

The Shaw Report on Network Rail : the scope

A response : the central function of timetabling

This submission to the initial consultation on the Shaw Report on the future shape and financing of Network Rail is made by Jonathan Tyler, whose consultancy trades as Passenger Transport Networks. I have worked in the railway industry for over fifty years, as Traffic Apprentice, operations manager, developer of the first passenger demand model (the precursor of MOIRA), British Rail-sponsored University Lecturer and latterly as an independent consultant. Since 1999 I have specialised in devising strategic approaches to timetabling, based on the Swiss model and using Swiss software. This has included work for Network Rail, TOCs, HSI Ltd and two franchise bids.

The intention to be inclusive in seeking views [¶2.23] is appreciated. I wish to focus my comments on the issue of timetabling, based on the experience of those timetabling projects and involvement in industry debates. I will only refer to other matters outlined in the consultation document insofar as they touch on that issue. I hope it is acceptable that in the nature of my approach I have not framed my response as answers to the set questions.

Before explaining my thesis I declare an inclination (derived from my years in the industry) to support solutions based on unitary organisations acting in the public interest and straightforwardly funded. Conversely I would be uneasy about complicated structures with multiple and probably conflicting interests, and I confess to queasiness around the impenetrable discussion of financing in Chapter 5 (which compares badly with the clarity of other sections). As a survivor from the British Rail era (and I do not have rose-tinted spectacles) I note with dismay – but some hope of sustainable change – the 'general overview' organogram in Annex C, the admission of prevalent problems [¶4.12], the inherently flawed system implied by no less than 43 licence enforcement actions [¶4.41] and the comment on the consequences of piecemeal evolution [¶4.43].

The document rightly stresses the successes of our railway and the growth of its business in the years since privatisation, without necessarily implying a causal relationship. Nevertheless I would argue that that is not the whole story:

- the case made for governmental intervention on the grounds of market failure [¶1.20-25] is welcome but should be balanced by a recognition that appropriate policies are being compromised by ambivalent implementation and statutory confusion;
- rail's share of the market remains very low except in South East England and on the principal London inter-city routes;
- tellingly, little data seems to be available to distinguish between rail trips that would otherwise have been made by road (or air) and those that have been stimulated by clever marketing – this matters in public-policy terms since the former have greater economic and environmental value than the latter;
- the quality of service is variable, and in the worst examples rail is almost irrelevant to people's travel needs;
- timetable planning suffers from a lack of clear standards, results in numerous anomalies and public confusion and often disregards connections between services;
- there appears to have been no significant change in public perceptions of rail travel – it is still a long way from being the mode of first choice for many journeys for which it could achieve that status; and

- the industry has failed to attract brand loyalty or win public affection – to the point where a majority of respondents to opinion surveys consistently call for 'renationalisation' (probably without having much idea of how that might be brought about).

In my view the future of the railway depends on these matters being addressed. **The timetable is the central feature of the product being offered to potential customers.** How to design, manage and deliver it should therefore be central to any discussion of how to organise the railway and its institutions – and it is very odd that timetabling is listed as a role that NR acquired rather by accident [¶3.9]. This approach is particularly critical in terms of

- realising the industry's role in reducing the output of CO₂ [¶1.20] and other pollutants by attracting travellers from other modes [Box 1.2];
- ensuring that the railway contributes to reducing the burden of road congestion;
- providing a basic level of access to work, education and leisure for everyone in the community as a matter of social equity [see ¶1.3 and Box 1.2]; and
- managing the expected level of growth (which may not be as strong as the industry presently predicts but which could still be substantial – and different in key respects – if the modal split markedly changes).

I believe the current timetabling process to be dysfunctional:

- the Department for Transport has no clear policy for what the national timetable should offer, issues no statement of priorities, protects the *status quo*, seems unconcerned about present deficiencies, carries out little research into possibilities for improvement and is frightened of radical changes;
- the Office of Rail and Road [ORR] is preoccupied with promoting competition and ignores its integrative and public-interest duties;
- the Train Operating Companies [TOCs] focus on their own territories, largely ignore connectivity and do little to promote the national network;
- Network Rail [NR] does its best to produce working timetables but is hampered by a shortage of skilled staff, cumbersome legal rules and uncertainty about whether it has a strategic as well as an instrumental role;
- inadequate frequencies, poor connections and gaps in the network are endemic, all of which must be denying the railway journeys and revenue that it could attract;
- the problems are vividly illustrated by the long-drawn-out saga on the East Coast Main Line where ORR and NR are struggling to satisfy the wishes of five newly-enfranchised Train Operating Companies and two open-access operators through an opaque (to most people) procedure and without a coherent set of objectives or vision of a desirable future timetable;
- dispersed responsibility leads to the risk of misguided schemes, and in particular to Network Rail having a predilection for infrastructure projects (often at a considerable cost) when a unified approach based on timetabling solutions mixing more modest works and better rolling stock (and sometimes closure of little-used stations) might well achieve improvements much sooner at lower cost¹; and
- it is doubtful whether the system optimises the use of capacity since change is incremental, over-constrained by existing rights and slow, with few examples of total recasts or proposals to infill patent gaps in the network structure.

This is so different from the successful Swiss model that I make no excuse for arguing, as often

¹ I am also aware from research for franchising bids that the railway may be unwisely passive in accepting third-party schemes because it has inadequate procedures for assessing their impacts.

previously, that that should be studied – and Question 16 invites one to do so. The Swiss timetable is not just a paradigm of consistency, integration, regularity and memorability, important though those characteristics are. It is also

- highly successful in terms of the modal share held by public transport;
- the basis of a collaborative process to satisfy the requirements of different types of journey and different communities, as well as ensuring that freight operators are allocated the paths they need;
- now embedded in the Swiss way of life as a core element of the shared public realm by virtue of offering universal connectivity across the country;
- a principal tool in national spatial planning; and
- a mechanism with which to frame the railway's infrastructure enhancements and rolling-stock specifications.

I am well aware that the Swiss model cannot be transferred directly to Britain, both because of the different institutional structures and because the political context and culture is quite distinct. It should nonetheless be noted that Switzerland is to a large degree bound to comply with European Union [EU] legislation and yet retains a unitary national railway (as well as many smaller operators) that continues to benefit from vertical integration while separating functions organisationally and pursuing coherent public-interest objectives.

I am also aware that what follows implies changes going beyond the remit of the Shaw enquiry, but that should not in itself be a reason to ignore them [as ¶2.11 and ¶2.25 recognise].

If the railway (and public transport generally) is to play its full role in a truly sustainable future, taking a much larger modal share than it presently holds and being secure in public perceptions of its quality and relevance to their travel needs, the timetable must offer services that are

- designed to specified standards;
- planned to make the best use of the available infrastructure;
- consistently of a competitive speed;
- always running at a frequency appropriate to the demand;
- comprehensively coordinated with each other in timing and in the physical and real-time-management arrangements for interchanges;
- presented as a branded network that promotes connectivity across the country; and
- collectively the framework within which progressive improvements can be made.

This aspiration would give real substance to the Governments's broad policies (that are too often neglected in practice [see Box 1.2]) and to managing the growth agenda [¶4.26]. It does not of itself require a single body to run the entire railway [as noted at ¶3.12], nor does it presuppose any particular model (public / private, united / fragmented, national / regional) for engineering functions or the actual delivery of train services. **What it does postulate is a single authority responsible for planning a national timetable with the qualities outlined above. That would express the fundamental concept that a railway is a system and therefore requires a system operator to undertake the core function of timetabling².**

2 It is surprising that this should remain in some doubt [¶2.17, "the degree to which ...], although it is later admitted that it cannot easily be disaggregated [¶4.21]. The suggestion [Question 8] to disaggregate by type of service is unworkable in infrastructure terms because of multiple interactions, although as it happens I consider that distinct branding of each type would help the marketing of the network.

Such a body would

- take general objectives from the national, devolved and regional governments;
- develop detailed policies in line with those objectives;
- consult widely with those bodies and other stakeholders, including train operators³, passenger groups, the freight industry and local communities;
- develop a skilled workforce to design integrated timetables;
- be open to operational experience;
- revise the timetable on a planned cycle; and
- propose infrastructure projects that would enhance the offer and negotiate their business cases with funders and their deliverability with the network's engineers.

It should be noted that the working methodology would adopt the principle that the effective capacity of a railway is determined by the (hopefully rational) decisions taken about the mix, sequence and relationships of a set of paths for the various classes of train. This is distinct from the EU model of capacity allocation [¶3.12], which I believe to be fundamentally flawed and unlikely to deliver the best use of the infrastructure.

The same body should probably not be the authority for managing the franchises (or better, concessions) to run the services. That function should rest either with the national government and devolved administrations or with a separate authority charged with that specific task.

I believe this proposition accords with the Report's optimistic vision [as expressed in the penultimate paragraph of the Introduction] and its concern to improve longer-term planning [p.4, ¶2.16 and ¶2.28]. In my view any reform of Network Rail that does not address the patent weaknesses in timetable planning is set up to fail the wider policy objectives for the railway and will certainly not facilitate the significant impact on the market that is so essential.

I would of course be happy to discuss this argument with the team working on the Shaw Report.

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³ The proposal to channel more of the public funds through the TOCs [¶1.37, ¶3.25] may be logical at one level, but it presupposes that TOCs should have a determining role. I would question that, not least because the sum of TOC ideas cannot be assumed to lead to ideal outcomes overall.