



Mohamed AL Gendi, chief surveyor of ALFAF

Topcon GR-3 and IS Dramatically Increases Job Efficiency in Saudi Arabian National Monorail Construction Project

‘Railway construction requires the highest possible surveying technologies to ensure the maximum safety without compromising vehicle speed’

ALFAF for Trading and Contracting Limited Company, managed by Dr. Turki bin Masood Al-Haider, is a leading contractor in Saudi Arabia. For the ongoing ‘Al Mashaer Al Magaddassah Metro Project,’ ALFAF is undertaking construction as a subcontractor of China Railway Construction Corporation (CRCC). It is reported that this national infrastructure project involves 5,000 engineers and 8,000 workers.

ALFAF is using Topcon GR-3 GNSS receivers and IS Imaging Stations “for diverse surveying and stakeout tasks in this ambitious project,” according to Philippe Akl, sales and marketing manager of Topcon Corporation’s Dubai Office.



Kamal AL-Nadi, manager of ALFAF Infrastructure Section

In the first phase of the project, approximately 20km (12.5 miles) loop monorail network will be built to connect the holy cities; Arafat, Muzdalifah and Mina, by November 2010. This metro is designed to meet the increasing transportation needs and to alleviate traffic problems connected with the world’s largest pilgrimage ‘Hajj’.

Mohamed AL Gendi, chief surveyor of ALFAF, said, “We use Topcon GR-3 GNSS receivers for diverse applications such as establishment of new control points, topographic data collection, stakeout and as-built survey to verify the construction quality.” AL Gendi said, “The GR-3 is definitely the best receiver I’ve ever used. In my experience, ordinary receivers did not work properly under certain conditions. Only the GR-3 consistently tracks satellite signals and provides accurate positions at any time on any day.” Kamal AL-Nadi, manager of ALFAF Infrastructure Section, expressed the importance of surveying. “Railway construction requires the highest possible surveying technologies in order to precisely design, layout, build and maintain the rails and associated structures to ensure the



maximum safety without compromising vehicle speed. Therefore we need the most reliable and accurate surveying equipment.” Al-Nadi said that the Topcon IS Imaging Station is essential to the project, “allowing us to give geographical locations and mileage information to all the milestones along the railways. We can collect survey data and pictures at the same time that allow us to verify our survey work so we can find misreading or missing points before we leave the sites. This feature eliminated the need for going back to the site and redoing survey, that dramatically increased job efficiency.”

PLACE: SAUDI ARABIA
PROJECT: MASHAER MUGADASSAH METRO SOUTHERN LINE
TOPCON PRODUCT: GR-3, IS