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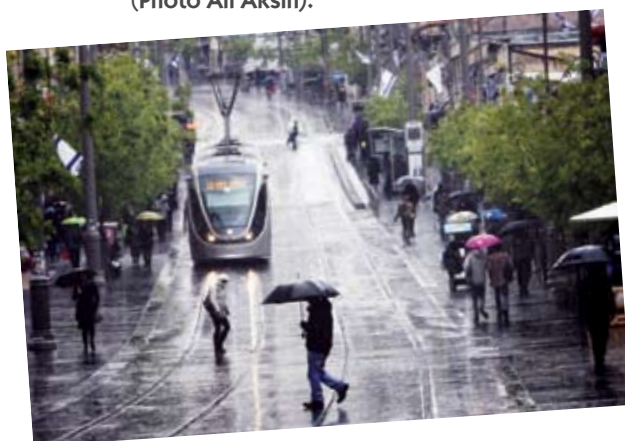
הרכבת

A Quarterly Journal on the Railways of the Middle East
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A steam railtour in Turkey in 2014. The former Kriegslok hauls two TCDD coaches which had been restored and repainted single-handedly by Ali Aksin.

(Photo Ali Aksin).



Yes, it does rain in Israel, sometimes with a vengeance!
Left - Jerusalem,
right Ayalon Highway Tel Aviv



EDITORIAL

A bizarre change of emphasis in this issue. After moaning recently about the lack of any positive news from most countries in the Middle East, the Editor found lots of information at Innotrans in Berlin and yet more in relation to proposed conferences (to which he could NOT go) in Dubai and Riyadh, discussing all sorts of fancy, expensive and hi-tech projects throughout the region! Of course there is a major disconnect between what one reads in the newspapers and what one sees as a serious discussion about building tramways in Kurdistan. So a lot of this is presented here, in this issue, at the expense of several historical items which have had to be held over to the next edition. This leads to some imbalance.

Unfortunately and sadly the tram in Jerusalem has been in the headlines for all the wrong reasons and we report quite extensively on this - with some repetition as different reports gave different versions and because sometimes the same attacks were repeated..... And an Israeli soldier was murdered on a station in Tel Aviv.... and the whole region remains a powder-keg of irrationality and hysteria. On 27.11.14 it was reported that Israeli secret services had broken up a terrorist cell which was planning attacks on the new Stadium in Jerusalem and also on the Light Rail....

Normally I end each editorial with a comment to the reader to Enjoy! This time things seem a bit too grave for that. But read with interest – despite the bad news, there ARE good things happening.

The Editor.

concluded Tuesday morning with the arrests of over 25 managers and supervisors. According to police, the investigation – conducted with the full cooperation of Israel Railways CEO, Boaz Zafir – determined that the sanitation employees colluded for months to commit bribery, money laundering, fraud, and tax offenses totaling “tens of millions” of shekels.

In a statement, police said the investigation was launched after suspicions were raised that a number of sanitary inspectors for the railway falsified inspection reports and vastly overcharged or bribed third-party contractors hired by the railway.

Additionally, a number of the suspects arrested are accused of “creating a systematic mechanism for inflated invoicing,” involving fictitious companies that allegedly provided cleaning services and manpower that was funnelled into a fake account.

“This morning over 25 employees were questioned and arrested following dozens of raids into their homes and offices,” a police spokesman said, adding that all the

107:03.



Alstom freight loco 709 + veteran GM-EMD G12 No 124 loco heading a works train at Lod, with the new IR Training Centre under construction in the background. (Photo: Aharon Gazit.)

107:04.

NEWS FROM THE LINE.

(a). CORRUPTION ARRESTS.

On 02.09.12014 – JUST after Harakevet 106 went to press – this appeared in the Jerusalem post, by Sharon Udasin and Daniel K. Eisenbud.

“Over 25 Israel railway employees arrested on corruption charges.

“Police: Undercover investigation concludes members of railway’s Sanitation Division stole ‘tens of millions’ of shekels through bribery, money laundering, false billing and tax evasion.

A large-scale undercover corruption investigation into Israel Railways Sanitation Division by police, in coordination with the Israel Tax Authority’s Economic Crimes Unit,

suspects were arraigned at Rishon Lezion Magistrate’s Court later that afternoon.

In response to the arrests, an Israel Railways spokesman stressed Tuesday that the investigation was actually initiated by Zafir, who ordered an internal audit and examination of relationships with railway contractors at the beginning of 2013.

“Israel Railways is making every effort to maintain integrity and good governance, and denounces all conduct that

is not within the framework of the law," a statement from the company said. Israel Railways, which is state-owned and based in Tel Aviv, is responsible for all commuter, inter-city and freight rail transport and inspections to and from the country."

(It seems ironic that it was those concerned with cleaning who then laundered money....)

(b). SMART CARDS.

On 05.09.2014 the railways announced that as from 01.12.2014, only those passengers using the Multi-Liner Smart Card will enjoy fare reductions of 30% on the average, and will also be given two digital books for their smart phones; this bonus is valid until 30.09.2014 only.

(c). STRIKE!

On 11.09.14 it was reported: The loco drivers of freight trains started recently a strike without any explanation; the Association of Industrialists appealed to the Labour Tribunal claiming that they would suffer damages of millions of Dollars as a result; the government was considering hiring lorries and firing the loco drivers.

(d). VALLEY LINE PROGRESS.

In early September Sybil went to Beit Shean and reported: "I've been to see how the work is progressing there. The old station buildings are being preserved and the new station is coming along nicely! I could walk around freely – I had visions of having to go down on my knees and wave my press card, but nobody cared that I was walking around. There were a few workmen there and they must have thought I was barmy, but they just waved and said 'Hello'. The station has two side platforms, and the end of the platform ramp is about 350 metres from the water tower."

(e). HAIFA NEW STADIUM OPENING.

On 15.09.2014 the railways played a vital role in the opening of one of the world's most modern stadiums for an audience of 30,000 in the south-western outskirts of Haifa; special trains were added, all of which ran to full capacity; the stadium is located near Hof-Ha-Carmel station.

(f). NEW AIRPORT LINE?

On 18.09.2014 'Times of Israel' reported that negotiations between the Defence Ministry and the Transportation are taking place for the Ramat David military airbase to be opened to civilian traffic, in which case a branch line will be built to serve the new terminal.

(g). CARMIEL LINE. TUNNELLING ACHIEVEMENTS.

A 5-minute film showing work on the Gilon tunnels on the Akko – Carmiel line by Israeli, Chinese, Arab and

German workers and the breakthrough can be found under: https://www.youtube.com/watch?v=KK9heEe_34Y. It is worth noting that links on the sidebar will also lead you to several other promotional and other video films on the Eilat line, the Tel Aviv – Jerusalem line and others.

(h). WINTER TIMETABLE.

The following changes on the timetable on Fridays started on 19.09.2014:

Southbound:

The following trains are not operated on Fridays:

The 14:31 from Nahariya to Beer-Sheva Central, the 14:53 from Acre to Haifa-Hof-Ha-Carmel, the 14:57 from Nahariya to Modi'in Central, the 15:14 from Tel-Aviv Savidor Central to Jerusalem Malkha, the 15:20 from Nahariya to Haifa-Hof-Ha-Carmel, the 15:29 from Nahariya to Modi'in Central, the 15:44 from Tel-Aviv Savidor Central to Beer-Sheva Central, the 16:07 from Binyamina to Ashkelon, the 16:20 from Tel-Aviv Savidor Central to Rishon Le-Zion Harishonim, the 16:37 from Binyamina to Tel-Aviv Hahagana, the 16:53 from Hod-Ha-Sharon Sokolov to Rishon-Le-Zion Moshe Dayan, the 16:58 from Tel-Aviv Savidor Central to Rishon-Le-Zion Moshe Dayan.

The following trains will provide shorter services:

The 14:53 from Hod-Ha-Sharon Sokolov will terminate at Ashkelon instead of Sderot.

The 15:37 from Binyamina will terminate at Tel-Aviv Hahagana instead of Rehovot.

The 15:53 from Hod-Ha-Sharon Sokolov will terminate at Rishon-Le-Zion Moshe Dayan instead of Ashkelon.

Northbound:

The following trains are not operated on Fridays:

The 14:10 from Modi'in Central to Nahariya, the 15:01 from Beer-Sheva Central to Haifa Lev-Hamifratz, the 15:10 from Modi'in Central to Kiryat-Motzkin, the 15:28 from Beer-Sheva Central to Tel-Aviv Savidor Central, the 15:29 from Rehovot to Binyamina, the 15:31 from Ashkelon to Binyamina, the 15:43 from Sderot to Hod-Ha-Sharon Sokolov, the 15:46 from Jerusalem Malkha to Tel-Aviv Savidor Central, the 15:58 from Haifa-Hof-Ha-Carmel to Nahariya, the 16:08 from Rishon Le-Zion Harishonim to Tel-Aviv Savidor Central, the 16:10 from Modi'in Central to Haifa Central the 8.

(i). HIGH HOLYDAY TIMETABLE CHANGES.

Due to the Jewish festivals: The following changes on the timetable will take effect due to the holidays of September and October 2014:

The New Jewish Year – between 23.09.2014 and 27.09.2014:

On Tuesday 23.09.2014, trains will oper-

ate as on regular Thursday.

On Wednesday 24.09.2014 – the eve of the new year – trains will operate as on regular Friday.

On Thursday 25.09.2014 and on Friday, 26.09.2014 the two holy days of the New Year, as well as on Saturday 27.09.2014, there will be no services.

Services will resume on Saturday night, 27.09.2014.

Yom Kippur – the Jewish holiest day:

On Friday 03.10.2014, the eve of Yom Kippur and Saturday, trains will operate as on a regular Friday until 12:00; between 12:00 and 14:00 some trains will not operate, while other trains will operate on only parts of the lines; traffic will stop at 14:00.

On Saturday night 04.10.2014, only the train at 23:13 between Modi'in Central, Ben-Gurion airport, will be operated; full traffic will resume at 00:01.

The Sukkot holidays – between 07.10.2014 and 14.10.2014:

On Tuesday 07.10.2014, trains will operate as on a regular Thursday.

On Wednesday 08.10.2014 (the eve of Sukkot) trains will operate as on a regular Friday.

On Thursday 09.10.2014, trains will operate as on a regular Saturday night.

On Friday 10.10.2014, trains will operate as on a regular Friday.

On Saturday night 11.10.2014, trains will operate as on a regular Saturday night.

On Sunday 12.10.2014, trains will operate as on a regular Sunday.

On Monday 13.10.2014, trains will operate as on a regular Monday.

On Tuesday 14.10.2014, trains will operate as on a regular Thursday.

Between Sunday, 12.10.2014 and Tuesday, 14.10.2014 there will be additional trains as follows:

Between Herzliya, Tel-Aviv, and Jerusalem, the trains departing from Herzliya at 09:29, 11:29 and 13:29 will terminate at Jerusalem Malkha (instead of at Beit-Shemesh) at 11:10, 13:10 and 15:09 respectively.

Three trains to Tel-Aviv and Herzliya will depart from Jerusalem Malkha (instead at Beit-Shemesh) at 10:17, 12:16 and 14:16.

The trains departing from Beer-Sheva Central at 08:59, 09:59, 10:59 and 11:59 will terminate at Haifa Central the 8 (instead of Tel-Aviv Savidor Central) at 11:21, 12:21, 13:21, and 14:21 respectively.

Four trains to Tel-Aviv and Beer-Sheva will depart from Haifa Central the 8 (instead of Tel-Aviv Savidor Central) at 11:06, 12:06, 13:06 and 14:06 respectively.

Simkhat Torah – the last holiday:

On Wednesday 15.10.2014 (the holiday eve) trains will operate as on a regular Friday.

On Thursday night 16.10.2014 trains will operate as on a regular Saturday night.

On Friday 17.10.2014, trains will operate as on a regular Friday.

(j). ELECTRIFICATION TIPS.

One notes from Innotrans that for the new Israeli electrification there are such innovations as cast glass fibre reinforced resin catenary poles, which are lighter, non-corrodable and do not require complex insulators on the cantilevers since the poles themselves act as insulators; and Vossloh is offering a dual-power loco based on the Euro 4000 which can be operated on both electric and diesel systems – surely convenient for a small system like Israel where trains could then run partially on the electrified 'spine' but not every siding would need electrification, and also providing a secure back-up should the overhead electric supply system for any reason be shut down....

'Railway Gazette' Sept. 2019 p. 13 also has an item on the IR Tender – for between 62 and 78 mixed-traffic electric loco with options for more, to be suitable for regenerative braking, have a maximum axleload of 22.5 tonnes and be capable of operating up to 20hr. per day and 250,000km/year. They are required for 160km/h push-pull passenger trains, with up to eight D/D or ten single-deck carriages, and freight trains of 3,600 tonnes at up to 120km/h. with the ability for up to three to work in multiple.

From a press release of 22.10.2014 by the Transport Ministry: (Thanks to Aharon Gazit, who also adds comments):-

"The electrification programme moved one step forward after the Inter Ministerial Committee for Internal Affairs, Services, and Local Government approved today – 22.10.2014 - Transport Minister Israel Katz's plan for railways electrification, known also as National Infrastructures Project No. 18. The Inter Ministerial Committee for Internal Affairs, Services, and Local Government gave the approval after completion of all the necessary procedures including: publishing the programme for the public, receiving appeals from all parties involved, changing the programme where needed, and approval by the National Infrastructures Committee.

The National Infrastructures Committee has defined the electrification programme as a Nationally Important Project, after the Transport Ministry and Israel Railways Ltd. had crystallized the it as a master plan.

The programme speaks of electrifying 420km of lines both existing and planned, as well as building transformer sites and control centres. The system is today dominated entirely by diesel traction while most intercity railway lines in the world are electrified [Minister Katz ignores for some reason the USA, Canada, etc. where diesel dominates...]; the intention is to convert all the systems to electric voltage of 25 KV 50

Hz which means gradual replacement of the outdated equipment [again - the oldest rolling stock dates from 1992...is this so old?].

Both Minister Katz and The Israel Railways Ltd. CEO Mr. Boaz Zafrir said: "The \$3.2 billion project (including purchasing and conversion of rolling stock), will significantly increase speed and frequency, and reduce noise and air pollution, improve passenger services and increase reliability and punctuality; it will change the face of transportation, will help to reduce social and economic gaps and will diversify employment possibilities." The following statement raises - to my opinion - some questions: "Electrification has many advantages such as: higher reliability than diesel, longer maintenance intervals, at least 20% saving in energy (particularly fuels), 30% less maintenance costs of rolling stock, increasing speed from 160 km/h to 220 km/h as against from 140 km/h to 160 km/h on diesel, and the possibility to build new lines in mountainous topography."

[While no one can ignore the advantages of electrification, the statement ignores the 200 km/h British Intercity 125 trains and other, the new USA deal for 200 km/h; more unclear is the fact that the Vossloh Euro 3200 new locos already in service can currently operate at 160 km/h (speed currently limited to 140 km/h) while they can be easily geared up to 200 km/h (this being included in the contract); for some reason the statement also ignores the catenary maintenance costs which can be high in desert areas! There is also a criticism about the sort of rolling stock to operate on the Acre - Carmiel line under construction; the population of each of these cities is around 46,000 inhabitants and according to all surveys can hardly justify a heavy rail service; even travelling to Haifa means around 45 km, so a tram-train would possibly have been more appropriate, but the railways dislike LRV!]

By 28th. Oct. 2014 IR was announcing that the following five firms or consortia had fulfilled the Pre-Qualification stage for tender EL/PQ/01/12:

- Siemens (Siemens AG and Siemens Israel Ltd.)
- Elecnor
- SEMI (Sociedad Espanola de Montajes Industriales S.A.)
- CRPM: China Railways Constructions; Electrification Bureau Group Co, Ltd. (CRCC), and Pan-Mediterranean Engineering Ltd.
- Alstom (Alstom Transport SA (France); Citadis Israel Ltd.; AFCON Holdings Ltd. (Israel).

(k). NEW 'RAIL FREIGHT COMPANY' ESTABLISHED.

From an IR press release of 22.09.2014:

The "Rail Freight Company Ltd.", is the Israel Railways Ltd. subsidiary for freight haulage, created on July 2014 according to the government decision. The forecast for revenues from freight haulage until 2020 is estimated at NIS 400 Million (\$109 M) annually.

The first task of "Rail Freight Company Ltd." directorate, which started activity on July 2014, was to activate the procedure for finding a General Manager for the company. This has now commenced. Once the general manager starts his job, the procedure of developing the company's managerial backbone will start, after which the company will become active.

The company will be customer-focussed, and will act to increase the variety of logistic services to be provided, such as full door-to-door services; other activities will be: storage, containerization, bonding, despatching, etc.

The company will have the right to carry freight through the railways for the customers; the railways through its freight department will operate the haulage for the subsidiary.

The government decision is that the company will recruit a strategic investor who will become a 51% shareholder, thus the company will change from a governmental company to a mixed company. Israel Railways Ltd. CEO Mr. Boaz Zafrir who is also the Chairman of "Rail Freight Company Ltd." said: "Creating the "Rail Freight Company Ltd.", recruiting a general manager and activating the company is a significant step for the railways and for the Israeli Industry. The company will do its best to increase significantly the volume of freight haulage by rail, thus reducing the number of trucks and their mileage, contributing to road safety, and reducing air pollution; all these will aid the railways' development, the stability of its economy, and its contribution to the state economy."

(l). BAGGAGE ASSISTANCE.

Stewardesses will help with passengers' baggage at Ben-Gurion airport station (24 hours/day) according to flights, and at Haifa Central the 8 station according to cruise sailings at the nearby port, between 21.09.2014 and 21.10.2014 (holidays).

(m). NEW BUS SHUTTLE LINKS.

The railways have announced on their website that from 26.10.2014 and onwards, free bus shuttle services (on showing a rail ticket) will operate to/from the railway stations of Netanya and Kfar-Sava.

The shuttle services between Netanya station and the Ruppin Academic Center (called RUP-KAV which means a line to Ruppin) are as following: From Netanya station to the Ruppin Academic Center: Sunday to Thursday at 07:35, 09:00, 09:40; from the Ruppin Academic Center

to Netanya station: Tuesday to Thursday at 11:25, on Sunday, Wednesday, and Thursday at 14:40, Sunday to Thursday at 16:55 and 17:55 respectively.

The shuttle services between Kfar-Sava Nordau station and the high-tech area at the eastern part of the city are provided by the bus operator MetroPO Line as a result of cooperation between the Transport Ministry and the Kfar-Sava Municipality; called "Continuous Line" and consisting of bus line 40 between 07:00 and 10:00 and bus line 41 between 10:00 and 19:30; bus timings are coordinated with the railways' timetable.

(n). TUNNELLING BREAKTHROUGH ON A1 JERUSALEM LINE.

From a press release of 06.10.2014 by the Transport Ministry and Israel Railways Ltd.:

"Today, 06.10.2014, the ceremony of breaking through the rocks of the second tunnel of the twin-bored 11.6 km tunnels (tunnel No. 3 between Yitla creek and Mevaseret Zion), took place, thus marking the completion of tunnelling on the A1 fast rail link to Jerusalem with the participation of Prime Minister Mr. Benjamin Netanyahu, Transport Minister Mr. Israel Katz, Israel Railways Ltd. CEO Mr. Boaz Zafir, and additional VIP's.

Prime Minister Mr. Netanyahu said: "In the last year we have seen a sharp decline in the number of casualties in road accidents (though many will disagree regarding this news), and the main reason is a dramatic improvement in our transportation means (road and rail) - they are more open and faster than before, despite the growth of both population and car ownership.

Regarding rail, I believe that one day the railway lines will link us with the neighbouring countries; this is currently just a dream, but may become a reality one day".

Transport Minister Mr. Israel Katz said: "I'm fully satisfied today; this is a huge and complex engineering project nearing completion. I have the right to say that I've taken the A1 project out of the frozen state in which it stood for many years and took care to implement it. Prime Minister Mr. Benjamin Netanyahu and I share the same concept, according to which Israel must be densely populated and enjoy a network of highways and high-speed railway lines; this is one of the biggest national, economical, and social revolutions that have ever taken place in Israel.

How symbolic it is, that today when we are at the eve of Sukkot Holiday, when in ancient times it took days for the Jewish pilgrims to reach the temple in Jerusalem, we will be able to reach Jerusalem from Tel-Aviv in just 28 minutes and within 20 minutes from Ben-Gurion Airport."

Israel Railways Ltd. CEO Mr. Boaz

Zafir said: "Today we're completing an important phase on the A1 route. The railways are enjoying an era of accelerated growth; more than 500 trains, both passenger and freight are operated daily.... We are proud to lead the national project, we thank both the Transport Ministry and the other government offices involved for the trust and backup given to us; We'll do all that is needed to start operating services on the A1 on time, within the budget constrain, and of the required quality".

Attached herewith are 2 pictures from the tunnel breakthrough; from right to left: Mr. Zafir, Prime Minister Mr. Netanyahu, Transport Minister Mr. Israel Katz; the pictures are by courtesy of the Transport Ministry and Israel Railways Ltd.

(o). INFRASTRUCTURE WORKS TEL AVIV - LOD.

Between Thursday, 23.10.2014 at 21:05 and Sunday, 26.10.2014 at 05:00 the line section between Tel-Aviv Hahagana and Lod stations was to be closed for traffic due to infrastructure works; This would affect traffic over the whole network; travelling times would be extended by a few minutes, while some trains would not operate; the railways provided alternative bus services from/to the stations of Kfar-Chabad and Lod Ganei-Aviv (both between Tel-Aviv Hahagana and Lod).

(p). WINTER TIMETABLE.

On Sunday, 26.10.2014, the Winter timetable will commence; the changes will be on Fridays and eves of holidays, in which traffic will end one hour earlier than so far, and on Saturday nights and ends of holidays in which traffic will start 2 hours earlier than so far.

(q). NIGHT-TIME WORKS.

Israel Railways Ltd. announced on their website that starting on Saturday night, 08.11.2014 and until further notice there will be changes in schedules of the trains running between Nahariya and Ben-Gurion Airport between midnight and 05:00, due to infrastructure works to be carried out and in order to minimize disruptions.

(r). PUSH-PULL SET AND IC3 PROBLEMS.

The first week of November 2014 saw the reappearance on IR metals of a shortened GEC-Alstom Push-Pull coach rake, this time powered by a Euro3200 loco. This follows a decision by IR to lengthen the other rakes of this type to nine coaches each (a driving trailer and eight regular coaches each), as this better suits demand and matches them with most Siemens rakes. While all five driving trailers of this type are still in active stock, two of the regular coaches have been scrapped following the Bet Yehoshua level-crossing collision of 2006, leaving just 30 in stock. The move

to 9-coach rakes leaves six coaches and two driving trailers, of which two and one, respectively, are used as spares.

The creation of a shortened rake comes in handy at a period when the availability of the IC3 DMU sets remains low, with about a third of the fleet out of use at any given time. This is starting to look like a major fiasco, as Alstom continues to fail meeting their obligations as an out-sourced contractor for the daily maintenance of the IC3 fleet since taking over last January. The summer timetable change saw the DMU sets relegated to peripheral service - (Dimona and Jerusalem lines plus Haifa suburban runs) with usually no more than three sets used in multiple.

Driving trailer no. 304 currently leads the shortened push-pull rake, with loco no. 1301 at the other end. The 4-coach rake replaces a two-set IC3 consist in the Haifa suburban service and is the shortest loco-hauled passenger train seen here for some years now.

(s). NEW BALLAST WAGONS.

Well, actually second-hand, from the Czech Republic - fifteen four-wheel Tds ballast hopper wagons have arrived and are in use on IR. They are numbered from 'Resh 54 001 onwards.

(t). SPORT SPECIALS AND UNREST.

Israel Railways Ltd. announced on their website that passengers going by rail to the recently opened Sami Ofer stadium at the south-western outskirts of Haifa (not far from Haifa-Hof-Ha-Carmel railway station) to watch the football game between the teams of Israel and Bosnia on Sunday, 16.11.2014, would enjoy a 50% reduction on tickets after showing their game ticket.

The railways provided additional trains after the game from Haifa-Hof-Ha-Carmel to Nahariya, Modi'in, Rehovot, Lod, Ashkelon, Ben-Gurion airport, Beer-Sheva North/University, and Beer-Sheva Central. However, this was initially threatened by sanctions proposed by various groups of workers protesting against the government and railway management's intention to debit the train drivers (and other employees) for taxis from the points where they finish their work to their homes.

- It was later reported that the railways had carried some 10,000 fans to and from the Sami Ofer stadium at Haifa for the football game between the national teams of Bosnia and Israel, which ended with Israel winning 3:0.

(u). IC3 BRAKE PROBLEMS.

On Monday 10.11.2014, an IC3 dmu en route from Jerusalem to Tel-Aviv was stuck somewhere midway due to brake problem; there were only 120 passengers on board, but even after the railways ordered buses, only two arrived in a reason-

able time taking only 100 passengers; another bus was late, thus causing a lot of anger to passengers.

[It is interesting that no lesson has been learned; with a wheelbase of 3000 mm the trains can't negotiate the sharp curves, and as a result there are frequent cracks on wheels and wear on brakes.

Besides, (writes Aharon) it seems to me useless to operate such expensive trains (EURO 6 million each) with 160 km/h capability on a 35 km section of line with a maximum speed of 50 km/h; I have been claiming for more than nine years that either a railbus or a diesel LRV would do the job much better and at a much cheaper price!]

(v). ANOTHER IC3 FIRE.

From a press release of 26.11.2014 by Israel Railways Ltd.: "This morning when train 805 consisting of an IC3 Flexi-Liner dmu was en-route from Beer-Sheva North to Dimona (departure 10:52), the crew detected smoke from one of the engines at 11:15; the train was brought to standstill. The 6 passengers on board... were sent on by taxis to their destination. Meanwhile, the train crew tried to control the fire, but due to strong wind had to call for nearby firemen, who dealt with the incident. After 2 hours the train continued on its own power to the depot. Nobody was hurt and no other train movement was affected.

The whole event raises however, the question: If so few passengers are using this loss-making services, is it justified to operate a Euro 6 million train (badly needed elsewhere); even on the old line to Jerusalem there are many more passengers daily; it seems again that either a railbus, or a single passenger car coupled to a freight train could be sufficient for the 36 km journey provided four times daily on each direction!

At right, a picture of the defective engine after fire treatment provided by courtesy the railways spokesman Mr. Shahaar Wiesman.

w). TERRORIST MURDER ON HAHAGANAH STATION.

On Monday 10.11.2014 Almog Shiloni, a

20-year old soldier off duty, was repeatedly attacked with a knife whilst standing at Tel Aviv HaHaganah station. He died of his wounds that night. The 18-year old attacker from Nablus, Nur al-Din Abu-Hadja had entered Israel illegally. A 50-year old man who attempted to come to the aid of the soldier was lightly wounded in the attack. The organisation Islamic Jihad later claimed responsibility for this and another knife attack in which a young woman was murdered at a bus stop.

As usual the EU and USA called upon Israel to react 'with moderation and restraint' without actually defining what that means in such circumstances.

(x). MORE FLOODING.

On Sunday, 16.11.2014 there were heavy rains in most areas, and consequently floods hit many places. At Nitanim - just north of Ashkelon - lightning struck the signal box and there were no trains between Ashdod, Ashkelon, and Shderot for several hours; buses were provided, but it took some time until all waiting passengers - many of them angry - were transported.

At Shefayim - north of Herzliya - there was more flooding and traffic was interrupted for a while between Tel-Aviv, Haifa, and Nahariya; here, however, the cause was not only rain, but also huge earthworks connected with extension of the Ayalon highway northwards on both sides of the tracks, as well as building a new interchange with transverse road No.

in winter only, also flooded parts of the Ayalon highway, and for a short while also Tel-Aviv Savidor Central station; However, next day the weather was nice and morning punctuality was 98%!

(y). SECURITY EXERCISE.

From a press release of 20.11.2014 by Israel Railways Ltd.:

On Friday, 28.11.2014, between 07:30 and 11:30, the Ben-Gurion airport station will be closed due to a security training exercise at the airport. The following trains will not call at the station:

Between Beer-Sheva Central and Tel-Aviv:

The trains of 06:28, 07:28, 08:28, and 09:28, which normally call at the airport station at 07:36, 08:36, 09:36 and 10:36 respectively.

Between Tel-Aviv Savidor-Central and Beer-Sheva:

The trains of 07:44, 08:44, 09:44, and 10:44; these normally call at the airport station at 08:02, 09:02, 10:02 and 11:02 respectively.

Between Modi'in Central, Tel-Aviv, and Nahariya:

The trains of 07:10, 08:10, 09:10, and 10:10, and 11:10; calling normally at 07:28, 08:28, 09:28, 10:28 and 11:28 respectively.

Between Nahariya, Tel-Aviv, and Modi'in Central:

The trains of 05:57, 06:57, 07:57 and 08:57, normally calling at at 07:55, 08:55, 09:55 and 10:55 respectively.

Aharon adds: He has personally suggested recently to the railways administration, that during normal weekdays two morning trains from Modi'in to Tel-Aviv should not call at the airport due to passenger complaints that journey time to Tel-Aviv are too long and that not calling at the airport station would save about 10 minutes; This is being examined.

(z). DEFENCE CONCEPTS FOR SDEROT LINE.

Aharon Gazit writes: The following idea seems to be either unusual or fancy; the Authority for National Security together with the Defense Ministry are promoting what is defined as

the solution for the threat of rockets/misiles from the Gaza strip against trains running between Ashkelon and Sderot at the section near Kibbutz Erez where the trains are fully exposed; the solution is a protective freight train that would run on the parallel track along the dangerous



531 and a double-track railway line in the road's median strip to link Kfar-Sava and Ra'anana with the coast roads Nos.2 and 20 (Ayalon extension) and with the Haifa - Tel-Aviv line near the remote-controlled loops of Shefayim.

The Ayalon creek, in which water flows
הרכבת



The trees which have been planted along the Ashkelon-Shderot line to hide the trains

section, after which the passenger train will continue as usual; it is claimed that in such a way, the trains will be operated during emergencies too, unlike what happened in the last war when the line was closed for a period.

There have been some cynical responses to this idea but tests have been run elsewhere on the system and more tests are to be carried out soon.

Above is a picture of the trees planted on other sections of the line and the train as seen from the Gaza strip at the dangerous section.

Also attached is a map of the section, showing on the left the protected freight train to run on the western track, the passenger train to run on the eastern track; at the bottom is the station of Shderot.



ISRAEL RAILWAYS SPOKESPERSON'S ANNOUNCEMENT

RAILWAYS' PROFITABILITY ON TRACK FOR FIRST HALF OF YEAR ISRAEL RAILWAYS SHOWS A CURRENT OPERATING PROFIT OF NIS 106 MILLION; NET PROFIT OF ABOUT NIS 1.47 BILLION INCLUDES A ONE-OFF GAIN OF APPROXIMATELY NIS 1.36 BILLION.

Israel Railways CEO Boaz Tsafir: "These positive results express the fruition of steps taken to improve efficiency, restructure, and implant a business-ser-

vice oriented culture in the company over recent years. The railways' performance shows that it is possible to be service minded, punctual and also profitable. Our aim is to put the railways on a firm profitable footing, thus reducing the budgetary load."

Israel Railways now reports a financial yield in the figures for the first half of 2014. The current operating profit, mainly due to the rise in the number of passengers carried and freight haulage, came to about NIS 106 million in the first half of the year; the company expects this trend to continue in the second half of the year.

The company's profits amount to 10% of the current turnover, which is higher than the target set in the operating agreement recently signed with the government; the profits will be used for improving passenger services.

The company's growth and development trend continues apace in passenger transportation and freight haulage, as may be seen from the half-yearly revenues:

The number of trips taken in the first half of 2014 totalled 23.5 million, an increase of about 35% compared to 2011 (17.5 million)—as a result of new lines being opened, increased frequencies, improved punctuality, and upgraded service.

Freight haulage revenues—up by some NIS 11 million, about 14% more than the equivalent period last year.

It is to be noted that an operating agreement has recently been signed between Israel Railways and the Finance and Transport Ministries regulating both the development element and the regular operating charges. Among other areas covered in the agreement are Israel Railways' preparations in coordination with government representatives for a public bonds issue to a value of up to NIS 2 billion.

Passengers

The number of passengers carried in the first half of 2014 totalled 23.5 million, an increase of about 8% compared to the equivalent period last year (21.8 million); fare revenues grew by some NIS 31 million—around 10%—compared to the equivalent period last year.

The following lines accounted for the major part of the growth:

Ashkelon – Tel Aviv—about 3 million passengers were carried in the first half of 2014, 22% more than the equivalent period last year, when some 2.5 million trips were made.

The increase is mainly due to the new connection between Yavne West and Ashdod inaugurated in August 2013, and the express train service from Tel Aviv via Yavne West to Ashdod and Sderot operated in December 2013.

Hod HaSharon – Tel Aviv—about 2.1 million passengers were carried in the first half of 2014, 18% more than the equivalent period last year, when some 1.7 million trips were made.

Binyamina – Tel Aviv—about 4.8 million passengers were carried in the first half of 2014, 7% more than the equivalent period last year, when some 4.5 million trips were made.

Cont. foot of page 8



Flooded Ayalon highway, trains still operate

TENDERS.

A.

- (i). Tender No. 11410: Providing printed matters services for the railways. The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 21.09.2014.
- (ii). Israel Railways Ltd. Tender No. MN/KB/01/14: Completion of infrastructure and building works on Section A (Anava - Latrun) Stage B of the A1 fast link to Jerusalem: The works to be carried out are between control building Daniel on the Ben-Gurion Airport - Modi'in line and east of bridge No. 6 near Latrun Monastery, after which track laying will start. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 21.09.2014.
- (iii). Tender No. MS/RC/2014/15: Permission for renting an open area of 8244 sq.m. at Kfar-Sava for Parking only. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 02.10.2014.
- (iv). Tender No. 3142: Frame agreement for supply of work stations (computers and screens) and laptops: The contract is for 12 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 30.09.2014.
- (v). Israel Railways Ltd. Tender No. 11419: Offers for providing services of supply, installation, and maintenance of rotating gates, emergency gates, and accessories at stations and railway sites. The contract is for 12 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 02.11.2014.
- (vi). Israel Railways Ltd. Tender No. 21407: Providing management services for design, implementation, and maintenance of roads at level crossing at roads that are under the railways' responsibility: The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 06.11.2014.
- (vii). IR Request for Information for Midlife Maintenance Services for Double Deck Coaches.

This is another typically lengthy document and clearly written by a team of enthusiastic and ambitious young lawyers; responses are to be submitted in English by 01.10.2014 and the text makes it clear that this is "merely for the purpose of obtaining any relevant information for consideration purposes only" and commits no-one to anything. It is not to be considered as a request for proposals or as a tender.

'Appendix A' includes some technical specifications. The coaches are needed to traverse all lines in the country, the longest route being ca. 200km. The planned schedule would not begin before 2017, and 144 double-deck coaches will require planned Midlife Maintenance, having been purchased in the period 2001-2006. I think the normal English term would be 'refurbishment' involving not only maintenance but a possible upgrading of the specifications. IR is seeking guidance from the respondents on the necessary works required based on lifetime and kilometrage, and applicable standards for passenger trains, in terms also of interior design, Passenger Information Systems (PIS), diagnostic systems and any other improvements to the technical level.

(viii). IR Request for Information for Programmable Bolting systems for Wheelsets. "To investigate the possible purchase of the system, as well as to review and estimate the costs involved." Suggestions by 11.12.2014.

(ix). Tender No. 21418: Construction of a building for trackmen at the Railways complex (depot) of Beer-Sheva. Latest date for submitting of proposals: 11.12.2014.

(x). Israel Railways Ltd. Tender No. 11409: Supplying and Maintenance services of Lifting Devices for the Disabled at platforms. The contract is for 36 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 25.12.2014.

B. TENDERS AWARDED.

- (i). The railways have announced that the winner of \$156,500 Tender No. 11303 for providing internet services, maintenance and technical support at the internet access, integration and hardware/ software

systems regarding communication and secured data, is Bezeq International (Israeli Telecom).

(ii). The Israeli company Bashik Ltd. won Tender No. MS/RC/2014/9 for operating a stand selling cellular phone accessories at Tel-Aviv Savidor Central station at \$2,030.00 monthly.

(iii). The Israeli company Shon Hirschler won Tender No. MS/RC/2014/9 for operating a stand selling watches and jewellery at Tel-Aviv Savidor Central station at \$3,800.00 monthly.

(iv). The Israeli company Shon Hirschler won Tender No. MS/RC/2014/9 for operating a stand selling accessories at Tel-Aviv Savidor Central station at \$2,506.00 monthly.

(v). The Israeli company Naya Mor won Tender No. MS/RC/2014/9 for operating a stand selling leather bags and other leather products at Tel-Aviv Savidor Central station at \$1,270.00 monthly.

(vi). The Israeli taxi company Rehovot Taxi Ltd. won Tender No. MS/RC/2014/13 for operating taxi services to/from Rehovot station at \$6,800.00 p.a..

(vii). The Israeli taxi company Sea Mall Taxi Ltd. won Tender No. MS/RC/2014/11 for operating taxi services to/from Ashdod-Ad-Halom station at 9,500.00 p.a.

(viii). The railways have announced that the winners of tender No.2014 for providing Real Estate and land valuation services are: General Valuation: Architect Mrs. Penina Noy, Karol Gideon, Havkin Valuators Ltd, and Roni Gevilli.

(ix). Windhoff Bahn und Anlagetechnik GmbH won the ₪498,000 Tender No. 41401 for manufacture and supply of screw lifting jacks.

(x). The Israeli company Almog Technical Equipment Ltd. won Tender No. 11311 for services in maintaining auxiliary track equipment at \$65,940 annually.

(xi). The Israeli company Reshef Security (1993) Ltd. won the \$4,523 contract for Watchmen and patrol services at level crossings.

(xii). Ken-Ha-Tor Engineering & Construction has won the US\$3.9M contract to upgrade Netanya and Hadera West stations.

(xiii). GRE is to provide tender design management services for the railway systems element of the Tel Aviv - Jerusalem fast line project.

(xiv). On 5.11.2014 The railways announced the names of the winners for Tender No. 21417: providing Survey services for bridges and other engineering structures:

For zone 1: S. Mualem Engineers & Consultants Ltd.

For zone 2: Gregory Kelzel Engineering Solutions Ltd.

C. Tenders Delayed:-

Tender No. 31402: Supply of Electrical Locomotives For Israel Railways Ltd. -latest date for submission of proposals postponed from 15.12.2014 to 29.01.2015.

Tender No. 41402: cancelled.

Cont'd from page 7

For 2014 a total of about 48 million trips is predicted.

Freight Haulage Revolution

Freight haulage by rail is an important element in Israel Railways revenues, and over recent months has been undergoing a transformation.

In the first half of 2014 revenues in excess of NIS 86 million have been recorded, representing a growth of about 14% in Freight Division revenues.

Changes in freight haulage in the last half year compared to 2013:

Over 85% of planned train movements implemented (compared to 70% last year).

85% punctuality in destination arrival times (compared to no more than 45%).

Additional goods wagons purchased as well as augmentation of locomotive fleet to enable more trains to be run and higher freight capacity to be offered.

Maximum track time utilisation and optimised wagon turnaround. Substantially higher revenues.

LIGHT RAIL.

A. JERUSALEM.

(i). ARAB AREA TRAM STOPS REMAIN CLOSED.

It was announced on 02.09.2014 that, due to repeated riots at the Arab neighborhood of Shuafat in Northern Jerusalem, it has been decided not to provide for the time being, rail services; consequently, the three destroyed stations have not been rebuilt, and trains are just passing through.

On 07.09.2014 A report by Yedidya Ben-Or, Ari Yashar was headed: "Arab Rock Terror Limits Jerusalem Light Rail":-

"The constant terrorism of rock throwing in Arab neighbourhoods of Jerusalem is becoming an increasing threat, not only for Jews who happen to pass near such neighborhoods but for residents of all parts of the capital city.

CityPass, the company operating Jerusalem's light rail system, announced Sunday morning that "due to continued and repeated rock throwing that inflicts damage to the trains, this morning we only have 16 operable trains out of a total of 23."

"What that means is that fewer than needed trains are active on the line, and the frequency (of trains) throughout the line will be harmed," added CityPass, noting the long-term effects of the rock terror that has decommissioned nearly half of the trains.

CityPass has been complaining for a while that their train cars have been turned into a target for Arab terrorism, a fact which prevents smooth transportation service to residents of the capital. The rock terror, which has often targeted Jewish children, has prevented residents of the northern neighborhood of Pisgat Ze'ev from using the light rail for several weeks, given that the rail passes from there through Beit Hanina and Shuafat, areas of heavy rock attacks.

In early July as Arab riots flared in Jerusalem over the death of an Arab teen, who was killed by a mentally ill man after the murder of three Jewish teens by Hamas terrorists on June 12, violent Arab rioters destroyed three light rail stations, inflicting enormous financial damage to the system.

The light rail was restarted for service in the area later in July, skipping stops in the Beit Hanina and Shuafat areas, but as noted residents of Pisgat Ze'ev remain unable to take the trains due to attacks on them in the area.

After a young father was critically wounded by a rock attack in Judea while driving with his wife and baby daughter last month, Har Hevron Regional Council head Yohai Dimri told Arutz Sheva "this isn't the first time that it's been proven rocks are just as dangerous as gunfire or a rocket."

A similar report appeared in "United with Israel" on 08.09.2014, by Aryeh Savir: "...Recently the attacks have increased to several a day, and therefore the repairing of the damaged trains takes longer.... The train line, which runs through Israel and Arab neighbourhoods in Jerusalem and serves all of Jerusalem's residents, has become the focus of Arab terror in recent months, especially after the murder of teenager Muhammad Abu Khdeir from the Arab neighbourhood of Shuafat by three Israelis. The line is perceived as a symbol of Israeli sovereignty in Arab neighbourhoods and is therefore repetitively targeted. The riots following the murder left segments of the track completely unusable, and the 45,000 Israeli residents of Pisgat Ze'ev in northern Jerusalem were left with almost no public transportation. The train line required extensive repairs at the cost of millions of shekels. "We must remember that at the end of the day, the people that suffer from this situation are the residents who use this train to get to the centre of town, and now they cannot," said a City Pass spokesman. "We need to understand that the light rail is a microcosm of Jerusalem. The train goes through Arab and Jewish neighbourhoods and they all use it. That's the beauty of Jerusalem and we need to be careful with this delicate reality."

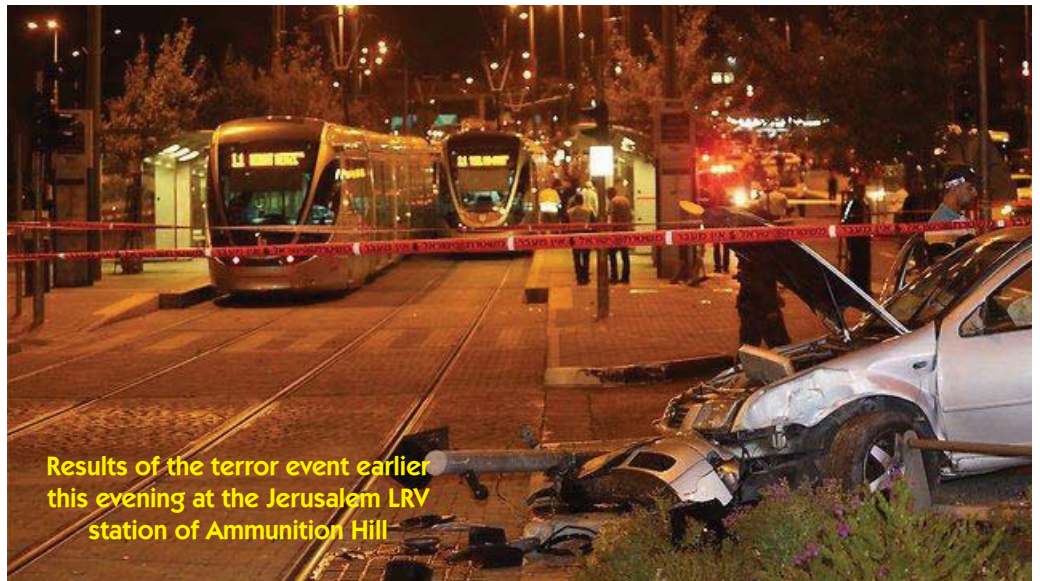
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(ii). WALTER ZANGER TAKES A RIDE.

From Walter's 'From Jerusalem' Newsletter Vol. 16 No. 4, September 2014 pp.6f. - a personal but experienced view - which was calm and relaxed at the time, but of course much has happened since:-

"Jerusalem has been unquiet this past month. The events in Gaza started out with the murder of three Israeli teens from the Etzion Bloc. Some half-witted young Jewish idiots decided to get even by murdering an Arab kid in Jerusalem a few days later. And the you-know-what hit the you-know-what. Great; just what we needed!

The youth of the Arab street, always on the edge of hysteria, erupted in violence, of course, burning tyres, throwing stones and fireworks and Molotov cock-



Results of the terror event earlier this evening at the Jerusalem LRV station of Ammunition Hill

tails at the police, passing cars, whatever. The Police (in Jerusalem) and Army (on the West Bank) and Border Police responded with crowd-control stuff: water cannons, tear gas, rubber bullets, etc. A few of these went wrong and one or two more Arab kids got killed as a result. And then there were the funerals, and more demonstrations, more riots, etc. Dreary, dreary!

Rioting like this happens after the sun goes down and is therefore dangerous and nasty to the people who happen to be around after most of the others have gone home for the day. Not nice, but we know we can live with this situation as long as we can avoid doing permanent damage. The anger will die away in a while and life will go on as it has for the past 47 years since we unified the city in 1967.

Well, the chief victim of Arab rioting has been, nebbish! - the Light Rail! This wonderful transportation line goes east down Jaffa Road to the corner of the Old City, up north past Damascus Gate and the (Arab) Wadi Joz neighbourhood to Ramat Eshkol and French Hill, then (here's the problem!) through the Arab neighbourhoods of Es-Sahl/Shuafat and Bet



Jerusalem LRV under a heavy rain (not of stones)

ers who have the universal problems of testosterone, etc., living under enormous pressure – religious, social, sexual and political – dominated by us in every part of their life, stifled in ambition and crippled by the failure of Muslim civilization everywhere, hating while envying Israel and the West and humiliated by their own failure to compete, accustomed to violent reactions to stress

Hanina to connect with the largest suburb of the city, Pisgat Ze'ev. (Shuafat has about 35,000 inhabitants and Beit Hanina about 28,000. Pisgat Ze'ev is the largest neighbourhood in Jerusalem with more than 50,000 people: young families, immigrants, and a lot of Russian Jews living there.) Bet Hanina is largely middle-class and Christian Arab, but Es-Sahl/Shuafat (two train stations serve that neighbourhood) are Muslim, and the latter has a big refugee camp. That's where the trouble happens at night.

We have friends who run the huge glass factory at Kibbutz Tzuba. They make the safety glass for the Light Rail... and maybe they're happy making money on replacing windows. Doubt it, actually, but the fact is that as soon as the sun goes down, the youth of Shuafat start pelting the train with rocks, fireworks, paint, etc. Things got worse the night that first Arab kid was murdered and the locals went on a rampage, completely destroying the Es-Sahl and Shuafat train stations.

So they discontinued the line north of French Hill for a bit. But that couldn't last; you can't cut off 50,000 people in Pisgat Ze'ev from the rest of the city. And you don't want to cut off the 50,000 Arab residents of north Jerusalem either. Well, it happens that my accountant has her office right at French Hill, the temporary end of the line on the day I needed to go see her. So I got on the train at Mt. Herzl as usual and zipped right up there. But then I decided to make the brave effort... to see what in fact was happening if we all passed farther north. The train was pretty empty of both Jews and Arabs, and

I was actually of equal parts curious and a bit nervous. The train kept going. It wasn't the end of the line at all, despite what had been announced on the news. After French Hill we came to Es-Sahl and Shuafat. We found the stations demolished, awnings, shelters and benches ripped down, change and ticket machines (now wrapped in a protective cocoon) burned and destroyed. The tracks and area had been cleaned up, but there was fairly little left of the stations themselves.

Two middle-aged guys were sitting on bridge chairs on the platform behind a makeshift table on the Shuafat station. One was selling tickets to anyone (presumably local Arab residents) who got on and needed to buy a ticket, and the other was presumably doing security for him. I didn't see that he was armed. They didn't look nervous.

The Beit Hanina station, next stop, was untouched, and the train continued right up to the last stop in the high, wide, wild, open spaces of Pisgat Ze'ev. I got off the train, breathed the clean, cool air of the hills of Benjamin, crossed the tracks and took the next train back down to French Hill to worry about filing my income tax. Struck up a lively (and actually friendly) conversation with a wild looking fellow who was the only other passenger there, which began when I suggested he take his feet off the seats. Jerusalem never ceases to amaze me."

And a P.S. - "I wonder if anyone has ever made a psycho-social study of the hysteria lying right beneath the surface of the Arab population of the area. These poor people, especially the teenag-

because that's all they have ever known; poor people! They're screwed."

(iii). "ANXIETY TRUMPS COEXISTENCE."

By coincidence, on the same day I received Walter's newsletter this rather sad article by Elhanan Miller appeared in 'The Times of Israel' (2.10.2014):-

"Zemira Tahan thought twice before boarding the tram at the north Jerusalem neighborhood of Pisgat Zeev. "My kids tell me, 'It's scary there, why go on?'" she told The Times of Israel on Tuesday afternoon, as the tram made its way southward, downtown. It had been pelted with stones three times that morning. "But I say to myself: if I don't ride, and you don't ride, and no one rides, the train may stop entering Pisgat Zeev. We've waited many years for this train and we deserve to enjoy it."

Tahan is not the only Jerusalemite wary of boarding the light rail these days. Lauded as an oasis of coexistence in a deeply conflicted city upon its inauguration three years ago, the tram carries some 130,000 passengers a day along a 14-kilometer (8.5 mile) route from Pisgat Zeev in the northeast to Mount Herzl in the southwest, traversing the Palestinian neighborhoods of Shuafat and Beit Hanina.

But when riots erupted in Palestinian areas of Jerusalem early July following the kidnapping and murder of teenager Muhammad Abu Khdeir — apparently at the hands of Jewish extremists, in a revenge attack soon after the bodies of three murdered Israeli teens were found in the West Bank — the tram's infrastructure

in Shuafat was the first to be targeted. Rioters set on fire the stops and the ticket-selling machines, and even attempted to bring down an electric pole using an angle grinder. The tram stopped running north of French Hill for a week, as the police and city hall assessed the damage.

The light rail continued to be targeted by Palestinians throughout Operation Protective Edge in Gaza, but violence did not die down even after a ceasefire was reached. According to Jerusalem Police, 13 cases of stone throwing were reported between September 7 and September 28, with two people arrested and one indicted. Stone throwing has become such a menace, in fact, that a special police task force was recently created in Jerusalem to combat the phenomenon. In a revelatory interview with Israel Radio on Tuesday, Yaron Ravid, the CEO of CityPass which operates the light rail, said that police had instructed his company not to make public the attacks on the tram, arguing that media attention would only encourage offenders. CityPass told Ynet on September 16 that 95 attacks had been carried out against the light rail since July, mostly during evening hours. Citypass has been forced to put 30% of its cars (7 of 23) out of service due to damage from stone throwing, and estimated the damage caused to its trains and infrastructure by the end of August at NIS 35 million (\$9.5 million). A spokesman for the Jerusalem municipality informed The Times of Israel that all cars are now equipped with stone-proof windows.

Waiting at Givat Hamivtar station near Mount Scopus, Hebrew University student Ashraf Kheiri, 23, said that stone throwing was a Palestinian reaction to ongoing neglect on the part of Jerusalem's municipality and the police. "There's no other way to protest," he said. "Put yourself in their place. They have nothing and wanted to react to the murder of Abu Khdeir. What would you do? As far as they're concerned, no one takes care of them."

"I would never do something like that," he said emphatically. "Do you know why? Because I use it every day. If it's stuck, I can't get home."

On a crowded northbound train, Monica, a 48-year-old tour guide from Pisgat Zeev, said she avoids taking the tram in the evenings, when the risk of stone throwing increases. "There's no lack of security, but I can sense the hostility outside in the three [Palestinian-area] stations. It's scary," she told The Times of Israel. "Being attacked with stones or Molotov cocktails is one experience I don't want to have." Pisgat Zeev's local newspaper has begun referring to the tram as "the roller coaster," and a group of residents has called for a boycott until the tram is rerouted away from the problematic Palestinian neighborhoods. Monica said she opposed that

effort. "Right now coexistence is an illusion, but it did happen at first. I believe we will return to that situation, but time must pass. Both sides need to be more tolerant; this doesn't happen overnight."

Despite the anxiety, Arabic and Hebrew still mixed on the tram Tuesday in the loud chatter of veiled Arab schoolgirls on their way home and the raucous cellphone conversations of middle-aged Israeli women. A security guard in khaki and an earpiece (one is assigned to every car) paced slowly back and forth, as the loudspeaker announced the next station in Hebrew, English and Arabic.

Traveling on the tram has become a scary experience not only for Jews, but also for Arabs, albeit for different reasons. Since the kidnapping and killing of the three Israeli teenagers Naftali Fraenkel, Gil-ad Shaar and Eyal Yifrach south of Jerusalem in June, Palestinians — especially veiled women — have reported a sharp increase in verbal and physical attacks on the tram, one of the only places of close contact between Jews and Arabs in the city. One video of a verbal attack directed at a Palestinian woman was uploaded to YouTube and went viral. (Right wing Jewish teenagers wearing stickers that say 'Kahana was right' and 'Revenge' were seen giving the finger and yelling at Arab women sitting inside the tram in central Jerusalem during a large right wing protest against Arab terrorism, July 1, 2014, in response to the kidnap and murder of three Jewish teens.

At Shuafat station, 41-year-old housewife Khawla agreed to talk about her experiences on the tram, but apologized for having to get off at the next station to buy a ticket. The vending machines have still not been repaired since being vandalized, and she did not want to get fined. She stopped using the tram when the Palestinian teenager was murdered and only resumed traveling on it two weeks ago, she said, when the financial burden of taking taxis finally overcame her.

"I stopped using the tram because it became too dangerous even before [the murder of] Abu Khdeir," she told The Times of Israel. "There were slogans written on our walls in Shuafat: 'Beware of child kidnapping.'" The Shuafat tram station in East Jerusalem has still not been repaired since being vandalized by Palestinian rioters in early July. Once, at a tram station, schoolchildren harassed Khawla and her son with nationalistic chants, she said. Two weeks later, a Jewish teenager spat on the boy unprovoked while she was leaving Pisgat Zeev mall with him. "The situation has escalated in all aspects," she said, noting that at one point in recent months she would call another son — who works as a truck driver in West Jerusalem — five or six times a day to make sure he's all right. "I've experienced a difficult period of

tension."

The increased presence of police and light rail security has not added to Khawla's sense of safety; quite the opposite. "The police haven't left the area since the riots. Just two days ago a 16-year-old from my son's school was beaten and arrested," she said. "I don't let my son leave home. I fear for his future if he too is arrested." Khawla bemoaned the situation of Jerusalem's Palestinians, who she said are shunned both by Jerusalem's City Hall and by the Palestinian Authority.

Like Khawla, Pisgat Zeev resident Meital Balas, 32, was traveling on the light rail for the first time in a month and a half with her young son on Tuesday. She said she has witnessed many cases of Jews provoking Arabs on the tram "for no reason," sometimes even coming to blows. But if it were up to Balas, Khawla — like other Palestinian residents of Jerusalem — would have limited access to the tram. "I think separation is warranted, and [the tram] should not pass through Shuafat," she said. "I'm not a racist or anything, but they show no willingness to live in peace. If they burn their own stations and start rioting again, and if we live in fear in our own city, what else do we have left?"

(iv). A further news item in 'Times of Israel'

by Lazar Berman on 12.10.2014 stated that there had been five further rock-throwing attacks on the trams over Saturday night, in the Shuafat neighbourhood. Four trains suffered damaged windows. No arrests had been made but the previous Wednesday (8.-10) security forces had announced the arrest of two men in their 20s for throwing stones at passing cars and the Light Rail. Prime Minister Netanyahu ordered police to step up patrols in East Jerusalem, stating that he would not allow such riots to become the norm. But then came:

(v). ATTACK ON STATION AT AMMUNITION HILL.

From 'Times of Israel' 22.10.2014, by Ilan Ben-Zion:

"Several people were injured Wednesday afternoon after a car crashed into a light rail station in Jerusalem in a possible terrorist attack. A suspect attempted to flee the scene on foot and was shot by police, a police spokesperson said.

A spokesperson for Israeli rescue service Magen David Adom said a 60-year-old woman and a 3-month-old baby were both very seriously injured, along with the suspect. Unconfirmed reports said the suspect was Abdelrahman al-Shaludi, a former Palestinian prisoner from the flash-point neighborhood of Silwan. Another six people were also lightly and moderately wounded in the attack, he said.

Police spokesperson Micky Rosenfeld

said on Twitter that all of those injured in the incident were evacuated to local hospitals and that an investigation was ongoing.

The incident took place at the Ammunition Hill station, near police headquarters, police said. The light rail runs along the seam line between East and West Jerusalem.

A Hamas spokesperson said in response to the reports that if indeed it was a terrorist attack, that it was the natural response to Israel's actions in Jerusalem, particularly Jewish incursions into the al-Aqsa Mosque, Israel Radio reported.

Initial reports indicated the attack occurred as people were disembarking from the light rail. Preliminary reports indicated that a train derailed during the incident. However, there was no immediate indication of whether there was damage to the train itself. The light rail has in recent months been repeatedly attacked by stone-throwing Palestinians in the neighborhood of Shuafat, located just north of where Wednesday's incident took place."

A later report (datelined 18.33 Israel time) confirmed that the baby had died at the hospital of her injuries; eight others including the baby's father had been injured in the attack; The attacker was stated to be a member of Hamas.

On Y-Net the same evening: by Noam Dvir: "Terror returns to Jerusalem: A 3-month-old baby girl was killed and seven other people were wounded Wednesday evening when a Palestinian plowed his car into a crowd of people waiting at the Ammunition hill station of Jerusalem's Light Rail. The driver – a resident of the village of Silwad with a record of security-related offences – attempted to flee the scene on foot but was shot by police. He sustained chest wounds and was taken to a Jerusalem hospital in serious condition.

Police spokesman Micky Rosenfeld said the car struck the train station near the national headquarters of the police force. He said police were investigating but all signs pointed to an intentional attack. 'There is a strong possibility that it was a terror attack', he said. Interior Security Minister Yitzhak Aharonovich, who arrived at the scene, said that 'all signs indicate this is a terror attack.' He further said that the driver had served time in prison before. He praised the police for their quick response. 'This is not an intifada,' Aharonovich said, noting that he had spoken with Prime Minister Benjamin Netanyahu and that the police and the Shin Bet internal security services were investigating. Two men in their 20s were taken to Hadassah Medical Center on Mount Scopus with light wounds. Hadassah at Ein Kerem took in three wounded women, one in serious condition and two lightly hurt. According to MDA paramedics, at 5.54pm

they received a report saying that a car hit a number of pedestrians near the Ammunition Hill station. A paramedic at the scene told Ynet that the baby's mother 'brought her to me with a serious head wound. She told me that the car hit the stroller and she was hysterical.' The baby was unconscious.

In wake of the event, the Light Rail company said in a statement that a partial service was running between the Mount Herzl and Damascus Gate and Givat HaMivtar stations. This is not the first time the capital has seen such attacks, and recent weeks have seen a number of incidents on the train. The recent two months have seen a rise in the number of attacks on the train, especially in the Palestinian parts of the city. Those using the Light Rail for their daily commute say incidents in the Shuafat and Beit Hanina stations have become routine."

By the following day it was confirmed that the attacker was the nephew of Hamas former top bombmaker Mohiyedine Sharif, and that the baby and its parents were American citizens who had recently moved to Israel.

And just to show what sort of world we are dealing with, thanks to Steve Waldenberg here is a report on what might just be the same incident, from Al Manaar News:- <http://www.almanar.com.lb/english/adetails.php?id=177472&frid=23&seccatid=18&cid=23&fromval=1>

"A Zionist policeman killed a Palestinian man on Wednesday, claiming that his car slammed into a light rail station near the Sheikh Jarrah neighborhood of occupied East Jerusalem. Eyewitnesses said Abd al-Rahman al-Shaludi, 20, was shot by Israeli guards at the light rail station after he lost control of his vehicle and hit commuters standing nearby. Eyewitnesses told Ma'an news agency that al-Shaludi had exited his vehicle after striking the pedestrians, at which point he was shot in the back by the guards."

On 26.10.2014 Karen Jemima Mosquera, who had been one of the injured, also died of her injuries – she had come from Guayaquil in Ecuador to convert to Judaism.

A few days later there was yet another similar attack when a car drove deliberately into a queue near the police station, and an off-duty Druze policeman was killed – as was the driver, who got out of the car waving an iron bar and was shot by police.

(vi). NEW CITY ENTRANCE PLANS.

From a press release of 05.09.2014 by the Transport Ministry:

"Minister Israel Katz announced today, that within five years the western entrance to Jerusalem (for those arriving from Tel-Aviv), will look entirely different with works to build Israel's biggest transportation centre soon to start. This is an additional stage of the so called "City Gate" to include all the existing modes of transportation together with an innovative business and cultural centre.

To be located between Binynei HaUma (Congress Hall) and Egged Central Bus Station, it will include the new HaUma railway station (currently under construction), 2 LRV stations, extensions of the Red Line, taxi stations, and an underground park and ride facilities for 1300 cars.

Minister Katz added that the \$420 Million project will significantly upgrade the city's public transport services and enable thousands of people arriving at and departing from Jerusalem daily to do so fast and comfortably."

(v). NEW APP.

The Transport Ministry, Jerusalem Municipality, Jerusalem Transportation Master Plan Team in collaboration with the German company IVI, introduced on 15.09.2014 the application "Jerusalem Trip Planner", which is the first of its sort in Israel; it not only provides information about all the city's modes of transport, but - and this is particularly important - it is in English!

Jerusalem is again ahead of other cities in Israel, not only with the LRV! The application can be downloaded through Google.

(vi). BETTER SHELTERS.

From a press release of 05.10.2014 by the Transport Ministry, the Jerusalem Municipality, and the Jerusalem Transportation Master Plan Team:

Good news for the LRV passengers: all the stations, and particularly those located at areas exposed to harsh weather conditions, will be much better protected in the coming winter.

The stations are being redesigned, which include glass screens 2.5m high at the front of the station, and roofs with an area of 70 sq.m.; twice as much as at present. Thus the stations will be wind, rain, and snow protected; in summer the glass screens will be removed to prevent the greenhouse effect.

The improvements are a result of lessons from the 2013-14 winter when severe snow storms caused a lot of suffering to passengers; the new design has been drawn up by the Jerusalem Transportation Master Plan Team with the assistance of architecture company Public Zone.

The first station being redesigned is that on Mount Herzl, located at a height of about 830m above sea level. (Of course protection against the weather is one thing, protection against deliberate terror attacks is something else....)

B. TEL AVIV.

News from here is held over to the next issue due to lack of space. (Editor.)



(Photos courtesy of Aharon Gazit.)

The carriage sidings at Lod depot are filled with stock awaiting the next rush hour. Bombardier Double-Deck coaches



107:08.

OTHER MIDDLE EAST RAILWAYS.

A. QATAR.

(i). LUSAIL TRAMWAY.

(Translated from the August 2014 NVBS magazine "Op de Rails" by Marc Stegeman):

"In July 2014 Lusail City in Qatar ordered Alstom to build a four-line 33 km tramway network, including 7 km as subway. Services will start with 35 Citadis 302 trams with an option for 32 more. Current will be provided to the trams via the APS feeder rail system, as is being built in Dubai. Lusail is a completely new city, 15 km north of Doha, intended for 250,000 inhabitants. City and tramway will be ready for the world football championship in 2022.

Note from the translator: APS current supply is not exactly as we know it from the Märklin 3rd-rail or stud-contact model railway, but integrated into the pavement.

In 'R.G.I.' August 2014 p. 15 is more

information:-

"A consortium of Alstom and QDVC has won the €2Bn main contract for the construction of a four-line tram network in Lusail. Opening of the Yellow Line is planned for 2018, with the Green, Red and Purple lines to follow in 2010. Alstom's share of the contract, worth €450M, includes trackwork, signalling, substations, catenary, the APS ground-level power supply system and 35 Cotadis trams. The 100% low-floor trams will be 32m long. Lusail LRT will be the second tramway in the Gulf region to use APS technology, after the Al Sufouh line in Dubai where testing is now underway for opening later this year.

Options for a further 32 Citadis trams could take the total value of the contract to Alstom to €750M. Several Alstom sites will be involved in the project, including Le Creusot, Ornans,

Tarbes and Villeurbanne.

Civil works partner QDVC is a 51:49 joint venture of Qatari Diar and Vinci Construction Grands Projets. QDVC began earthworks for the cut-and-cover tunnels in 2009, and in 2011 was awarded a €347M Design and Build contract covering the eight underground stops, a viaduct over a motorway and preliminary works for the depot."

(ii). DOHA TRAMS. A Siemens press pack at Innotrans includes an item on the Avenio tram for München – which city has ordered eight and classified them as T1. It is noted that "The Avenio is the new tram platform of Siemens, and has already been ordered also by customers in Den Haag, Netherlands, and Doha, Qatar. The München version is 100% low-floor and has place for 220 passengers,

However, in 'I.R.J.' August 2014 p. 12 is

stated: "A consortium of Qatari Diar Vinci Construction (QDVC) and Alstom has been awarded a [2]Bn. design-build contract by Qatar Railways to construct a light rail network in Lusail, a new city being constructed near Doha, which will provide homes for around 200,000 people. QDVC has been working on the project since it won the first of two construction contracts for the 33km. four-line network in 2007 and 2012. So far, 7km. of tunnels and seven underground and four surface stations have been built along with the viaduct to the depot.

Under the new contract, QDVC will be responsible for constructing the remaining 25 stations, the depot, architectural and electromechanical works, and project management. Alstom, whose share of the contract is worth [750]M, will supply 35 LRV's, and provide catenary-free electrification, power supply, track, signalling, telecommunications and train control.

The network comprises 22.7km of at-grade and elevated railways and 10.4km of cut-and-cover construction, plus 10 underground and 26 surface stations. The LRT network will connect with both the planned national railway network and the Doha metro, which is now under construction. The first line is expected to open in 2018 followed by the remaining three lines in 2020."

(iii). GOLD LINE: In 'Railway Gazette' Sept. 2014 p. 23, "Atkins has been selected as lead designer for the Doha Metro Gold Line project. The east-west line from Airport City North to Al Rayyan South is scheduled to open by 2019 under Phase 1 of Qatar's four-line metro plans. The design contract is worth 80M Pounds over two years. It was awarded by the consortium of Larsen & Toubro, Aktor, Yaps Merkezi, STFA Group and Al Jaher Engineering which project promoter Qatar Rail has appointed to design and build the line."

B. SAUDI ARABIA.

(i). DERBY VISIT. In 'Push and Pull', the magazine of the Keighley and Worth Valley Railway Preservation Society, Autumn 2014 p.27 is a report by Ralph Ingham on a visit by a 'Midland' steam locomotive, '4F' 0-6-0 43924 to the Bombardier works at Litchurch Lane in Derby for a series of festivities organised by Bombardier. Mention is made of new-build 'A1' Pacific 60163 'Tornado' being in steam on Friday 16th. May to run a special train "for a visiting party from the Saudi Government who, I read in the paper afterwards, are looking to make major investments in transport infrastructure in and around their major cities. Although clearly impressed by No. 60163, I doubt if an 'A1' will feature on their list of prospective purchases. We wish Bombardier every success in securing contracts....."

(ii). TRACK-DOUBLING CONTRACT AWARDED.

From 'I.R.J.' Sept. 2014 p.16. "The president of Saudi Railways Organisation (SRO) H.E. Mohamed Al-Suwaiket has signed a Riyals 391.5M (\$US 104.4M) contract with a Saudi contractor for the first phase of track-doubling on the Riyadh - Harad - Dammam freight-only line.

The contract involves doubling a 214km section of the line from Hofuf to Harad, and the project is expected to take two years to complete. SRO says the project will enable it to

increase capacity, lengthen trains and cut the 14-hour transit time for freight trains, by reducing the occasions when trains have to wait in passing loops.

The double-track section will be designed for 150km/h operation as SRP is planning to introduce a passenger service between Hofuf and Harad, and to Al Kharj at a later stage. Tender documents are being prepared for the second phase of the project to double the line between Riyadh and Al Kharj. The contract will include reconstruction of bridges, and provision of signalling and telecommunications to enable use of the line by both freight and passenger trains."

Just to show how careful one must be, in 'Railway Gazette' Sept. 2014 p.26 the distance is given as 241km not 214, and the project is "between Hofuf and Haradah, to increase capacity and permit the planned operation of 150km/h passenger trains on the freight route."

(iii). DAMMAM LIGHT RAIL. From 'I.R.J.' July 2014 p.10. "An integrated transport network of light rail and buses in Dammam could cost Riyals 60 Bn. (\$US 16Bn) and be implemented by 2021, following its approval by Saudi Arabia's Council of Ministers on May 19th. 'The project needs a year to a year-and-a-half for studies to be carried out and to identify locations and stations,' says the mayor of Saudi Arabia's Eastern Province, Mr. Fahad Al-Jubair.

The light rail network will comprise two lines. One line would run south from Tarout Island via Al Qatif, Dammam and Dhahran to Al Khubar, the starting point for the King Fahd Causeway which connects Dammam with Bahrain. The second line would along on King Fahd Road in Dammam northwest towards King Fahd International Airport."

(iv). MONORAIL.

The exhibits on show included the first Bombardier 'Innovia-300' trainset for the King Abdullah Financial District monorail currently being built in Riyadh. A German-language press release stated:- "On its way from where it was constructed in Kingston in Canada, the first Innovia Monorail 300... is making a call at the Innotrans in Berlin. Six two-car trains will there work on the 3.6km. line with six stations. The computer-controlled, driverless monorail is already in use in Sao Paulo in Brazil, where this year the first section of the total 24km long Metro Line 15 was opened. Here there will eventually be 54 7-car trains and 17 stations. The system is a significantly cheaper alternative to an underground line, can allow 75-second intervals and transport up to 48,000 passengers per hour, says Marco Krönke, Director Product Management at Bombardier. The rubber tyres make the Monorail especially quiet for inner-city operations and permits optimal movement on curves and gradients.

(v). STAFF TRAINING COLLEGE.

From 'I.R.J.' Aug. 2014 p. 9: "A new college to train staff for the Saudi Railway Company (SAR) has opened in Buraydah, on a section of the North - South Railway currently under construction. Saudi Railway Polytechnic will be run by TQ Pearson, Britain, and can accommodate up to 3,000 students between the ages of 19 and 23."

In 'R.G.I.' Aug. 2014 p.71: "Last year

[sic.] TQ Education & Training was awarded a five-year contract to provide training and management services to the Saudi Railway Polytechnic, which has been established in Buraydah through a partnership between Saudi Arabi Railways and Technical & Vocational Training Corp. TQ is responsible for developing the curriculum and learning materials, managing equipment and facilities and employing the training staff.

The polytechnic will train 1500 students aged 18-21 years over five years, providing vocational qualifications in health & safety, mechanical, electrical and civil engineering, signalling & telecommunications, rolling stock maintenance and train driving. All teaching will be in English. As well as Saudi nationals, it is hoped that the polytechnic will attract students from across the region."

(vi). REFURBISHED AMERICAN DIESELS.

Molinari-Rail AG of Winterthur, Switzerland, displayed information on several projects at Innotrans. These included the Refurbishment of SDL 40 Co-Co Diesel locos for Saudi Arabia; this included tracing and finding suitable locos in the USA to purchase second-hand, find an appropriate local workshops for the works required, preparation of all specifications, including lists of necessary spare parts and general project management.

This project began at the 2010 Innotrans when Molinari was approached and asked whether it would be technically and economically possible to make used US SDL 40 locos suitable for use in the Saudi desert conditions with their climatic extremes. With a selected American partner Molinari achieved this; the modifications required included a reduction of the axle loading from ca. 30tons to a maximum of 25 tons, the installation of a third air filtering system to prevent damage from ingress of sand and dust, and installation of air conditioning in the driving cabs. In addition all components were checked and where necessary refurbished or replaced. Following the major works at a workshops in the Mid-West the locos were completed at a major railway works in Pennsylvania, repainted and shipped from Norfolk Va. The locos were each dealt with within six months and since 2012 they have been hauling 4000ton container trains. In the meantime and due to the positive experience a further two such locos have been ordered.

The locos are 20.98m long, 3.12m broad, 4.75m high, weigh 150tons, are of 3,000hp / 2,240kW, have a top speed of 105km/h and can now work between 0°C and +55°C.

(vii). HARAMAIN HIGH-SPEED RAILWAY.

In the German-language 'Die Bahn' 9/2014 p.32: "The 'Haramain High Speed Rail project' is one of the greatest railway projects in the Near- and Middle East in which DB International is involved. The project sets new boundaries and not only for Saudi Arabia; travel between the holy cities of Mecca and Medina should in future be fast, comfortable and safe. The Saudi Railway Organisation (SRO) thereby sets high standards based on European know-how. EU norms form the basis here.

The 450km. long, double track and electrified line is laid out for trains with a top speed of 320km/h; Investment costs run at around 7 Billion Euros. The Spanish-built Talgo-350 trains will call at five stations.

Our experts at the Rail Systems Competence Centre with their know-how in ETCS (European Train Control system), GSM-R, control and energy supply systems form therefore one of the supporting pillars for the background infrastructure parameters of this ambitious railway project. Further achievements are the control of quality and planning of the papers prepared by the Spanish planners in their initial and then more detailed project documentation. The results are then discussed at workshops at Madrid, Frankfurt and Jeddah. This work is complemented by extensive checking before acceptance of the Balises and point motors in Madrid and Germany."

In 'Railway Gazette' Sept. 2014 p.28 is a photo of a set under construction – "SRO President Mohamed Khaled al Suwaiket visited the first trainset for the Haramain project at Talgo's factory at Rivabellosa in Spain on August 11. Trial running between Rabigh and Madinah is planned for next year, with opening of the 450km high-speed line between Makkah, Jeddah and Madinah now expected in mid-2016. Talgo is supplying 36 Talgo 350 trainsets suitable for 320km/h operation; 35 for passenger services plus a royal train. The 13-car trainsets are based on the AVE 102 and 112 supplied to RENFE. Bombardier has subcontracts worth 281M to provide Mitrac 3000 traction and control packages and Flexx 350 power car bogies."

In 'Railvolution' 3/14 p.49: "Talgo recently awarded BORCAD a three-year contract for 3,885 Comfort seats for installation in the first class accommodation of the 35 trains whose design is based on the Talgo 350 'Pato' ['Duck' – based on the cab front which looks like a duck's bill] currently being built for the Haramain High Speed Railway between Makkah, Jeddah and al-Madinah al-Munawwarah. Each train will be fitted with 111 first-class seats, in a 2 + 1 configuration. The Al-Shoula consortium, which ordered the trains, also requested an option clause in the contract for a further 23. Winning this contract is another landmark for BORCAD – the company's first to be awarded by Talgo. The choice of the seat units involved the participation of members of the Saudi Arabian royal family. The Comfort seat bases are 500mm wide between armrests. The seat units are fitted with individual audio and video equipment, the video screens being installed in the seat backs. Litter bins, fold-down tables, lights directed into the aisle and adjustable footrests are provided, and the seats are also equipped with adjustable reclining mechanisms.

(viii). JEDDAH METRO. 'R.G.I.' Aug. 2014 p.18: "Systra has been awarded a 276M Riyal, 20-month contract to provide preliminary design for the Jeddah Metro."

From 'Metro Report International', Sept. 2014, p. 6. "Jedda Metro Co. has awarded AECOM Technology Corp an 18-month contract worth US\$28M to provide consultancy services to support the preliminary planning and design phase of the Jeddah Public Transport Project. Systra has been awarded a 276M Riyal, 20-month contract to provide preliminary designs."

(ix). DAMMAM. From 'Metro Report International', Sept. 2014, p.7. "A 60Bn Riyal Dammam public transport project would include two metro lines. One would run from Tarout

Island via Qatif, Dammam and Dhahran to the King Fahd Causeway, the second line would connect King Fahd Road in Dammam with King Fahd International Airport."

(x). SAUDI RAIL SHOW.

From January 25-28th. 2015 the 'SAUDI RAIL 2015' trade show will be held "under the patronage of His Royal Highness Prince Turki Bin Abdullah Bin Abdulaziz" Governor of Riyadh Region. A look at the information on the website: "The scope of the planned Saudi rail projects and required investment are massive, an estimated \$45 billion. One third of the GCC rail budget is allocated to upgrading existing lines and building the new rail network across the Kingdom before 2030. However, with Saudi Arabia's vast land mass, varied geographical features, as well as the plan's ambitious deadlines and objectives, a unique set of financing, logistical and engineering challenges will require innovative and equally ambitious solutions.

In response to this critical industry need, Riyadh Exhibitions Company (REC) is proud to announce that the Saudi Rail Exhibition 2015 is taking place from January 25 to 28 at the Riyadh International & Convention Centre (RI-CEC), under the auspices of the Saudi Railways Organisation. Featuring an intensive three days showcase of the latest products, equipment, technologies and services, from the biggest Saudi, regional and international industry players, the show will facilitate unique and highly effective networking opportunities.

With the Saudi government awarding contractors worth billions for the design and construction of its rail and metro networks and, with numerous business opportunities being created for the technology, rolling stock, construction and building materials sectors, this prestigious and timely event will serve as the meeting place for rail, metro line and urban transportation professionals in the Kingdom.

A series of specialized seminars will be offering insight about rail, metro, logistics, transport and freight by providing know-how and skill from international experts that can benefit the Kingdom in implementing its railway and transportation projects, demonstrating examples on how to execute these rail projects in the GCC countries in the most efficient, cost-effective, sustainable and profitable way, resulting in a significant change and increase in the region's economic growth to levels never seen before.....

C. OMAN.

From 'I.R.J.' 9/2014 p.16: "Oman Railway Company (ORC) announced a shortlist of pre-qualified bidders on August 13 for contracts to construct and equip the first phase of the Sultanate's 2,244km national railway network. According to a report in the 'Times of Oman' on August 13, 18 international consortia had prequalified for the civil works contract, which five groups are vying for the railway systems contracts."

D. ETHIOPIA:

(i). ELECTRIC LOCOS.

From 'I.R.J.' Aug. 2014 p.16: "CSR Zhuzhou, China, has won a contract to supply 35 electric locomotives starting in 2015 for the Addis Ababa - Djibouti standard-gauge line. This is CSR Zhuzhou's second order for such

locomotives, the first contract being awarded in 2011."

(ii). LIGHT RAIL. From 'World Railway' magazine: 'China Rail Report 2014'. On p.8: "Huawei awarded Addis Abeba light rail telecoms contract. Huawei has been awarded a contract to provide its Mass Transit eLTE communications technology for the Addis Abeba light rail project. Huawei will provide fixed and wireless communications to support applications including telephone, SCADA, fare collection and IP-based video surveillance. The north-south and east-west lines totalling 31km are being built by China Railway Eryuan Engineering group with completion scheduled for January 2015."

(In this publication there are also some pretty amazing illustrations here of monstrous bridges and flyovers. An advert (p.7) for Nanjing Kangni Mechanical & Electrical Co. Ltd. - constructing door systems and platform screen systems – illustrates its successes on a world map and indicates sales to Shiraz in Iran and to Saudi Arabia; Plus to a mysterious spot 'KAFD' in what looks to be Israel!)

iii

(iii). CNR TRAM. From the September 2014 NVBS magazine "Op de Rails":

"At the end of August 2014 Chinese manufacturer CNR presented the first low-floor level tram for the future fast tramway network in the capital of Ethiopia, Addis Abeba (3.5 million inhabitants). 41 units of this three-part articulated tram with a 70% low floor will be built. The trams will be operated coupled in pairs. The network will comprise two lines, north-south and east-west oriented, each approximately 17 km long. Downtown a common track will stretch over 3 km. Also building the network and the financing will be by the Chinese. The first operations will start early 2015."

(And a Note from the translator: "Ethiopia is not exactly Middle or Near East, but who else would cover that forlorn area?")

E. TURKEY.

(i). ANKARA – ISTANBUL HIGH SPEED LINE OPENS.

From 'I.R.J.' Sept. 2014 p.8. "The Prime Minister of Turkey, Mr. Recep Erdogan, officially opened the 245km Eskisehir – Istanbul section of the 533km Ankara – Istanbul line on July 25. High-speed services will initially terminate at Pendik, a suburban station 25km. east of Istanbul, with a journey time from Ankara of 3h 40min. All trains will stop at Eskisehir, with four serving Izmit. Services will later be extended to Sögütöçesme in Haydarpasa on the Asian side of Istanbul.

High-speed trains will start running through the Bosphorus tunnel to the European side of Istanbul next year, by which time the Ankara – Istanbul journey time will be reduced to 3 hrs.

TCDD will initially operate six round trips a day using its fleet of 250km/h trains supplied by CAF, Spain. TCDD has also purchased a fleet of seven 300m/h eight-car Velaro trains from Siemens for operation on the route.

Train services between Eskisehir and Istanbul were suspended during the construction of the high-speed line, so TCDD will have to build the traffic from scratch. Nevertheless TCDD is looking to carry 7.5 million passengers a year and to gain a 78% market share.

The \$US 4Bn project has been completed in phases. The Ankara – Polatli - Eskisehir section opened in March 2009, followed by Polatli - Konya in August 2011. A through service from Konya to Eskisehir was introduced in 2013.

The Ankara – Istanbul high-speed line has 31 tunnels totalling 40.8km., the longest of which is 4145m. There are 27 viaducts totalling 14.55km., plus 52 bridges.

TCDD is currently building four more high-speed lines: Ankara – Sivas (405km), Sivas – Erzincan (235km), Bilecik – Bursa (106km) and Polatli – Izmir (527km)."

Interestingly the figures given in 'Railway Gazette' Sept. 2014 p. 17 are slightly different!

The ceremony completed "the 570km Ankara – Istanbul high-speed corridor. The latest section to open comprises 188km of new alignment between Eskisehir and Köseköy plus a further 56km of upgraded conventional line to Gebze at the eastern edge of the Istanbul conurbation. An initial revenue service of six trains per day each way between Ankara and Pendik in the suburbs of Istanbul was due to start the following day, with CAF trainsets operating at up to 250km/h to give a journey time of around 3 1/2 hr. Once upgrading is completed between Gebze and Haydarpasa, services will be extended to central Istanbul, with a 3hr. Istanbul-Ankara journey time envisaged. This is down from 7hr before the high-speed line works began.

Earlier in the day Erdogan visited the Tülomsas plant in Eskisehir, where PowerHaul locomotives are under construction."

(ii). IZMIR TRAMS.

From 'I.R.J.' Sept. 2014 p. 26. "Izmir Metropolitan Municipality has awarded Hyundai Rotem a \$US 80M contract to supply 38 low-floor LRVs for two new light rail lines. The 16.6km Karsiyaka line and the 9.7km Konak line are due to open in 2017." ('Railway Gazette' 9/14 p. 27 lists the price as TL 83.7Bn.)

(iii). ISTANBUL METRO.

I.R.J. August 2014 p. 13: "Istanbul Metropolitan Municipality has awarded Mitsubishi Corporation and CAF a \$119M contract to supply 21 six-car driverless trains for the 19.7km Metro line M5 from Üsküdar to Çekmekköy, which is currently under construction. The fleet will be delivered in 2016-17."

(iv). SLEEPER SERVICES TO AZERBAIJAN.

More information from I.R.J. 7/2014 p.15 on the Stadler Rail (Switzerland) order for rolling stock. There will be 27 sleepers and three dining cars for use on the planned international service from Baku to Istanbul via the Baku – Tbilisi – Kars line, which is due to open in 2017. The coaches will be delivered between mid-2016 and mid-2017 and will be formed into three sets of 10 vehicles and will be equipped with interchangeable Rafil/DBAG type V wheelsets to allow operation on both 1435mm and 1520mm gauge networks."

In 'Railvolution' 3/14 p.12: The new Stadler sleepers for services between Istanbul and Azerbaijan – the coaches are to be delivered between mid-2016 and mid-2017. The contract provides for five different types of carriage, all with high-quality interior fittings, and includes a comprehensive spare parts package and personnel training. There is also an option clause

for 70 more sleepers. Construction will take place at the Altenrhein works. This is Stadler's first sale in Azerbaijan and a further milestone in the company's strategy to tap into CIS markets.

The new 160km/h carriages are to be used on services linking Baku, Tbilisi and Istanbul and will comply with UIC European loading gauge. They will be 26.4m over buffers, 2.285m wide and 4.2m high above rail top. They will be fitted with variable-gauge bogies with RA-FIL/DBAG type V gauge-changing wheelsets, to enable the break of gauge between Georgia (1520mm) and Turkey (1435mm) to be traversed without stopping. The gauge changers are to be installed at Ahkalkalaki (Georgia) near the Turkish border on the new line linking Tbilisi and Kars.

ADY intends to form the cars into three carriage rakes, each comprising one dining car and nine sleepers. Of the 17 sleepers:

- three will be first class vehicles with eight two-berth en-suite (shower and WC) compartments

- three will be first/second composites with family compartments, with 20 berths available, the first class compartments will be en-suite, each with two berths.

- three will be special purpose sleepers, with a more spacious wheelchair accessible compartment, a compartment for the train manager and four second-class, four-berth compartments.

- The remaining eighteen will be second-class carriages with 34 berths in nine compartments, eight of them with four berths and one with two berths, together with one WC and one shower cubicle.

- The three dining cars will each have 28 seats. Each 10-carriage train will thus have 257 berths. The carriages will be air-conditioned, the HVAC (Heating / Ventilation / Air Conditioning) incorporating full redundancy. The WCs will be of vacuum retention type, and a diesel generator (with a fuel tank) in each car will be able to provide emergency power for up to 24 hours.

(v). INTERNATIONAL FREIGHT PROBLEMS.

In 'Rail Business' 15.9.2014 38/14 p.23 is an item: In the first months of 2014 many incidents including construction works and problems caused by weather have led to delays and cancellations in the train links to and from Turkey. The container operator Inter Ferry Boats reported that in consequence they have created from 16.06.2014 an alternative link via Constanza in Romania whereby trains from Zeebrugge, Antwerp, Genk and Duisburg will tranship containers here to short-distance ships on the Black Sea, with three trains in each direction per week.

But in 'Railway Gazette International' Sept. 2014 pp.83f. is an article on Austrian Rail Cargo: "Six times a week, an Austrian intermodal train heads out of the DÜSS terminal in the German industrial hub of Duisburg, heading for Turkey. Less than five days later, the long string of 45ft. Containers will be delivered to the port of Tekirdag on the Sea of Marmara, ready for onward transfer to Bandirma and cities across the Anatolian region. Operated by ÖBB's Rail Cargo Group, the long-distance shuttle service is but one strand in the company's ongoing drive to position itself as the leading rail freight operator in southern Europe.....

Rail Cargo group sees a major opportunity in the Turkish market, thanks to that

country's rapid economic growth over the past 15 years. Since September 2013 RCG has been working with Turkish freight forwarding association Büyük Anadolu Lojistik Organizasyonlar (BALO), which led to the launch of the dedicated block train service in May linking the Ruhr area to Tekirdag and Cerkezköy. 'We are taking an important step into a market that has great potential' says Board member for Sales & Distribution Erik Regter. Turkey has set itself the goal of trebling its volume of exports by 2023, but rail currently has a market share of only 0.85%, offering huge opportunities for growth. Much of the traffic currently moves by sea to Trieste, or over crowded roads, and he reports that the Turkish government has lobbied strongly for the establishment of a rail link with central and northern Europe. This, he believes, should encourage modal shift 'to a more environmentally-friendly mode.'

RCG's local partner is not an operator itself, but works on behalf of logistics companies, forwarders and service providers. The Greater Anatolian Logistics Organisation was established by TOBB, the national association of chambers of commerce and UTIKAD, the Turkish association of logistics providers. Supported by the Turkish Ministry of Transport, it has 94 stakeholders. BALO's Selda Yiklmazoglu says the association helps to consolidate traffic from cities such as Manisa, Bursa, Ankara and Konya, which is collected at Bandirma and shipped to Tekirdag for loading. In the longer term she hopes the service can be extended further into Turkey using TCDD's train ferry across the Sea of Marmara, and perhaps serve some of the new logistics villages being developed by the state railway. Meanwhile BALO is developing plans to serve cities in eastern Turkey, such as Kayseri and Gaziantep 'in the near future', and she says the association is also looking at international connections to Iran and Kazakhstan.

Initially departing from each end every other day, the train was operating six times a week by early July, offering departures every weekday. Regter says the service is 'marketable', but he hopes to be running 10 trains each way by the end of this year. 'We need to offer a frequent service if we are to be a competitive alternative to road.'

Routed via the border crossings at Passau, Nickersdorf, Curtici and Ruse, the train is hauled for more than 2000km from Duisburg to the Turkish border at Kapikule by an RGC Class 1116 Taurus dual-system locomotive which is approved to operate in Austria, Germany, Hungary, Romania and Bulgaria. In some countries RCG provides its own crew, and elsewhere these are supplied by operating partners such as ERS. End-to-end journey time is currently 4½ days, which RCG says allows more traffic to be handled using a given number of vehicles. Rail Cargo Wagon is providing a fleet of Sggmrss wagons which are each able to carry two 45ft. Containers. Tegter is keen to reduce the transit time but recognises that will require improvements to the rail infrastructure in Romania and Bulgaria. One option might be to avoid Bucuresti and Ruse by using the new Calafar bridge across the Danube, once the rail links are ready, he says."

Intriguingly, in 'R.G.I.' for August 2014 p. 11 had appeared:-

"DB Schenker Rail has launched a freight service carrying road semi-trailers between Köln and the Cerkezköy freight terminal near

Istanbul. The journey time is five to six days. This follows the launch of the Germany – Turkey 'Bosporus Shuttle' container and wagon-load service in 2013. 'Our new rail product is the first rail connection that is able to transport semi-trailers directly to their destination in Turkey, 40km. outside of Istanbul. Up to now, this procedure was only possible with containers,' said Andreas Schulz, Head of the Intermodal Industry Sector at DB Schenker Rail.

The service is operated for Ulusoy Logistics, which has transferred its existing traffic from road and ferry to rail. Subject to demand, DB hopes to increase the initial weekly semi-trailer service to three per week by the end of the year."

So it is clear that there are several competing routes and operators for this traffic!

Yet further information on freight services through to Turkey: In 'Railvolution' 3/14 p. 17: "...Rail Cargo Group operates two services between Germany and Turkey. One of them is operating between Duisburg, Ludwigshafen, Sopron and Tekirdag or Cerkezköy, running thrice weekly. In September 2013 the Turkish freight forwarding company BALO... started using this service, the partnership ensuring that RCG enjoyed better loadings. BALO is also developing plans for frequent Turkey to Europe rail services.

In early April 2014 RCG started using its own 1116 Taurus and the operating licences of its own subsidiaries in Romania and Bulgaria for this service. This enabled the use of a single locomotive for through haulage between Sopron and Nova Zagora (with an exception of the non-electrified Bucuresti – Ruse section, where a diesel locomotive is piloting the train). Simultaneously Captrain, the operator in Germany, was replaced by ERS Railways. The next development in the through haulage story came in mid-May 2014 when a RCA Class 1116 Taurus was used for the while 2,450km. run between Duisburg and Nova Zagora, enabling the Rail Cargo Group to establish what is probably a record length of run for through haulage in Europe, Russia excepting. The entire Duisburg to Tekirdag run takes up to five days."

(vi). TURKISH DIESEL LOCO IN U.K.

In 'Railvolution' 3/14 p.15 is an article on the delivery of the new 'Class 70 diesel locos for Colas Rail in England, the last of the first ten arriving at Liverpool on 3.6.2014, whereby it is noted that 70 801 "was originally the demonstrator and was the first PowerHaul to be assembled by Tülomsas in Turkey. It was sold to Colas Rail in late 2013 and entered service on 17 February 2014. Some six weeks earlier, deliveries of the first of the operator's other Class 70's from the USA began, with 70803 and 70805 arriving at Seaforth Docks, Liverpool on 4 January."....

(vii). EURASIA RAIL – This is the name of a major international trade fair from 05 – 07. March 2015 to be held at the Istanbul Expo Center, Istanbul.

vi

(viii). TURKEY'S URBAN RAIL BOOM.

An article from 'Metro Report International', Sept. 2014, pp.37-39.

"Turkey is undergoing a metro and light rail boom. Many of the 11 cities that already have some form of urban rail are expanding their networks, and 16 others have plans to open light rail lines by 2023:

Operational Metro and Light Rail networks in Turkey

City	Cars	Network Length (km)
Istanbul (light rail, tram, metro)		804.147
Ankara (metro)	432	101
Izmir (metro)	219	91.6
Bursa (light rail, tram)	71	34
Eskisehir (tram)	23	16.5
Adana (light metro)	36	14
Kayseri (tram)	38	17.5
Konya (tram)	60	21
Antalya (tram)	14	11
Samsun (tram)	16	15.6
Gaziantep	15	9
Total	1,728	478.2

Turkish cities planning to open light rail lines by 2023:

Trabzon	Aydin
Malatya	Iskenderun
Denizli	Rize
Izmir	Saniurfa
Elazig	Kahramanmaraş
Adapazari	Diyarbakir
Mersin	Isparta
Afyon	Erzurum.

Perhaps unsurprisingly, the country's largest city has the most extensive network. Istanbul has four metro and two modern tram lines, in addition to suburban services running through the Marmaray tunnel under the Bosporus, which opened last year. From July Marmaray services have been strengthened from 5 to 10-car trainsets, doubling capacity to 3,000 passengers per train, and in 2014 ridership is estimated to reach 45 million passenger-journeys. Work is still under way to upgrade the suburban lines at either end of the tunnel. The upgraded line is to open as far as Kaynarca on the Asian side of the Bosporus in 2015, with trains eventually expected to run over the full 76.3km between Gebze in the east and Halkali in the west.

Istanbul's goal is to have a 400km urban rail network by the end of 2019 and 776km by 2023. Ridership across the network

opening of Line M5 now under construction on the Asian side is due in 2015. The fully underground 16-station route will link Üsküdar on the Marmaray line to Cekmeköy; it will be 19.7km long, including a spur to the depot. CAF and Mitsubishi are supplying 21 six-car driverless trainsets under a €119M contract awarded in June. The consortium beat bids from CSR, Hyundai Rotem, Siemens and Alstom. CAF is to produce the vehicles, with Mitsubishi Corp supplying electrical equipment including the automation systems which it says will be deployed in Turkey for the first time. Deliveries are scheduled for 2016-17.

The M6 'mini metro' line will run as a five-station shuttle from Levent on Line M2 which serves the financial district, to Hisarüstü, where interchange will be provided with a cable car over the Bosporus that is due to open in 2015. The end-to-end journey time on Line M6 will be 5 min. and ridership is estimated at 10,000 passengers.

On February 12 work began on the initial section of Line M7 between Mecidiyeköy and Mahmutbey. The full route from Mahmutbey to Besiktas will be 25km with 18 stations. Construction is yet to start on Line M8, although tendering began in 2012. This 25km route will start from Bakirköy/İncirli on Line M1A and run west to Beylikdüzü via Küçükçekmece with 17 stations.

Under the slogan 'metro everywhere, metro to everywhere', Istanbul Metropolitan Municipality is continuing to invest in urban rail to help relieve traffic congestion, and 10 longer-term projects are planned:

The first to open would be a 33km line linking Halkah and the planned third airport in the north of the city via Arnavutköy; revenue services are due to start in 2019. The new airport is also to be linked to Gayrettepe with a 32km line that is to open after 2019. Also due to open after 2019 is a 6.8km line linking Sabiha Gökçen Airport with Tuzla.

Trams in Izmir.

Turkey's third-largest city currently has one

Route	Length (km)	Stations	Journey time (min.)
Halkali – 3rd. Airport	33	33	
Sultangazi Habibiye – Arnavutköy	1.5	10	35
Gayrettepe – 3rd. Airport	32	5	32
Halkah – Catalca	33	4	N/A
Sabiha Gökçen Airport – Tuzla	6.8	10	
Sishane – Kabatas	1.7	2½	
Esenyurt – Avcilar	17	26	
Büyükcemece – Esenyurt	10.5	16	
Büyükcemece – Silivri	32.5	49	
Besiktas – Sariyer	14.6		22
Üsküdar – Beykoz	15	23	

is expected to increase to almost 5 million passengers in 2014, 7 million in 2016 and 11 million in 2023. After the opening of the 3.5km extension of metro Line M2 across the Golden Horn earlier this year, the next stage to open will be a southern extension of Line M1 to Yenikapi by the end of 2014. On the Asian side, Line M4 is to be extended southeast from Kartal to Pendik, and subsequently to Sabiha Gökçen Airport, 45km southeast of the city centre. Line M3 is to be extended south by 9km and eight stations to Bakirköy on the Marmaray line in 2017.

New lines are planned too. The official

metro line and a two-line suburban rail network branded Izban. There are plans to build three tram lines by 2017 to replace current bus routes. This is a part of the city's 2010-30 sustainable development plan, intended to relieve the bus network and improve accessibility to the historic city centre.

The 12.6km Konak Line with 19 stops would run from Fahrettin Altay Meydani to Halkapınar via Konak. The 9.7km Karşıyak Line in the north of the city would link Alaybey and Mavisehir via Karşıyaka with 16 stops.

Construction is expected to cost €211M. Izmir Metropolitan Municipality will

provide 25% of the funds, with the remainder covered by Treasury loan guarantees. A €165M financing agreement with the International Finance Corp., Agence Française de Développement and ING was signed earlier this year, and construction tenders are to be called in 2015.

Gülermak and subcontractor Durmazlar Makina have been selected to supply 21 bidirectional 32m long low-floor trams for the Konak Line and 17 for the Karsiyaka Line for TL182.1M, having beaten 14 other bidders.

A third route is planned to run from Sirinyer to Dokuz Eylül University in Tinaztepe. This 6km line would be operated by a fleet of 10 vehicles and ridership is estimated at 230,000 passengers per day; construction cost had been put at US\$24M. Ground surveys have been completed following project designs and feasibility reports prepared by Yüksel Proje.

The municipality recently announced plans for three more tram routes, with construction tenders due to be called next year. The Yenisehir Line would run for 5.5km from Fevzipasa Caddesi to Halkapinar, the 4.5km Bomova Line would link Bomova Merkez and Bayrakli Adliye and a 2.2km single track circular route would link Cumhuriyet Myd and Alsancak TMO Silos. Governor of Izmir Aziz Kocaoglu has said that a metro line to Buca in the south-east of the city would be built in the longer term.

Expanding networks.

Bursa has a light metro, a 6.5km single track circular tram route in the city centre and a short heritage tramway. An 8km eastern extension of the Bursaray light metro network from Arabayatagi to Kestel opened in three stages this year.

The municipality is giving priority to a 10.2km route connecting the planned high-speed station with the existing line at Osmangazi. Five firms have been shortlisted for consultancy services: Altnok Müsavirlik, Botek, Emay Mühendislik, Prota Mühendislik and Yüksel Proje. Tenders have also been called for the procurement of 60 LRVs.

Until the first Skoda Transportation ForCity Classic 28T tram entered passenger service in February, the 21km tram line in Konya was operated by second-hand Düweg tram from Köln. A follow-on order from Skoda for 12 trams capable of catenary-free operation was placed in May. These are to be delivered next year, and bring the total order value for 72 trams to KC 3.4Bn. They are to be used on a 14km line under construction between Alladdin and Adliye. This will include a 1.8km wire-free section in the area surrounding the historical centre and a 4.5km tunnel. These features mean that the trams will meet high standards for fire safety and will be equipped with roof-mounted nano-lithium-titanium batteries for catenary-free operation.

After long delays, Ankara now has a three-line metro network. Following the opening of lines M2 and M3 in early 2014, the next to open will be Line M4 between Keciören and Tandoğan. According to Prime Minister Recep Tayyip Erdoğan, passenger service will begin by the end of this year. As on Line M3, Ansaldo STS is installing communications-based train control on Line M4, and has upgraded the signalling on the older Line M1 to the same standards to enable interoperability. Full functionality of the upgraded signalling will only be available once

all metro lines are completed.

A feasibility study is underway for a 29km line linking Kizilay with Esenboga International Airport, and there are also plans to build a line from Kizilay to Ankara Gari main line station in the longer term.

Eskisehir has the only metre gauge tram network in Turkey. A 6km branch southeast from Yunussemre to Acelya opened in March, and in June testing began on a southern branch from Atatürk Lisesi to Cankaya via Yildiztepe and Yenikent.

Procuring new vehicles.

A limited service commenced on the third phase of Gaziantep's tram network in March. No date has been given for the start of full service on the Ibrahimli branch, which was built by Comsa EMTE under a €20M contract. The branch leaves the Gar – Burç Kavsagi route at Harikalar Diyarı to run north for 6.5km to Adliye.

Two further branches are at the planning stage. The fourth phase of the network would link Cumhuriyet University with the main line station, and the fifth phase will run west from the station along Ali Fuat Cebesoy Bulvar. The city plans to procure 25 vehicles for these extensions; it recently took delivery of 28 second-hand vehicles from Rouen to operate the existing three routes.

The Kayseri light rail line is operated with 22 Ansaldo-Breda five-section Sirio vehicles, and the expansion of the network is necessitating a fleet expansion. Kayseri Municipality Rail & Transportation Department has tendered for 30 vehicles with a budget of €57.7M. Bozankaya Otomotiv was announced as the winner in July. According to mayor Mehmet Ozhaseki, the ridership goal for 2014 is 32 million passenger-journeys.

Delivery was completed this year of five 42m long trams which Samsun Metropolitan Municipality ordered from CNR Tangshan in 2013. They offer a 25% increase in capacity compared to the 32m long Sirio trams which AnsaldoBreda supplied for the opening of the 17km tramway in October 2010, as ridership has grown from 13 million passengers in 2011 to 17 million in 2012."

F. IRAN.

(i). **LOCOS.** Not really News any more but an article in 'Lok Magazin' 10/2014 p. 64 on the development of the new 'Vectron' series of electric and diesel locomotives by Siemens refers to several stages of the 'ER20' platform: "A further Diesel variant was ordered in 2006 by the Iranian State Railways (RAI). Special to this order was that the four-axle locos, similar to the type ER20, were ordered with only one cab, so as to be used either in multiple on freights or singly working push/pull train sets. At the other end of the loco there is only a small control panel for shunting.

The RAI ordered a total of 150 locomotives, of which 30 were completed at München-Allach [the former Krauss-Maffei works] and the other 120 were built in Iran as part of a technology transfer deal. This became therefore the largest single order for any version of the ES-2007 type."

(ii). CARRIAGES.

'Lok Magazin' 09/2014 p. 12 has a photo of nineteen former DB carriages at Hegyeshalom, on the Austrian - Hungarian border, on 12th. July, on their way to Iran where they had been sold second-hand. They seem to be a total mix – just visible in the distance are coaches in the white-with-red-stripe Inter City livery, closer are several in the red 'local services' livery, including a 'Halberstadter' Brake/3rd., and there is even one, highly graffitied, in the older mint-green livery used for local services, which has clearly been standing somewhere for a long time. All, however, are technically still OK and are clearly the latest batch in a long tradition of such sales of surplus vehicles from Germany to Iran.

In 'Lok Report' 9/14 p.74 is more information – the carriages were acquired by Helevtic Rolling Stock GmbH ('Heros' – www.heros-rail.com) as dealer and then re-sold to Iran; this sale is not yet listed on the 'Heros' website, which covers sales to Canada, Hungary, Romania, Austria etc.

(iii). ELECTRIFICATION TEHRAN - MASHHAD.

From 'I.R.J.' July 2014 p.7: "Iranian Islamic Republic Railways (RAI) says it is seeking finance from China for the electrification of the 926km Tehran – Mashhad line. RAI's electrification projects manager Mr. Qassem Saketi told Iran's Fars News Agency that the project will be 85% financed by Chinese financial institutions, with the remaining funds coming from the Iranian government."

1 - and in 'Railway Gazette Intl.' August 2014 p. 7: TEHRAN-MASHHAD ELECTRIFICATION. A consortium of Chinese companies CMC and SU Power plus subsidiaries of Iranian industrial group MAPNA has been awarded a contract to install and maintain overhead electrification equipment on the 926km. Tehran - Mashhad line, and to procure 70 electric locomotives. The engineering, procurement, construction and finance contract was signed by national railway RAI on June 29. Construction is expected to take 42 months, followed by a five-year maintenance period. The project is to be financed from Chinese sources, with a 15% contribution from the Iranian government.

2 The existing infrastructure will be upgraded to increase speeds on the route from 160km/h to 200km/h, with the capability of 250km/h operation in the future. This is intended to increase capacity from 14million to 35 million passengers/year and reduce journey times from 12h. To 6h. Work to upgrade the line had been officially launched with a ceremony in February 2012.

MAPNA has now delivered half of the 150 Iran-Runner diesel locos that it is supplying to RAI under a 20087 technology transfer agreement with Siemens, and is planning to offer its own range of freight, shunting, electric and underground locos.

G. DUBAI.

(i). The RTA (Roads and Transport Authority) had a whole large stand dedicated mainly to the forthcoming Tram rather than to the Metro (and there was no information to be found on Etihad Rail.) Several booklets were available for the taking, one of which called significantly: "Lessons Learned from the Dubai Metro Project". I found it quite fascinating because it is NOT just the normal glossy "Ho ho Everything is Wonderful" PR account but instead – following the usual guff - describes real problems (even though it is careful not to allocate any blame) and makes one want so much to know more of the story 'behind the scenes' and what is 'between the lines' in this saga. Clearly there was a lot of frustration and even bitterness at some professional level at delay and incompetence and political interference and this is portrayed in veiled fashion, wrapped up as an earnest set of recommendations for doing this differently and better in the future. It makes it worth reading to the end! Using rabbinic techniques for analysing a text, it would appear that almost everything that could go wrong, did so – and was then wrapped up as an engineering triumph bringing glory to the Government....

From this thin booklet:-

"The RTA is a government organisation responsible for the planning, design, construction, operation and maintenance of the land and marine transportation networks in Dubai, United Arab Emirates. The organisation was established in November 2005 as a specialized entity to concentrate on the challenge of planning and building a world class transportation system for the city. The government of Dubai is very progressive and the population of the city is forecasted to increase from 1.8 million in 2011 to around 3.1 million by 2020. Over the past few decades, Dubai has succeeded in developing its status as a major city, enhancing the wellbeing of its people and creating an environment that attracts business and individuals.

RTA's structure is based on the agency model; it has three sectors, four agencies and one commercial agency. At any one time there are approximately 250 projects running in parallel within RTA. The total annual projects budget of the organization exceeds \$4.0 Billion with approximately 90% allocated to infrastructure projects of different types such as traffic and roads, rail, public transport (buses) and marine transport. The majority of the budget (85%) goes to roads and metro projects where huge infrastructure investments exist.

The Dubai Metro Project.

In terms of size, Dubai Metro

with its 75km and 47 stations is the largest driverless Metro system in the world. In terms of budget, the final project budget of approximately US\$7.5 Billion exceeds the annual budget of some small nations. In terms of labour force: Dubai Metro employed five main contractors, over 160 sub-contractors and more than 30,000 workers. Due to its nature, the Dubai Metro project covered many varying disciplines including civil, architectural, electrical, mechanical, electronics, communications and software amongst others. Although some of the systems used in the Dubai Metro were tried and tested in other projects, their application in one single project was unique to the Dubai Metro. The Dubai Metro's impact spread over several fields including the economic, social and political arenas. Moreover, the project's impact is not limited to its immediate surroundings (in this case the emirate of Dubai) but it also extends to cover the entire country of the United Arab Emirates. On the opening of the Dubai Metro, H.H. Sheikh Mohammed bin Rashid Al Maktoum emphasized the importance of the Metro project through his quote: 'The (Metro) project is Emirate's Socio-Economic Future.' It can even be argued that the Dubai Metro has a regional impact since it inspired other countries in the region to start building their metro systems, including Saudi Arabia and Kuwait.

Features of the Dubai Metro Project:

	Red Line	Green Line	Total Length (km)
	52.1	22.5	74.6
Stations	29	18	47
Underground length	5	10	15
Underground Stations	4	6	10
Depots	2	1	3

The first phase (Red Line) started revenue service on schedule on 9/9/2009 and the second phase (Green Line) started revenue service on 9/9/2011. The system has been operating since then with over 99% availability and punctuality. Since its start of operations, Dubai Metro transported more than 350 Million Passengers till the end of November 2013 with a daily average of 430,000 passengers.

The Red Line was completed in just 49 months from the start of construction. (Timeline: contract was signed in May 2005; works began in July 2005; Tunnelling commenced November 2006; Tunnelling finished Dec. 2007; first train test runs in Japan January 2008; first train arrived in Dubai March 2008; Viaduct completed August 2008; Underground stations finished March 2009; External finishing May 2009; Operations began 9th. Sept. 2009.)

Challenges faced by the Dubai Metro Project.

The Dubai Metro project faced many challenges during the project life-cycle from conceptualization to completion. RTA documented these challenges as lessons learned to be used in future projects and also to be beneficial for the Engineering community as a whole. This section provides a summary of the main challenges that faced the Metro Project classified according to the project phase where they occurred:

- 1). **Concept and Studies Challenges.**
 - A large number of stakeholders were involved in this project. many of the Stakeholders were from outside the RTA resulting in more difficult communication.
 - Constantly changing requirements and circumstances making traceability a challenge.
 - Different nationalities of contractor(s) and consultant(s) resulting in complicated communication.

- 2). **Design Challenges.**

- Many changes and variations related to aesthetics were issued (e.g. flooring).
- Complex station shapes.
- A large number of complicated systems with extensive integration requirements.

- 3). **Tendering Challenges.**

- Contract had a number of clauses which are found to be impractical, ambiguous and at times negative resulting in difficulties administering the contract.
- Some equipment were ordered from the start of the contract although they were not required until much later in the operating life of the Metro system.

- 4). **Construction Challenges.**

- Short period of construction. (49 months for the red line.)
- Working in congested areas.
- Tunnelling under the old city.

- 5). **Operation and Maintenance Challenges.**

- Number of Automatic Fare Collection machines not clearly specified.
- Contractor's accountability for repairs in the defects liability period not clearly defined by KPIs.

Lessons Learned:

To overcome the challenges faced by the Dubai Metro Project, RTA had to adopt innovative project management techniques as well as utilize all the resources available for it. From these management techniques and their adaptation, RTA could draw several lessons learned.....

Managerial Lessons Learned:

These managerial lessons learned apply to the top management of the owner organisation and can be useful to any govern-

mental agency and/or private developer who plans to undertake a mega project.

Leadership:

- For Mega projects to succeed, the project leader must possess, display and apply several characteristics of leadership excellence as listed below:
- a clear, strong and unwavering vision.
- Absolute trust in the team and the team must have absolute trust in the leader and his vision.
- Ability to influence all the major players on the project.
- Technical knowledge.
- Momentum, control and follow-through.
- a positive, no-nonsense, can-do attitude.

Planning.

- Client must develop its own Project Management Plan covering all aspects of the project including:
- Integration of the work of the different contractors/suppliers as well as the activities of all other players such as the Engineer, the Project Management Company (PMC), the Independent Safety Assessor and the Operator.
- Integration of the work of the Engineer, the PMC and the client with clear roles for each.
- Studying the effects of any changes on all aspects of the project (Time, Cost, Quality, Safety, etc.)

Organizational.

- The Metro Project should be treated as a Portfolio of Programs, Projects and related technical work.... (One example) is the geographical locations are each treated as a project. The Program Manager would be responsible for the integration of different projects while the Portfolio Director is responsible for the overall Metro portfolio.
- Client must develop its own complete project organization chart with experienced staff and clear roles.
 - The Client's project staff must focus 100% of their time and effort on the delivery of the project.
 - The client must ensure you have a robust change management procedure (variation orders committee is recommended.)
 - Use mind maps as a powerful tool to identify and manage all aspects.

Monitoring and Control.

- Client needs to set challenging deadlines.
- Client must develop and use strong reporting systems to monitor progress.
- Top management should always use multiple sources of information to ensure that they have full picture.
- Client must make the right decisions at the right time. Delaying decisions will only result in problems getting larger and the

project going into stagnation.

- Client must ensure a balanced work distribution between all parties.

Risk Management.

- The client must have a robust risk management process of their own without relying on those of the Engineer or the contractor.
- Client must develop plans to deal with all anticipated risks.
- The client should always have alternative plans and work-arounds.

Technical Lessons Learned:

Systems:

- Client must develop a high level 'Work Breakdown Structure' including all deliverables to ensure everything is considered.
- Client must develop a high level time schedule with milestones integrating all activities such as detailed design, construction, testing and commissioning, certification, operator's takeover, etc.
- Client must develop its own procedures for 'Project Quality Management.'
- the client needs also to be prepared to propose or consider value engineering ideas.

Monitoring.

- Client management should use site visits to ensure accuracy of reports (hands-on management by Client – do not wait in the office and do not wait till the end.)
- Client must have direct control over time management.
- Client must be able to double check some of the construction works on site.
- Client needs to use the opinions of experts (sometimes external) to ensure they are getting the right information.
- Client management must not pretend to know it all, "If you do not know something, ask about it and seek advice."

Technical Lessons Learned:

Engineering:

- For working in congested areas, the following techniques can be adapted:
- Using 'Top Down' construction technique to build underground stations in order to contain noise and dust generation. (i.e. Cut and Cover.)
- Using launching gantries to eliminate the need for ground level supports and minimize disturbance to traffic.
- Using special modular transporters to construct footbridges across a major highway with minimal road closures.

For Tunnelling under existing old buildings:

- Using Tunnel Boring machines customized to work in the prevailing soil conditions.
- Continuously monitoring the settlement of older buildings
- Completing the tunnelling in the shortest

possible time (300 metres per month.)

Administrative Lessons Learned.

Communication.

- Client must identify all project stakeholders (internal and external) and their requirements and influence on the project.
- Client needs to develop a clear communication plan showing the reports, the meetings and all other items of communication.
- Client must develop and use a strong and robust document management system.
- Client always needs an accurate and on-time reporting.

Control.

- Client must ensure that the 'Engineer' and the 'PMC' are doing their work by regular follow-ups and audits.
- Clients may use benchmarking wherever possible to compare your project to others.
- Client needs to be prepared to intervene and replace contractor and sub-contractor staff when necessary.
- Client must also intervene to reward staff on the spot for motivation.

Contractual Lessons Learned.

- Client need to spend sufficient time on formulating the contract to avoid ambiguity and confusion.
- Client can minimize the contractor's chances for claims by providing all documentation, approvals etc. on time.
- Client must have a very strong contract management team.
- Client must keep and maintain accurate and complete documentation of all meetings, correspondence, emails etc.
- Client must ensure that any and all changes are processed through the change management procedure.

Financial Lessons Learned.

- Client must ensure that the cost of any variations is evaluated before approval of change.
- Client should carefully document the hours and utilization of any additional resources to be able to counter contractor's claims.
- Client must also ensure that payments of contractors and consultants are made on time to gain their commitment for work progress.

Summary and Conclusions.

This case study explored the challenges faced by the Dubai Metro Project and the lessons learned from facing those challenges. Several conclusions could be drawn from the lessons, as summarized below:-

- 'Strong leadership' is probably the most important success factor in the completion of mega projects.
- Mega projects need motivated leaders

who embrace excellence and empower their teams.

- the 'Metro Project' should be managed as a portfolio of Programs, Projects and related Technical work.

- The Client should take firm leadership of the project in the form of:

*Developing the top level project Management Plan integrating the activities of all stakeholders and including the 'Work Breakdown Structure' (WBS) and the 'Organizational Breakdown Structure' (OBS).
*Auditing the work of the 'Engineer' and the 'Project Management Company' to ensure they are fulfilling their assigned roles within the project.

*Developing clear stakeholder management and communication management plans.

*Monitoring the work on a regular basis.

*Comprehensive and rigorous risk management with regular updates and follow-ups

*Developing own procedures for 'Quality Management'.

- The tasks mentioned above should be undertaken by the client's own staff and not be left to consultants to ensure Ownership and accuracy.

- Innovative techniques should be used to ensure that the available resources are utilized to their full potential."

[It may be noted that in conversation with a member of the Atkins team who worked on the project – who shall remain nameless for obvious reasons – he was pretty scathing about the level of incompetence amongst the local management that the contractors encountered..... Clearly there was indeed a lot to be learned. Editor.]

(ii). A small French magazine 'VRET International' ('Ville Rail & Transports') in its September 2014 edition p. XII has a photo of the Dubai metro and notes that the French engineering group Systra was in charge of the entire multi-disciplinary management of the Dubai Metro project; train automation was supplied by Thales.

H. IRAQ.

In 'Railway Magazine' Sept. 2014 is a photo of Stanier 8F 2-8-0 (Iraqi Republican Railways No. 1429, built North British in 1940 for the War Department) still standing with a tender and photographed in April 2014 in Baghdad, still in dusty light green livery.

I. EGYPT.

In 'Lok Report' 9/2014 p.74: Ganz-Mavag, which exported carriages to ESR in the 1980's and still maintains links with the railway, is now proposing supply of

fifteen 12-car diesel-electric multiple unit trains i.e. A total of 180 cars. The bodies would be built at Stadler's works at Szolnok, the frames, bogies and mechanical parts at the Ganz works. A Credit of \$1 Billion has been arranged.

J. ABU DHABI METRO.

From 'Die Bahn' 9/2014 p.32: "In the capital of the United Arab Emirates, Abu Dhabi, the public transport network is to be expanded. At present it comprises only bus routes and it should in the future also include tramways and a Metro line. DB International is involved in the initial planning of the technical infrastructure and of the Depot, with questions concerning the vehicles to be used in the future and the formation of an operational concept as well as preparation of the relevant Tender documents for the Metro.

The planners of the Rail Systems Competence Centre are involved here in planning the telecommunications network, control and safety features and the energy supply (for traction and stations and the distribution network). The fully-automated Metro will have a length of ca. 22 km. (in tunnels and on viaduct) and include 12 stations.

A feasibility study has already been carried out with participation by DB International. The initial plans already list 8,000 items that place specific demands and requirements on the new Metro line. The transformation of these results into tender documentation is currently under way, whereby the publication of the tenders is envisaged for early next year. Necessary is not only a definition of the technical requirements but also cost estimates.

The traction will be provided by 750V DC third rail with under-rail contact and set at the side. Two Metro-specific 33kV networks alongside the line provide for redundancy safety and supply traction current and energy for the stations. Planning involves not just the general construction of the necessary traction and station supply equipment but also the necessary components for the sub-stations, the medium-tension network and the third rail. In order to find the best solutions for the Abu Dhabi Metro the team of experts has worked closely with the client to discuss the advantages and disadvantages of the various traction systems available (overhead or third rail, DC v. AC) in relation to the specific local conditions.

The planning for this new line is being carried out by colleagues in the offices in Frankfurt am Main and in Abu Dhabi itself."

K. AFGHANISTAN.

(i). In 'Railway Gazette' Sept. 2014 p. 7 – Afghanistan has become the 28th

member of the OSJD – the Organisation for Cooperation between Railways. From the OSJD website, other members in the region include Iran, Georgia, Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan.

(ii). EXPERTISE FROM IRAN.

From 'R.G.I.' Aug. 2014 p. 71: Iranian Islamic Republic Railways has signed a memorandum of understanding to provide the Afghanistan Railway Authority with training to support its plans for railway development and expansion. RAI said Iran would send technical experts to advise on railway organisation, maintenance and construction, to help accelerate the development of the planned networks. A group of Afghans attended training courses organised by RAI in Yazd and Bafgh during June, visiting depots, bridges and other facilities.

Afghanistan currently has a 75km railway from Uzbekistan to Mazar-i-Sharif, while a short cross-border branch from Turkmenistan services a freight terminal. A line from Iran to Herat is under construction with Iranian government support, and according to RAI Vice-President, Operations, Hossein Ashoori, this is expected to open as far as the Afghan border by the end of this year."

L. NOTES ON THE TENTH 'MENA (MIDDLE EAST AND NORTH AFRICA) RAIL AND METRO SUMMIT CONFERENCE.

This was held 20th.-22nd. October 2014, at the Conrad Hotel, Dubai. Thanks to 'Meed' which is an organising agency I received information on the programme. This is from the online publicity material):

"Set over 3 days, the 10th Annual MENA Rail and Metro Summit is a high-end industry event for the Middle East and North African rail and metro industry. 2014 has seen several large rail and metro projects awarded and tendered, this Summit is the definitive meeting place for regional governments, transport ministries, rail agencies, regulators, operators, project managers, consultants, contractors, rolling stock and signalling providers, technology, infrastructure and material providers to learn the latest on projects and opportunities in US\$300bn industry. The MENA region is one of the world's fastest growing markets for rail projects with plans to build more than 33,712km of mainline routes and 3,004km of metro, monorail and tram lines. The Summit will explore key projects across the region and issues regarding projected rail plans, project updates, technology development, international best practices and case studies by MENA

stakeholders and operators. It will address project delivery, operability and the implementation of advanced engineering solutions as well as technical best practices for state of the art and world class rail and metro services.

The 2013 event was a tremendous success with over 500 delegates and expert operator speakers from KSA, UAE, Qatar, Oman, Iran, Kurdistan, Iraq, Tunisia, Morocco, Algeria, Egypt, Afghanistan, Jordan, Yemen, Syria and Bahrain. The 10th Annual Summit will see all types of rail and metro in the MENA region being covered including mainline, highspeed, freight, metro, light rail and tram along with a specially designed focus day on high speed rail and urban rail projects in the MENA regio."

A graph shows existing and planned lines in the following countries – Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen, Jordan, Lebanon, Syria, Gaza/West Bank, Algeria, Libya, Egypt, Mauretania, Morocco, Sudan, South Sudan, Tunisia, Western Sahara.

Recent attendees included: "Saudi Railway Company (SAR) • Roads and Transport Authority (RTA) • Enterprise Metro d'Alger (EMA) • Makkah Mass Rail Transit (MMRT) • Metro Jeddah Company • Tehran Urban and Suburban Railway Co. • Casablanca Transports en Site Amenage • Etihad Rail • Oman National Railway Company • Egyptian National Railways (ENR) • Société Nationale des Chemins de Fer Tunisiens (SNCFT) • Jordan Hejaz Railway • Bouregreg Agency (Morocco) • l'Office Nationale des Chemins de Fer du Maroc (ONCFM) • Ministry of Foreign Affairs (ISLAMIC REPUBLIC OF AFGHANISTAN) • National Authority for Tunnels (EGYPT) • National Transport Authority (NTA) (UAE) • Gulf Cooperation Council – Secretariat General, Riyadh (KSA) • Ministry of Finance (EGYPT) • Alstom Transport • Italferr S.p.A. • Siemens • Kapsch • Atkins • Booz and Company • Bechtel • TALGO • Thales • Bombardier • ZTE • Ansaldo • Egis • Cisco • Arcadis • Aedas • Archirodon • Fluor • GE • KEO • Larsen and Toubro • Louis Berger • Mitsubishi • Mott MacDonald • NCR • Odebrecht • Qatar Bahrain Causeway Foundation • SACOR • Samsung • Saudi Oger • WorleyParsons • WSP • and many more..."

Some items from the Sessions, Presentations and 'Case Studies' in the Programme:-

SAUDI ARABIA. The Haramain High Speed Rail project: "Also known as the 'Western Railway' or 'Makkah-Medina high speed railway' is a 449.2km (279.1 miles) high-speed intercity rail transport system under construction in Saudi Arabia. It will link the Muslim Holy Coties of Medina and

Makkah via the King Abdullah Economic City, Rabigh, Jeddah and King Abdulaziz International Airport and will connect with the national network in Jeddah.

EGYPT. Cairo Metro Update. Discussing plans to finish establishing six metro lines by 2025 to transport 16 million passengers.

MOROCCO. Morocco's TGC Maroc High-Speed Line. The most significant element to the expansion of the Moroccan rail network is the creation of a \$3-4Bn 1,500km high speed rail network between Tangier and Casablanca, via Rabat, due for completion in 2014. Construction on the project began in 2011....

ALGERIA - Algeria's Bordj Bou Arreridj to Khemis Millana High Speed Line. In the last ten years, the government has spent \$50bn on rail and the country continues to press ahead with its ambitious rail plans, to build new links or upgrade existing infrastructure. In March 2011, contracts were awarded for a 130km (81mile) section of railway between Oued Tiélat and the Moroccan border.

AFGHANISTAN. A 'Keynote Address' on: The potential role it has to play as a rail land bridge between Euroasia and South Asia, Middle East and Far East. Connecting the future growth of Afghanistan to the development of railways; projected rail plans, developments and opportunities emerging in Afghanistan.

JORDAN: Developments in Jordan's Rail Network program and linkage to the Regional Network. The 43 members of the Union for the Mediterranean have approved plans to develop the Jordanian National Rail Network to integrate with other rail networks, providing an integrated network for the efficient transport of passengers and freights throughout the region. The project will be a 509km north-south corridor and is expected to be complete in 2017.

KURDISTAN. An in-depth discussion on Kurdistan's urban transport projects worth over \$US 2.7bn and opportunities for bids, tenders and investment. The completion of Phase 1 of US\$1.1bn and 56km. long Suleimaniyah Light Rail Transit Project and the progress of Phase 2; Assessing the Erbil Tramway design completion and subsequent opportunities for bids and tenders on the value chain. Reviewing possible options to finance these mega-projects.

GCC. The GCC Railway Network will unite the GCC region and other countries in the Middle East. Discussing the latest updates on the nearly US\$200bn rail network. Challenges with delivering a regional mega railway network. Updates on plans to connect the Arabian Mashreq (Eastern) to Maghreb (Western) networks.

QATAR. Qatar Railway Company's mainline project developments and updates. Qatar has made headlines over the past

3 years due to an intense amount of rail activity planned in the state (approx. US\$ 35bn.) The mainline network will provide passenger and freight services to all major urban centres in the country, as well as to neighbouring countries. It will be comprised of one freight and one passenger line to be developed in four phases. The total network will be 486km long and feature 11 stations, 7 freight yards and 128 bridges.

SAUDI ARABIA. The Saudi Railway Company's initiatives for the Kingdom's Mega Rail Project Delivery. An upate on the Minerals Railway project's civil works, signalling and telecoms and maintenance plans. Expansion of the North South Rail.

UAE – An update on the Etihad Railway Network (US\$11Bn) in execution, expected to be completed 2018. Latest updates and procurement processes for Phase 2 and 3; Increasing Etihad Rail's network and delivery capabilities for the region.

OMAN. Project plans of the Oman National Railway Conmpany.

KINGDOM OF SAUDI ARABIA – The Riyadh Metro. The Riyadh metro is a rapid transit system under construction in Riyadh, Saudi Arabi. The metro is part of the Riyadh Public Transport Project (RPTP). The RPTP will be the largest public transport project, which comprises construction of a metro, a bus system and other transport services in Riyadh and is expected to be completed by 2018. The metro project will be owned and operated by the Arriyadh Development Authority. (ADA).

- **THE MAKKAH MASS RAIL PROJECT.** (MMRP). In August 2012 it was announced that the Saudi government had approved US\$16.5 billion to build the four metro lines (182km (113.1 ml), 88 stations of the system. The announcement of government financing said that the entire expansion would take 10 years. Invitations for tenders were due to be issued in January 2013. Four new lines are to be built in three phases, with work due to commence construction in 2015.

THE JEDDAH METRO AND INTEGRATED PUBLIC TRANSPORTATION SYSTEMS. In March 2013, a ministerial decree was announced, approving project implementation with a total budget of SR 45billion. The project includes commuter trains, trams, metros with 72 stations spanning 152km, marine networks, ferries and commuter, rapid and feeder buses.

- **MAKKAH MONORAIL.** Four international consultancy firms began feasibility studies to undertake the SAR 65 billion project in early 2009. The rail network will initially link the holy sites to the Haramain Railway and other railway networks, and eventually to the GCC-wide railway. It is expected to solve the traffic difficulties pilgrims face during the annual Haj. Each of the five lines of the monorail project will

have an hourly capacity to carry 60,000 to 80,000 passengers between Nima, Arafat and Muzdalifah, and at a later stage Mina and Makkah.

DUBAI (UAE). DELIVERING THE AL SUFOUH TRAMWAY PROJECT. Dubai's long-awaited Al Sufouh Tram will meet its deadline of November 2014, according to the main contractor. The consortium of firms working on the project said they have now received outstanding payments from 2009, after the government secured a \$675m financing deal for the project's first phase.

QATAR. Doha Metro. Qatar Rail Company has awarded four contracts worth a total of \$8.2bn to design and build railway lines as part of the first phase construction of the Doha Metro. Work under phase one of the project will include the design and construction of four rail lines, as well as an underground section; the entire project is scheduled to start in late 2013 and be completed by 2019.

UAE – Abu Dhabi Metro and Light Rail Project. The 131km Abu Dhabi metro and light rail project will be split into three separate contracts that comprise civil works for above-ground structures, rail above ground and underground construction and is expected to be completed in 2020.

M. INNOTRANS SNIPPETS.

Innotrans is an enormous Trade Fair held at the Berlin Messe every two years, and September 2014 saw the tenth such. The Fair has steadily expanded each time with new halls, stands and outside tracks for display of new vehicles. (235 this year). Each Hall covers several floors and each floor comprises rows and rows of stands, now partially organised by the sort of materials or products or services on offer, though sometimes the order is geographical with a German State like Saxony or a country like Turkey or Switzerland forming a focal point with stands covering trackwork, electronics, locos, workshops, rolling stock and whatever else. So in order to cover the entire floor area in a systematic manner requires either careful study of the very thick catalogue/guide or just a lot of walking and a degree of luck. Some stands are generous with leaflets and other printed material (others are generous with ball-point pens, mints, biscuits etc.!) and so a visit to some of them can lead to several (complimentary) carrier bags being filled with remarkably heavy paper..... The general pattern is an opening Press Conference on the Monday, whilst stands are still being feverishly worked on; a formal Opening on the Tuesday, a great deal of (closed) business sessions until the Friday – this is the period in which contracts are discussed and signed - then at the weekend the grounds are thrown open to the public, or lay visitors at a much reduced

fee. by this time some of the more specialised exhibitors may well have packed up and gone home but the majority stay on to get rid of their remaining promotional materials.

And..... on several occasions in the past decade or so the Fair has fallen across the major Jewish festivals of Rosh Hashanah or Yom Kippur. I will not speculate what Israel Railways trade teams or other Jewish exhibitors do in this case; I merely point out that the Editor is of necessity employed elsewhere!

This year the Editor made it to the press conference and parts of the Tuesday and Friday sessions and accumulated a lot of materials to peruse at leisure back home – and also was able to talk informally and 'off the record' to a few exhibitors, handing over back issues of 'Harakevet' to those who might be interested. Time permitted only a brief overview of most of the Fair and it is certain that many potentially interesting stands were not visited. Of course the material is all very positive and jolly and stresses only successes. (With one intriguing exception, below.)

So here are a few snippets from what was found. They claim no comprehensive completeness.

(a). In the 23.09.14 'Daily Press report' is an interview with Mattar Al Tayer, the Chairman of the Dubai Roads and Transport Authority (RTA).

From this: "Public transport as a major sector in the MENA region is growing rapidly. Currently the Middle East is where the world's largest public transport projects are under development and being implemented. Among the projects of international significance in Dubai is the successful launch and operation of Dubai metro, our bus and marine transport projects, as well as the Al Sufouh tram scheme, which will open this November. Additionally, the Al Mashaer Al Mugaddassah metro in Saudi Arabia has been completed successfully. Saudi Arabia and Qatar have comprehensive bus networks. In addition, most countries starting from Morocco towards Iraq and Jordan have begun tendering for metro projects, which, when completed in the coming decades, will be a major public transport milestone for the region.

As part of its involvement in Innotrans 2014, RTA would like to talk about its ongoing rail projects such as the Red and Green metro lines and the Al Sufouh tramway. Secondly, RTA has an enormous responsibility on behalf of Dubai and the United Arab Emirates in preparing the transport infrastructure for the Expo 2020 event in order to make travel to the exhibition site and around the urban area seamless and comfortable. We will soon be releasing our public transport plans that will be designed to meet the Expo requirements, including

the extension of our existing metro network....

The Gulf Cooperation Council has a raft of public transport and strategic infrastructure projects on the agenda which amount to over \$US100 Billion in the pipeline. Some of these major projects are already underway, such as Etihad Rail in the UAE, the Riyadh metro in Saudi Arabia, and the Qatar Integrated Rail Network. Oman has invited tenders for a railway between Masqat and Al-Ain. By 2020, we foresee that modern world-class public transport infrastructure and systems will be a feature of many of the major cities in GCC countries."

(b). **MRCE** (Mitsui Rail Capital Europe) is the Amsterdam-based section of a leasing organisation based in Tokyo; the operating base for Europe (there are others in North and South America and in Moscow) is MRCE Dispolok GmbH in München, operating over 200 locos of different types. Of these one group is the Siemens ES 64 U2 ('Taurus') type dual-system electric loco authorised for use in Germany, Austria, Hungary, Serbia, Romania, Bulgaria and Turkey and now officially known as the 'Bosphorus Sprinter' – i.e. suitable for through trains to Turkey.

(c). **Istanbul Tram.** "The urban transport operator Istanbul Ulasim has recently unveiled a new high-tech Light Rail Vehicle (LRV) with the brand name 'Istanbul Tram'.

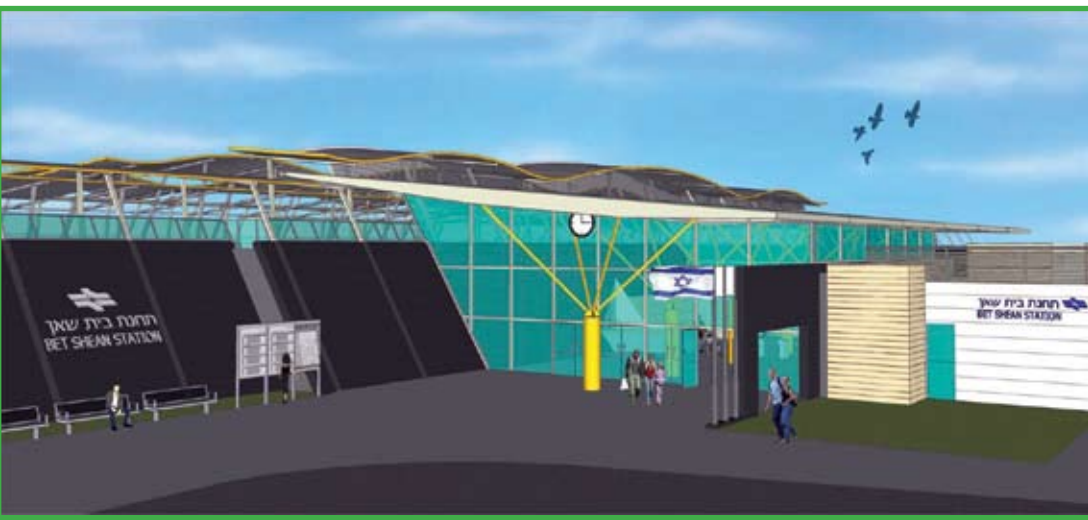
Istanbul Ulasim has produced a number of prototype and demonstrator LRV's over the past decade as it seeks to enhance its in-house engineering skills. Thus, it has also designed, engineered and commissioned the model for the Istanbul Tram. The operator company also managed the manufacturing processes, which were carried out in cooperation with the local industry.

The bi-directional high floor vehicle is designed to meet dual operation needs by serving as both light metro and tramcar and can serve in various train set configurations of up to four cars. It ensures a pleasant and comfortable journey for passengers with its modern state-of-the-art exterior design reflecting the historical and cultural heritage of the city, its spacious interior and passenger information systems.

Founded by the Istanbul Metropolitan Municipality in 1988 to carry out the operation and maintenance services for metro, tram and cable cars, Istanbul Ulasim offers urban transportation services for 1.5 million passengers every day in ten lines with a network length of 121 kilometres."

(d). Road-Rail vehicles. A photo at the stand of Zwiehoff of Roisenheim, Germany, which manufactures Unimog – essentially road lorries which also have rail wheels – showed ten such vehicles recently exported to the TCDD.

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Computer generated images of Achihud and Karmiel stations on the Acre-Karmiel line under construction, and of Beit-Shean station on the former Hedjaz line; all under construction.

מבט לכניסה למבנה התחנה

תחנת רכבת כרמיאל

