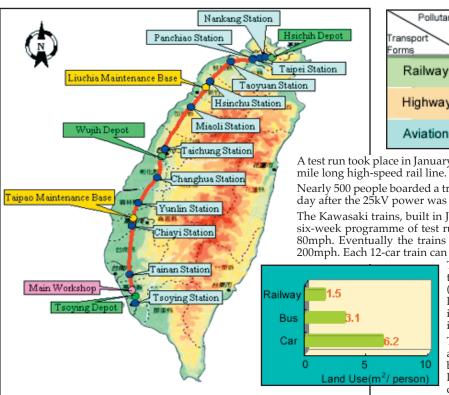
## Rail backbone for Taiwan



Pollutant Transport Forms	CO (mg)	No <sub>x</sub> (mg)	SO (mg)	CH (mg)	CO <sub>2</sub> (mg)
Railway	3.2	13	11.2	0.3	18
Highway	510	131	11.5	41.8	71
Aviation	225	449	44	17	139

A test run took place in January on Taiwan's new 200-

Nearly 500 people boarded a train in Tainan, only one day after the 25kV power was turned on.

The Kawasaki trains, built in Japan, then went into a six-week programme of test runs at speeds of about 80mph. Eventually the trains will run at more than 200mph. Each 12-car train can carry 989 passengers.

The Taiwanese claim the high-speed rail line (see map left) is the largest transportation infrastucture project in the world.

They decided to build a high-speed railway because of its efficient land use and economy of energy and as a way

of reducing pollution from road transport. See charts above.

The Taiwanese believe the highspeed rail line will boost economic prosperity and stimulate regional

The high-speed line will be integrated with existing rail and bus services.

More information from the web http://www.thsrc.com.tw/ emain/main.asp

Meanwhile in Spain, construction of the high-speed line from Madrid to Barcelona continues.

The Government is also considering three additions to the highspeed network - including a 75mile-long line along the northern coast from Bilbao to the out-on-alimb area of Ferrol in Galicia, and two other lines improving access to Galicia - both to La Coruna and to Pontevedra.

Portugal is also planning to build a £1.5billion high-speed rail line from Lisbon to Porto by 2012.

France's national railway SNCF is planning a frequent 200mph train service pattern on its TGV highspeed line from Paris to Strasbourg which opens in 2007 and will also serve Metz, Nancy, Reims, Luxembourg, Saarbrucken and Basel.

Trial boring will start soon for a new tunnel under the Alps to provide a £2billion high-speed rail link from Lyons, France, to Turin, Italy.

However, it can take half an hour to book an international rail journey in Europe "by which time any profit from the transaction has vanished" rail managers were told at a Eurorail discussion about the threat from low-cost airlines which use low-cost internet booking meth-

And America's only high-speed rail service - between Washington, New York and Boston - was running at reduced speed in April and May after cracks were found in the brakes of the Acela trains, made by Bombardier.

The 20 high-speed trains were withdrawn and conventional Metroliner loco-hauled stock was drafted in to replace them. The 150mph Acela system carries between 10,000 and 46,000 passengers a day.

Saudi Arabia is planning a 600mile new rail line which will create a 900-mile rail route linking the Red Sea and the Gulf by 2010.

It will provide for 40 double-stack container trains per day with five 135mph passenger trains which will cut the current bus journey time in half. Reduced shipping costs will save millions of pounds.

Iran is planning to invest £1.6billion in expanding and modernising its rail network. The five-year plan includes building a new 320-mile long line linking Iran with Azerbaijan and Russia.

Thanks to Railfuture member Margaret Ball for help with this article.



On mainland China, plans for higher speed rail services continue. The Chinese have ordered 20 eight-car 125mph trainsets from Bombardier. The £383million deal will see the trains (pictured above) delivered next year to the Qingdao area. Designed and partly built in Sweden, the trains will be assembled in China.



Russia is also planning to join the high-speed rail club. The German company Siemens has won a £1billion deal to provide 60 high-speed trains (above) for a Moscow-St Petersburg service at speeds of up to 185mph. Russian Railways will upgrade the infrastructure. Later the trains will also run to other Russian cities and to Helsinki, Finland. Russian president Vladimir Putin plans to be on the first train in 2007.

## Salute for Railfuture stalwart

Railfuture lost its respected vice president Sir James Farquharson KBE in February. Sir James died at his home in Kirriemuir, Scotland, aged 101. Railfuture member Major Arthur Hoare reports that, of Sir James's two sons, one came over from Canada and one from Australia for the funeral.

Pre-war, Sir James was general manager of Tanganyika Railways (where his father-in-law was chief mechanical engineer) and during the Second World War he was general manager of Sudan Railways. After the war, he oversaw the merger of the Kenya, Uganda and Tanganyika railways. After independence the railways reverted to three separate organisations. Sir James retired as chief civil engineer of the Crown Agents.