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Building a foundation for rail's future

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The rail industry is undergoing an unparalleled process of change and reform which will determine its future role in providing Australia with a reliable, cost effective transport option for the 21st century. The benefits of competition policy reform are being felt across much of the interstate rail network as private rail operators are being encouraged to enter the marketplace, providing business and industry with greater flexibility in determining their transport solutions. A major program of Commonwealth and Australian Rail Track Corporation investment into the ARTC network is already providing significant benefits to the national economy.

Over the last 12 months, Australian Rail Track Corporation has achieved the goal of meeting the Australian Transport Council standards for the interstate standard gauge network in relation to train lengths, maximum speeds, axle loads and reliability. It has also substantially fulfilled its key objectives of improved reliability and transit times, and improved yield for train operators and track infrastructure. This has been achieved through the targeted use of ARTC and Commonwealth investment funds to ensure that infrastructure upgrades meet the ATC goals for the interstate network. At the same time ARTC has carried out a number of fundamental engineering and operational reviews that have challenged many of the historical inefficiencies and parameters of the industry, in order to maximise the benefits of the infrastructure upgrades

Train operators are now benefiting from significantly reduced transit times, greater reliability and the ability to run longer, heavier and faster trains over the ARTC network, which will assist in ensuring that rail becomes more competitive and has the ability to grow market share in relation to other transport modes. During 1999/2000, the following major improvements have occurred over the ARTC network.

- Transit times have been reduced by up to 2.5 hours between Adelaide and Kalgoorlie and by up to 2 hours between Melbourne and Adelaide. A review of track speeds on the latter corridor, combined with upgrading works saw the transit time for premium services, including the Overland passenger service, reduced to 10.5 hours.
- A comprehensive program of crossing loop extensions on three corridors has ensured that all current requirements for 1500 metre trains between Albury - Melbourne - Adelaide and for 1800 metre trains Adelaide - Kalgoorlie, are now being met in both westbound and eastbound directions.
- A project to consolidate all of the interstate safeworking functions in Victoria to the ARTC Train Control Centre was completed during 2000. A

number of safeworking improvements to be commissioned during 2001 will see all train movements across ARTC's 4400 kilometre network between Albury and Kalgoorlie controlled from one central location, improving safety and efficiency and eliminating duplication.

- Track upgrading and restoration between 1998 and 2000 has allowed the removal of most temporary speed restrictions and the lifting of many permanent restrictions. The ATC standard of less than 2% of the interstate network being under restriction has been consistently maintained during 1999/2000.
- Infrastructure upgrades and the review of engineering parameters have allowed maximum permissible axle loads to be raise to 21 tonnes at 115km/h across the network and further works during 2000/01 will see 23 tonne axle load trains permitted to operate at 80km/h.

Traffic over most ARTC corridors continues to grow. As an example, the strategic east-west corridor has continued to show exceptionally strong growth and rail now has an unparalleled 75% market share of land freight on this corridor in a westbound direction. Over the last year, eastbound traffic increased by 14.7%, from a total of 1.403 billion net tonne kilometres (NTK) in 1998/99 to 1.609 NTK in 1999/2000. During the same period, westbound traffic increased by 6.4%. Total NTK for all freight and passenger movements across the ARTC network grew by 5.6%, from 11.67 billion NTK in 1998/99 to 12.35 billion NTK in 1999/2000. Gross tonne kilometres (GTK) across the network increased by 3.5%, from 25.70 billion GTK in 1998/99 to 26.60 billion GTK in 1999/2000. Growth in net tonnes carried over the network has exceeded that of gross tonnes, an indication that train operators are taking advantage of yield and transit time improvements, which have allowed increased axle loads and assisted in better equipment utilisation.

The interstate rail market will face number of challenges over the coming years. The interstate non-bulk freight market for all modes is growing at 4% per annum, linked to GDP, which results in an effective doubling of freight volume every 18 years. The Bureau of Transport Economics has estimated that this task will grow from 47 billion NTK in 1995 to 126 billion NTK by 2020. While the rail task over this period will increase from 15 billion to 26 billion NTK, rail's overall market share is predicted to fall from 30% to 20% over the same period.

This scenario is unacceptable, and given the rapid improvements in performance across much of the industry, might be considered unlikely to occur. However, in order for rail to remain competitive, it must become more responsive and flexible to the demands of the marketplace. The growth in e-commerce will undoubtedly bring about changes in supply chain management and predictability in traffic flows will become harder to identify as business seeks to maximise the benefits offered by new technology in relation to product lines, inventory, distribution and the creation of 'virtual warehousing'.

There are strong indications that the market will demand more flexible transport solutions in the future - in the case of rail, this is likely to be a requirement for shorter, faster, market driven services, especially on shorter-haul corridors. These services will require a more responsive system of safeworking, which maximises technological advances and provides greater flexibility in train operations. Such initiatives are being considered as part of a comprehensive review of ARTC's future safeworking and information technology requirements.

ARTC has provided considerable input and support to the preparation of a Pre-Feasibility study into the Melbourne - Brisbane section of a proposed inland route, which if it were to proceed would have considerable benefit in enhancing the overall performance of the interstate rail network. The project would require the upgrading of a number of existing lines in Victoria, New South Wales and Queensland, and the construction of several connecting links. As the project moves to a full Feasibility study, early indications are that this section would make a substantial contribution to creating a modal shift from road to rail on the East Coast transport corridor. ARTC will continue to work with other key stakeholders in the project to obtain the most cost-effective solution.

Rail is proving that it can deliver when it comes to reliability and improved productivity. The industry is responding to marketplace demands for greater efficiency and reliability. Improvement programs are being tailored to ensure that train operators benefit from reduced transit times, greater yield and improved reliability, thereby reducing operating costs and increasing rail's competitiveness with road transport. Reform within the industry combined with the infrastructure improvements over the ARTC network will ensure that rail fulfills its role in providing Australia with safe, efficient and reliable transport services into the 21st Century.