

# Japanese Rail Engineers in Cairo

**E**gypt, cradle of civilization referred to as a “gift of the Nile”, is mainly desert. The habitable area is limited almost to just the narrow Nile valley and the Nile Delta, north of Cairo. The rapid population growth and urbanization occurring under these harsh conditions has resulted in a quarter of the total population being concentrated in Cairo, the capital. Cairo is a metropolis full of life and charm, but the only word for its urban transport is appalling. As with many other major cities in developing nations, congested roads, noise and atmospheric pollution are the result of relying only on road transport for many years.

The trams and Metro are important forms of guided mass transit in Cairo. The Metro, started operation 14 years ago, and used to have only one line bisecting the central urban area north-south. With the opening of the first section of a second Metro line in October 1996, rail transport has gained more importance. The trams have a much longer history, but simply fan out towards the east from the city centre. Both trams and the Metro cover limited areas, so only part of the urban population can use them.

Toshihiro Konno (44) and Waichi Ogawa (42) are currently providing technical guidance on inspection and repair work at Cairo Metro’s No. 1 Line Tura Workshop. Both are experienced engineers who worked in vehicle maintenance with

the Teito Rapid Transit Authority, which operates Tokyo’s subways. They came to Cairo in 1995, as experts dispatched by JICA (Japan International Cooperation Agency).

Cairo’s Metro is run by the Metro Organization of the Egyptian National Railways (ENR). There are 33 stations along the 42.5 km (including a 4.8-km tunnel) No. 1 Line running from El Marg on the north-eastern edge of Greater Cairo, to Helwan on the southern edge. 320 trains carry 1 million passengers every day. The No. 1 Line was completed with French technical cooperation, and the first 300 railcars were all manufactured by the French company, Alstom. The ENR had no experience of maintaining EMUs, and so concluded an agreement with Alstom for all daily maintenance and parts inspections. As traffic volume increased, ENR purchased 90 railcars from a Japanese manufacturer, and decided to carry out daily inspections itself. The maintenance contract for the original French-manufactured rolling stock expired in April 1996. Competitive tendering resulted in MISR Japan Allied Co., an Egypt-Japan joint venture, winning the 5-year contract with ENR, entailing responsibility for inspecting and maintaining all rolling stock, whether French- or Japanese-manufactured. ENR’s final aim is to take over all maintenance currently entrusted to specialized companies. Messrs Konno

and Ogawa’s purpose in coming to Egypt last year was to transfer their knowledge to Egyptian engineers working in vehicle maintenance on ENR’s No. 1 Line. The first thing the two men realized on starting at the Tura Workshop was that ENR’s engineers had no experience of EMU inspection or maintenance, because all maintenance was done outside the company. Mr Konno and Mr Ogawa felt that Egyptian engineers simply copied what engineers from the European maintenance company used to do, without really grasping the final responsibility of engineers for passenger safety. For the two Japanese engineers, it was a matter of course that a railway should inspect all new rolling stock on delivery, and make further checks when the maintenance company completed its work. However, these operations were not being carried out properly, and in many cases, new stock was put into operation with nobody noticing manufacturing defects, or errors in the maintenance company’s work. Disorganized inspection procedures and staff training caused many human errors. Until now, Mr Konno and Mr Ogawa had devoted their lives to maintaining Tokyo’s subway stock; this is the first time for them to live abroad. Neither is fluent in either Arabic or English, so Herculean effort is needed to transfer their experience to Egyptian engineers, while living in an unfamiliar climate and culture. Both men had many talks directly with the Director of the Metro Operations Agency, and were finally assigned counterparts—an electrical engineer and three technicians for Mr Konno, and a mechanical engineer and two mechanics for Mr Ogawa. With these two teams in place, a new maintenance system was started at the Tura Workshop.

Makoto Iida (38), another engineer dispatched to Cairo, has a broad range of experience working on traction motor maintenance of the Tokaido and Sanyo Shinkansen rolling stock at JR West’s



Mr Iida at his Cairo Office

(M. Iida)



Changing Bogies at Tram Workshop

(M. Iida)

Hakata Depot and Workshop. He is currently working on improving maintenance of trams operated by the Cairo Transport Authority. Japanese stock is used on the trams, an important form of public transport from central to eastern Cairo. However, workers involved in vehicle maintenance were not sufficiently skilled, and maintenance was not well managed, drastically reducing the availability of stock. Mr Iida has been struggling with English, while carrying on the day-to-day battle with vehicle maintenance problems. The workshop does not have the necessary equipment nor adequate funds; consumables are always in short supply. The quality of insulation for traction motors is poor, and Mr Iida devotes all his energies to eradicating vehicle breakdowns. The gap between his ideas and that of the Transport Authority was a major shock. Mr Iida is working with the Deputy Head of the Workshop as his counterpart at improving insulation tests and technology for the major parts of the traction motors, establishing methods for troubleshooting breakdowns, and establishing checklists. Mr Konno and Mr Ogawa both have children at high school, so they left their families in Tokyo when they came to Cairo, but Mr Iida was accompanied by his wife and family. With telephones and faxes, Mr Konno and Mr Ogawa manage to keep in touch with their families. Each spends his weekends following his own hobbies, playing golf, visiting antiquities, or just browsing through Cairo. There are many other JICA specialists in Cairo so they can share fascinating stories with other experts in environmental problems, fisheries, agriculture, and biotechnology—an opportunity not available in Japan. There have been many surprises in social customs and manners, and some cultural things lost in Japan can be re-discovered in Egypt. All three volunteers were shocked to find that it is not customary to line up when buying tickets or



*Inspecting Bogy with Egyptian Engineers at Cairo Metro's Tura Workshop (T. Konno)*

checking-in at airports, but they were also moved to see people giving up their seats for women and elderly people in Metro carriages. Life revolves around the Islamic religion, and for the three men from Japan, where religion is so unimportant, it was a revelation to find that Islam is the origin of the Egyptian's cheerful, friendly national character. Everybody is relaxed, as if they had surrendered themselves to the slow pace of the Nile, unlike Japan where everybody beavers away in such a constant rush. The three men, in the front line of overseas assistance work for the first time, have different thoughts on international cooperation. Mr Konno says, "At first I felt that I had to teach them everything that I had come to teach. But things didn't always go well, because I did things as if I were dealing with Japanese people, without understanding Egyptian customs or the way society here works. Through working together, we were able to understand each other more, develop a sense of trust and consequently, make progress in the technical cooperation project." Mr Ogawa has this to say: "The most important thing in overseas technical assistance is to clearly understand what the other side is hoping for. Before an expert arrives, he or she needs to know what facilities and equipment are available, and the level of technical skills. For me,



*Mr Ogawa (left) and Mr Konno (T. Konno)*

things certainly didn't go smoothly at the beginning, and I had a great deal of trouble. But by living in Egypt and working with Egyptian people, I discovered that respect, trust and caring for others—the "spiritual wealth" that Japanese have unfortunately lost during economic development—are still firmly rooted in the hearts of the Egyptian people. Nothing makes me happier as an engineer than when other people put their trust in me". Mr Iida says, "Conditions don't always permit us to transfer Japanese technology everywhere without modification. Every country has its own way of life, culture and religion; since international cooperation means that people with different backgrounds are working together, I don't think we should expect major results in 1 or 2 years. We should have an accurate picture of the situation in the recipient country, look for the kind of technology transfer that suits the country most, and not persist in doing things the Japanese way. In Japan, some people say that people from such-and-such a country are hopeless, or slapdash. But there are plenty of hopeless and slapdash people in Japan, too. Teaching something to people in developing nations through international cooperation is important, but it's even more important to value people beyond the boundaries of nationality, and to share each other's problems and pleasures".