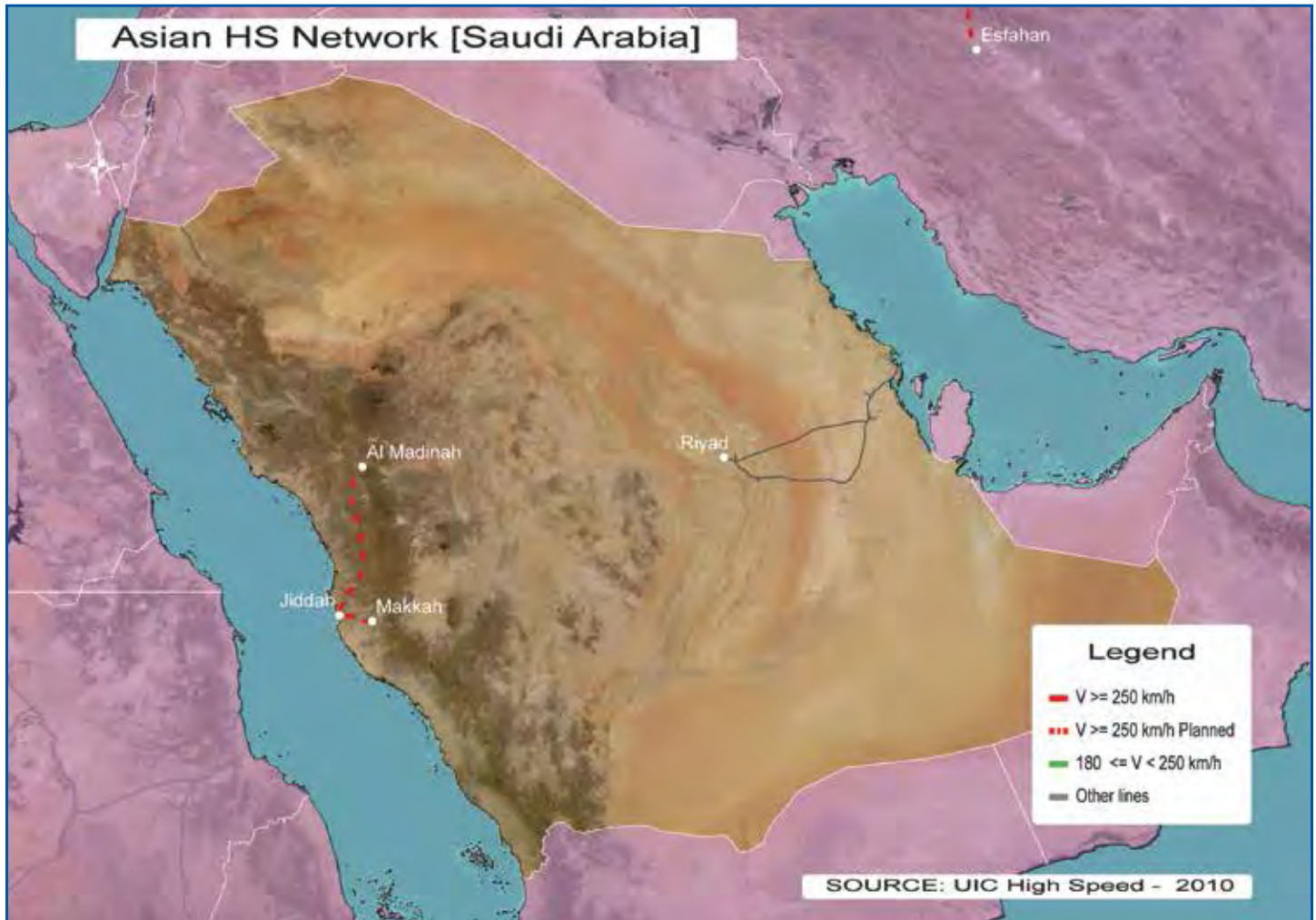




International System Summary: SAUDI ARABIA



UIC Map of Saudi Arabia's High-Speed Rail Lines

Saudi Arabia is a large country located in the Middle East between the Red Sea and Persian Gulf on the Arabian Peninsula. In land area, Saudi Arabia ranks as the 13th largest country in the world. Saudi Arabia borders the countries of Iraq, Jordan, Kuwait, Oman, Qatar, United Arab Emirates, and Yemen. The country's population of 26.5 million people ranks 46th in the world, with 82 percent of the population designated as residing in urban areas. The

nation's capital of Riyadh is the most populous city with 4.725 million followed by Jeddah (3.2 million) and Mecca (1.484 million). The country's GDP of \$676.7 billion ranks 24th in the world and the GDP per capita of \$24,000 ranks 55th.

Sources: *The World Factbook*

SYSTEM DESCRIPTION AND HISTORY

The Saudi Railway Master Plan for the period of 2010 to 2040 calls for the strategic development of 19 individual rail lines with a total length of approximately 9,900 km (6,150 miles). These projects are classified into three stages of development, with the first stage covering the years 2010 to 2025; second stage covering the years 2026 to 2033; and the third stage covering the years 2034 to 2040. The first stage projects are considered high-priority and include the following projects according to the Saudi Railways Organization:

- The double line upgrade of the existing two conventional rail lines between Dammam and Riyadh.
- The planned “Saudi Railway Landbridge” between Riyadh and Jeddah and between Dammam and Jubail, which has now received approval.
- The “Haramain High Speed Railway” connecting Makkah (Mecca) – Jeddah – Madinah (Medina), which is now under construction.
- The “North-South Mineral Line” between the northern regions, Ras Al Khair/Jubail and the capital Riyadh, including the connection to the proposed ES-CWA – railway network in Jordan via Al Haditha.

The remainder of this discussion focuses on the Haramain High Speed Rail project that is currently under construction.

Haramain High Speed Rail Project

The Haramain High Speed Rail Project is a 450 km (280 mile) line linking the holy cities of Mecca and Medina via Jeddah. The project calls for five stations along the route and a maximum operating speed of 300 km/h (185 mph). The Saudi Railways Organization points to the need to handle the growing number of yearly pilgrims and Umrah performers (visitors and residents who come to Mecca and Medina throughout the year). The project will also alleviate congestion on roadways between the cities and reduce pollution from vehicle exhaust. The five passenger stations are to be located in Central Jeddah, King Abdulaziz International Airport in Jeddah, Mecca, Medina, and King Abdullah Economic City (KEAC) in Rabigh. The high-speed rail project will reduce the travel time between Mecca and Medina to 2 hours and between Jeddah and Mecca to 30 minutes. In April 2012, the Saudi Railways Organization announced the project is expected to be completed in 2014. The map on previous page from the International Union of Railways (UIC) shows the route and the following table summarizes the speed and length of the project, according to several different sources.



Medina, Saudi Arabia. The Haramain High Speed Rail project will link the two cities of Medina and Mecca.

Table of Saudi Arabia’s High-Speed Line

Stage	Speed		Year Opened	Length	
	km/h	mph		km	miles
Under Construction:					
Al Madinah (Medina) – Jeddah – Makkah (Mecca)	300	185	2015	550	342

Based on the approval of the project by the supreme Economic Council, the construction project is to be implemented on a Build, Operate, and Transfer (BOT) basis with participation of the private sector. The project is to be completed in two phases, with Phase I divided into two parts.

- Phase I (Package 1) consists of the civil works of the track such as construction of bridges, viaducts, retaining walls, tunnels, and embankments.
- Phase I (Package 2) consists of constructing of the five passenger stations.
- Phase II involves the design, construction, operation and maintenance of the track, installation of signaling and telecommunication systems, and deployment of rolling stock, power supply and catenaries.

Phase I activities began in 2009 and the Phase II contract was awarded to a consortium in October 2011. The Phase II consortium includes both Saudi and Spanish companies and will deliver 35 Talgo 350 trains, thus utilizing chiefly Spanish high-speed rail technology. The consortium will operate and maintain the system for 12 years.

Sources: Haramain High Speed Rail Project; “Haramain High Speed Rail Project, Saudi Arabia”; High-Speed Lines in the World; “Saudi Arabia’s Haramain High-speed Rail to Begin Operations by 2014”; Saudi Railways Master Plan



Riyadh Station, Saudi Railways Organization

BIBLIOGRAPHY

Haramain High Speed Rail Project

Saudi Railways Organization website

URL: http://www.saudirailways.org/portal/page/portal/PRTS/root/Home/04_Expansion_Specification/03Introduction/01ProjectBrief

Date Accessed: June 25, 2012

“Haramain High Speed Rail Project, Saudi Arabia”

Railway-Technology.com website

URL: <http://www.railway-technology.com/projects/haramain-high-speed/>

Date Accessed: June 21, 2012

High-Speed Lines in the World

International Union of Railways (UIC), Updated November 1, 2011

URL: http://www.uic.org/IMG/pdf/20111101_a1_high_speed_lines_in_the_world.pdf

Date Accessed: May 30, 2012



Makkah (Mecca), Saudi Arabia. A high speed inter-city rail line (Haramain High Speed Rail Project also known as the “Western Railway”), is under construction in Saudi Arabia. It will link along 444 kilometres (276 mi), the Muslim holy cities of Medina and Mecca

“Saudi Arabia’s Haramain High-speed Rail to Begin Operations by 2014”

Railway-Technology.com website, News, April 10, 2012

URL: <http://www.railway-technology.com/news/newssaudi-arabias-haramain-high-speed-rail-to-start-operations-by-2014/>

Date Accessed: June 25, 2012

Saudi Railway Master Plan

Saudi Railways Organization website

URL: http://www.saudirailways.org/portal/page/portal/PRTS/root/Home/04_Expansion_Specification/02Saudi%20Railway%20Master%20Plan

Date Accessed: June 25, 2012

The World Factbook

United States Central Intelligence Agency

URL: <https://www.cia.gov/library/publications/the-world-factbook/>

Date Accessed: May 31, 2012