↑		7.25	...
...	...	17.24		an Duisburg Hbf	ab	7.16	7.13	←
...	...	↳	18.25	ab Duisburg Hbf	an	↑	...	6.42
...	...	...	18.48	an Düsseldorf Hbf	↑	6.41	...	6.20
...	...	...	19.33	an Köln Hbf	ab	5.46	...	...

✕ Ausführlichen Fahrplan siehe vorhergehende Seite. ◊ Umsteigen in Altdamm, an 6.22, weiter mit Personenzug ab 6.46. ♂ Über Witten (Ruhr) Hbf. ‡ SF 8½.

Railway Manual (War)

By **MAJOR GENERAL J.H.CANNAN**, *Quartermaster General, General Headquarters, Australian Military Forces*

Major General Cannan published this manual in early 1942, probably not long after Pearl Harbour and Darwin, when the war suddenly got very close indeed. It contained nearly 120 pages of information and instructions on how to run a railway in wartime. Instructions covered such diverse topics as

* Australian Railways
* Organisation for the control of Military Movement
* The lines of communication
* Freight Rolling Stock
* Movement of Stores by rail
* Movement of troops
* Movement of sick and wounded
* Military Forwarding Organisation
* Statistics

A selection of some of these relating to timetables appears below.

COMMONWEALTH ASSUMES CONTROL

In order that the most effective use may be made of the existing railway transportation facilities in Australia in the interests alike of the defence forces, the civil population, and essential industries (particularly those industries embodied in the general scheme of organization and production for defence purposes), the Commonwealth Government, in the event of mobilization, will take control of the Australian Railways with a view to securing their operation as a national system under a co-ordinating or controlling authority.

PRIORITY IN TRANSPORT

It will be an essential condition of control that Naval, Army and Air Force traffic by rail will be accorded priority over all other traffic, and that arrangements for Naval, Army and Air Force traffic will be made direct with the railway authorities concerned by the Quartermaster-General, as the authority responsible for the co-ordinated control of defence traffic generally.

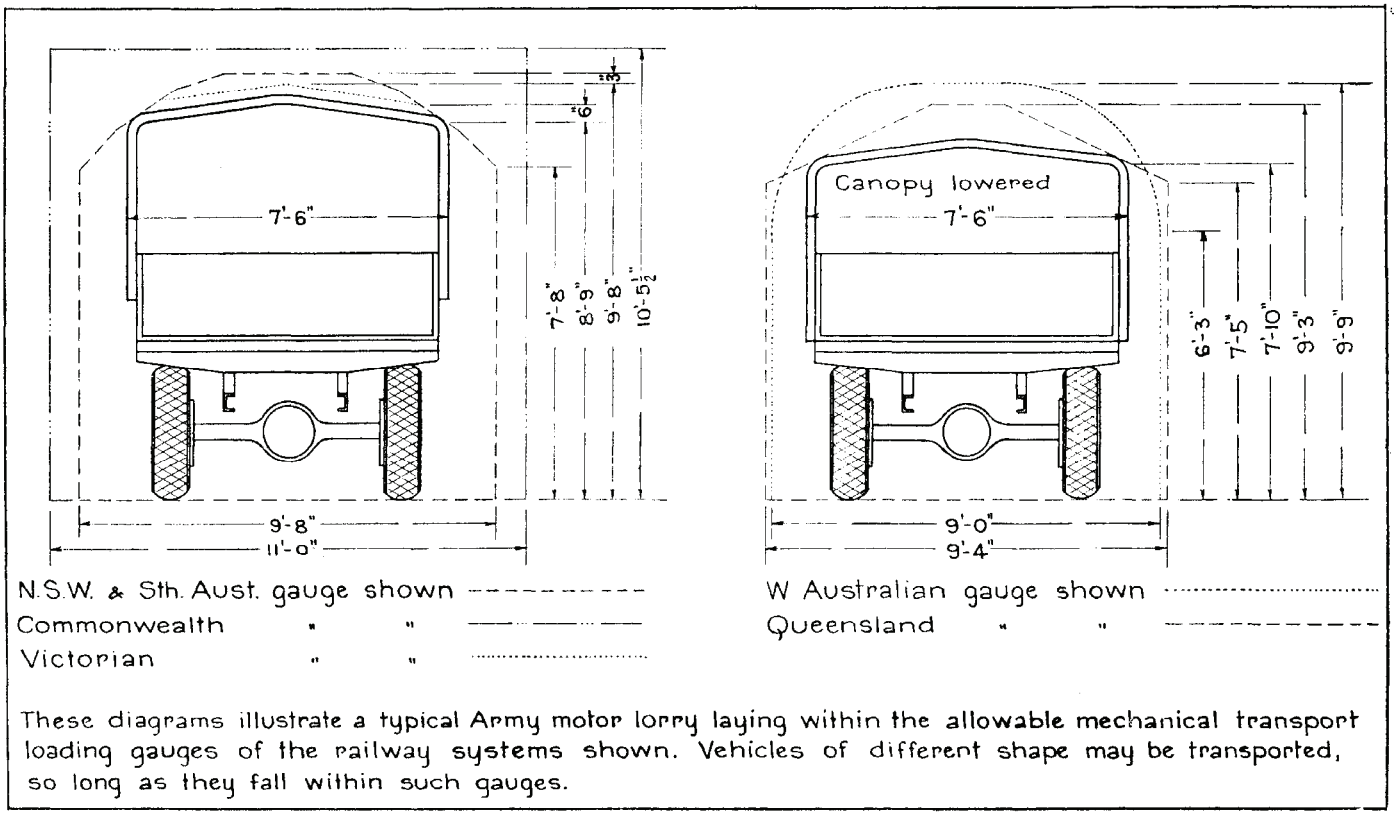
RAILWAY ORGANIZATION

On all the Australian railway systems, the organization is on similar lines. The management and administration is vested in a Commissioner or a Board of Commissioners, and there are five main departments, *viz*:

(i) Civil Engineering (usually called Way and Works Department). This department builds the line, and provides all building ancillary to it. It maintains (i.e., keeps in repair) everything which it provides.

(ii) Mechanical Engineering. This department provides and maintains all the motive power and rolling stock. It is generally subdivided into the "loco." branch and the "carriage and wagon" branch. The "loco." branch works the motive power.

(iii) The Traffic or Transportation department, sometimes called "Operating" department. This department uses the line and the power and rolling stock provided by the two departments above. It is sometimes split into "Traffic" and "Commercial" branches. "Traffic" provides and operates the trains; "Commercial" seeks,



These diagrams illustrate a typical Army motor lorry laying within the allowable mechanical transport loading gauges of the railway systems shown. Vehicles of different shape may be transported, so long as they fall within such gauges.

books and delivers the consignments carried in the trains.

(iv) “Accounts and Audit” Department. This department receives and accounts for all monies, inspects and audits accounts of all stations, etc.

(v) “Stores” Department. This department purchases, and is responsible for the distribution of stores and their issue to such officials as are authorised to requisition them.

On the larger railway systems there are other Departments, *viz*. Signal Engineering (sometimes called Signal and Telegraph department), Electrical Engineering, Legal Department, etc., but military personnel will rarely come in contact with these.

in war, the Traffic or Transportation departments of the various systems will be more intimately concerned with military movement than any other department. This Department produces the timetables and works the rolling stock. It provides all the "ground staff” (i.e. the personnel employed at stations, signal boxes, marshalling yards, etc.), as well as the guards of trains, and arranges the rostering of engine power.

RAILWAY DISTRICTS.

Every railway system is divided into Districts—(variation—Divisions). The District is usually self-contained and complete with all the facilities necessary for working traffic within the limits of its area and for exchange with adjacent Districts at its boundaries. The size of a District depends, as a rule, on the intensity of its normal traffic.

THE TIMETABLE

Timetables are a written description of an arrangement for movement of a train or other unit (such as a locomotive without a load—a “light engine”—over any portion or whole of a railway line. The arranged movement is called a “timing” and is given a number. In one direction these are called UP timings; in the other, DOWN. Trains are similarly described.

The line is usually divided for timetable purposes into portions lying between engine changing stations, marshalling yards (where the former are often located) or similar points. A collection of these portions often forms a traffic or loco. district, but since the majority of trains are not confined to running in one such district, the timetable must provide for through running from district to district, and also from one railway system to the next. Consequently the construction of timetables is a head office matter, in the Traffic or Transportation Department.

The preparation of timetables is highly skilled work, which must take into consideration the engine power available, nature of trains (goods, passenger, etc.). The timetable is a document of great importance, as it is not only a measure of track capacity, showing the maximum number of movements or timings which can be made on the line in question, but it is the document on which is based the allocation of the daily use of the line.

WAR RAILWAY TIMETABLES

To meet the more probable contingencies for which general mobilization may be ordered in Australia, prearranged programmes of predicted rail movements for strategic concentration of troops and their accessories have been prepared by General Headquarters and the Australian Railway systems in consultation. The programmes are embodied in war railway timetables, copies of which have been issued to certain head-quarters offices.

When strategic concentration is ordered, a period will be given to the railways in which to prepare to carry out the movement. This period will cover the time necessary to collect rolling stock and marshal the standard trains required.

MOVEMENT BY RAIL OTHER THAN STRATEGIC.

Tactical moves by rail differ from strategic moves in that in the former case the fighting portion of the unit, accompanied by a limited amount of transport only, travels by train, the remainder proceeding by road, whereas in the latter case the units usually travel by rail complete in every respect.

Tactical moves are made for the purpose of transferring troops rapidly to a threatened point. Their utility for this purpose depends almost entirely on the geographical situation of the railway lines in relation to the front and to the billeting areas.

ORDERS FOR STRATEGIC RAIL MOVES.

The orders for a strategic move by rail will be initiated from General Headquarters and issued by the General Staff Branch in consultation with the Quartermaster-General's Branch. These orders will include a warning order if necessary, the executive order for the move, the arrangements for anti-aircraft defence during movement and any orders for the tactical movement on detrainment. Based on these orders, Movement Control will work out the detailed arrangements for allotting units to trains and will issue all instructions required in connection with the entrainment, detrainment and procedure during the movement.

An unusual Special Train Notice

Sep. 13, 2013

Central Japan Railway Company

The Effect of Bomb Disposal at the Hamamatsu Workshop Site on Train Service

An unexploded bomb was discovered at the site of our Hamamatsu Workshop.

Protective measures against the bomb have already been taken by the Japan Ground Self-Defense Force and there is no risk of explosion, but in accordance with the instructions from Hamamatsu City and relevant agencies, the bomb will be transferred to the Enshu-nada coast and disposed of by the Japan Ground Self-Defense Force on November 10, 2013 (Sunday).

This is to notify our passengers of the effects that the transportation of the bomb is likely to have on our train service.

Possible effects on train service

The bomb will be transported starting at 8:30 on November 10, 2013 (Sunday), and during this time, trains will be unable to enter the restricted zone set up by Hamamatsu City and relevant agencies. Therefore, services in certain sections of the Tokaido Shinkansen and the Tokaido Line will temporarily be suspended or cancelled.

(1)Tokaido Shinkansen

- Services between Hamamatsu Station and Toyohashi Station will be suspended while the restriction zone is in place. Therefore, there will be delays in trains passing through this section.
- No trains will be cancelled.
- Extra trains will be operated before service is suspended.
- If the work progresses as scheduled, service is expected to return to the normal schedule at around 12:00.

(2)Tokaido Line

- While the restriction zone is in place, Westbound trains will operate to Hamamatsu Station and Eastbound trains will operate to Maisaka Station. During this period, service between Hamamatsu Station and Maisaka Station will be cancelled.
- If the work progresses as scheduled, service will return to the normal schedule after the work is complete.

*Please refer to the attachment for details regarding the affected trains, expected delays, etc.

*This information is based on the scenario that the bomb transport work will take about an hour, as announced by Hamamatsu City. We will notify our passengers if there are any changes in the future.

Information regarding the discovered bomb (reference)

- Location of discovery

  Central Japan Railway Company Hamamatsu Workshop (1-1 Minami Iba-cho, Naka-ku, Hamamatsu-shi, Shizuoka Prefecture)
- Information regarding the unexploded bomb

  1 naval bomb (weight: approx. 860kg, length: approx. 153cm, diameter: approx: 41cm)

*Presumed to have been used by the U.S. military during World War II.

1. Tokaido Shinkansen

(1)Trains that are expected to be delayed

Westbound train (total: 18 trains)

- A subtotal of 8 trains from "Nozomi 11" departing Tokyo Station at 7:30 to "Nozomi 19"
- A subtotal of 5 trains from "Hikari 461" departing Tokyo Station at 7:03 to "Hikari 465"
- A subtotal of 5 trains from "Kodama 633" departing Tokyo Station at 6:56 to "Kodama 641"

Eastbound trains (total: 16 trains)

- A total of 8 trains from "Nozomi 108" departing Shin-Osaka Station at 7:27 to "Nozomi 4"
- A subtotal of 4 trains from "Hikari 508" departing Shin-Osaka Station at 7:13 to "Hikari 460"
- A subtotal of 2 trains: "Kodama 638" departing Shin-Osaka Station at 7:53 and "Kodama 642"
- A subtotal of 2 trains: "Kodama 634" departing Nagoya Station (first station for this train) at 8:00 and "Kodama 636"

*A maximum delay of 40 minutes is expected for the "Nozomi", "Hikari" and "Kodama" trains based on the arrival time at terminal stations.

(2)Extra trains in service

In addition to the extra trains already announced, we will add one train each to the Eastbound and Westbound trains before service is suspended.

- Extra "Nozomi" trains: 2 trains (1 Eastbound train, 1 Westbound train)

Westbound (Tokyo to Shin-Osaka)

Date of operation	Name of train	Leaving Tokyo at	Leaving Shinagawa at	Leaving Shin-Yokohama at	Arriving at Nagoya at	Arriving at Kyoto at	Arriving at Shin-Osaka at
Nov. 10	Nozomi 307	7:13	7:21	7:32	8:54	9:32	9:47

Eastbound (Shin-Osaka to Tokyo)

Date of operation	Name of train	Leaving Shin-Osaka at	Leaving Kyoto at	Leaving Nagoya at	Arriving at Shin-Yokohama at	Arriving at Shinagawa at	Arriving at Tokyo at
Nov. 10	Nozomi 208	7:00	7:16	7:53	9:14	9:26	9:33

2. Tokaido Line: Trains that will be cancelled

Westbound trains (total: 2 trains)

- "Local, for Toyohashi" leaving Hamamatsu Station at 8:32 (The train will depart from Maisaka Station)
- "Local, for Gifu" leaving Hamamatsu Station at 8:51 (The train will depart from Maisaka Station)

Eastbound trains (total: 2 trains)

- "Local, for Hamamatsu" leaving Maisaka Station at 8:32 (The train will terminate operation at Maisaka Station)
- "Local, for Kakegawa" leaving Maisaka Station at 8:45 (The train will terminate operation at Maisaka Station)

*Service for trains departing later than those mentioned above will be resumed once the transport work is completed, and therefore, they may be affected and delayed.

Thinking Big

In 1941, while DR was running the services described in this issue, a special planning office was laying the groundwork for one of Hitler's pet projects– an audacious 3-metre gauge railway network that would stretch from Paris to Vladivostok. A map of a scaled down version appears below and some artist's impressions of the trains are scattered through this issue.

In 2008, as part of a book devoted to world transit system, a planet-wide network was envisioned by Mark Overden (lower). It was a joke, of course (wasn't it?).